From: Ouder, Eli C. (NSSC-XD040)
To: Jackson, Karla Smith (HQ-LP010)
Cc: Horne, Marvin L. (HQ-LP010); Sage, Geoffrey S. {Sage} (HQ-LP014)
Subject: RE: For Action: [EXTERNAL] Re: NASA Grants
Date: Friday, May 9, 2025 4:44:17 PM
Attachments: image001.png
image002.png
image004.png
image005.png

Hi Karla,

For your awareness, the 5 letters have been sent out.

V/R,
Eli

Eli Ouder
Procurement Officer
Procurement Services Division
NASA Shared Services Center (NSSC)
Org Code: XD040
Bldg. 1111 Jerry Hlass Road
Stennis Space Center, MS 39529
M: Post production redaction
eli.c.ouder@nasa.gov

From: Jackson, Karla Smith (HQ-LP010) <karla.s.jackson@nasa.gov>
Sent: Friday, May 9, 2025 3:00 PM
To: Ouder, Eli C. (NSSC-XD040) <eli.c.ouder@nasa.gov>; Horne, Marvin L. (HQ-LP010) <marvin.l.horne@nasa.gov>; Sage, Geoffrey S. {Sage} (HQ-LP014) <geoffrey.s.sage@nasa.gov>
Subject: For Action: [EXTERNAL] Re: NASA Grants

Eli,

Please move out with the letter notifying Harvard of the termination of the 5 grants per Trey's email below. See the spreadsheet with highlighted grants.

Thank you,
Karla

Karla Smith Jackson
Senior Procurement Executive
Deputy Chief Acquisition Officer
Assistant Administrator for Procurement
Office of Procurement
Mary W. Jackson NASA Headquarters
300 E Street SW, Washington, DC 20546
M: Post production redaction
karla.s.jackson@nasa.gov

From: Carlson, Trey (KSC-AAD00) <trey.carlson-1@nasa.gov>
Date: Friday, May 9, 2025 at 3:32 PM
To: Jackson, Karla Smith (HQ-LP010) <karla.s.jackson@nasa.gov>, Wyche, Vanessa E. (JSC-AA111) <vanessa.e.wyche@nasa.gov>
Cc: McKay, Meredith (HQ-TA000) <meredith.mckay@nasa.gov>, Horne, Marvin L. (HQ-LP010) <marvin.l.horne@nasa.gov>, Fox, Nicola J. (HQ-DA000) <nicola.j.fox@nasa.gov>, Clampin, Mark (HQ-DH000) <mark.clampin-1@nasa.gov>
Subject: FW: [EXTERNAL] Re: NASA Grants

Vanessa. FYSA...

BLUF:
After DOGE request by GSA to terminate 22 Harvard contracts we conducted an internal review for cancellation and found:

- 3 contracts identified by SMD and
- 2 contracts by CoS.

[redacted] DPP

I am instructing Procurement to cancel 5 of 22 contracts. [redacted] DPP/ACP [redacted] OGC.

Trey Carlson
Acting Agency Chief of Staff
Office of the Administrator
Mary W. Jackson NASA Headquarters
300 E Street SW, Washington, DC 20546
M: [redacted] Post production redaction
Trey.Carlson-1@nasa.gov

From: Jackson, Karla Smith (HQ-LP010) <karla.s.jackson@nasa.gov>
Sent: Friday, May 9, 2025 7:16 AM
To: Josh Gruenbaum - Q <josh.gruenbaum@gsa.gov>; Simonpour, Alexander (HQ-AA000)[GSA] <alexander.simonpour@nasa.gov>
Cc: Hoyt, Joshua T. EOP/WHO [redacted]>; Kambli, Abhishek (OASG) <Abhishek.Kambli@usdoj.gov>; Horne, Marvin L. (HQ-LP010) <marvin.l.horne@nasa.gov>; Carlson, Trey (KSC-AAD00) <trey.carlson-1@nasa.gov>; Mailman, May EOP/WHO [redacted]
Subject: Re: [EXTERNAL] Re: NASA Grants

Hi Josh

[redacted] DPP/ACP

Thx
Karla

From: Josh Gruenbaum - Q <josh.gruenbaum@gsa.gov>
Sent: Thursday, May 8, 2025 11:06:22 PM
To: Simonpour, Alexander (HQ-AA000)[GSA] <alexander.simonpour@nasa.gov>
Cc: Hoyt, Joshua T. EOP/WHO <[redacted]>; Kambli, Abhishek (OASG) <Abhishek.Kambli@usdoj.gov>; Horne, Marvin L. (HQ-LP010) <marvin.l.horne@nasa.gov>; Carlson, Trey (KSC-AAD00) <trey.carlson-1@nasa.gov>; Mailman, May EOP/WHO [redacted]v>; Jackson, Karla Smith (HQ-LP010) <karla.s.jackson@nasa.gov>
Subject: Re: [EXTERNAL] Re: NASA Grants

[redacted] DPP/ACP

U.S. General Services Administration
Josh Gruenbaum
Commissioner of Federal Acquisition Service
[redacted]
josh.gruenbaum@gsa.gov

On Thu, May 8, 2025 at 10:58 PM Simonpour, Alexander (HQ-AA000)[GSA] <alexander.simonpour@nasa.gov> wrote:

[redacted] DPP/ACP

[redacted] DPP/ACP

Thanks.

NASA Meatball Logo

Alex Simonpour

Advisor

Mary W. Jackson NASA Headquarters

300 E Street SW, Washington, DC 20546
alexander.simonpour@nasa.gov

Post production redaction

From: Hoyt, Joshua T. EOP/WHO [redacted]>
Sent: Thursday, May 8, 2025 8:51 PM
To: Kambli, Abhishek (OASG) <Abhishek.Kambli@usdoj.gov>; Simonpour, Alexander (HQ-AA000) [GSA] <alexander.simonpour@nasa.gov>; Josh Gruenbaum - Q <josh.gruenbaum@gsa.gov>; Horne, Marvin L. (HQ-LP010) <marvin.l.horne@nasa.gov>
Cc: Mailman, May EOP/WHO [redacted]>; Carlson, Trey (KSC-AAD00)

<trey.carlson-1@nasa.gov>; Jackson, Karla Smith (HQ-LP010) <karla.s.jackson@nasa.gov>
Subject: RE: [EXTERNAL] Re: NASA Grants

NASA, WHCO [redacted] DPP/ACP
[redacted] DPP/ACP

Best,

Joshua

From: Kambli, Abhishek (OASG) <Abhishek.Kambli@usdoj.gov>
Sent: Thursday, May 8, 2025 8:14 PM
To: Simonpour, Alexander (HQ-AA000)[GSA] <alexander.simonpour@nasa.gov>; Josh Gruenbaum - Q <josh.gruenbaum@gsa.gov>; Horne, Marvin L. (HQ-LP010) <marvin.l.horne@nasa.gov>
Cc: Mailman, May EOP/WHO [redacted]>; Hoyt, Joshua T. EOP/WHO [redacted]>; Carlson, Trey (KSC-AAD00) <trey.carlson-1@nasa.gov>; Jackson, Karla Smith (HQ-LP010) <karla.s.jackson@nasa.gov>
Subject: RE: [EXTERNAL] Re: NASA Grants

NASA,

[redacted] DPP/ACP

Thanks,

Abhi

From: Simonpour, Alexander (HQ-AA000)[GSA] <alexander.simonpour@nasa.gov>
Sent: Thursday, May 8, 2025 6:36 PM
To: Josh Gruenbaum - Q <josh.gruenbaum@gsa.gov>; Horne, Marvin L. (HQ-LP010) <marvin.l.horne@nasa.gov>

From: Down, Racheal A (NSSC-XD045)
To: [redacted] awardsmgmt2@harvard.edu; SPAContracts@hms.harvard.edu; awardsmgmt3@harvard.edu
Subject: Notice of Termination
Date: Friday, May 9, 2025 4:37:00 PM
Attachments: image001.png
image002.png
Harvard Notice of Termination 5_9_25.pdf

AOR,

Please see attached letter of termination of NASA Grant/Cooperative Agreement.

Best,

Racheal Down
Grants Officer
Grants Activities Branch (GAB)
Procurement Services Division
NASA Shared Services Center (NSSC)
Org Code: XD045
Bldg. 1111 Jerry Hlass Road
Stennis Space Center, MS 39529
racheal.a.down@nasa.gov

National Aeronautics and
Space Administration

NASA Shared Services Center
Stennis Space Center, MS 39529-6000

May 9, 2025

Reply to
Attn of: **NSSC Procurement: Grants Activities Branch**

TO: President and Fellows of Harvard College

FROM: NASA Shared Service Center (NSSC), Grants Activities Branch

SUBJECT: Notice of Termination

NASA continuously reviews its grants to ensure efficiency, alignment with the policies of the Administration, and identification of opportunities to reduce overall Federal spending. *NASA Grant and Cooperative Agreement Term and Condition, 1.9 Termination and Enforcement (2)(b) or Appendix D6, Termination and Enforcement* which are incorporated in your awards, provides that an award can be suspended or terminated in part or in its entirety, to the extent authorized by law, if an award no longer effectuates the program goals or agency priorities. As a result of this subsequent review, NASA determined that the awards identified below are not mission essential or needed for retention to support mission activities, and therefore, no longer effectuates the program goals or agency priorities. Accordingly, your grants/cooperative agreements listed below will be terminated effective May 9, 2025. With the exception to the closeout activities described below, no further activities shall be conducted as of today, May 9, 2025.

Grants and Cooperative Agreements with titles

80NSSC19K0326	Dynamics and Chemistry of Summer Stratosphere
80NSSC21K1443	Improved understanding of oxygenated volatile organic compounds (OVOCs) in polluted and remote atmospheres using KORUS-AQ and Atom data: implications for interpreting satellite observations of formaldehyde and glyoxal
80NSSC23K1430	Rodent Research Standard Housing Mission: Multidisciplinary Approach to Understanding Spaceflight Responses
80NSSC21M0002	Cosmic Storytelling with NASA Data: Tools for Exploring Data Science
80NSSC24M0193	NASA Open Innovation Research

In accordance with 2 CFR § 200.344, Closeout, recipients must complete required award closeout actions, including submitting all reports (financial, performance, and other reports required by the Federal award), liquidating financial obligations, and refunding unobligated funds no later than 120 calendar days after the conclusion of the period of performance. Therefore, all drawdowns shall be completed in the U.S. Department of Health and Human

Services Program Support Center, Payment Management System for allowable costs incurred during the period of performance and allowable termination and closeout costs (see § 200.472, Termination and standard closeout costs) no later than 120 calendar days from the adjusted period of performance end date. All final reports shall be submitted in accordance with the reporting requirements set forth in the terms and conditions of your award. A description of required final reports can be found in *NASA Grant and Cooperative Agreement Manual* (GCAM), Appendix C – Post-award Reporting and Certification Requirements.

If you disagree with NASA's decision to terminate, you may appeal this decision in writing to the NASA Administrative Grant Officer, Racheal Down, racheal.a.down@nasa.gov, within 30 days of receipt of this notice. GCAM section 35.1, Appealing a Suspended or Terminated Award, subsections 4 and 5, outlines the requirements of an appeal and the status of the termination until all available remedies are exhausted.

With regards,

Digitally signed by

Post production redaction

Racheal Down
Administrative Grant Officer
NASA Shared Services Center (NSSC)

April 18, 2025, Terminations

From: NSF Grants
Sent: Friday, April 18, 2025 3:38 PM
To: [redacted]
Cc:
Subject: Notice from National Science Foundation

U.S. National Science Foundation Division of Grants and Agreements
2415 Eisenhower Avenue
Alexandria, Virginia 22314
(703) 292-8210
04/18/2025
[redacted]
The Vice Provost for Research at Harvard University
Harvard University
[redacted]
Dear Dr[redacted]
The U.S. National Science Foundation (NSF) has undertaken a review of its award portfolio. Each award was carefully and individually reviewed, and the agency has determined that termination of certain awards is necessary because they are not in alignment with current NSF priorities.
Effective immediately, the following are terminated:
NSF
Award
Id
2201799
NSF is issuing this termination to protect the interests of the government pursuant to NSF Grant General Conditions (GC-1) term and condition entitled 'Termination and Enforcement,' on the basis that they no longer effectuate the program goals or agency priorities. This is the final agency decision and not subject to appeal.
Costs incurred as a result of this termination may be reimbursed, provided such costs would otherwise be allowable under the terms of the award and the governing cost principles. In accordance with your award terms and conditions, you have 30 days from the termination date to furnish a summary of progress under the award and an itemized accounting of allowable costs incurred prior to the termination date.
Sincerely,
Jamie H. French, Division Director
Office of Budget Finance and Award Management (BFA)
Division of Grants and Agreements (DGA)

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2201799
Managing Division Abbreviation: DRL **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 04/26/2022
Amendment Number: 000
Proposal Number: 2201799
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above as modified by revised budget dated 03/24/2022.

No work with human subjects, including recruitment, may be conducted under this protocol or grant until IRB approval has been obtained.

AWARD INFORMATION

Award Number (FAIN): 2201799
Award Instrument: Continuing Grant
Award Date: 04/26/2022
Award Period of Performance: Start Date: 07/01/2022 End Date: 06/30/2025
Project Title: Collaborative Research: Investigating Gender Differences in Digital Learning Games with Educational Data Mining
Managing Division Abbreviation: DRL
Research and Development Award: Yes
Funding Opportunity: NSF 21-588 EHR Core Research
Assistance Listing Number(s) and Name(s): 47.076 Education and Human Resources

FUNDING INFORMATION

Amount Obligated by this Amendment: $56,409
Total Intended Award Amount: $87,001
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $56,409
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2024	$30,592

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2201796	Y	[redacted]	Carnegie Mellon University
2201797	N		University of North Carolina at Chapel Hill
2201798	N		University of Pennsylvania
2201799	N		Harvard College, President & Fellows of Harvard University
2201800	N		University of Pittsburgh

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Cartia Brown-Morgan
Email: cbrownmo@nsf.gov

Awarding Official
Name: LeVar R. Farrior
Email: lfarrior@nsf.gov

Managing Program Officer
Name: Lori Takeuchi
Email: ltakeuch@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 10/04/2021, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-588 EHR Core Research.

BUDGET

A. Senior Personnel	
Senior Personnel Count	2.00
Senior Personnel Calendar Months	1.36
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$26,051
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0

Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$26,051
C. Fringe Benefits	$6,149
Total Salaries, Wages, Fringe Benefits (A + B + C)	$32,200
D. Equipment	$0
E. Travel	
Domestic	$1,178
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$33,378**
I. Indirect Costs*	**$23,031**
J. Total Direct and Indirect Costs (H + I)	$56,409
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$56,409**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Modified Total Direct Costs	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2201799

Managing Division Abbreviation: DRL

Amendment Number: 002

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Other Admin No Fund Actions
Amendment Date: 04/29/2025
Amendment Number: 002
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to:

- Change the award end date from 06/30/2025 to 04/18/2025.
- This action is in accordance with the award termination notice dated 04/18/2025.

Except as modified by this amendment, the award conditions remain unchanged.

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Tracy N. Shields
Email: tshields@nsf.gov
Phone: (703) 292-4882

Awarding Official
Name: Denise M. Martin
Email: dmartin@nsf.gov

Managing Program Officer
Name: Lori Takeuchi
Email: ltakeuch@nsf.gov
Phone: (703) 292-2190

April 25, 2025, Terminations

From: NSF Grants
Sent: Friday, April 25, 2025 11:51 AM
To: [redacted]
Cc:
Subject: Notice from National Science Foundation

U.S. National Science Foundation Division of Grants and Agreements
2415 Eisenhower Avenue
Alexandria, Virginia 22314
(703) 292-8210
04/25/2025
[redacted]
The Vice Provost for Research at Harvard University
Harvard University
[redacted]
Dear [redacted]
The U.S. National Science Foundation (NSF) has undertaken a review of its award portfolio. Each award was carefully and individually reviewed, and the agency has determined that termination of certain awards is necessary because they are not in alignment with current NSF priorites.
Effective immediately, the following are terminated:

NSF Award Id
2148928
2215050
2100961
2116543
2306216

NSF is issuing this termination to protect the interests of the government pursuant to NSF Grant General Conditions (GC-1) term and condition entitled 'Termination and Enforcement,' on the basis that they no longer effectuate the program goals or agency priorities. This is the final agency decision and not subject to appeal.
Costs incurred as a result of this termination may be reimbursed, provided such costs would otherwise be allowable under the terms of the award and the governing cost principles. In accordance with your award terms and conditions, you have 30 days from the termination date to furnish a summary of progress under the award and an itemized accounting of allowable costs incurred prior to the termination date.
Sincerely,
Jamie H. French, Division Director
Office of Budget Finance and Award Management (BFA)
Division of Grants and Agreements (DGA)

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2100961
Managing Division Abbreviation: DRL **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/22/2021
Amendment Number: 000
Proposal Number: 2100961
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above .

The DRK-12 program has awarded a dissemination and evaluation network project as a cooperative agreement. The resource network is responsible for synthesizing findings across the DRK-12 portfolio, providing technical assistance to DRK-12 projects, promoting national awareness of research contributions from the DRK-12 portfolio, and building the DRK-12 community through PI and special interest meetings. All DRK-12 projects are expected to share their findings with the resource network, to participate in annual PI meetings, and other meetings of interest and to be responsive to requests for information from the resource network.

No work with human subjects, including recruitment, may be conducted under this protocol or grant until IRB approval has been obtained.

Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies and procedures to segregate participant support costs.

AWARD INFORMATION

Award Number (FAIN): 2100961
Award Instrument: Standard Grant
Award Date: 08/22/2021
Award Period of Performance: Start Date: 09/01/2021 End Date: 08/31/2025
Project Title: Collaborative Research: Supporting Teachers to Develop Equitable Mathematics Instruction Through Rubric-Based Coaching
Managing Division Abbreviation: DRL
Research and Development Award: Yes
Funding Opportunity: NSF 20-572 Discovery Research PreK-12
CFDA Number and Name: 47.076 Education and Human Resources

FUNDING INFORMATION

Amount Obligated by this Amendment: $1,199,099
Total Intended Award Amount: $1,199,099
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $1,199,099
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: **Email:** [redacted] **Institution:** Harvard University

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Institution
2100793	Y	[redacted]	University of Delaware
2100830	N		North Carolina State University
2100961	N		Harvard College, President & Fellows of Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Cartia Brown-

Awarding Official
Name: LeVar R. Farrior
Email: lfarrior@nsf.gov

Managing Program Officer
Name: Michael David Steele
Email: msteele@nsf.gov

Morgan
Email:
cbrownmo@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 11/12/2020, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 20-572 Discovery Research PreK-12.

BUDGET

A. Senior Personnel	
Senior Personnel Count	4.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	2.50
Senior Personnel Amount	$56,182
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	16.00
Other Professionals Calendar Months	48.18
Other Professionals Academic Months	0.00
Other Professionals Summer	0.00

Months	
Other Professionals Amount	$297,130
Graduate Students	
Graduate Students Count	4.00
Graduate Students Amount	$25,854
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$379,166
C. Fringe Benefits	$151,448
Total Salaries, Wages, Fringe Benefits (A + B + C)	$530,614
D. Equipment	$0
E. Travel	
Domestic	$18,237
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$175,000
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	1.00
Total Participant Costs (F)	$175,000
G. Other Direct Costs	
Materials Supplies	$3,000
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$54,125
Total Other Direct Costs (G)	$57,125
H. Total Direct Costs (A Through G)	**$780,976**
I. Indirect Costs*	**$418,123**

J. Total Direct and Indirect Costs (H + I)	$1,199,099
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$1,199,099**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2100961

Managing Division Abbreviation: DRL

Amendment Number: 001

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Other Admin No Fund Actions
Amendment Date: 05/01/2025
Amendment Number: 001
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to:

- Change the award end date from 08/31/2025 to 04/25/2025.
- This action is in accordance with the award termination notice dated 04/25/2025.

Except as modified by this amendment, the award conditions remain unchanged.

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Tracy N. Shields
Email: tshields@nsf.gov
Phone: (703) 292-4882

Awarding Official
Name: Denise M. Martin
Email: dmartin@nsf.gov

Managing Program Officer
Name: Toya NA Frank
Email: tfrank@nsf.gov
Phone: (703) 292-2255

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2116543
Managing Division Abbreviation: BCS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 06/15/2021
Amendment Number: 000
Proposal Number: 2116543
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above .

It is the grantee's responsibility to ensure that any human subjects work conducted under this award has an Institutional Review Board (IRB) approval, where required, and that such approval remains valid at all times that human subjects work is conducted under the award. Failure to comply with this condition will result in suspension and/or termination of the award.

Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies and procedures to segregate participant support costs.

Incentive payments or gifts to participants must be made in accordance with written institutional policies and procedures and supported by auditable documentation. The allowability of these costs will ultimately be based on the awardee institution's ability to adequately demonstrate that the incentives have been disbursed in accordance with its policies and procedures.

AWARD INFORMATION

Award Number (FAIN): 2116543
Award Instrument: Standard Grant
Award Date: 06/15/2021
Award Period of Performance: Start Date: 07/01/2021 End Date: 06/30/2024
Project Title: Social Structure Learning
Managing Division Abbreviation: BCS
Research and Development Award: Yes
Funding Opportunity: PD 98-1332 Social Psychology
CFDA Number and Name: 47.075 Social, Behavioral, and Economic Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $604,296
Total Intended Award Amount: $604,296
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $604,296
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Institution:** Harvard University

Co-Principal Investigator: [redacted] **Email:** [redacted] **Institution:** Harvard University

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Christine Castell
Email: ccastell@nsf.gov

Awarding Official
Name: Christine Castell
Email: ccastell@nsf.gov

Managing Program Officer
Name: Steven James Breckler
Email: sbreckle@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 11/12/2020, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	6.00
Senior Personnel Calendar Months	3.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$51,029
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	3.00
Post Doctoral Calendar Months	36.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$169,159
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$220,188
C. Fringe Benefits	$56,328
Total Salaries, Wages, Fringe Benefits (A + B + C)	$276,516
D. Equipment	$0

E. Travel	
Domestic	$13,500
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$21,000
Participant Support Costs Travel	$2,400
Participant Support Costs Subsistence	$9,000
Participant Support Costs Other	$22,476
Total Number of Participants	6.00
Total Participant Costs (F)	$54,876
G. Other Direct Costs	
Materials Supplies	$2,500
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$32,585
Total Other Direct Costs (G)	$35,085
H. Total Direct Costs (A Through G)	**$379,977**
I. Indirect Costs*	**$224,319**
J. Total Direct and Indirect Costs (H + I)	$604,296
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$604,296**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2148928
Managing Division Abbreviation: SES **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 02/03/2022
Amendment Number: 000
Proposal Number: 2148928
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

AWARD INFORMATION

Award Number (FAIN): 2148928
Award Instrument: Standard Grant
Award Date: 02/03/2022
Award Period of Performance: Start Date: 06/01/2022 End Date: 05/31/2025
Project Title: Collaborative Research: Understanding the Evolution of Political Campaign Advertisements over the Last Century
Managing Division Abbreviation: SES
Research and Development Award: Yes
Funding Opportunity: PD 19-120Y Accountable Institutions and Behavior
Assistance Listing Number(s) and Name(s): 47.075 Social, Behavioral, and Economic Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $155,357

Total Intended Award Amount: $155,357
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $155,357
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2147635	Y	[redacted]	University of Oklahoma
2148202	N		University of Iowa
2148928	N		Harvard College, President & Fellows of Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: Jan E. Leighley
Email: jleighle@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 10/04/2021, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	1.50
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$50,303
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	3.00
Graduate Students Amount	$28,738
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$79,041
C. Fringe Benefits	$12,886
Total Salaries, Wages, Fringe Benefits (A + B + C)	$91,927
D. Equipment	$0
E. Travel	
Domestic	$0

International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$91,927**
I. Indirect Costs*	**$63,430**
J. Total Direct and Indirect Costs (H + I)	$155,357
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$155,357**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2215050
Managing Division Abbreviation: DRL **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/22/2022
Amendment Number: 000
Proposal Number: 2215050
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 07/08/2022.

As a condition of this AISL award PIs are required to
(1) submit the final summative evaluation of or other knowledge-building product(s) from the project for posting to an AISL-designated repository as part of submission of the Final Report. Final reports will not be approved before the summative evaluation/knowledge-building products are posted for the project; and
(2) work with an NSF third-party evaluator for the purpose of program evaluation when requested to do so.

The Foundation authorizes the awardee to enter into the proposed subaward arrangement. The subaward agreement should contain appropriate provisions in accordance with the award terms and conditions in effect at the time of this award amendment, and contain any special conditions included in this award.

Incentive payments or gifts to participants must be made in accordance with written institutional policies and procedures and supported by auditable documentation. The allowability of these costs will ultimately be based on the awardee institution's ability to adequately demonstrate that the incentives have been disbursed in accordance with its policies and procedures.

Costs of entertainment, amusement, diversion and social activities, and any costs directly associated with such activities (such as meals, lodging, rentals, transportation and gratuities) are unallowable. When certain meals are an integral and necessary part of a conference or meeting (i.e., working meals where business is transacted), grant funds may be used for such meals. Grant funds may also be used to

furnish a reasonable amount of coffee or soft drinks for conference or meeting participants and attendees during coffee breaks.

No NSF funds may be spent on meals or coffee breaks for intramural meetings of an organization or any of its components, including, but not limited to, laboratories, departments and centers.

AWARD INFORMATION

Award Number (FAIN): 2215050
Award Instrument: Standard Grant
Award Date: 08/22/2022
Award Period of Performance: Start Date: 09/01/2022 End Date: 06/30/2024
Project Title: Instrument Development: Racially & Ethnically Minoritized Youths' Varied Out-Of-School-Time Experiences and Their Effects on STEM Attitudes, Identity, and Career Interest
Managing Division Abbreviation: DRL
Research and Development Award: Yes
Funding Opportunity: NSF 21-599 Advancing Informal STEM Learning
Assistance Listing Number(s) and Name(s): 47.076 Education and Human Resources

FUNDING INFORMATION

Amount Obligated by this Amendment: $950,262
Total Intended Award Amount: $950,262
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $950,262
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE
co-Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE
co-Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** SMITHSONIAN INSTITUTION
co-Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** FLORIDA INTERNATIONAL UNIVERSITY
co-Principal Investigator:	**Email:** [redacted]	**Organization:** FLORIDA

[redacted]

INTERNATIONAL UNIVERSITY

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Cartia Brown-Morgan
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Awarding Official
Name: LeVar R. Farrior
Email: lfarrior@nsf.gov

Managing Program Officer
Name: Julie I Johnson
Email: jjohnson@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-599 Advancing Informal STEM Learning.

BUDGET

A. Senior Personnel	
Senior Personnel Count	4.00
Senior Personnel Calendar Months	8.43
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$128,477
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	2.00
Post Doctoral Calendar Months	12.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$70,320
Other Professionals	
Other Professionals Count	5.00
Other Professionals Calendar	8.40

Months	
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$52,990
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$251,787
C. Fringe Benefits	$69,676
Total Salaries, Wages, Fringe Benefits (A + B + C)	$321,463
D. Equipment	$0
E. Travel	
Domestic	$16,719
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$3,200
Publication Costs	$0
Consultant Services	$0
Computer Services	$2,800
Subawards	$285,298
Other	$28,874
Total Other Direct Costs (G)	$320,172
H. Total Direct Costs (A	**$658,354**

Through G)	
I. Indirect Costs*	**$291,908**
J. Total Direct and Indirect Costs (H + I)	$950,262
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$950,262**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Modified Total Direct Costs	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2215050

Managing Division Abbreviation: DRL

Amendment Number: 001

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Other Admin No Fund Actions
Amendment Date: 12/09/2022
Amendment Number: 001
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to authorize the awardee to enter into the proposed subaward agreement in accordance with the Subawarding, Transferring or Contracting Out Part of an NSF Award request submitted on 12/09/2022.

Except as modified by this amendment, the award conditions remain unchanged.

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

co-Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

co-Principal Investigator: [redacted] **Email:** [redacted] **Organization:** SMITHSONIAN INSTITUTION

co-Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** FLORIDA INTERNATIONAL UNIVERSITY
co-Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** FLORIDA INTERNATIONAL UNIVERSITY

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact) **Name:** Cartia Brown-Morgan **Email:** cbrownmo@nsf.gov **Phone:** (703) 292-8709	**Awarding Official** **Name:** Cartia Brown-Morgan **Email:** cbrownmo@nsf.gov	**Managing Program Officer** **Name:** Julie I Johnson **Email:** jjohnson@nsf.gov **Phone:** (703) 292-8624

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2306216
Managing Division Abbreviation: DMR **Amendment Number:** 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 07/24/2023
Amendment Number: 000
Proposal Number: 2306216
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 06/20/2023.

The "Administration of NSF Conference or Group Travel Award Grant Conditions (FL 26)" in effect the date of this amendment are applicable. The FL 26 special award conditions can be found at: https://www.nsf.gov/awards/managing/special_conditions.jsp.

Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies and procedures to segregate participant support costs.

Costs of entertainment, amusement, diversion and social activities, and any costs directly associated with such activities (such as meals, lodging, rentals, transportation and gratuities) are unallowable. When certain meals are an integral and necessary part of a conference or meeting (i.e., working meals where business is transacted), grant funds may be used for such meals. Grant funds may also be used to furnish a reasonable amount of coffee or soft drinks for conference or meeting participants and attendees during coffee breaks.

No NSF funds may be spent on meals or coffee breaks for intramural meetings of an organization or any of its components, including, but not limited to, laboratories, departments and centers.

AWARD INFORMATION

Award Number (FAIN): 2306216
Award Instrument: Standard Grant
Award Date: 07/24/2023
Award Period of Performance: Start Date: 08/01/2023 End Date: 07/31/2026
Project Title: Quantum Noir: A conference series focused on Faculty, Researchers, and Students of Color(+) in the Quantum Sciences
Managing Division Abbreviation: DMR
Research and Development Award: Yes
Funding Opportunity: NSF 22-1 Proposal & Award Policies & Procedures Guide - PAPPG
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $291,459
Total Intended Award Amount: $291,459
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $291,459
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Elizabeth Gebremedhin
Email: egebreme@nsf.gov
Phone: (703) 292-4444

Awarding Official
Name: Elizabeth Gebremedhin
Email: egebreme@nsf.gov

Managing Program Officer
Name: Tomasz Durakiewicz
Email: tdurakie@nsf.gov
Phone: (703) 292-4892

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement

which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	0.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	3.00

Other Amount	$10,000
Total Salaries and Wages (A+B)	$10,000
C. Fringe Benefits	$980
Total Salaries, Wages, Fringe Benefits (A + B + C)	$10,980
D. Equipment	$0
E. Travel	
Domestic	$10,000
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$101,500
Participant Support Costs Subsistence	$115,172
Participant Support Costs Other	$0
Total Number of Participants	200.00
Total Participant Costs (F)	$216,672
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$34,831
Total Other Direct Costs (G)	$34,831
H. Total Direct Costs (A Through G)	**$272,483**
I. Indirect Costs*	**$18,976**
J. Total Direct and Indirect Costs (H + I)	$291,459
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$291,459**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	34.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost

rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2306216

Managing Division Abbreviation: DMR

Amendment Number: 001

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Other Admin No Fund Actions
Amendment Date: 05/01/2025
Amendment Number: 001
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to:

- Change the award end date from 07/31/2026 to 04/25/2025.
- This action is in accordance with the award termination notice dated 04/25/2025.

Except as modified by this amendment, the award conditions remain unchanged.

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Elizabeth Gebremedhin
Email: egebreme@nsf.gov
Phone: (703) 292-4444

Awarding Official
Name: Elizabeth Gebremedhin
Email: egebreme@nsf.gov

Managing Program Officer
Name: Tomasz Durakiewicz
Email: tdurakie@nsf.gov
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May 12, 2025, Terminations

U.S. National Science Foundation
Division of Grants and Agreements
2415 Eisenhower Avenue
Alexandria, Virginia 22314

May 12, 2025

Dr. Alan Garber
Office of the President
Harvard University
Massachusetts Hall
Cambridge, MA 02138

Ref: Notice of Termination

Dr. Garber:

The U.S. National Science Foundation (NSF) has undertaken a review of its award portfolio. The agency has determined that termination of certain awards is necessary because they are not in alignment with current NSF priorities and/or programmatic goals. NSF understands that Harvard continues to engage in race discrimination including in its admissions process, and in other areas of student life, as well as failing to promote a research environment free of antisemitism and bias.

Effective immediately, the attached awards are terminated.

NSF is issuing this termination to protect the interests of the government pursuant to NSF Grant General Conditions (GC-1) term and condition entitled 'Termination and Enforcement,' on the basis that they no longer effectuate the program goals or agency priorities. This is the final agency decision and not subject to appeal.

Costs incurred as a result of this termination may be reimbursed, provided such costs would otherwise be allowable under the terms of the award and the governing cost principles. In accordance with your award terms and conditions, you have 30 days from the termination date to furnish an itemized accounting of allowable costs incurred prior to the termination date.

Sincerely,

[redacted]

Jamie H. French, Division Director
Office of Budget Finance and Award Management (BFA)
Division of Grants and Agreements (DGA)

Award ID	Award Title
1231319	Center for Integrated Quantum Materials
1839870	FW-HTF: Collaborative Research: The Next Mobile Office: Safe and Productive Work in Automated Vehicles
1841403	Phase II I/UCRC Harvard: Center for Spatiotemporal Thinking, Computing and Applications (STCA)
1856215	Belmont Forum Collaborative Research: Governance of Sociotechnical Transformations
1907398	Collaborative Research: Developing an Online Game to Teach Middle School Students Science Research Practices in the Life Sciences
1914916	The Evolution of Evolvability in Microbial Populations
1919073	Collaborative research: Emirical Evidence of the Tax Administration Production Function
1942438	CAREER: The Tuning and Topography of the Ventral Visual Stream
1943902	CAREER: Learning Probabilistic Factor Models
2002771	Topology, Geometry and Physics
2005475	Geometric Langlands Correspondence: Further Directions
2012023	Physics and Applications of Quantum Nanophotonics Systems
2013874	Spindle Self-Organization and Bioenergetics in Vivo
2023528	Foundations of Data Science Institute
2025158	NNCI: Center for Nanoscale Systems (CNS)
2038059	2020 Waterman Award
2040378	Hodge Filtration, Singularities, and Complex Birational Geometry
2045981	CAREER: Beyond Conditional Independence: New Model-Free Targets for High-Dimensional Inference
2047192	CAREER: Ecological turnover at the dawn of the Great Ordovician Biodiversification Event - quantifying the Cambro-Ordovician transition through the lens of exceptional preservation
2101884	Digitization TCN: Collaborative Research: Bringing Asia to digital life: mobilizing underrepresented Asian herbarium collections in the US to propel biodiversity discovery
2104150	Collaborative Research: LightningBug, An Integrated Pipeline to Overcome The Biodiversity Digitization Gap
2105048	Transport on van der Wals Superconductor Heretostructures
2105903	Collaborative Research: MRA: Modeling and forecasting phenology across spatiotemporal and taxonomic scales using ecological observatory and mobilized digital herbarium data
2107078	CNS Core: Medium: Approximation and Randomization in the Programmable Data Plane
2107391	HCC: Medium: Improving Human-AI Collaboration on Decision-Making Tasks
2116679	Institute for Theoretical, Atomic, Molecular and Optical Physics (ITAMP)
2116702	Collaborative Research: How Events are Conceptualized by Users of Homesign and by Users of an Established Sign Language
2119351	Collaborative Research: DMREF: Design of Superionic Conductors by Tuning Lattice Dynamics
2121239	Collaborative Research: HNDS-I: A global seafood trade network database for sustainable food systems, human health, and nutrition security
2123965	Collaborative Research: FMitF: Track I: Usable Synthesis-based End-User Programming with Rich Interaction Modalities
2127882	Collaborative Research: MFB: Deciphering the Logic of PTM Crosstalk via Novel Chemical Technology: Histones and Beyond
2129576	Explaining the Surprising Simplicity of Continental Evapotranspiration
2129580	Revitalizing a field wireless network for research, education and outreach at the Harvard Forest
2137723	QuIC-TAQS: Integrated Lithium Niobate Quantum Photonics Platform
2140043	2021 Waterman Award
2140743	Graduate Research Fellowship Program (GRFP)
2141382	Collaborative Research: Coupled flow-geomechanical models applied to assess earthquake triggering in tectonically active regions – The Los Angeles basin, CA
2143077	CAREER: Defining how the primate visual system works under naturalistic conditions
2143177	CAREER: Observing topological magnetoelectric effects by magneto-optics and quantum transport
2143343	CAREER: The AI Revolution and Autocratic Institutions
2145925	CAREER: Linking systemic stem cell activation to vertebrate limb regeneration
2147694	Collaborative Research: SaTC: CORE: Medium: Foundations of Trust-Centered Multi-Agent Distributed Coordination
2150290	REU Site: Summer Program at Harvard in Earth and Environmental Research (SPHEER): Investigating a changing planet across multiple timescales
2150813	Collaborative Research: Reconstructing Classic Genetic and Social Kinship Networks
2151294	Remote homology detection with evolutionary profile HMMs
2152149	FRG: Collaborative Research: Definability and Computability over Arithmetically Significant Fields
2152991	Interactions of Combinatorics and Physics
2153335	Random Matrices, Random Schrödinger Operators, and Applications
2154245	Collaborative Research: PurSUiT: Understanding the Neotropical Velvet Worms (Onychophora, Peripatidae, Neopatida), a Cretaceous Radiation of Terrestrial Panarthropods
2200449	Shimura Varieties and Abelian Varieties
2200981	Unlikely Intersections in Diophantine Geometry and Dynamics
2202113	AGS-FIRP Track 3: Methane Emissions Quantification at Scales from 20m to 200km Using the MethaneAIR Imaging Spectrometer on the NSF Gulfstream-V (MAIR-E)
2202698	Collaborative Research: P2C2--Constraints on Last Interglacial and Late Holocene Global Mean Sea Level and Fingerprinting Polar Ice Mass Flux from Broadly Distributed Coastal Caves
2202772	High Spatial Resolution Assessment of the Speleothem Magnetization Proxy
2202984	Partially Wrapped Fukaya Categories and Functoriality in Mirror Symmetry
2203621	Quantum Charge Tunneling through Self-Assembled Monolayers (SAMs)

Award ID	Award Title
2206110	WoU-MMA: The Electromagnetic Counterparts of Gravitational Wave Sources
2207119	Controls on ground surface deformation in thrust and reverse fault earthquakes
2207659	Topics In General Relativity
2207972	NSF BSF: Nonlinear Photon Interactions in Cooperative Quantum Optical Systems
2209623	Collaborative Research: Elements: Enriching Scholarly Communication with Augmented Reality
2210173	Collaborative Research: Impacts of Global Change on Terrestrial Mercury in the Arctic
2210757	Using Hothouse Climates to Generalize Understanding of Convection, Clouds, and Circulation
2211383	Collaborative Research: CNS Core: Medium: A Stateful Switch Architecture for In-Network Compute
2216066	MRI: Acquisition of Single-Crystal Diffractometer for Small Molecule Crystallography and Cryosystem
2217680	Collaborative Research: DASS: Co-design of law and computer science for privacy in sociotechnical software systems
2217722	Collaborative Research: DASS: Enabling Standards- and Disclosure-Based Regulations in and through Software Systems: Making Algorithmic Work Management Software Accountable to Law
2218427	Identifying novel memory traces that improve action precision
2218460	Collaborative Research: The Lake Superior Basin: Natural Geomorphic Experiment, Deepwater-Terminating Ice Stream, and Isostatically Adjusting Rift
2218803	HNDS-I: Bringing Differential Privacy to Social Science Data Repositories
2219069	NSFGEO-NERC: Collaborative Research: The first actinopterygian 'adaptive radiation': integrating fossils, function and phylogeny to illuminate innovation in a post-extinction world
2220446	Collaborative Research: Imaging the Beginning of Time from the South Pole: Completing the BICEP Array Survey
2220703	Topological order and Anyons in and out of Equilibrium
2220747	EDGE FGT: MUSH-IT: MUlti-Species Hemimetabolous Insect Tools
2221715	Mid-infrared reconfigurable pulse generators
2223880	Collaborative Research: Digitization and Enrichment of U.S. Herbarium Data from Tropical Africa to Enable Urgent Quantitative Conservation Assessments
2227964	Collaborative Research: Higher-order processing in a peripheral neural structure of a nudibranch mollusc
2228359	Collaborative Research: Development and Applications of GEOS-Chem Atmospheric Chemistry in CESM and MUSICA
2231707	Collaborative Research: CIF: Small: Approximate Coded Computing - Fundamental Limits of Precision, Fault-tolerance and Privacy
2234308	Evolved changes to neural systems for reactive aggression in humans and other primates
2238071	CAREER: Integrating brain-behavior evolution with real-world science impacts through neuroscience of working dogs
2238113	CAREER: Manipulating Barocaloric Effects in Two-Dimensional Perovskites
2238714	Career: Towards a Systematic Characterization of Model Explanations for High-Stakes Decision Making
2238836	CAREER: Complexity of quantum many-body systems: learnability, approximations, and entanglement
2239234	CAREER: Statistical Inference in High Dimensions using Variational Approximations
2239242	CAREER: Using Tracer Interrelationships to Understand Large-Scale Geophysical Flows and their Changes
2239780	CAREER: Developing Neural Network Theory for Uncovering How the Brain Learns
2239795	CAREER: Towards Particle Physics Discoveries With Double Cascades In IceCube and Beyond
2241885	Collaborative Research: State Health, Institutions, and Politics Survey (SHIPS)
2243704	Collaborative Research: Ideas Lab: Discovery of Novel Functional RNA Classes by Computational Integration of Massively-Parallel RBP Binding and Structure Data
2243724	Photoactivation of Stable Bonds for Chemical Conversions
2245246	Strange metals and the phases of quantum materials
2246518	Positive Vector Bundles in Combinatorics
2246630	Bifurcations in Complex Algebraic Dynamics
2246746	Classification and invariants for Borel equivalence relations
2247494	Screening for Generality in Asymmetric Catalysis
2247817	CAS: Collaborative Research: Electronic Structure/Function Relationships Underpinning Atom Transfer Reactivity
2301180	Cognitive Mechanisms of Guided Instruction in the Early Elementary Years
2301246	Collaborative Research: Promoting Math Skills through Playful Communication in the Home Environment
2303486	Warm Pliocene mid-latitude upwelling sites, with implications to future southwestern North America aridity under climate change
2303681	POSE: Phase II: Building the Differential Privacy Ecosystem through OpenDP
2303835	Collaborative Research: Feedbacks among Ecosystem Engineers and their Influence on Ecosystem Functioning
2303983	SHF:Small: Extensible Models and Proofs via Family Polymorphism
2304877	Instanton homology in low-dimensional topology
2305257	Fukaya categories of complex symplectic manifolds
2305373	Applications of homotopy theory to algebraic geometry and physics
2306149	Speech and Communicative Timing Across Languages and Linguistic Contexts
2308043	The Tierras Observatory: An Ultra-precise Time-series Photometer to Characterize Nearby Low-mass Stars and Their Terrestrial Exoplanets
2308272	Postdoctoral Fellowship: OCE-PRF: Reconstructing CO2 Levels for the Late Cretaceous through Paleocene using Sedimentary Compositions of Molecular and Isotopic Proxies
2309041	CRCNS Research Proposal: Learning by Looking: Modeling visual system representation formation via foveated sensing in a 3-D world
2310050	Collaborative Research: Beyond Standard Model Searches Using the IceCube Neutrino Telescope
2310717	New and Refurbished Directions Beyond the Standard Model

Award ID	Award Title
2310908	Belmont Forum Collaborative Research: Climate-Induced Migration in Africa and Beyond: Big Data and Predictive Analytics
2312667	Collaborative Research: CIF: Medium: Fundamental Limits of Privacy-Enhancing Technologies
2313084	Collaborative Research: FET: Medium: Efficient Compilation for Dynamically Reconfigurable Atom Arrays
2315488	Outsourcing Property Tax Re-Assessments: Empirical Evaluation
2315533	Collaborative Research: The Economics of Port Infrastructure
2320265	Equipment: MRI: Track #1 Acquisition of Photonic Wirebonding Tool for Quantum and Nanophotonics
2321651	Collaborative Research: Ideas Lab: Smarter Microbial Observatories for Realtime ExperimentS (SMORES)
2323102	Constructing a 1.5-million-year time series of magmatic and hydrothermal activity at the Juan de Fuca ridge
2323970	Collaborative Research: DMREF: Discovery of unconventional superconductors by design
2324862	Collaborative Research: DESC: Type 2: Delphi: Life-time aware design frameworks for sustainable edge devices
2326605	Collaborative Research: National Science Foundation Expeditions in Computing: Carbon Connect -- An Ecosystem for Sustainable Computing
2326787	QuSeC-TAQS: Quantum Sensor Networks for Metrology, Chemistry and Astrophysics
2327447	When Teachers "Aren't There": Detecting, Evaluating, and Learning from Rote Teaching Across Development
2331228	EAGER: Identifying the genetic determinants of plasmid-dependent phage host range
2331831	SLES: A Theoretical Lens on Generative AI Safety: Near and Long Term
2332539	EAGER: Coherent Manipulation and Quantum Entanglement in Ultracold Reactions
2332668	Collaborative Research: SWIFT-SAT: Coexistence of Remote Astronomical Instruments Susceptible to Interference with Large Communication Satellite Constellations
2333014	Rehousing and Digitization of the Museum of Comparative Zoology Recent Invertebrate Microscope Slide Collections
2333466	EAGER: Collaborative K-12 Outreach at the Interface between Biology and Imaging Science
2333888	Collaborative Research: NSF-BSF: Under Pressure: The evolution of guard cell turgor and the rise of the angiosperms
2333904	EAGER: Researching Team-Based Learning in High-School Physics Classes
2334882	Collaborative Research: Artificially-Evolved Modular Robotic Swimmers for Enhanced Mobility in Challenging Hydrodynamic Environments
2334984	DESIGN: Culture Change - Building a Relational and Inclusive Discipline through Genetics Engagement (CC-BRIDGE)
2336044	CAREER: Habitability of the Hadean Earth - A South African perspective
2337516	Doctoral Dissertation Research: Investigating the genomic underpinnings of the human hand and foot
2338206	CAREER: CAS: Organic Photochemistry for Light-Driven CO2 Capture and Release
2338760	CAREER: Statistical Inference in Observational Studies -- Theory, Methods, and Beyond
2339524	CAREER: Geometric Deep Learning to Facilitate Algorithmic and Scientific Advances in Therapeutics
2339621	CAREER: Microbial Mediation of Temperate Tree Responses to Climate Change
2339913	CAREER: Epitaxial stabilization of non-perovskite oxide quantum materials
2341785	Pluralism in Biological Models of Sex
2342821	Conference: Emerging Statistical and Quantitative Issues in Genomic Research in Health Sciences
2343233	Collaborative Research: Time-dependent imaging of earthquake cycle behavior across the Japan fault system
2343922	NSF-BSF: Mechanism Design for All
2345627	Collaborative Research: Revealing the vast diversity within the legume-rhizobia mutualism
2346137	POSE: Phase I: Open Source Soft Robotics (OSSR): An Open-Source Ecosystem to Increase Access and Enable Discovery of Soft Robotic Technologies
2346173	NSF POSE: Phase II: MLCommons Research for Science: Enabling Open-Source Ecosystems for Scientific Foundation Models by Community Standards and Benchmarks
2347423	Collaborative Research: CDS&E: Generalizable RANS Turbulence Models through Scientific Multi-Agent Reinforcement Learning
2348924	REU Site: Summer Research Program in Ecology at Harvard Forest
2401057	Mechanisms for the establishment of polarity during whole-body regeneration
2401390	Collaborative Research: Stochastic Nonlinear Control and Learning via Spectral Dynamics Embedding
2401498	Birational Geometry, Hodge Theory and Singularities
2401907	Collaborative Research: Climbing and Object Grasping Through Tunable Capillary Adhesion in an Insect-Scale Robot
2402464	Collaborative Research: PYRITE OXIDATION AND THE ENSUING TRIPLE O ISOTOPE COMPOSITION OF SULFATE
2406110	CDS&E: Enabling Population Studies of Supernovae in the Era of Vera Rubin via Simulated-based Inference
2406905	Towards Geometry-Informed Machine Learning: A Comprehensive Framework for Recognizing and Leveraging Heterogeneous Geometric Structure in Data
2407215	SMA-SPEC: A Legacy Spectral Line Survey of Protoplanetary Disks
2407727	NSF-SNSF: Lithium niobate based terahertz systems: fundamentals and applications.
2407922	Collaborative Research: New Windows on the Dynamic Universe with the Vera C. Rubin Observatory, the InterPlanetary Network, and the International Gravitational Wave Network
2408960	Conference: A Celebration of Algebraic Combinatorics
2409404	Quantum Simulation and Collisions with Ultracold Triatomic Molecules
2409713	Quantum Simulation with a Floquet Engineered Array of Interacting Molecules
2412346	Conference: Amplituhedra, Cluster Algebras and Positive Geometry
2412783	RNA Self-Repair Induced by Sunlight: Can a Novel Mechanism Shed Light on Life's Origins and RNA Cell Function?
2416022	Doctoral Dissertation Research: Understanding the Long-Term Drivers of Community Reconciliation in Post-Conflict Societies
2417150	Tracking Adaptation and Investigating Learning Outcomes for Reforming Mathematics for Life Sciences

Award ID	Award Title
2417241	SBE-UKRI: Resource Rational Contractualism: A foundation for moral judgment and decision making
2421119	Collaborative Research: EDGE CMT: Shared genetic and cellular mechanisms of vertebrate limb and fin regeneration.
2421461	TRAILBLAZER: Biodegradable Living Materials
2422348	EFRI BEGIN OI:Neuron-Soft Organoid-Computer Interfaces for Long-Term Three-Dimensional Neural Network Computing
2425714	Collaborative Research: CAIG: A Large Foundational Model for Earthquake Understanding
2426105	Understanding within-cell plasmid evolution with synthetic systems
2426145	RAPID: Ongoing Impacts of the Extraordinary Hunga Tonga Volcanic Eruption on the Stratosphere
2426448	CAREER: Developing novel biomarker proxies to constrain Neogene changes in African woody cover and paleoecological contexts of hominin evolution
2427124	CAREER: Untangling Inter-Area Communication in the Brain Using Multi-Region Neural Networks
2427291	Collaborative Research: Bridging the scale gap between local and regional methane and carbon dioxide isotopic fluxes in the Arctic
2427533	ReDDDoT Phase 1: Planning Grant: Piloting an impact accelerator model for cultivating equity and ethics in genetics innovation
2430375	FET: Small: A complexity theoretic lens on near- and medium-term quantum devices
2432024	Conference: Advances in probability theory and interacting particle systems
2434664	Collaborative Research: AIMING: AI Tools to Knowledge Discovery and Rigorous Reasoning in Polyhedral Geometry
2434879	NSF-SNSF: AN INTEGRATIVE STRUCTURAL AND FUNCTIONAL STUDY TO DISSECT THE REGULATORY MECHANISMS OF CILIARY MOTILITY
2437125	Collaborative Research: Termite Methane Emissions Across Tropical Savannas and Forests
2437498	Collaborative Research: Tracing the Rise of Equine Dairying
2439922	EAGER: Active Metamaterials for Computing Applications
2440824	CAREER: High-Dimensional Learning and Inference from Heterogeneous Data Sources
2441781	CAREER: Interacting Topological Bands in Moire Superlattices and Beyond
2443033	CAREER: CO2-Efficient Computing: Quantifying Trade-Offs in Power, Performance, Area, and Total Carbon Footprint of Monolithic Three-Dimensional Integrated Circuits
2451960	Travel Grant: Reinforcement Learning: from Theorem to Real-World
2502675	Conference: The Legacy of John Tate, and Beyond
2505370	Doctoral Dissertation Research: Multi-sited Geophysical Archaeology for the Study of Rural Settlement Change and Continuity
2514823	NSF-SNSF: Chemical Computing Architectures (CheCoA)

National Science Foundation
2415 Eisenhower Avenue
Alexandria, VA 22314
www.nsf.gov

COOPERATIVE AGREEMENT (CA)

AWARD: DMR-1231319

EFFECTIVE DATE: October 1, 2013

EXPIRATION DATE: September 30, 2018

PROJECTED TOTAL AWARD FUNDING:

(Subject to availability of funds)
$19,971,962

CUMULATIVE AMOUNT:

$36,014,682

SOLICITATION:

(Incorporated by reference, as amended)

NSF 11-522

Science and Technology Centers: Integrative Partnerships

CFDA NUMBER:
47.049

OTHER AWARDS UNDER THIS PROGRAM:

Show List of Awards

AWARDEE: Harvard College, President & Fellows of Harvard University

PROJECT TITLE: Center for Integrated Quantum Materials

PROJECT ABSTRACT: https://www.fastlane.nsf.gov/servlet/showaward?award=1231319

Principal Investigator(s)	Proposal No.	Institution (s)
[redacted]	DMR-1231319	Harvard College, President & Fellows of Harvard University
		Howard University
		Massachusetts Institute of Technology
		Museum of Science

NSF Contact Information:

Financial/Administrative questions: e-mail your NSF Grants and Agreements Official, Elizabeth Gebremedhin, at egebreme@nsf.gov or call the Division at 703-292-4444 .

Programmatic questions: e-mail your NSF Program Officer, Tomasz Durakiewicz, at tdurakie@nsf.gov or call the Program Division at 703-292-4892 .

This CA is entered into between the United States of America, represented by the National Science Foundation (NSF), and the above named Awardee pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 USC 1861-1875). This CA is provided electronically to the Awardee. The Awardee is responsible for full compliance with all Programmatic and Financial/Administrative Terms and Conditions as initially stated or as updated over the life of this CA. The Awardee's request to draw down funds under this CA will represent acceptance by the Awardee of all Terms and Conditions of the CA. The Authorized Organizational Representative (AOR) will be electronically notified of any changes to these Terms and Conditions and is encouraged to immediately review these changes and contact the Grants and Agreements Official or Program Officer within thirty days with any questions.

Financial/Administrative Terms and Conditions (FATC):

1) General FATC:
http://www.nsf.gov/publications/pub_summ.jsp?ods_key=NSF99999FATC004

2) Award Specific FATC:

A. In accordance with sections 1869a and 1869b of title 42 of the United States Code, the awardee will do the following if the project involves K-12 students or teachers:

1. Obtain from the school board or comparable authority responsible for the schools considering participation in the project, written approval prior to involvement of pre-college students in pre-college education research and development, pilot-testing, evaluation, and revision of experimental and innovative pre-college curriculum.

2. Include in every publication, testing, or distribution agreement involving instructional materials developed under this grant (including, but not limited to, teachers' manuals, textbooks, films, tapes, or other supplementary material) a requirement that such material be made available within the school district using it for inspection by parents or guardians of children engaged in educational programs or projects using such material of that school district.

B. Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies and procedures to segregate participant support costs.

C. Costs of entertainment, amusement, diversion and social activities, and any costs directly associated with such costs (such as meals, lodging, rentals, transportation and gratuities) are unallowable. When certain meals are an integral and necessary part of a conference or meeting (i.e., working meals where business is transacted), grant funds may be used for such meals. Grant funds may also be used to furnish a reasonable amount of coffee or soft drinks for conference or meeting participants and attendees during coffee breaks.

D. The exhibit and all other materials produced as part of the project, including electronic components such as World Wide Web pages, must include a clear indication of the source(s) of support (both NSF and any other contributors), and must include the NSF logo, all in a manner to be approved by NSF. NSF funding credit and logo also must be displayed at the beginning of any group presentations on the project, including professional or other meetings.

All promotional material for the project produced under the control of the grantee must include NSF funding credit.

E. Incentive payments or gifts to participants must be made in accordance with written institutional policies and procedures and supported by auditable documentation. The allowability of these costs will ultimately be based on the awardee institution's ability to adequately demonstrate that the incentives have been disbursed in accordance with its policies and procedures.

F. The Foundation authorizes the awardee to enter into the proposed contractual arrangements and to fund such arrangements with award funds up to the amount indicated in the approved budget. Such contractual arrangements should contain appropriate provisions consistent with Articles 8.a.4. and 9 of the NSF Grant General Conditions (GC-1) (dated January 14, 2013) or Articles 5 and 40 of the Research Terms and Conditions (dated June 2011), as well as any special conditions included in this award.

Programmatic Terms and Conditions (PTC):

1) General PTC:
http://www.nsf.gov/publications/pub_summ.jsp?ods_key=NSF11522TPTC000

2) Award Specific PTC:

1. Key Personnel

Except for the Principal Investigator(s) (PIs) or Co-PIs identified in this award, requests to make any changes to personnel, organizations, and/or partners specifically named in the proposal, that have been approved as part of this award, shall be submitted in writing to the cognizant NSF Program Official for approval prior to any changes taking effect. Request for prior approval of changes to the PI(s) must be submitted through FastLane for review by the cognizant NSF Program Official and approval by an NSF Grants Officer.

2. Program Description

The Science and Technology Centers (STC): Integrative Partnerships program supports innovative, potentially transformative, complex research and education projects that require large-scale, long term awards. STCs conduct world-class research through partnerships among academic institutions, national laboratories, industrial organizations, and/or other public/private entities, and via international collaborations, as appropriate. They provide a means to undertake important investigations at the interfaces of disciplines and/or fresh approaches within disciplines. STC investments support the NSF vision of advancing discovery, innovation and education beyond the frontiers of current knowledge, and empowering future generations in science and engineering.

Centers provide a rich environment for encouraging future scientists, engineers and educators to take risks in pursuing discoveries and new knowledge. STCs foster excellence in education by integrating education and research, and by creating bonds between learning and inquiry so that discovery and creativity fully support the learning process.

NSF expects STCs to demonstrate leadership in the involvement of groups traditionally underrepresented in science and engineering at all levels within the Center. To achieve their diversity objectives, STCs are expected to involve individuals from underrepresented groups as members of the Center faculty and as students actively engaged in Center activities STCs are strongly encouraged to form meaningful, substantive and long-term partnerships with minority-serving institution, women's colleges and institutions that primarily serve students with disabilities, thereby providing formal connections with institutions that serve large populations of underrepresented students interested in STEM.

Centers undertake activities that will facilitated knowledge transfer, i.e., the mutual exchange of scientific and technical information among the Center partners and others with the objective of disseminating and utilizing knowledge broadly in multiple sectors.

To date, six competitions have been held to establish NSF Science and Technology Centers. The first two competitions, one in late 1980's and the one in the early 1990's led to establishment of 25 STCs, which are no longer funded as STC centers. A third STC competition was held in 1999 and resulted in five new Centers. A fourth competition resulted in six new Centers in 2002. The centers established in the third and fourth competition have successfully completed ten years and are not anymore funded under the STC program. The fifth competition in FY 2005 added six centers. The most recent competition added five centers in 2010.

Additional information on the STC program is available at the following NSF web page:
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5541.

3. Project Governance

The Awardee will ensure that an efficient and effective STC governing structure is in place throughout the award period to support all critical or significant STC activities. Among the governing components will be the:

* Awardee serving as the Lead Institution,
* STC Director
* STC Management Team, and
* External Advisory Committee (EAC).

4. Governing Responsibilities

The Awardee will ensure efficient and effective management and implementation of all Center responsibilities by the governing components throughout the award period. The Awardee serves as the Lead Institution in the STC and works with the STC Director to ensure the success of the overall program. The Awardee, with support from the STC Director and STC management team, is responsible for planning, operating, and managing the day-to-day activities of the STC, but not limited to the following.

* Managing, staffing, allocating resources, and overseeing general operations of the STC in accordance with the plans submitted to and approved by NSF;
* Assuring that the responsibilities of the STC are met by a management team led by the Center Director and as agreed to by NSF;
* Notifying and gaining approval from NSF for any changes to key personnel or substantive changes in the level of effort of key personnel;
* Holding within ninety (90) days of the effective date of this CA all center members meeting to develop a document that encompasses both Strategic and Implementation plans (referred to as a Strategic and Implementation Plan) and submitting it to NSF in draft form within thirty (30) days of the meeting. Details of the meeting to be coordinated with NSF. The Plan must include statements about the vision, mission, organizational structure, and management and performance goals and indicators of success. It must also include completion timelines, milestones, and deliverables for the initial 60-month award period. The Plan is to be updated annually, building on the accomplishments of the past year and responding to evolving challenges faced by the STC. Goals must include, but need not be limited to:

a) Maintaining the unifying STC intellectual theme as proposed with attention to how the STC's thrust areas are to be integrated with each other and across participating institutions;

b) Integrating STC educational activities into a coherent program with well defined goals, including the relationship of the STC's education and research with other community programs;

c) Integrating the research, education, and knowledge transfer components into a coherent program;

d) Increasing participation of and providing research and educational opportunities to United States citizens, nationals, and lawfully admitted permanent residents, especially women and members of underrepresented groups who are undergraduate and graduate students, postdoctoral researchers, industrial fellows, faculty members from all colleges and universities, and others in the activities of the STC and STC sub awardees; encouraging them to pursue careers in science and engineering; identifying actions that will enhance and ensure ethnic/racial diversity throughout the life of the STC;

e) Maximizing knowledge transfer both at the Lead Institution and among partners, including industry, government, colleges and universities and the public (Knowledge transfer activities involve the mutual exchange of scientific information with the goal of applying the knowledge to the operations or activities of the groups sharing the information and may be accomplished in a variety of ways.);

f) Assuring that a robust and substantive plan is in place for diversity of STC staff and participants at the Lead Institutions and partner sites (Attention must be paid to diversity in filling administrative/management, research, and education positions of the STC at the senior as well as at lower levels.;

g) Assuring effective management of the STC, including mechanisms for integrating individual researchers and institutions into a cohesive STC, focusing STC activities, selecting and integrating related research projects, allocating funds and equipment across all STC activities and among partners, and facilitating the involvement of other scientific and educational groups (When the allocation of funds among the STC's participants involves an internal proposal and review process, the review criteria used by the STC should be consistent with the first two criteria (intellectual merit and broader impact) listed in the STC Program Solicitation (NSF 11-522);

h) Assuring that the disposition of rights to intellectual property created at the STC is consistent with NSF policy. The Intellectual Property Rights Agreement is to be submitted to NSF prior to receipt of an award. This agreement is to also address knowledge transfer and significant intellectual exchanges with other groups.

i) Assuring the implementation of a program of ethics training within the cross-disciplinary and multi-institutional context of the STC for its staff and its subawardee staff, including faculty, visiting faculty, industrial fellows, postdoctoral researchers, and graduate and undergraduate students with training topics to include the nature of the research, methodologies used, ownership of research and ideas, and roles and responsibilities regarding intellectual property; and

j) Assuring continued operation of the STC and its programs in the event of the absence or loss of key personnel and developing thorough procedures for succession and back-up of personnel.

* Establishing an External Advisory Committee (EAC) to provide guidance, advice, and oversight for all of the STC's activities, consistent with its vision, goals, and objectives. The EAC charter must be included in the Strategic and Implementation Plan and any changes to the charter must be communicated to the Lead Program Official for the NSF Program Coordination Team. The EAC membership must, at a minimum:

a) Meet at least annually,

b) Include representation from a wide variety of disciplines (e.g., science, engineering, education) from constituencies served by the STC,,e.g. academic institutions, industry, state and local agencies, national laboratories,
c) Display the diversity of the United States citizenry in its membership, and
d) Not include members with financial, institutional, or collaborative connection(s) to the STC.

* Ensuring the STC Director serves as the liaison between the STC and the National Network of STC Directors and works within the Network to address common goals, problems and opportunities, and facilitate personnel and resource exchanges, support integrated partnerships, and ensure cooperation among Centers toward:
a) Fostering balance among and integration of research, education, and knowledge transfer activities, while avoiding duplication of effort across all STCs;
b) Facilitating interactions to address research, education, and management issues and opportunities, which transcend individual Center capabilities;
c) Serving as the Liaison with private sector, state, local, and national laboratories to identify needs and opportunities and to plan joint implementation strategies, workshops; and
d) Preparing educational materials designed to enhance public understanding of science, engineering, technology, and educational advances that serve society.

* Ensuring all sub-awardee partner institutions function together as an integrated whole, with shared research, education, diversity and knowledge-transfer goals and ensuring excellence in management and expedience in resolution of all issues and concerns among all the sub awardees.

5. Reporting Requirements

The Awardee will provide ad hoc and regular reports as designated by the NSF Lead Program Official and as required by the STC Program. The Awardee will submit all required reports via FastLane using the appropriate reporting category. For any type of report not specifically mentioned in FastLane, the Awardee will use the "Interim Reporting" function to submit reports. The Awardee will ensure that the STC Director meets all reporting requirements with content, format and submission timeline that are agreed by NSF and the STC Director.

Reporting requirements are posted on the NSF STC Program Website at http://www.nsf.gov/od/oia/programs/stc/reports/2009revised_reportingrequirements.pdf . The annual report must be submitted 90 days prior to the end of the current budget period.

6. NSF Ongoing Management and Oversight

The Awardee will ensure full commitment and cooperation among the governing structure components, and all project staff during all ongoing NSF project management and oversight activities. The Awardee will ensure availability of all key partners during any desk or on-site review as well as timely access to all project documentation. Furthermore, the STC Director and key personnel will participate actively in cross-Center meetings, appropriate workshops organized by NSF, and annual meetings of the National Network of STC Directors.

Change History

Prior Expiration Dates:
Per Original Award on
09/17/2013: September 30, 2018

Prior Awarded Funding Amount:
Per Original Award on
09/17/2013: $3,832,809

National Science Foundation
2415 Eisenhower Avenue
Alexandria, VA 22314
www.nsf.gov

COOPERATIVE AGREEMENT (CA)

AWARD: DMR-1231319

EFFECTIVE DATE: October 1, 2013

EXPIRATION DATE: March 31, 2026

PROJECTED TOTAL AWARD FUNDING:

(Subject to availability of funds)
$19,971,962

CUMULATIVE AMOUNT:

$44,434,393

SOLICITATION:

(Incorporated by reference, as amended)

NSF 11-522

Science and Technology Centers: Integrative Partnerships

CFDA NUMBER:
47.049

OTHER AWARDS UNDER THIS PROGRAM:

Show List of Awards

AWARDEE: Harvard College, President & Fellows of Harvard University

PROJECT TITLE: Center for Integrated Quantum Materials

PROJECT ABSTRACT: https://www.fastlane.nsf.gov/servlet/showaward?award=1231319

Principal Investigator(s)	Proposal No.	Institution (s)
[redacted]	DMR-1231319	Harvard College, President & Fellows of Harvard University
		Massachusetts Institute of Technology
		Museum of Science
		Howard University

NSF Contact Information:

Financial/Administrative questions: e-mail your NSF Grants and Agreements Official, Elizabeth Gebremedhin, at egebreme@nsf.gov or call the Division at 703-292-4444.

Programmatic questions: e-mail your NSF Program Officer, Tomasz Durakiewicz, at tdurakie@nsf.gov or call the Program Division at 703-292-4892.

This CA is entered into between the United States of America, represented by the National Science Foundation (NSF), and the above named Awardee pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 USC 1861-1875). This CA is provided electronically to the Awardee. The Awardee is responsible for full compliance with all Programmatic and Financial/Administrative Terms and Conditions as initially stated or as updated over the life of this CA. The Awardee's request to draw down funds under this CA will represent acceptance by the Awardee of all Terms and Conditions of the CA. The Authorized Organizational Representative (AOR) will be electronically notified of any changes to these Terms and Conditions and is encouraged to immediately review these changes and contact the Grants and Agreements Official or Program Officer within thirty days with any questions.

Financial/Administrative Terms and Conditions (FATC):

1) General FATC:
http://www.nsf.gov/publications/pub_summ.jsp?ods_key=NSF99999FATC004

2) Award Specific FATC:

Amendment #023 - Update to CA issued July 25, 2022:

This amendment is to release the final year of incremental funding in the amount of $3,734, 931, of the second five year continuation of this award.

Programmatic Terms and Conditions (PTC):

1) General PTC:
http://www.nsf.gov/publications/pub_summ.jsp?ods_key=NSF11522TPTC000

2) Award Specific PTC:

1. Key Personnel

Except for the Principal Investigator(s) (PIs) or Co-PIs identified in this award, requests to make any changes to personnel, organizations, and/or partners specifically named in the proposal, that have been approved as part of this award, shall be submitted in writing to the cognizant NSF Program Official for approval prior to any changes taking effect. Request for prior approval of changes to the PI(s) must be submitted through FastLane for review by the cognizant NSF Program Official and approval by an NSF Grants Officer.

2. Program Description

The Science and Technology Centers (STC): Integrative Partnerships program supports innovative, potentially transformative, complex research and education projects that require large-scale, long term awards. STCs conduct world-class research through partnerships among academic institutions, national laboratories, industrial organizations, and/or other public/private entities, and via

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international collaborations, as appropriate. They provide a means to undertake important investigations at the interfaces of disciplines and/or fresh approaches within disciplines. STC investments support the NSF vision of advancing discovery, innovation and education beyond the frontiers of current knowledge, and empowering future generations in science and engineering.

Centers provide a rich environment for encouraging future scientists, engineers and educators to take risks in pursuing discoveries and new knowledge. STCs foster excellence in education by integrating education and research, and by creating bonds between learning and inquiry so that discovery and creativity fully support the learning process.

NSF expects STCs to demonstrate leadership in the involvement of groups traditionally underrepresented in science and engineering at all levels within the Center. To achieve their diversity objectives, STCs are expected to involve individuals from underrepresented groups as members of the Center faculty and as students actively engaged in Center activities STCs are strongly encouraged to form meaningful, substantive and long-term partnerships with minority-serving institution, women's colleges and institutions that primarily serve students with disabilities, thereby providing formal connections with institutions that serve large populations of underrepresented students interested in STEM.

Centers undertake activities that will facilitated knowledge transfer, i.e., the mutual exchange of scientific and technical information among the Center partners and others with the objective of disseminating and utilizing knowledge broadly in multiple sectors.

To date, six competitions have been held to establish NSF Science and Technology Centers. The first two competitions, one in late 1980's and the one in the early 1990's led to establishment of 25 STCs, which are no longer funded as STC centers. A third STC competition was held in 1999 and resulted in five new Centers. A fourth competition resulted in six new Centers in 2002. The centers established in the third and fourth competition have successfully completed ten years and are not anymore funded under the STC program. The fifth competition in FY 2005 added six centers. The most recent competition added five centers in 2010.

Additional information on the STC program is available at the following NSF web page:
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5541.

3. Project Governance

The Awardee will ensure that an efficient and effective STC governing structure is in place throughout the award period to support all critical or significant STC activities. Among the governing components will be the:
* Awardee serving as the Lead Institution,
* STC Director
* STC Management Team, and
* External Advisory Committee (EAC).

4. Governing Responsibilities

The Awardee will ensure efficient and effective management and implementation of all Center responsibilities by the governing components throughout the award period. The Awardee serves as the Lead Institution in the STC and works with the STC Director to ensure the success of the overall program. The Awardee, with support from the STC Director and STC management team, is responsible for planning, operating, and managing the day-to-day activities of the STC, but not limited to the following.
* Managing, staffing, allocating resources, and overseeing general operations of the STC in accordance with the plans submitted to and approved by NSF;
* Assuring that the responsibilities of the STC are met by a management team led by the Center Director and as agreed to by NSF;
* Notifying and gaining approval from NSF for any changes to key personnel or substantive changes in the level of effort of key personnel;
* Holding within ninety (90) days of the effective date of this CA all center members meeting to develop a document that encompasses both Strategic and Implementation plans (referred to as a Strategic and Implementation Plan) and submitting it to NSF in draft form within thirty (30) days of the meeting. Details of the meeting to be coordinated with NSF. The Plan must include statements about the vision, mission, organizational structure, and management and performance goals and indicators of success. It must also include completion timelines, milestones, and deliverables for the initial 60-month award period. The Plan is to be updated annually, building on the accomplishments of the past year and responding to evolving challenges faced by the STC. Goals must include, but need not be limited to:
a) Maintaining the unifying STC intellectual theme as proposed with attention to how the STC's thrust areas are to be integrated with each other and across participating institutions;
b) Integrating STC educational activities into a coherent program with well defined goals, including the relationship of the STC's education and research with other community programs;
c) Integrating the research, education, and knowledge transfer components into a coherent program;
d) Increasing participation of and providing research and educational opportunities to United States citizens, nationals, and lawfully admitted permanent residents, especially women and members of underrepresented groups who are undergraduate and graduate students, postdoctoral researchers, industrial fellows, faculty members from all colleges and universities, and others in the activities of the STC and STC sub awardees; encouraging them to pursue careers in science and engineering; identifying actions that will enhance and ensure ethnic/racial diversity throughout the life of the STC;

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e) Maximizing knowledge transfer both at the Lead Institution and among partners, including industry, government, colleges and universities and the public (Knowledge transfer activities involve the mutual exchange of scientific information with the goal of applying the knowledge to the operations or activities of the groups sharing the information and may be accomplished in a variety of ways.);
f) Assuring that a robust and substantive plan is in place for diversity of STC staff and participants at the Lead Institutions and partner sites (Attention must be paid to diversity in filling administrative/management, research, and education positions of the STC at the senior as well as at lower levels.;
g) Assuring effective management of the STC, including mechanisms for integrating individual researchers and institutions into a cohesive STC, focusing STC activities, selecting and integrating related research projects, allocating funds and equipment across all STC activities and among partners, and facilitating the involvement of other scientific and educational groups (When the allocation of funds among the STC's participants involves an internal proposal and review process, the review criteria used by the STC should be consistent with the first two criteria (intellectual merit and broader impact) listed in the STC Program Solicitation (NSF 11-522);
h) Assuring that the disposition of rights to intellectual property created at the STC is consistent with NSF policy. The Intellectual Property Rights Agreement is to be submitted to NSF prior to receipt of an award. This agreement is to also address knowledge transfer and significant intellectual exchanges with other groups.
i) Assuring the implementation of a program of ethics training within the cross-disciplinary and multi-institutional context of the STC for its staff and its subawardee staff, including faculty, visiting faculty, industrial fellows, postdoctoral researchers, and graduate and undergraduate students with training topics to include the nature of the research, methodologies used, ownership of research and ideas, and roles and responsibilities regarding intellectual property; and
j) Assuring continued operation of the STC and its programs in the event of the absence or loss of key personnel and developing thorough procedures for succession and back-up of personnel.

* Establishing an External Advisory Committee (EAC) to provide guidance, advice, and oversight for all of the STC's activities, consistent with its vision, goals, and objectives. The EAC charter must be included in the Strategic and Implementation Plan and any changes to the charter must be communicated to the Lead Program Official for the NSF Program Coordination Team. The EAC membership must, at a minimum:

a) Meet at least annually,
b) Include representation from a wide variety of disciplines (e.g., science, engineering, education) from constituencies served by the STC,,e.g. academic institutions, industry, state and local agencies, national laboratories,
c) Display the diversity of the United States citizenry in its membership, and
d) Not include members with financial, institutional, or collaborative connection(s) to the STC.

* Ensuring the STC Director serves as the liaison between the STC and the National Network of STC Directors and works within the Network to address common goals, problems and opportunities, and facilitate personnel and resource exchanges, support integrated partnerships, and ensure cooperation among Centers toward:
a) Fostering balance among and integration of research, education, and knowledge transfer activities, while avoiding duplication of effort across all STCs;
b) Facilitating interactions to address research, education, and management issues and opportunities, which transcend individual Center capabilities;
c) Serving as the Liaison with private sector, state, local, and national laboratories to identify needs and opportunities and to plan joint implementation strategies, workshops; and
d) Preparing educational materials designed to enhance public understanding of science, engineering, technology, and educational advances that serve society.

* Ensuring all sub-awardee partner institutions function together as an integrated whole, with shared research, education, diversity and knowledge-transfer goals and ensuring excellence in management and expedience in resolution of all issues and concerns among all the sub awardees.

5. Reporting Requirements

The Awardee will provide ad hoc and regular reports as designated by the NSF Lead Program Official and as required by the STC Program. The Awardee will submit all required reports via FastLane using the appropriate reporting category. For any type of report not specifically mentioned in FastLane, the Awardee will use the "Interim Reporting" function to submit reports. The Awardee will ensure that the STC Director meets all reporting requirements with content, format and submission timeline that are agreed by NSF and the STC Director.

Reporting requirements are posted on the NSF STC Program Website at http://www.nsf.gov/od/oia/programs/stc/reports/2009revised_reportingrequirements.pdf . The annual report must be submitted 90 days prior to the end of the current budget period.

6. NSF Ongoing Management and Oversight

The Awardee will ensure full commitment and cooperation among the governing structure components, and all project staff during all ongoing NSF project management and oversight activities. The Awardee will ensure availability of all key partners during any desk or

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on-site review as well as timely access to all project documentation. Furthermore, the STC Director and key personnel will participate actively in cross-Center meetings, appropriate workshops organized by NSF, and annual meetings of the National Network of STC Directors.

Change History

Prior Expiration Dates:
Per Amendment 025 on
01/10/2025: March 31, 2026
Per Amendment 024 on
03/29/2024: March 31, 2025
Per Amendment 012 on
09/19/2018: March 31, 2024
Per Amendment 011 on
09/19/2018: March 31, 2019
Per Amendment 010 on
09/13/2018: March 31, 2019
Per Amendment 009 on
08/16/2018: March 31, 2019
Per Amendment 008 on
09/14/2017: September 30, 2018
Per Amendment 006 on
07/27/2016: September 30, 2018
Per Amendment 005 on
09/08/2015: September 30, 2018
Per Amendment 001 on
07/10/2014: September 30, 2018
Per Original Award on
09/17/2013: September 30, 2018

Prior Awarded Funding Amount:
Per Amendment 023 on
07/25/2022: $3,734,931
Per Amendment 022 on
09/16/2021: $285,000
Per Amendment 021 on
07/29/2021: $4,149,922
Per Amendment 018 on
09/10/2020: $249,858
Per Amendment 016 on
07/09/2020: $4,999,907
Per Amendment 015 on
04/23/2020: $21,447
Per Amendment 014 on
07/31/2019: $4,999,907
Per Amendment 013 on
04/18/2019: $97,559
Per Amendment 011 on
09/19/2018: $4,999,907
Per Amendment 010 on
09/13/2018: $299,994
Per Amendment 009 on
08/16/2018: $72,000
Per Amendment 008 on
09/14/2017: $200,000
Per Amendment 007 on
08/10/2017: $4,196,876
Per Amendment 006 on
07/27/2016: $4,087,474

Per Amendment 005 on
09/08/2015: $102,000
Per Amendment 004 on
05/18/2015: $3,980,015
Per Amendment 003 on
03/19/2015: $100,000
Per Amendment 002 on
01/30/2015: $150,001
Per Amendment 001 on
07/10/2014: $3,874,786
Per Original Award on
09/17/2013: $3,832,809

National Science Foundation
2415 Eisenhower Avenue
Alexandria, VA 22314
www.nsf.gov

COOPERATIVE AGREEMENT (CA)

AWARD: ECCS-2025158

EFFECTIVE DATE: September 1, 2020

EXPIRATION DATE: August 31, 2025

PROJECTED TOTAL AWARD FUNDING:

(Subject to availability of funds)
$5,000,000

CUMULATIVE AMOUNT:

$1,000,000

SOLICITATION:

(Incorporated by reference, as amended)

NSF 19-1

Proposal & Award Policies & Procedures Guide - PAPPG

CFDA NUMBER:
47.041

OTHER AWARDS UNDER THIS PROGRAM:

Show List of Awards

AWARDEE: Harvard College, President & Fellows of Harvard University

PROJECT TITLE: NNCI: Center for Nanoscale Systems (CNS)

PROJECT ABSTRACT: https://www.fastlane.nsf.gov/servlet/showaward?award=2025158

Principal Investigator(s)	Proposal No.	Institution (s)
[redacted]	ECCS-2025158	Harvard College, President & Fellows of Harvard University
		Harvard College, President & Fellows of Harvard University

NSF Contact Information:

NSF_Harvard000056

Financial/Administrative questions: e-mail your NSF Grants and Agreements Official, Malia Williams, at malwilli@nsf.gov or call the Division at 703-292-2290 .

Programmatic questions: e-mail your NSF Program Officer, Lawrence Goldberg, at lgoldber@nsf.gov or call the Program Division at 703-292-8339 .

This CA is entered into between the United States of America, represented by the National Science Foundation (NSF), and the above named Awardee pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 USC 1861-1875). This CA is provided electronically to the Awardee. The Awardee is responsible for full compliance with all Programmatic and Financial/Administrative Terms and Conditions as initially stated or as updated over the life of this CA. The Awardee's request to draw down funds under this CA will represent acceptance by the Awardee of all Terms and Conditions of the CA. The Authorized Organizational Representative (AOR) will be electronically notified of any changes to these Terms and Conditions and is encouraged to immediately review these changes and contact the Grants and Agreements Official or Program Officer within thirty days with any questions.

Financial/Administrative Terms and Conditions (FATC):

1) Award Specific FATC:

Programmatic Terms and Conditions (PTC):

1) Award Specific PTC:

Change History

Prior Awarded Funding Amount:
Per Original Award on
08/19/2020: $1,000,000

National Science Foundation
2415 Eisenhower Avenue
Alexandria, VA 22314
www.nsf.gov

COOPERATIVE AGREEMENT (CA)

AWARD: ECCS-2025158

EFFECTIVE DATE: September 1, 2020

EXPIRATION DATE: August 31, 2025

PROJECTED TOTAL AWARD FUNDING:

(Subject to availability of funds)
$5,000,000

CUMULATIVE AMOUNT:

$5,000,000

SOLICITATION:

(Incorporated by reference, as amended)

NSF 19-1

Proposal & Award Policies & Procedures Guide - PAPPG

CFDA NUMBER:
47.041

OTHER AWARDS UNDER THIS PROGRAM:

Show List of Awards

AWARDEE:

PROJECT TITLE: NNCI: Center for Nanoscale Systems (CNS)

PROJECT ABSTRACT: https://www.fastlane.nsf.gov/servlet/showaward?award=2025158

Principal Investigator(s)	Proposal No.	Institution (s)
[redacted]	ECCS-2025158	

NSF Contact Information:

Financial/Administrative questions: e-mail your NSF Grants and Agreements Official, Kapua Hatch, at khatch@nsf.gov or call the Division at 703-292-8159.

Programmatic questions: e-mail your NSF Program Officer, Richard Nash, at rnash@nsf.gov or call the Program Division at 703-292-5394.

This CA is entered into between the United States of America, represented by the National Science Foundation (NSF), and the above named Awardee pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 USC 1861-1875). This CA is provided electronically to the Awardee. The Awardee is responsible for full compliance with all Programmatic and Financial/Administrative Terms and Conditions as initially stated or as updated over the life of this CA. The Awardee's request to draw down funds under this CA will represent acceptance by the Awardee of all Terms and Conditions of the CA. The Authorized Organizational Representative (AOR) will be electronically notified of any changes to these Terms and Conditions and is encouraged to immediately review these changes and contact the Grants and Agreements Official or Program Officer within thirty days with any questions.

Financial/Administrative Terms and Conditions (FATC):

1) Award Specific FATC:

Part 1. Award Specific Financial and Administrative Terms and Conditions (FATC)

1.1. Award Interpretation:

A. Terms and Conditions Incorporated by Reference. At the time of award, all activities under this Cooperative Agreement (CA) are subject to NSF's Cooperative Agreement Financial and Administrative Terms and Conditions (CA-FATC).

B. Order of Precedence: This Cooperative Agreement (CA) consists of the following terms and conditions in descending order of precedence:

* The terms and conditions of this Cooperative Agreement (as amended)
* Cooperative Agreement Financial and Administrative Terms and Conditions (CA-FATC), as amended.

C. Changes to Terms and Conditions:

* NSF will notify the Awardee of any changes to the Terms and Conditions that result from changes in federal statute or changes in NSF-wide policy and procedures.
* Changes to the Terms and Conditions of this Cooperative Agreement that are not the result of NSF-wide policy and procedures shall be mutually agreed.
* Deviations from the CA-FATC. To meet the specific needs and requirements of this CA, deviations are provided in full text herein. Any modifications to these deviations shall be incorporated by amendment after consultation with the Awardee.

1.2. Funding and Funding Schedule:

A. Funding:

Contingent on the availability of funds and the scientific progress of the project, it is the intent of the NSF to provide up to $5,000,000 to support the project for the next 60 months in support of Year 6 through 10, in accordance with the original submitted budget.

B. Funding Schedule:

Year 6 $1,000,000
Year 7 $1,000,000
Year 8 $1,000,000
Year 9 $1,000,000
Year 10 $1,000,000

1.3. Participant Support Costs:

Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies and procedures to segregate participant support costs.

Programmatic Terms and Conditions (PTC):

1) Award Specific PTC:

Part 2. Award Specific Programmatic Terms and Conditions (PTC)

2.1. Project Description:

The Center for Nanoscale Systems (CNS) at Harvard University was created with a clear vision to provide a collaborative multi-disciplinary research environment to support creation and evolution of transformative quantum and nanoscience and technical expertise for national researchers both from academia and industry. CNS core values are to facilitate leading-edge, multi-disciplinary, research and education in the areas of nanofabrication, imaging, and characterization of nanoscale structures, across the disciplines of applied physics, biology, chemistry, electrical engineering, geology, materials science, medicine and physics; and to create a collaborative nanotechnology research community by providing shared instrumentation facilities and infrastructure, expert staff, and educational opportunities conducive to productive scientific engagement. As the New England hub of the NSF National Nanotechnology Coordinated Infrastructure (NNCI), CNS provides cutting-edge tools for research, fostering a strong competitive edge for the nation's investigators. Importantly, CNS serves a broad, diverse, community of users who are focused on meeting the nation's needs in a wide range of next generation technologies. The focus of the team at CNS is to develop specialized tools, processes, instrumentation, and core expertise to help design, characterize, and fabricate novel materials, nanostructures, devices, and systems, going beyond conventional approaches. CNS supports outreach to spur and support R&D by start-ups. CNS has developed and supported a CNS Scholars program, focused on giving young researchers access to CNS collaborative expertise and instrumentation, particularly researchers from underrepresented groups. CNS users are innovators in transformational activities in Quantum Science and Engineering, Nanophotonics, and Translational Bioscience.

2.2. Project Governance and Governing Responsibilities:

The Awardee will ensure that an efficient and effective project governing structure is in place throughout the award period to support all critical or significant project activities. Components of the management structure and the responsibilities include:

A. PI and Site Director: [redacted] Mallinckrodt Professor of Applied Physics and Physics, and Director of the Center for Nanoscale Systems at Harvard; [redacted] has ultimate responsibility for implementation of all aspects technical and administrative of the CNS site. [redacted] serves as a primary liaison for NNCI coordination activities.

B. Co-PI and Site Operations Director: [redacted] (co-PI); Executive Director of the Center for Nanoscale Systems; [redacted] manages the day-to-day operations of the Center. In support of the Director, [redacted] will assume ultimate responsibility for operations and all reporting aspects to the Coordinating office and to NSF. [redacted] will also serve, along with the Director, as a primary liaison for NNCI coordination activities. [redacted] manages the CNS staff.

C. Senior Personnel: [redacted] Associate Director, Nanofabrication; [redacted] manages the CNS cleanroom operations. [redacted] with our fab team helps implement all nanofabrication aspects of the project with emphases on facility development support, coordinating the nanoFab user research communities, and supporting training of fab users internal and external.

D. Senior Personnel: [redacted] Associate Director, Characterization/Imaging and [redacted] Professor of the Practice of Electron Microscopy; [redacted] is responsible for management of the Imaging Core of the node [redacted] with our imaging team helps implement all imaging/analysis aspects of the project with emphases on instrumentation development support, coordinating the characterization user research communities, and supporting training of users internal and external.

E. Associate Director Administration: [redacted] will help manage oversee financial reporting and compliance as well as with

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her team support user services and outreach activities. [redacted] with her team will coordinate user registration, user management, usage data collection and support NNCI communication and reporting.

F. Education Coordinator: [redacted] has primary responsibility for developing and administering or REU, REV, and CNS Scholars programs with the help of our admin team and the Operations director. [redacted] also helps coordinate outreach activities.

G. External Advisory Board: An external advisory board has been created to gain insight and input from outside academics and industry. The current members are [redacted], Northwestern University, [redacted] Columbia University, [redacted] UIUC, [redacted], DOD- LPS, and [redacted] BNL. The boards role is to offer high-level advice on center goals, best practices, emerging opportunities, and all other aspects of facility operations and organization.

H. University Executive Committee: CNS is also locally managed by a University Executive Committee which is co-chaired by [redacted] Dean of Science in the Faculty of Arts and Sciences, and [redacted] Dean of the School of Engineering and Applied Sciences. The Executive Committee, determines Harvard funding for CNS, makes major decisions about its structure, and has sufficient resources and authority to ensure its success

I. Faculty/User Committee: CNS also gets insight directly from the userbase via a rotating forum focused on users. The committee guides core science programs, informs our strategy on what types of facilities should be developed and how our tools evolve. It is the primary mechanism for obtaining input from the user base.

2.3. Role of the Coordinating Office:

The role of the Coordinating Office, located at the Georgia Institute of Technology NNCI SENIC site, is to enhance the impact of this investment as a coordinated national infrastructure of user facility sites for nanotechnology. The Director of the Coordinating Office is a key individual for developing management strategies and operational plans in concert with the Site Directors of the individual user facilities, and serves as a principal contact person with the NSF.

2.4. Reporting and Review Requirements:

The Awardee will provide regular reports as designated in this CA with the content, format, and submission time line established by the cognizant NSF Program Officer. The Awardee will submit all required reports via Research.gov using the appropriate reporting category; for any type of report not specifically mentioned in Research.gov, the Awardee will submit such reports using the "Interim Reporting" function.

A. Annual Progress Report:

The Awardee will submit an Annual Progress Report via Research.gov at least 90 days before the end of the current period of performance of each year. The annual report will include a discussion of the accomplishments of the NNCI site during the reporting year and the progress made in achieving the project's vision and goals, supported by narrative, statistical, and budgetary expenditure information underlying all areas of activity for the reporting year. The annual report will also contain a program plan and budget for the next-year's funding increment. The cognizant NSF Program Officer is responsible for approval of the annual report and will notify the Awardee electronically when approved. The release of the yearly increment of funding is contingent upon the NSF Program Officer's approval of the annual report and satisfactory annual site review.

B. Annual Reviews:

An annual review will be conducted by a reverse-site-review panel of external experts at NSF or virtually. The review schedule, content, and participation of key personnel will be determined by the Site Director and the cognizant NSF Program Officer.

C. Final Report:

In lieu of an annual report in year 10, a final report detailing cumulative progress over the term of this award will be due within 90 days of the expiration date of this CA.

2.5. Awardee Support of Ongoing Management and Oversight:

The Awardee will ensure full commitment and cooperation among the governing structure components, and all project staff during all ongoing NSF project management and oversight activities. The Awardee will ensure availability of all key institutional partners during any desk or on-site review as well as timely access to all project documentation.

2.6. NSF Responsibilities:

The NSF has a major responsibility for providing the Awardee general oversight and monitoring to help assure effective performance and administration. Unless NSF reserves specific responsibility, by a condition of this CA, for coordinating or integrating the project activities with other activities or sharing responsibility for certain aspects of the project, all such responsibilities remain with the

Awardee.

In accordance with the NSF's responsibilities under this CA, the following conditions apply:

A. Performance of work under this CA shall be subject to the general oversight and monitoring of the cognizant NSF Program Officer. This NSF involvement may include, but is not limited to:

* Participation in resolution of governance, programmatic, technical, managerial, and/or scheduling concerns;
* Technical guidance and/or advice, especially with regard to the integration, collaboration, and coordination with other education projects funded by NSF;
* Review and, where required by the CA, approve technical reports and information to be delivered by the Awardee; and
* Approvals as required under the National Science Foundation Cooperative Agreement - Financial and Administrative Terms and Conditions (CA-FATC)

B. NSF involvement must be consistent with the terms and conditions as stated in this CA. The cognizant NSF Program Officer does not have the authority to and may not:

* Request additional work outside the general scope of the CA;
* Issue instructions that constitute a change as defined in the CA-FATC, under "Significant Project Changes";
* Cause an increase or decrease in the estimated cost or time required for performance under the CA; and
* Change any of the expressed terms and conditions of the CA.

C. If, in the opinion of the Awardee, any instructions or requests issued by the NSF Program Officer are within one of the categories as defined in (1) through (4.) in the above paragraph, the Awardee shall not proceed but shall notify the NSF Grants and Agreements Official and shall request, if appropriate, modification of the CA in accordance with the CA-FATC, under "Changes - Limitation of Funds".

2.7. Project-specific terms and conditions:

A. Health, Safety and Security:

* The Awardee shall take all reasonable precautions in the performance of the work under this CA to protect the health and safety of employees and of members of the public from all hazards and to minimize danger to life and property, and shall comply with all applicable health, safety, and fire protection laws, regulations, and requirements.
* The Awardee shall maintain an accurate record of all cases of death, occupational disease or injury arising out of, or in the course of, employment incident to performance of the work under this CA. In addition, the Awardee shall promptly furnish the NSF Program Officer and Grants and Agreements Officer with the details of any deaths, serious occupational diseases, injuries resulting in permanent handicaps, and major accidents occurring in connection with this CA.
* The Awardee shall maintain an accurate record of all security incidents. In addition, the Awardee shall promptly furnish the NSF Program Officer and Grants and Agreements Officer with the details of any major security incidents that involve facilities or personnel.

B. Information Security:

The Awardee shall submit a written summary of its IT security program to the NSF Program Officer within six months of the effective date of this agreement. Any significant changes to this IT security program shall be summarized in the Annual Report.

Change History

Prior Awarded Funding Amount:
Per Amendment 005 on
07/23/2024: $1,000,000
Per Amendment 004 on
07/27/2023: $1,000,000
Per Amendment 003 on
09/15/2022: $1,000,000
Per Amendment 002 on
07/26/2021: $1,000,000
Per Original Award on
08/19/2020: $1,000,000

National Science Foundation
2415 Eisenhower Avenue
Alexandria, VA 22314
www.nsf.gov

COOPERATIVE AGREEMENT (CA)

AWARD: PHY-2116679

EFFECTIVE DATE: August 1, 2021

EXPIRATION DATE: July 31, 2026

PROJECTED TOTAL AWARD FUNDING:

(Subject to availability of funds)
$3,499,997

CUMULATIVE AMOUNT:

$699,998

SOLICITATION:

(Incorporated by reference, as amended)

NSF 20-605

Focused Research Hubs in Theoretical Physics

CFDA NUMBER:
47.049

OTHER AWARDS UNDER THIS PROGRAM:

Show List of Awards

AWARDEE: Harvard College, President & Fellows of Harvard University

PROJECT TITLE: Institute for Theoretical, Atomic, Molecular and Optical Physics (ITAMP)

PROJECT ABSTRACT: https://www.fastlane.nsf.gov/servlet/showaward?award=2116679

Principal Investigator(s)	Proposal No.	Institution (s)
[redacted]	PHY-2116679	Smithsonian Institution Astrophysical Observatory
		Smithsonian Institution
		Harvard College, President & Fellows of Harvard University
	NSF_Harvard000063	Harvard College, President & Fellows of Harvard University

Vasili Kharchenko Smithsonian Institution Astrophysical Observatory

NSF Contact Information:

Financial/Administrative questions: e-mail your NSF Grants and Agreements Official, Pamela Conyers, at pconyers@nsf.gov or call the Division at 703-292-5329 .

Programmatic questions: e-mail your NSF Program Officer, Bogdan Mihaila, at bmihaila@nsf.gov or call the Program Division at 703-292-8235 .

This CA is entered into between the United States of America, represented by the National Science Foundation (NSF), and the above named Awardee pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 USC 1861-1875). This CA is provided electronically to the Awardee. The Awardee is responsible for full compliance with all Programmatic and Financial/Administrative Terms and Conditions as initially stated or as updated over the life of this CA. The Awardee's request to draw down funds under this CA will represent acceptance by the Awardee of all Terms and Conditions of the CA. The Authorized Organizational Representative (AOR) will be electronically notified of any changes to these Terms and Conditions and is encouraged to immediately review these changes and contact the Grants and Agreements Official or Program Officer within thirty days with any questions.

Financial/Administrative Terms and Conditions (FATC):

1) Award Specific FATC:

A. Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies and procedures to segregate participant support costs.

B. Costs of entertainment, amusement, diversion and social activities, and any costs directly associated with such costs (such as meals, lodging, rentals, transportation and gratuities) are unallowable. When certain meals are an integral and necessary part of a conference or meeting (i.e., working meals where business is transacted), grant funds may be used for such meals. Grant funds may also be used to furnish a reasonable amount of coffee or soft drinks for conference or meeting participants and attendees during coffee breaks. No NSF funds may be spent on meals or coffee breaks for intramural meetings of an organization or any of its components, including, but not limited to, laboratories, departments and centers.

C. The Foundation authorizes the awardee to enter into the proposed contractual arrangements and to fund such arrangements with award funds up to the amount indicated in the approved budgets. Such contractual arrangements should contain appropriate provisions consistent with Articles 8.a.4. and 9 of the NSF Cooperative Agreement Financial & Administrative Terms and Conditions (CA-FATC) dated November 12, 2020, as well as any special conditions included in this award.

Programmatic Terms and Conditions (PTC):

1) Award Specific PTC:

1. Key Personnel.

Except for the Principal Investigator (PI) identified in the award, requests to make any changes to key personnel, organizations, and/or

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partners specifically named in the proposal, that have been approved as part of the award, shall be submitted in writing to the cognizant NSF Program Official for approval prior to any changes taking effect. Request for prior approval of changes to the PI(s) must be submitted through FastLane or Research.gov or review by the cognizant NSF Program Official and approval by an NSF Grants Officer.

Award Specific Programmatic Terms and Conditions:

2. Program/Project Description.

The Focused Research Hubs in Theoretical Physics (FRHTP) are designed to enhance significant break throughs at an intellectual frontier of physics by providing resources beyond those available to individual investigators, so as to promote a collaborative approach to a focused topic while promoting the preparation of scientists at the beginning of their independent scientific careers.

Specifically, the FRHTP is asked to achieve five distinct goals: (1) advance theoretical physics in scientific areas relevant to thetheory hub; (2) enhance the development of early-career scientists in theoretical physics; (3) support creative, substantive activities aimed at enhancing education, diversity, and public outreach; (4) demonstrate broader impacts, e.g., impacts on other field(s) and benefits to society; (5) demonstrate a synergy or value-added rationale that justifies a group approach.

The FRHTP will strive to lead in forefront research in theoretical physics and be an incubator for theoretical physics by emphasizing the development, mentoring, and career enhancement of a diverse group of post-doctoral theorists (Hub Fellows) working in a vibrant research environment with considerable intellectual freedom, access to an extensive community of potential theoretical and experimental research partners, and with a high degree of national and international exposure.

3. Project Governance.

The Awardee will ensure that an efficient and effective project governing structure is in place throughout the award period to support all critical or significant project activities.

The governance of the FRHTP consists of one Director(PI), who makes daily operating decisions and two decision-making bodies, the Executive Board (Co-PIs) and the Advisory Committee. The Director is responsible for the overall management of the programs and represents the leading university in communication with each of the decision-making bodies within FRHTP. The Executive Board oversees the mentoring of the Hub Fellows. The Executive Board will meet (virtually) bi-weekly to receive a report from the FRHTP Director, and discuss programmatic and administrative issues.The Advisory Committee provides advice and strategic recommendations. The Advisory Committee will provide an external perspective to ensure that the FRHTP research and training is of the highest caliber, as seen from a national and international perspective. Any change in the overall management structure must be approved by the cognizant NSF program officer in advance of the proposed change.

4. Governing Responsibilities.

The Awardee will ensure efficient and effective performance of all project responsibilities by the governing components throughout the award period. These responsibilities include:

As established by the Awardee, the programmatic activity at the FRHTP concerns Postdoc Selection, Training and Mentoring activities. Project decisions affecting the Hub Fellows and science will be made jointly by the FRHTP Director, the four members of the Executive Boardand FHTP senior personnel.

The Director will serve as the point-of-contact for the cognizant NSF Program Officer, including providing notification of any critical project management issues, such as changes in key personnel, cost, schedule, and funding profile prior to implementation of such changes.The Director is responsible for notifying NSF of any changes in the management structure.

The Director makes daily operating decisions for the FRHTP. Input from other participants in the FRHTP will be solicited as needed.The latter include the members of the Executive Board, Senior Participating Investigators and Affiliated Scientists.

The Executive Board is responsible for advising and mentoring the Hub Fellows. The Executive Board will meet (virtually) bi-weekly to receive a report from the FRHTP Director and discuss programmatic and administrative issues.

The Advisory Committee is responsible for providing advice and strategic recommendations to the Director and the Executive Board. The Advisory Committee will meet annually on the day preceding or following the annual FRHTP meeting, to review Hub science; recruitment and mentoring, outreach, diversity, and other professional development activities; participation in and initiation of workshops, programs, and schools; and quality of interactions with the broader physics community in the scientific areas relevant to the theory hub.

5. Reporting Requirements.

The Awardee will provide ad hoc and regular reports as designated by the NSF cognizant Program Official with content, format, and

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submission timeline stablished by the NSF cognizant Program Official. The Awardee will submit all required reports via Research.gov using the appropriate reporting category; for any type of report not specifically mentioned in Research.gov, the Awardee will use the "Interim Reporting" function to submit reports.

The Awardee will supply annual and final reports as described in the Award and Administration Guide II.D1.

The Awardee was asked to submit a diversity plan for the FRHTP. In the annual and final reports under the section, "What is the impact on the development of human resources?" in Research.gov, the Awardee will discuss progress relative to that diversity plan. If needed, modifications of the diversity plan may be required.

6. Ongoing Project Oversight.

The Awardee will ensure full commitment and cooperation among the governing structure components, and all project staff during all ongoing NSF project management and oversight activities. The Awardee will ensure availability of all key institutional partners during any desk or on-site review as well as timely access to all project documentation.

The NSF will conduct site visit reviews of the operations of FRHTP in order to confirm that the organization continues to fulfill the goal of projects supported through the Physics Division and the requirements for the theory hub as outlined in the program solicitation NSF 20-605. Typically, site visits are being conducted in the second and fourth year of the project. If that a site visit review reveals that the organization is not fulfilling the goals of the program, the NSF may choose to phase out the funding for FRHTP.

7. Program-specific terms and conditions, if applicable.

Changes in the management structure must be communicated to the cognizant NSF program officer in advance, as noted in section 3.

Change History

Prior Awarded Funding Amount:
Per Original Award on
07/30/2021: $699,998

National Science Foundation
2415 Eisenhower Avenue
Alexandria, VA 22314
www.nsf.gov

COOPERATIVE AGREEMENT (CA)

AWARD: PHY-2116679

EFFECTIVE DATE: August 1, 2021

EXPIRATION DATE: July 31, 2026

PROJECTED TOTAL AWARD FUNDING:

(Subject to availability of funds)
$3,499,997

CUMULATIVE AMOUNT:

$2,799,997

SOLICITATION:

(Incorporated by reference, as amended)

NSF 20-605

Focused Research Hubs in Theoretical Physics

CFDA NUMBER:
47.049

OTHER AWARDS UNDER THIS PROGRAM:

Show List of Awards

AWARDEE: Harvard College, President & Fellows of Harvard University

PROJECT TITLE: Institute for Theoretical, Atomic, Molecular and Optical Physics (ITAMP)

PROJECT ABSTRACT: https://www.fastlane.nsf.gov/servlet/showaward?award=2116679

Principal Investigator(s)	Proposal No.	Institution (s)
[redacted]	PHY-2116679	Smithsonian Institution Astrophysical Observatory
		Harvard College, President & Fellows of Harvard University
		Smithsonian Institution
	NSF_Harvard000067	Harvard College, President & Fellows of Harvard University

Vasili Kharchenko Smithsonian Institution Astrophysical Observatory

NSF Contact Information:

Financial/Administrative questions: e-mail your NSF Grants and Agreements Official, Pamela Conyers, at pconyers@nsf.gov or call the Division at 703-292-5329.

Programmatic questions: e-mail your NSF Program Officer, Mike Cavagnero, at mcavagne@nsf.gov or call the Program Division at 703-292-7927.

This CA is entered into between the United States of America, represented by the National Science Foundation (NSF), and the above named Awardee pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 USC 1861-1875). This CA is provided electronically to the Awardee. The Awardee is responsible for full compliance with all Programmatic and Financial/Administrative Terms and Conditions as initially stated or as updated over the life of this CA. The Awardee's request to draw down funds under this CA will represent acceptance by the Awardee of all Terms and Conditions of the CA. The Authorized Organizational Representative (AOR) will be electronically notified of any changes to these Terms and Conditions and is encouraged to immediately review these changes and contact the Grants and Agreements Official or Program Officer within thirty days with any questions.

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C. The Foundation authorizes the awardee to enter into the proposed contractual arrangements and to fund such arrangements with award funds up to the amount indicated in the approved budgets. Such contractual arrangements should contain appropriate provisions consistent with Articles 8.a.4. and 9 of the NSF Cooperative Agreement Financial & Administrative Terms and Conditions (CA-FATC) dated November 12, 2020, as well as any special conditions included in this award.

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1) Award Specific PTC:

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partners specifically named in the proposal, that have been approved as part of the award, shall be submitted in writing to the cognizant NSF Program Official for approval prior to any changes taking effect. Request for prior approval of changes to the PI(s) must be submitted through FastLane or Research.gov or review by the cognizant NSF Program Official and approval by an NSF Grants Officer.

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Specifically, the FRHTP is asked to achieve five distinct goals: (1) advance theoretical physics in scientific areas relevant to thetheory hub; (2) enhance the development of early-career scientists in theoretical physics; (3) support creative, substantive activities aimed at enhancing education, diversity, and public outreach; (4) demonstrate broader impacts, e.g., impacts on other field(s) and benefits to society; (5) demonstrate a synergy or value-added rationale that justifies a group approach.

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5. Reporting Requirements.

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NSF-Harvard000069

submission timeline stablished by the NSF cognizant Program Official. The Awardee will submit all required reports via Research.gov using the appropriate reporting category; for any type of report not specifically mentioned in Research.gov, the Awardee will use the "Interim Reporting" function to submit reports.

The Awardee will supply annual and final reports as described in the Award and Administration Guide II.D1.

The Awardee was asked to submit a diversity plan for the FRHTP. In the annual and final reports under the section, "What is the impact on the development of human resources?" in Research.gov, the Awardee will discuss progress relative to that diversity plan. If needed, modifications of the diversity plan may be required.

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7. Program-specific terms and conditions, if applicable.

Changes in the management structure must be communicated to the cognizant NSF program officer in advance, as noted in section 3.

Change History

Prior Awarded Funding Amount:
Per Amendment 004 on
08/15/2024: $700,000
Per Amendment 002 on
08/14/2023: $700,000
Per Amendment 001 on
07/19/2022: $699,999
Per Original Award on
07/30/2021: $699,998

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1839870 **PI Name** [redacted]

AWARD NOTICE

Award Date:	September 10, 2018
Award No. (FAIN):	1839870
Proposal No.:	1839870
Managing Division Abbreviation:	CMMI

[redacted]
Director, Office of Grants Administration
Harvard College, President & Fellows of
Harvard University
1033 Massachusetts Ave
5th Floor
Cambridge, MA 02138-5369
DUNS ID: 082359691

Dear [redacted]:

The National Science Foundation hereby awards a grant of $400,000 to Harvard College, President & Fellows of Harvard University for support of the project described in the proposal referenced above . This award is expected to total $400,000.

This project, entitled "FW-HTF: Collaborative Research: The Next Mobile Office: Safe and Productive Work in Automated Vehicles," is under the direction of [redacted], in collaboration with the following proposals

Proposal No:	PI Name/Institution
1840085	[redacted] University of New Hampshire
1839484	The University of Wisconsin - Madison
1839666	[redacted] University of Washington
1840031	[redacted] Wellesley College

.

This award starts September 15, 2018 and ends August 31, 2022.

This grant is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated March 14, 2017, and NSF Agency Specific Requirements, dated May 14, 2018, available at: https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots..

This award is subject to the Federal Funding Accountability and Transparency Act (FFATA) award term entitled, Reporting Subawards and Executive Compensation, which has been incorporated into the NSF Terms and Conditions referenced above.

If the awardee has any questions related to the pre-populated data associated with this award in the FFATA Subaward Reporting System, such questions should be submitted to: FFATAReporting@nsf.gov or by phone to: (800) 673-6188.

This award is subject to the provisions of program solicitation NSF 18-548, entitled "Future of Work at the Human - Technology Frontier: Advancing Cognitive and Physical Capabilities (FW-HTF)".

PIs or their designees must participate in annual Principal Investigator meetings throughout the duration of their awards, including during any period of No Cost Extensions. For multi-institution projects, investigators from each collaborating

institution are expected to participate. A substitute project representative may be designated to attend a PI meeting, but only with prior approval from a cognizant NSF Program Officer.

It is the grantee's responsibility to ensure that any human subjects work conducted under this award has an Institutional Review Board (IRB) approval, where required, and that such approval remains valid at all times that human subjects work is conducted under the award. Failure to comply with this condition will result in suspension and/or termination of the award.

The attached budget indicates the amounts, by categories, on which NSF has based its support.

The indirect cost rate(s) for this award is/are :

Item Name	Indirect Cost Rate
Modified Total Direct Costs	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

Please view the project reporting requirements for this award at the following web address [https://reporting.research.gov/fedAwardId/1839870].

The cognizant NSF program official for this grant is Irina Dolinskaya, (703) 292-7078
The cognizant NSF grants official contact is Jessie L. Richardson, (703) 292-4811.

Sincerely,

Jessie L. Richardson
Grants and Agreements Officer

CFDA No. 47.041, Engineering Grants

[redacted]

CMMI-1839870 000
SUMMARY PROPOSAL BUDGET

Person MOS	cal	acad	sumr	Funds granted By NSF
A. (0.00) Total Senior personnel	0.00	0.00	0.00	$0
B. Other Personnel				
1. (2.00) Post Doctoral associates	19.49	0.00	0.00	$115,063
2. (0.00) Other professionals	0.00	0.00	0.00	$0
3. (0.00) Graduate students				$0
4. (0.00) Secretarial-clerical				$0
5. (4.00) Undergraduate students				$42,169
6. (0.00) Other				$0
Total salaries and wages (A+B)				$157,232
C. Fringe benefits (if charged as direct cost)				$32,389
Total salaries wages and fringes (A+B+C)				$189,621
D. Total permanent equipment				$0
E. Travel				
1. Domestic				$26,206
2. International				$0
F. Total participant support costs				$0
G. Other direct costs				

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1839870 **PI Name:** [redacted]

1. Materials and supplies	$3,000
2. Publication costs/page charges	$0
3. Consultant services	$0
4. Computer (ADPE) services	$0
5. Subawards	$0
6. Other	$17,859
Total other direct costs	$20,859
H. Total direct costs (A through G)	$236,686
I. Total indirect costs	$163,314
(For information on the rate used, please refer to the award notice)	
J. Total direct and indirect costs (H+I)	$400,000
K. Small Business Fee	$0
L. Amount of this request (J) or (J+K)	
$400,000	
M. Cost sharing	$0

NSF_Harvard000073

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1839870 **PI Name:** [redacted]

NSF_Harvard000074

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 1839870

Managing Division Abbreviation:
CMMI

Amendment Number: 002

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: No Cost Extensions
Amendment Date: 07/22/2024
Amendment Number: 002
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to extend the end date from 08/31/2024 to 08/31/2025 in accordance with the NSF Approved No-Cost Extension request submitted on 07/15/2024 without additional funds to allow for the completion of the agreed-to level of effort.

Except as modified by this amendment, the award conditions remain unchanged.

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Tamika Lloyd
Email: tlloyd@nsf.gov

Awarding Official
Name: Willis Phan
Email: wiphan@nsf.gov

Managing Program Officer
Name: Jordan M. Berg
Email: jberg@nsf.gov
Phone: (703) 292-5365

Phone:

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1841403 **PI Name:** [redacted]

AWARD NOTICE

Award Date:	March 15, 2019
Award No. (FAIN):	1841403
Proposal No.:	1841403
Managing Division Abbreviation:	CNS

[redacted]
Director, Office of Grants Administration
Harvard College, President & Fellows of
Harvard University
1033 Massachusetts Ave
5th Floor
Cambridge, MA 02138-5369
DUNS ID: 082359691

Dear [redacted]:

The National Science Foundation hereby awards a grant of $100,000 to Harvard College, President & Fellows of Harvard University for support of the project described in the proposal referenced above . This award is expected to total $500,000.

This project, entitled "Phase II I/UCRC Harvard: Center for Spatiotemporal Thinking, Computing and Applications (STCA)," is under the direction of [redacted]

This award starts March 15, 2019 and ends February 29, 2024.

This is a continuing grant which has been approved on scientific / technical merit. Contingent on the availability of funds and the scientific progress of the project, NSF expects to continue support at approximately the following level:

FY 2020	$100,000
FY 2021	$100,000
FY 2022	$100,000
FY 2023	$100,000

The scientific / technical progress of the project is documented through submission and approval of annual and final project reports to NSF. Such reports are to be submitted electronically via NSF's Research.gov web portal [http://www.research.gov/]. Information regarding the specific due dates of such reports also is available through Research.gov.

This grant is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated March 14, 2017, and NSF Agency Specific Requirements, dated February 25, 2019, available at:
https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots. and the following terms and conditions:

This award is subject to the Federal Funding Accountability and Transparency Act (FFATA) award term entitled, Reporting Subawards and Executive Compensation, which has been incorporated into the NSF Terms and Conditions referenced above.

If the awardee has any questions related to the pre-populated data associated with this award in the FFATA Subaward Reporting System, such questions should be submitted to: FFATAReporting@nsf.gov or by phone to: (800) 673-6188.

This award is subject to the provisions of NSF 17-516, Industry-University Cooperative Research Centers Program.

This award is made contingent on this IUCRC site meeting minimum membership

requirements and other program expectations, as detailed in the solicitation NSF 17-516. A timely annual report to be submitted by the PI will be used to verify compliance with program requirements, and NSF approval of the annual report is necessary before future year obligations will be released on this award.

Please view the project reporting requirements for this award at the following web address [https://reporting.research.gov/fedAwardId/1841403].

The attached budget indicates the amounts, by categories, on which NSF has based its support.

The indirect cost rate(s) for this award is/are :

Item Name	Indirect Cost Rate
Modified Total Direct Costs	34.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

The cognizant NSF program official for this grant is Dmitri Perkins, (703) 292-8950.
The cognizant NSF grants official contact is Tianay Robinson, (703) 292-7859.

Sincerely,

Tianay Robinson
Grants and Agreements Officer

CFDA No. 47.070, Computer and Information Science and Engineering

[redacted]

CNS-1841403 000
SUMMARY PROPOSAL BUDGET

Person MOS	cal	acad	sumr	Funds granted By NSF
A. (3.00) Total Senior personnel	2.50	0.00	0.00	$29,027
B. Other Personnel				
1. (0.00) Post Doctoral associates	0.00	0.00	0.00	$0
2. (1.00) Other professionals	1.20	0.00	0.00	$10,162
3. (0.00) Graduate students				$0
4. (0.00) Secretarial-clerical				$0
5. (0.00) Undergraduate students				$0
6. (0.00) Other				$0
Total salaries and wages (A+B)				$39,189
C. Fringe benefits (if charged as direct cost)				$14,942
Total salaries wages and fringes (A+B+C)				$54,131
D. Total permanent equipment				$0
E. Travel				
1. Domestic				$11,700
2. International				$0
F. Total participant support costs				$0
G. Other direct costs				
1. Materials and supplies				$6,796
2. Publication costs/page charges				$2,000
3. Consultant services				$0
4. Computer (ADPE) services				$0
5. Subawards				$0

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1841403 **PI Name** [redacted]

6. Other	$0
Total other direct costs	$8,796
H. Total direct costs (A through G)	$74,627
I. Total indirect costs	$25,373
(For information on the rate used, please refer to the award notice)	
J. Total direct and indirect costs (H+I)	$100,000
K. Fee	$0
L. Amount of this request (J) or (J+K)	
$100,000	
M. Cost sharing	$0

NSF_Harvard000079

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1841403 **PI Name** [redacted]

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 1841403

Managing Division Abbreviation: CNS

Amendment Number: 012

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Other Admin No Fund Actions
Amendment Date: 02/18/2025
Amendment Number: 012
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to change the PI or co-PI in accordance with the Withdrawal of PI/Co-PI request submitted on 02/14/2025. Effective with this amendment, the project is now under the direction of [redacted]

Except as modified by this amendment, the award conditions remain unchanged.

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

co-Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official **Awarding Official** **Managing Program**

(Primary Contact) **Name:** Jannele L. Gosey **Email:** jgosey@nsf.gov **Phone:** (703) 292-4445	**Name:** LeVar R. Farrior **Email:** lfarrior@nsf.gov	**Officer** **Name:** Mohan Kumar **Email:** mokumar@nsf.gov **Phone:** (703) 292-7408

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1856215 **PI Name:** [redacted]

AWARD NOTICE

Award Date:	June 7, 2019
Award No. (FAIN):	1856215
Proposal No.:	1856215
Managing Division Abbreviation:	ICER

[redacted]
Director, Office of Grants Administration
Harvard College, President & Fellows of
Harvard University
1033 Massachusetts Ave
5th Floor
Cambridge, MA 02138-5369
DUNS ID: 082359691

Dear [redacted]:

The National Science Foundation hereby awards a grant of $67,798 to Harvard College, President & Fellows of Harvard University for support of the project described in the proposal referenced above . This award is expected to total $201,125.

This project, entitled "Belmont Forum Collaborative Research: Governance of Sociotechnical Transformations," is under the direction of [redacted].

This award starts June 15, 2019 and ends May 31, 2022.

This is a continuing grant which has been approved on scientific / technical merit. Contingent on the availability of funds and the scientific progress of the project, NSF expects to continue support at approximately the following level:

FY 2020	$76,408
FY 2021	$56,919

The scientific / technical progress of the project is documented through submission and approval of annual and final project reports to NSF. Such reports are to be submitted electronically via NSF's Research.gov web portal [http://www.research.gov/]. Information regarding the specific due dates of such reports also is available through Research.gov.

This grant is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated March 14, 2017, and NSF Agency Specific Requirements, dated February 25, 2019, available at:
https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots. .

This award is subject to the Federal Funding Accountability and Transparency Act (FFATA) award term entitled, Reporting Subawards and Executive Compensation, which has been incorporated into the NSF Terms and Conditions referenced above.

If the awardee has any questions related to the pre-populated data associated with this award in the FFATA Subaward Reporting System, such questions should be submitted to: FFATAReporting@nsf.gov or by phone to: (800) 673-6188.

The Foundation authorizes the awardee to enter into the proposed subaward arrangement and to fund the subaward with award funds up to the amount indicated in the approved budget or NSF-approved post award request. The subaward should contain appropriate provisions consistent with Appendix B of the Research Terms and Conditions (RTC) dated October 1, 2017, or Articles 8.a.4. and 9 of the NSF Grant General Conditions (GC-1) dated February 25, 2019 (as appropriate), as well

NSF_Harvard000083

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1856215 **PI Name:** [redacted]

as any special conditions included in this award.

Please view the project reporting requirements for this award at the following web address [https://reporting.research.gov/fedAwardId/1856215].

The attached budget indicates the amounts, by categories, on which NSF has based its support.

The indirect cost rate(s) for this award is/are :

Item Name	Indirect Cost Rate
Modified Total Direct Costs	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

The cognizant NSF program official for this grant is Maria Uhle, (703) 292-2250.
The cognizant NSF grants official contact is Malia Hairston, (703) 292-2290.

Sincerely,

Willie Powell
Grants and Agreements Officer

CFDA No. 47.050, Geosciences
[redacted]

ICER-1856215 000
SUMMARY PROPOSAL BUDGET

Person MOS	cal	acad	sumr	Funds granted By NSF
A. (0.00) Total Senior personnel	0.00	0.00	0.00	$0
B. Other Personnel				
1. (1.00) Post Doctoral associates	6.00	0.00	0.00	$22,750
2. (0.00) Other professionals	0.00	0.00	0.00	$0
3. (0.00) Graduate students				$0
4. (0.00) Secretarial-clerical				$0
5. (0.00) Undergraduate students				$0
6. (0.00) Other				$0
Total salaries and wages (A+B)				$22,750
C. Fringe benefits (if charged as direct cost)				$5,847
Total salaries wages and fringes (A+B+C)				$28,597
D. Total permanent equipment				$0
E. Travel				
1. Domestic				$0
2. International				$1,200
F. Total participant support costs				$0
G. Other direct costs				
1. Materials and supplies				$0
2. Publication costs/page charges				$0
3. Consultant services				$0
4. Computer (ADPE) services				$0
5. Subawards				$10,320
6. Other				$0
Total other direct costs				$10,320
H. Total direct costs (A through G)				$40,117

NSF_Harvard000084

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1856215 **PI Name** [redacted]

I. Total indirect costs (For information on the rate used, please refer to the award notice)	$27,681
J. Total direct and indirect costs (H+I)	$67,798
K. Fee	$0
L. Amount of this request (J) or (J+K) $67,798	
M. Cost sharing	$0

NSF_Harvard000085

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1856215 **PI Name:** [redacted]

NSF_Harvard000086

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 1856215

Managing Division Abbreviation: RISE

Amendment Number: 004

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: No Cost Extensions
Amendment Date: 11/22/2024
Amendment Number: 004
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to extend the end date from 11/30/2024 to 11/30/2025 in accordance with the NSF Approved No-Cost Extension request submitted on 11/19/2024 without additional funds to allow for the completion of the agreed-to level of effort.

Except as modified by this amendment, the award conditions remain unchanged.

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Angela A. Turner
Email: aturner@nsf.gov
Phone: (703) 292-7524

Awarding Official
Name: Shirley R. Kerchner
Email: skerchne@nsf.gov

Managing Program Officer
Name: Maria L Uhle
Email: muhle@nsf.gov
Phone: (703) 292-2250

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1907398 **PI Name:** [redacted]

AWARD NOTICE

Award Date:	July 3, 2019
Award No. (FAIN):	1907398
Proposal No.:	1907398
Managing Division Abbreviation:	DRL

[redacted]
Director, Office of Grants Administration
Harvard College, President & Fellows of
Harvard University
1033 Massachusetts Ave
5th Floor
Cambridge, MA 02138-5369
DUNS ID: 082359691

Dear [redacted]

The National Science Foundation hereby awards a grant of $231,294 to Harvard College, President & Fellows of Harvard University for support of the project described in the proposal referenced above as modified by cover page dated December 5, 2018. This award is expected to total $575,784.

This project, entitled "Collaborative Research: Developing an Online Game to Teach Middle School Students Science Research Practices in the Life Sciences," is under the direction of [redacted] in collaboration with the following proposals

Proposal No:	PI Name/Institution
1907384	[redacted], The University of Wisconsin - Madison
1907437	[redacted], University of Pennsylvania

.

This award starts July 1 , 2019 and ends June 30, 2023.

This is a continuing grant which has been approved on scientific / technical merit. Contingent on the availability of funds and the scientific progress of the project, NSF expects to continue support at approximately the following level:

FY 2021	$169,767
FY 2022	$174,723

The scientific / technical progress of the project is documented through submission and approval of annual and final project reports to NSF. Such reports are to be submitted electronically via NSF's Research.gov web portal [http://www.research.gov/]. Information regarding the specific due dates of such reports also is available through Research.gov.

This grant is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated March 14, 2017, and NSF Agency Specific Requirements, dated February 25, 2019, available at:
https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots. .

This award is subject to the Federal Funding Accountability and Transparency Act (FFATA) award term entitled, Reporting Subawards and Executive Compensation, which has been incorporated into the NSF Terms and Conditions referenced above.

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1907398 **PI Name:** [redacted]

If the awardee has any questions related to the pre-populated data associated with this award in the FFATA Subaward Reporting System, such questions should be submitted to: FFATAReporting@nsf.gov or by phone to: (800) 673-6188.

This award is subject to the provisions of NSF 17-584, Discovery Research PreK-12 (DRK-12).

The DRK-12 program has awarded a dissemination and evaluation network project as a cooperative agreement. The resource network is responsible for synthesizing findings across the DRK-12 portfolio, providing technical assistance to DRK-12 projects, promoting national awareness of research contributions from the DRK-12 portfolio, and building the DRK-12 community through PI and special interest meetings. All DRK-12 projects are expected to share their findings with the resource network, to participate in annual PI meetings, and other meetings of interest and to be responsive to requests for information from the resource network.

No work with human subjects, including recruitment, may be conducted under this protocol or grant until IRB approval has been obtained.

Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies and procedures to segregate participant support costs.

This award includes, within the approved budget, monetary compensation for survey respondents. Such compensation is defined as Subject Payments. Compensation to subjects under this award must be made in accordance with written institutional policies and procedures and supported by auditable documentation. The allowability of these costs will ultimately be based on the awardee institution's ability to adequately demonstrate that Subject Payments have been disbursed in accordance with its policies and procedures.

Please view the project reporting requirements for this award at the following web address [https://reporting.research.gov/fedAwardId/1907398].

The attached budget indicates the amounts, by categories, on which NSF has based its support.

The indirect cost rate(s) for this award is/are :

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

The cognizant NSF program official for this grant is Robert Russell, (703) 292-2995.
The cognizant NSF grants official contact is Daniel McEnrue, (703) 292-8386.

Sincerely,

LeVar Farrior
Grants and Agreements Officer

CFDA No. 47.076, Education and Human Resources

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1907398 **PI Name:** [redacted]

[redacted]

DRL-1907398 000
SUMMARY PROPOSAL BUDGET

Person MOS	cal	acad	sumr	Funds granted By NSF
A. (2.00) Total Senior personnel	9.00	0.00	0.00	$80,298
B. Other Personnel				
1. (0.00) Post Doctoral associates	0.00	0.00	0.00	$0
2. (0.00) Other professionals	0.00	0.00	0.00	$0
3. (1.00) Graduate students				$13,685
4. (0.00) Secretarial-clerical				$0
5. (0.00) Undergraduate students				$0
6. (0.00) Other				$0
Total salaries and wages (A+B)				$93,983
C. Fringe benefits (if charged as direct cost)				$33,580
Total salaries wages and fringes (A+B+C)				$127,563
D. Total permanent equipment				$0
E. Travel				
1. Domestic				$7,522
2. International				$0
F. Total participant support costs				$3,000
G. Other direct costs				
1. Materials and supplies				$0
2. Publication costs/page charges				$0
3. Consultant services				$0
4. Computer (ADPE) services				$0
5. Subawards				$0
6. Other				$0
Total other direct costs				$0
H. Total direct costs (A through G)				$138,085
I. Total indirect costs				$93,209
(For information on the rate used, please refer to the award notice)				
J. Total direct and indirect costs (H+I)				$231,294
K. Fee				$0
L. Amount of this request (J) or (J+K)				
$231,294				
M. Cost sharing				$0

NSF_Harvard000090

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award: 1907398 **PI Name** [redacted]

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 1907398
Managing Division Abbreviation: DRL **Amendment Number:** 003

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Supplement
Amendment Date: 12/18/2024
Amendment Number: 003
Proposal Number: 2426729
Amendment Description:

The purpose of this amendment is to:

- Add supplemental support to the award in the amount shown below in the Funding Information section.
- Extend the end date from 06/30/2025 to 12/31/2025.

In accordance with 2 CFR 200, Appendix III, C.7, the grantee must use the negotiated rates for indirect costs (F&A) in effect at the time of the initial award throughout the life of the sponsored agreement (including any continuing grant increments and any supplemental funding awarded under the agreement.) Award levels for sponsored agreements may not be adjusted in future years as a result of changes in negotiated rates.

Except as modified by this amendment, the award conditions remain unchanged.

AWARD INFORMATION

Award Number (FAIN): 1907398
Award Instrument: Continuing Grant
Award Date: 07/03/2019
Award Period of Performance: Start Date: 07/01/2019 End Date: 12/31/2025
Project Title: Collaborative Research: Developing an Online Game to Teach Middle School Students Science Research Practices in the Life Sciences
Managing Division Abbreviation: DRL

Research and Development Award: Yes
Funding Opportunity: NSF 17-584 Discovery Research PreK-12
Assistance Listing Number(s) and Name(s): 47.076 Education and Human Resources (See Amendment 000 for source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $99,021
Total Intended Award Amount: $575,784
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $674,805

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Tracy N. Shields
Email: tshields@nsf.gov
Phone: (703) 292-4882

Awarding Official
Name: Tracy N. Shields
Email: tshields@nsf.gov

Managing Program Officer
Name: Robert L Russell
Email: rlrussel@nsf.gov
Phone: (703) 292-2995

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to NSF Grant General Conditions (GC-1), dated 10/01/2024, available at https://www.nsf.gov/awards/managing/general_conditions.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	3.24
Senior Personnel Academic	0.00

Months	
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$34,866
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	1.00
Graduate Students Amount	$4,724
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$39,590
C. Fringe Benefits	$14,863
Total Salaries, Wages, Fringe Benefits (A + B + C)	$54,453
D. Equipment	$0
E. Travel	
Domestic	$1,956
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$2,000
Participant Support Costs Travel	$0
Participant Support Costs	$0

Subsistence	
Participant Support Costs Other	$0
Total Number of Participants	10.00
Total Participant Costs (F)	$2,000
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$1,000
Total Other Direct Costs (G)	$1,000
H. Total Direct Costs (A Through G)	**$59,409**
I. Indirect Costs*	**$39,612**
J. Total Direct and Indirect Costs (H + I)	$99,021
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$99,021**
M. Cost Sharing Proposed Level	$0

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 1914916
Managing Division Abbreviation: PHY **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 Massachusetts Ave 5th Floor Cambridge, MA 021385369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/15/2020
Amendment Number: 000
Proposal Number: 1914916
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above as modified by revised budget dated 07/09/2020.

AWARD INFORMATION

Award Number (FAIN): 1914916
Award Instrument: Continuing Grant
Award Date: 08/15/2020
Award Period of Performance: Start Date: 08/15/2020 End Date: 07/31/2025
Project Title: The Evolution of Evolvability in Microbial Populations
Managing Division Abbreviation: PHY
Research and Development Award: Yes
Funding Opportunity: NSF 18-564 Division of Physics: Investigator-Initiated Research Projects
CFDA Number and Name: 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $159,554
Total Intended Award Amount: $797,669

Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $159,554
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2021	$159,755
2022	$158,130
2023	$159,936
2024	$160,294

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Institution: Harvard University

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Pamela V. Conyers
Email: pconyers@nsf.gov

Awarding Official
Name: Pamela V. Conyers
Email: pconyers@nsf.gov

Managing Program Officer
Name: Krastan B Blagoev
Email: kblagoev@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 03/14/2017, and NSF Agency Specific Requirements, dated 02/25/2019, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 18-564 Division of Physics: Investigator-Initiated Research Projects.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	0.60
Senior Personnel Academic	0.00

Months	
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$14,300
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	1.00
Post Doctoral Calendar Months	6.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$24,750
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	1.00
Graduate Students Amount	$19,750
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$58,800
C. Fringe Benefits	$9,827
Total Salaries, Wages, Fringe Benefits (A + B + C)	$68,627
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs	$0

Travel	
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$12,500
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$15,856
Total Other Direct Costs (G)	$28,356
H. Total Direct Costs (A Through G)	**$96,983**
I. Indirect Costs*	**$62,571**
J. Total Direct and Indirect Costs (H + I)	$159,554
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$159,554**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 1914916

Managing Division Abbreviation: PHY

Amendment Number: 002

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 Massachusetts Ave 5th Floor Cambridge, MA 021385369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: Other Admin No Fund Actions
Amendment Date: 10/15/2020
Amendment Number: 002
Proposal Number: Not Applicable
Amendment Description:

This amendment replaces Term #1 implementing Section § 200.216 of the revised 2 CFR § 200 which was published in the Federal Register on August 13, 2020.

Except as modified by this amendment, the award conditions remain unchanged.

1. Section 889 of the John S. McCain National Defense Authorization Act for Fiscal Year 2019

Section 889 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2019 (Public Law 115-232) prohibits the head of an executive agency from obligating or expending loan or grant funds to procure or obtain, extend, or renew a contract to procure or obtain, or enter into a contract (or extend or renew a contract) to procure or obtain the equipment, services, or systems prohibited systems as identified in section 889 of the NDAA for FY 2019.

(a) In accordance with 2 CFR 200.216 and 200.471, all awards that are issued on or after August 13, 2020, recipients and subrecipients are prohibited from obligating or expending loan or grant funds to:

(1) Procure or obtain;

(2) Extend or renew a contract to procure or obtain; or

(3) Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).

(i) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

(ii) Telecommunications or video surveillance services provided by such entities or using such equipment.

(iii) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

(b) In implementing the prohibition under Public Law 115-232, section 889, subsection (f), paragraph (1), heads of executive agencies administering loan, grant, or subsidy programs shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained.

(c) See Public Law 115-232, section 889 for additional information.

COVERED FOREIGN COUNTRY means the People's Republic of China.

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Institution: Harvard University

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Pamela V. Conyers
Email: pconyers@nsf.gov

Awarding Official
Name: Pamela A. Hawkins
Email: pahawkin@nsf.gov

Managing Program Officer
Name: Krastan B Blagoev
Email: kblagoev@nsf.gov

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1919073 **PI Name** [redacted]

AWARD NOTICE

Award Date:	July 29, 2019
Award No. (FAIN):	1919073
Proposal No.:	1919073
Managing Division Abbreviation:	SES

[redacted]
Director, Office of Grants Administration
Harvard College, President & Fellows of
Harvard University
1033 Massachusetts Ave
5th Floor
Cambridge, MA 02138-5369
DUNS ID: 082359691

Dear [redacted]

The National Science Foundation hereby awards a grant of $195,153 to Harvard College, President & Fellows of Harvard University for support of the project described in the proposal referenced above as modified by revised budget dated June 24, 2019. This award is expected to total $195,153.

This project, entitled "Collaborative research: Emirical Evidence of the Tax Administration Production Function," is under the direction of [redacted], in collaboration with the following proposals

Proposal No:	PI Name/Institution
1919437	[redacted] Massachusetts Institute of Technology

.

This award starts August 15, 2019 and ends July 31, 2022.

This grant is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated March 14, 2017, and NSF Agency Specific Requirements, dated February 25, 2019, available at:
https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots..

This award is subject to the Federal Funding Accountability and Transparency Act (FFATA) award term entitled, Reporting Subawards and Executive Compensation, which has been incorporated into the NSF Terms and Conditions referenced above.

If the awardee has any questions related to the pre-populated data associated with this award in the FFATA Subaward Reporting System, such questions should be submitted to: FFATAReporting@nsf.gov or by phone to: (800) 673-6188.

It is the grantee's responsibility to ensure that any human subjects work conducted under this award has an Institutional Review Board (IRB) approval, where required, and that such approval remains valid at all times that human subjects work is conducted under the award. Failure to comply with this condition will result in suspension and/or termination of the award.

The attached budget indicates the amounts, by categories, on which NSF has based its support.

The indirect cost rate(s) for this award is/are :
Item Name
Indirect Cost Rate

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1919073 **PI Name** [redacted]

Predetermined On-Campus Research 69.0000%
These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

Please view the project reporting requirements for this award at the following web address [https://reporting.research.gov/fedAwardId/1919073].

The cognizant NSF program official for this grant is Kwabena Gyimah-Brempong, (703) 292-7466
The cognizant NSF grants official contact is Malia Williams, (703) 292-2290.

Sincerely,

Willie Powell
Grants and Agreements Officer

CFDA No. 47.075, Social, Behavioral, and Economic Sciences

[redacted]

SES-1919073 000
SUMMARY PROPOSAL BUDGET

Person MOS	cal	acad	sumr	Funds granted By NSF
A. (1.00) Total Senior personnel	0.00	0.00	0.70	$19,972
B. Other Personnel				
1. (0.00) Post Doctoral associates	0.00	0.00	0.00	$0
2. (0.00) Other professionals	0.00	0.00	0.00	$0
3. (3.00) Graduate students				$73,119
4. (0.00) Secretarial-clerical				$0
5. (0.00) Undergraduate students				$0
6. (0.00) Other				$0
Total salaries and wages (A+B)				$93,091
C. Fringe benefits (if charged as direct cost)				$18,445
Total salaries wages and fringes (A+B+C)				$111,536
D. Total permanent equipment				$0
E. Travel				
1. Domestic				$0
2. International				$3,938
F. Total participant support costs				$0
G. Other direct costs				
1. Materials and supplies				$0
2. Publication costs/page charges				$0
3. Consultant services				$0
4. Computer (ADPE) services				$0
5. Subawards				$0
6. Other				$0
Total other direct costs				$0
H. Total direct costs (A through G)				$115,474
I. Total indirect costs				$79,679
(For information on the rate used, please refer to the award notice)				
J. Total direct and indirect costs (H+I)				$195,153
K. Fee				$0
L. Amount of this request (J) or (J+K)				
$195,153				
M. Cost sharing				$0

NSF_Harvard000103

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1919073 **PI Name:** [redacted]

NSF_Harvard000104

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 1919073

Managing Division Abbreviation: SES

Amendment Number: 001

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: No Cost Extensions
Amendment Date: 03/18/2024
Amendment Number: 001
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to extend the end date from 07/31/2024 to 07/31/2025 in accordance with the NSF Approved No-Cost Extension request submitted on 03/05/2024 without additional funds to allow for the completion of the agreed-to level of effort.

Except as modified by this amendment, the award conditions remain unchanged.

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)

Awarding Official
Name: Willie M. Powell

Managing Program Officer

Name: Tyffani N. Smith
Email: tnsmith@nsf.gov
Phone: (703) 292-7046

Email: wpowell@nsf.gov

Name: Kwabena Gyimah-Brempong
Email: kgyimahb@nsf.gov
Phone: (703) 292-7466

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 1942438
Managing Division Abbreviation: BCS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 Massachusetts Ave 5th Floor Cambridge, MA 021385369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/05/2020
Amendment Number: 000
Proposal Number: 1942438
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above .

No human subjects may be involved in the project until the protocol has either been declared exempt or the protocol has been reviewed and approved by the organization's Institutional Review Board, and certification has been submitted to the cognizant NSF Program Officer.

This award includes, within the approved budget, monetary compensation for survey respondents. Such compensation is defined as Subject Payments. Compensation to subjects under this award must be made in accordance with written institutional policies and procedures and supported by auditable documentation. The allowability of these costs will ultimately be based on the awardee institution's ability to adequately demonstrate that Subject Payments have been disbursed in accordance with its policies and procedures.

Costs of entertainment, amusement, diversion and social activities, and any costs directly associated with such costs (such as meals, lodging, rentals, transportation and gratuities) are unallowable. When certain meals are an integral and necessary part of a conference or meeting (i.e., working meals where business is transacted), grant funds may be used for such meals. Grant funds may also be used to furnish a reasonable amount of coffee or soft drinks for conference or meeting participants and attendees during coffee breaks. No NSF funds may be spent on meals or coffee breaks for intramural meetings of an organization or any of its components, including, but not limited to, laboratories, departments and centers.

AWARD INFORMATION

Award Number (FAIN): 1942438
Award Instrument: Continuing Grant
Award Date: 08/05/2020
Award Period of Performance: Start Date: 09/01/2020 End Date: 08/31/2025
Project Title: CAREER: The Tuning and Topography of the Ventral Visual Stream
Managing Division Abbreviation: BCS
Research and Development Award: Yes
Funding Opportunity: NSF 17-537 Faculty Early Career Development Program
CFDA Number and Name: 47.075 Social, Behavioral, and Economic Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $154,101
Total Intended Award Amount: $703,757
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $154,101
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2021	$145,256
2022	$146,716
2023	$128,080
2024	$129,604

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Institution:** Harvard University

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Christine Castell
Email: ccastell@nsf.gov

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: Kurt Thoroughman
Email: kthoroug@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 03/14/2017, and NSF Agency Specific Requirements, dated 02/25/2019, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 17-537 Faculty Early Career Development Program.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	1.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$11,673
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	1.00
Post Doctoral Calendar Months	4.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$18,333
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students	$0

Amount	
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$30,006
C. Fringe Benefits	$7,283
Total Salaries, Wages, Fringe Benefits (A + B + C)	$37,289
D. Equipment	$0
E. Travel	
Domestic	$6,485
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$7,180
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$40,230
Total Other Direct Costs (G)	$47,410
H. Total Direct Costs (A Through G)	**$91,184**
I. Indirect Costs*	**$62,917**
J. Total Direct and Indirect Costs (H + I)	$154,101
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$154,101**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 1942438
Managing Division Abbreviation: BCS **Amendment Number:** 005

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Increment
Amendment Date: 07/01/2024
Amendment Number: 005
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to add incremental funding to the award in the amount shown below in the Funding Information section.

Except as modified by this amendment, the award conditions remain unchanged.

AWARD INFORMATION

Award Number (FAIN): 1942438
Award Instrument: Continuing Grant
Award Date: 08/05/2020
Award Period of Performance: Start Date: 09/01/2020 End Date: 08/31/2025
Project Title: CAREER: The Tuning and Topography of the Ventral Visual Stream
Managing Division Abbreviation: BCS
Research and Development Award: Yes
Funding Opportunity: NSF 17-537 Faculty Early Career Development Program
Assistance Listing Number(s) and Name(s): 47.075 Social, Behavioral, and Economic Sciences (See Amendment 000 for source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $129,604
Total Intended Award Amount: $703,757
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $703,757

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov
Phone: (703) 292-7046

Awarding Official
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov

Managing Program Officer
Name: Dwight Kravitz
Email: dkravitz@nsf.gov
Phone: (703) 292-4502

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/20/2024, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	1.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$13,767
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	1.00

Post Doctoral Calendar Months	4.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$19,942
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$33,709
C. Fringe Benefits	$8,175
Total Salaries, Wages, Fringe Benefits (A + B + C)	$41,884
D. Equipment	$0
E. Travel	
Domestic	$6,485
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	

Materials Supplies	$0
Publication Costs	$2,000
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$26,320
Total Other Direct Costs (G)	$28,320
H. Total Direct Costs (A Through G)	**$76,689**
I. Indirect Costs*	**$52,915**
J. Total Direct and Indirect Costs (H + I)	$129,604
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$129,604**
M. Cost Sharing Proposed Level	$0

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1943902 **PI Name:** [redacted]

AWARD NOTICE

Award Date:	December 17, 2019
Award No. (FAIN):	1943902
Proposal No.:	1943902
Managing Division Abbreviation:	DMS

[redacted]
Director, Office of Grants Administration
Harvard College, President & Fellows of
Harvard University
1033 Massachusetts Ave
5th Floor
Cambridge, MA 02138-5369
DUNS ID: 082359691

Dear [redacted]:

The National Science Foundation hereby awards a grant of $75,766 to Harvard College, President & Fellows of Harvard University for support of the project described in the proposal referenced above as modified by revised budget dated December 9, 2019. This award is expected to total $400,000.

This project, entitled "CAREER: Learning Probabilistic Factor Models," is under the direction of
Redacted Post-Production.

This award starts July 1 , 2020 and ends June 30, 2025.

This is a continuing grant which has been approved on scientific / technical merit. Contingent on the availability of funds and the scientific progress of the project, NSF expects to continue support at approximately the following level:

FY 2021	$77,821
FY 2022	$79,935
FY 2023	$82,115
FY 2024	$84,363

The scientific / technical progress of the project is documented through submission and approval of annual and final project reports to NSF. Such reports are to be submitted electronically via NSF's Research.gov web portal [http://www.research.gov/]. Information regarding the specific due dates of such reports also is available through Research.gov.

This grant is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated March 14, 2017, and NSF Agency Specific Requirements, dated February 25, 2019, available at:
https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots. and the following terms and conditions:

This award is subject to the Federal Funding Accountability and Transparency Act (FFATA) award term entitled, Reporting Subawards and Executive Compensation, which has been incorporated into the NSF Terms and Conditions referenced above.

If the awardee has any questions related to the pre-populated data associated with this award in the FFATA Subaward Reporting System, such questions should be submitted to: FFATAReporting@nsf.gov or by phone to: (800) 673-6188.

This award is subject to the provisions of NSF 17-537, Faculty Early Career Development Program.

Please view the project reporting requirements for this award at the following web

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1943902 **PI Name:** [redacted]

address .

The attached budget indicates the amounts, by categories, on which NSF has based its support.

The indirect cost rate(s) for this award is/are :

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

The cognizant NSF program official for this grant is Huixia Wang, (703) 292-2279.
The cognizant NSF grants official contact is Lynda Kummelt, (703) 292-7721.

Sincerely,

Elizabeth Gebremedhin
Grants and Agreements Officer

CFDA No. 47.049, Mathematical and Physical Sciences

[redacted]

DMS-1943902 000

SUMMARY PROPOSAL BUDGET

Person MOS	cal	acad	sumr	Funds granted By NSF
A. (1.00) Total Senior personnel	1.71	0.00	0.00	$27,907
B. Other Personnel				
1. (0.00) Post Doctoral associates	0.00	0.00	0.00	$0
2. (0.00) Other professionals	0.00	0.00	0.00	$0
3. (1.00) Graduate students				$6,035
4. (0.00) Secretarial-clerical				$0
5. (0.00) Undergraduate students				$0
6. (0.00) Other				$0
Total salaries and wages (A+B)				$33,942
C. Fringe benefits (if charged as direct cost)				$6,586
Total salaries wages and fringes (A+B+C)				$40,528
D. Total permanent equipment				$0
E. Travel				
1. Domestic				$2,152
2. International				$2,152
F. Total participant support costs				$0
G. Other direct costs				
1. Materials and supplies				$0
2. Publication costs/page charges				$0
3. Consultant services				$0
4. Computer (ADPE) services				$0
5. Subawards				$0
6. Other				$0
Total other direct costs				$0
H. Total direct costs (A through G)				$44,832
I. Total indirect costs				$30,934
(For information on the rate used, please refer to the award notice)				
J. Total direct and indirect costs (H+I)				$75,766
K. Fee				$0

NSF_Harvard000117

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1943902 **PI Name:** [redacted]

L. Amount of this request (J) or (J+K)
$75,766
M. Cost sharing $0

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:1943902 **PI Name:** [redacted]

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2002771
Managing Division Abbreviation: DMS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 Massachusetts Ave 5th Floor Cambridge, MA 021385369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 04/30/2020
Amendment Number: 000
Proposal Number: 2002771
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above as modified by revised budget dated 04/22/2020.

Costs of entertainment, amusement, diversion and social activities, and any costs directly associated with such costs (such as meals, lodging, rentals, transportation and gratuities) are unallowable. When certain meals are an integral and necessary part of a conference or meeting (i.e., working meals where business is transacted), grant funds may be used for such meals. Grant funds may also be used to furnish a reasonable amount of coffee or soft drinks for conference or meeting participants and attendees during coffee breaks. No NSF funds may be spent on meals or coffee breaks for intramural meetings of an organization or any of its components, including, but not limited to, laboratories, departments and centers.

AWARD INFORMATION

Award Number (FAIN): 2002771
Award Instrument: Continuing Grant
Award Date: 04/30/2020
Award Period of Performance: Start Date: 07/01/2020 End Date: 06/30/2025
Project Title: Topology, Geometry and Physics
Managing Division Abbreviation: DMS
Research and Development Award: Yes
Funding Opportunity: PD 18-1267 Topology

CFDA Number and Name: 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $101,069
Total Intended Award Amount: $305,324
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $101,069
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2021	$101,768
2022	$102,487

PROJECT PERSONNEL

Principal Investigator: [redacted]
Email: [redacted]
Institution: Harvard University

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Awarding Official
Name: Aprile N Roberson
Email: aroberso@nsf.gov

Managing Program Officer
Name: Joanna Kania-Bartoszynska
Email: jkaniaba@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 03/14/2017, and NSF Agency Specific Requirements, dated 02/25/2019, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel

Senior Personnel Count	1.00
Senior Personnel Calendar Months	1.50
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$34,000
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	2.00
Graduate Students Amount	$13,780
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$47,780
C. Fringe Benefits	$8,024
Total Salaries, Wages, Fringe Benefits (A + B + C)	$55,804
D. Equipment	$0
E. Travel	
Domestic	$2,000
International	$2,000

F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$59,804**
I. Indirect Costs*	**$41,265**
J. Total Direct and Indirect Costs (H + I)	$101,069
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$101,069**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2002771
Managing Division Abbreviation: DMS **Amendment Number:** 002

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Increment
Amendment Date: 06/27/2022
Amendment Number: 002
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to add incremental funding to the award in the amount shown below in the Funding Information section.

Except as modified by this amendment, the award conditions remain unchanged.

AWARD INFORMATION

Award Number (FAIN): 2002771
Award Instrument: Continuing Grant
Award Date: 04/30/2020
Award Period of Performance: Start Date: 07/01/2020 End Date: 06/30/2025
Project Title: Topology, Geometry and Physics
Managing Division Abbreviation: DMS
Research and Development Award: Yes
Funding Opportunity: PD 18-1267 Topology
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $102,487
Total Intended Award Amount: $305,324
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $305,324

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Awarding Official
Name: Elizabeth Gebremedhin
Email: egebreme@nsf.gov

Managing Program Officer
Name: Joanna Kania-Bartoszynska
Email: jkaniaba@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	1.50
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$34,000
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00

Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	2.00
Graduate Students Amount	$14,619
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$48,619
C. Fringe Benefits	$8,024
Total Salaries, Wages, Fringe Benefits (A + B + C)	$56,643
D. Equipment	$0
E. Travel	
Domestic	$2,000
International	$2,000
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0

Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$60,643**
I. Indirect Costs*	**$41,844**
J. Total Direct and Indirect Costs (H + I)	$102,487
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$102,487**
M. Cost Sharing Proposed Level	$0

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2005475
Managing Division Abbreviation: DMS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 Massachusetts Ave 5th Floor Cambridge, MA 021385369
Official Awardee Email Address:[redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 07/27/2020
Amendment Number: 000
Proposal Number: 2005475
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above as modified by revised budget dated 06/22/2020.

Costs of entertainment, amusement, diversion and social activities, and any costs directly associated with such costs (such as meals, lodging, rentals, transportation and gratuities) are unallowable. When certain meals are an integral and necessary part of a conference or meeting (i.e., working meals where business is transacted), grant funds may be used for such meals. Grant funds may also be used to furnish a reasonable amount of coffee or soft drinks for conference or meeting participants and attendees during coffee breaks. No NSF funds may be spent on meals or coffee breaks for intramural meetings of an organization or any of its components, including, but not limited to, laboratories, departments and centers.

AWARD INFORMATION

Award Number (FAIN): 2005475
Award Instrument: Continuing Grant
Award Date: 07/27/2020
Award Period of Performance: Start Date: 08/01/2020 End Date: 07/31/2023
Project Title: Geometric Langlands Correspondence: Further Directions
Managing Division Abbreviation: DMS
Research and Development Award: Yes
Funding Opportunity: PD 10-1264 Algebra and Number Theory

CFDA Number and Name: 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $72,096
Total Intended Award Amount: $210,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $72,096
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2021	$68,952
2022	$68,952

PROJECT PERSONNEL

Principal Investigator: [redacted]
Email: [redacted]
Institution: Harvard University

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Awarding Official
Name: Aprile N Roberson
Email: aroberso@nsf.gov

Managing Program Officer
Name: James M. Douglass
Email: MDOUGLAS@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 03/14/2017, and NSF Agency Specific Requirements, dated 02/25/2019, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel

Senior Personnel Count	1.00
Senior Personnel Calendar Months	1.10
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$25,000
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$25,000
C. Fringe Benefits	$5,800
Total Salaries, Wages, Fringe Benefits (A + B + C)	$30,800
D. Equipment	$0
E. Travel	
Domestic	$4,000
International	$7,860
F. Participant Support Costs	

Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$42,660**
I. Indirect Costs*	**$29,436**
J. Total Direct and Indirect Costs (H + I)	$72,096
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$72,096**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2005475

Managing Division Abbreviation: DMS

Amendment Number: 004

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: No Cost Extensions
Amendment Date: 07/19/2024
Amendment Number: 004
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to extend the end date from 07/31/2024 to 07/31/2025 in accordance with the NSF Approved No-Cost Extension request submitted on 06/24/2024 without additional funds to allow for the completion of the agreed-to level of effort.

Except as modified by this amendment, the award conditions remain unchanged.

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Awarding Official
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Managing Program Officer
Name: James M. Douglass
Email: mdouglas@nsf.gov
Phone: (703) 292-2467

Phone: (703) 292-7721

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2012023
Managing Division Abbreviation: PHY **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 Massachusetts Ave 5th Floor Cambridge, MA 021385369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: Renewal
Amendment Date: 08/04/2020
Amendment Number: 000
Proposal Number: 2012023
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above .

AWARD INFORMATION

Award Number (FAIN): 2012023
Award Instrument: Standard Grant
Award Date: 08/04/2020
Award Period of Performance: Start Date: 09/01/2020 End Date: 08/31/2025
Project Title: Physics and Applications of Quantum Nanophotonics Systems
Managing Division Abbreviation: PHY
Research and Development Award: Yes
Funding Opportunity: NSF 18-564 Division of Physics: Investigator-Initiated Research Projects
CFDA Number and Name: 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $2,076,625
Total Intended Award Amount: $2,076,625

Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $2,076,625
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email** [redacted] **Institution:** Harvard University

Co-Principal Investigator: [redacted] **Email:** [redacted] **Institution:** Harvard University

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Pamela V. Conyers
Email: pconyers@nsf.gov

Awarding Official
Name: Pamela V. Conyers
Email: pconyers@nsf.gov

Managing Program Officer
Name: John D. Gillaspy
Email: JGILLASP@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 03/14/2017, and NSF Agency Specific Requirements, dated 02/25/2019, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 18-564 Division of Physics: Investigator-Initiated Research Projects.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	3.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$90,180
B. Other Personnel	

Post Doctoral Scholars	
Post Doctoral Count	10.00
Post Doctoral Calendar Months	59.50
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$310,302
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	86.00
Graduate Students Amount	$363,911
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$764,393
C. Fringe Benefits	$97,928
Total Salaries, Wages, Fringe Benefits (A + B + C)	$862,321
D. Equipment	$250,000
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0

Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$73,374
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$193,552
Total Other Direct Costs (G)	$266,926
H. Total Direct Costs (A Through G)	**$1,379,247**
I. Indirect Costs*	**$697,378**
J. Total Direct and Indirect Costs (H + I)	$2,076,625
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$2,076,625**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC Basis	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2013874
Managing Division Abbreviation: PHY **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 Massachusetts Ave 5th Floor Cambridge, MA 021385369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/18/2020
Amendment Number: 000
Proposal Number: 2013874
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above as modified by revised budget dated 07/17/2020.

AWARD INFORMATION

Award Number (FAIN): 2013874
Award Instrument: Continuing Grant
Award Date: 08/18/2020
Award Period of Performance: Start Date: 09/01/2020 End Date: 08/31/2025
Project Title: Spindle Self-Organization and Bioenergetics in Vivo
Managing Division Abbreviation: PHY
Research and Development Award: Yes
Funding Opportunity: NSF 18-564 Division of Physics: Investigator-Initiated Research Projects
CFDA Number and Name: 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $160,000
Total Intended Award Amount: $800,000

Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $160,000
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2021	$160,000
2022	$160,000
2023	$160,000
2024	$160,000

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Institution: Harvard University

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Pamela V. Conyers
Email: pconyers@nsf.gov

Awarding Official
Name: Denise M. Martin
Email: dmartin@nsf.gov

Managing Program Officer
Name: Krastan B Blagoev
Email: kblagoev@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 03/14/2017, and NSF Agency Specific Requirements, dated 02/25/2019, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 18-564 Division of Physics: Investigator-Initiated Research Projects.

BUDGET

A. Senior Personnel	
Senior Personnel Count	0.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic	0.00

Months	
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	2.00
Graduate Students Amount	$52,703
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$52,703
C. Fringe Benefits	$0
Total Salaries, Wages, Fringe Benefits (A + B + C)	$52,703
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs	$0

Travel	
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$17,631
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$33,807
Total Other Direct Costs (G)	$51,438
H. Total Direct Costs (A Through G)	**$104,141**
I. Indirect Costs*	**$55,859**
J. Total Direct and Indirect Costs (H + I)	$160,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$160,000**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2013874
Managing Division Abbreviation: PHY **Amendment Number:** 004

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Supplement
Amendment Date: 03/28/2022
Amendment Number: 004
Proposal Number: 2151481
Amendment Description:

The purpose of this amendment is to:

- Add supplemental support to the award in the amount shown below in the Funding Information section.

Except as modified by this amendment, the award conditions remain unchanged.

AWARD INFORMATION

Award Number (FAIN): 2013874
Award Instrument: Continuing Grant
Award Date: 08/18/2020
Award Period of Performance: Start Date: 09/01/2020 End Date: 08/31/2025
Project Title: Spindle Self-Organization and Bioenergetics in Vivo
Managing Division Abbreviation: PHY
Research and Development Award: Yes
Funding Opportunity: NSF 18-564 Division of Physics: Investigator-Initiated Research Projects
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $129,916
Total Intended Award Amount: $800,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $449,916

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Pamela V. Conyers
Email: pconyers@nsf.gov

Awarding Official
Name: Pamela V. Conyers
Email: pconyers@nsf.gov

Managing Program Officer
Name: Wilson A. Francisco
Email: wfrancis@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 10/04/2021, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	0.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00

Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$0
C. Fringe Benefits	$0
Total Salaries, Wages, Fringe Benefits (A + B + C)	$0
D. Equipment	$129,916
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0

Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$129,916**
I. Indirect Costs*	**$0**
J. Total Direct and Indirect Costs (H + I)	$129,916
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$129,916**
M. Cost Sharing Proposed Level	$0

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2023528
Managing Division Abbreviation: DMS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 Massachusetts Ave 5th Floor Cambridge, MA 021385369
Official Awardee Email Address [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/31/2020
Amendment Number: 000
Proposal Number: 2023528
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above as modified by revised budget dated 07/09/2020.

Funding in years 3-5 should be contingent on the result of the site visit by NSF staff to be conducted during the second year of the award.

Costs of entertainment, amusement, diversion and social activities, and any costs directly associated with such costs (such as meals, lodging, rentals, transportation and gratuities) are unallowable. When certain meals are an integral and necessary part of a conference or meeting (i.e., working meals where business is transacted), grant funds may be used for such meals. Grant funds may also be used to furnish a reasonable amount of coffee or soft drinks for conference or meeting participants and attendees during coffee breaks. No NSF funds may be spent on meals or coffee breaks for intramural meetings of an organization or any of its components, including, but not limited to, laboratories, departments and centers.

AWARD INFORMATION

Award Number (FAIN): 2023528
Award Instrument: Continuing Grant
Award Date: 08/31/2020
Award Period of Performance: Start Date: 09/01/2020 End Date: 08/31/2025
Project Title: Foundations of Data Science Institute

Managing Division Abbreviation: DMS
Research and Development Award: Yes
Funding Opportunity: NSF 19-604 Transdisciplinary Research in Principles of Data Science Phase II
CFDA Number and Name: 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $84,087
Total Intended Award Amount: $420,437
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $84,087
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2021	$84,087
2022	$84,087
2023	$84,087
2024	$84,089

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Institution:** Harvard University

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Institution
2023505	Y	[redacted]	The Regents of the University of California, Berkeley
2022205	N		Northeastern University
2022446	N		Trustees of Boston University
2022448	N		Massachusetts Institute of Technology

2023528	N	[redacted]	Harvard College, President & Fellows of Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Awarding Official
Name: Aprile N Roberson
Email: aroberso@nsf.gov

Managing Program Officer
Name: Tracy J Kimbrel
Email: tkimbrel@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 03/14/2017, and NSF Agency Specific Requirements, dated 02/25/2019, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 19-604 Transdisciplinary Research in Principles of Data Science Phase II.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	0.20
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$5,157
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	1.00
Post Doctoral Calendar Months	5.16
Post Doctoral Academic Months	0.00

Post Doctoral Summer Months	0.00
Post Doctoral Amount	$32,385
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$37,542
C. Fringe Benefits	$9,714
Total Salaries, Wages, Fringe Benefits (A + B + C)	$47,256
D. Equipment	$0
E. Travel	
Domestic	$2,500
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0

Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$49,756**
I. Indirect Costs*	**$34,331**
J. Total Direct and Indirect Costs (H + I)	$84,087
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$84,087**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2023528
Managing Division Abbreviation: DMS **Amendment Number:** 004

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Frwd Funded
Amendment Date: 09/14/2022
Amendment Number: 004
Proposal Number: 2244975
Amendment Description:

The purpose of this amendment is to forward fund scheduled incremental funding to the award in the amount shown below in the Funding Information section.

This amendment includes funds that were originally scheduled to be released in a future fiscal year. It is still the grantee's responsibility to submit an annual project report for each year in accordance with the NSF policies.

Except as modified by this amendment, the award conditions remain unchanged.

AWARD INFORMATION

Award Number (FAIN): 2023528
Award Instrument: Continuing Grant
Award Date: 08/31/2020
Award Period of Performance: Start Date: 09/01/2020 End Date: 08/31/2025
Project Title: Foundations of Data Science Institute
Managing Division Abbreviation: DMS
Research and Development Award: Yes
Funding Opportunity: NSF 19-604 Transdisciplinary Research in Principles of Data Science Phase II
Assistance Listing Number(s) and Name(s): 47.070 Computer and Information Science and Engineering, 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $84,087
Total Intended Award Amount: $420,437
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $336,348

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Awarding Official
Name: Daniel P McEnrue
Email: dpmcenru@nsf.gov

Managing Program Officer
Name: Tracy J Kimbrel
Email: tkimbrel@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	2.00
Senior Personnel Calendar Months	0.40
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$5,636
B. Other Personnel	
Post Doctoral Scholars	

Post Doctoral Count	2.00
Post Doctoral Calendar Months	9.30
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$31,918
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$37,554
C. Fringe Benefits	$9,702
Total Salaries, Wages, Fringe Benefits (A + B + C)	$47,256
D. Equipment	$0
E. Travel	
Domestic	$2,500
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0

Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$49,756**
I. Indirect Costs*	**$34,331**
J. Total Direct and Indirect Costs (H + I)	$84,087
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$84,087**
M. Cost Sharing Proposed Level	$0

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2038059
Managing Division Abbreviation: CHE **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 Massachusetts Ave 5th Floor Cambridge, MA 021385369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/05/2020
Amendment Number: 000
Proposal Number: 2038059
Amendment Description:

It is a pleasure to inform you that $1,000,000 is awarded to Harvard College, President & Fellows of Harvard University on behalf of [redacted] the recipient of the National Science Foundation's Alan T. Waterman Award. This award is intended to support research or advanced study in sciences. This award is presented annually to a U. S. scientist who has demonstrated outstanding research accomplishments in science or engineering, and exceptional promise for significant future achievement. The intent of Congress when it established the Alan T. Waterman Award, as expressed in P.L. 94-86 and its legislative history, was to give recognition to outstanding young scientists based on their previous achievements. Although the award takes the form of a "no strings" grant for further research or study, it is fundamentally a prize and not a consideration for future services. Further, in no sense is it to be considered as a scholarship or fellowship. (See H.R. Rep. No. 96-91, accompanying H.R. 2729, 96th Congress, 1st Session, P.L. 96-44)

This award provides funding for [redacted] endeavors for a period of five (5) years in the total amount of $1,000,000. The Harvard College, President & Fellows of Harvard University's role in receiving these funds is in the nature of institutional management of an escrow account for the use and benefit of [redacted]

Any publication of any material based on or developed under this award must contain an acknowledgment of NSF support and a disclaimer in the following terms:

This material is based upon research supported by the National Science Foundation under the Alan T. Waterman Award, Grant No. CHE-2038059.

Any opinions, findings, and conclusions or recommendations expressed in this publication are those of

the author and do not necessarily reflect the views of the National Science Foundation.

The Foundation congratulates both [redacted] and the Harvard College, President & Fellows of Harvard University on this prestigious award.

AWARD INFORMATION

Award Number (FAIN): 2038059
Award Instrument: Standard Grant
Award Date: 08/05/2020
Award Period of Performance: Start Date: 08/15/2020 End Date: 07/31/2025
Project Title: 2020 Waterman Award
Managing Division Abbreviation: CHE
Research and Development Award: Yes
Funding Opportunity: None
CFDA Number and Name: 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $1,000,000
Total Intended Award Amount: $1,000,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $1,000,000
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Institution: Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Pamela V. Conyers
Email: pconyers@nsf.gov

Awarding Official
Name: Denise M. Martin
Email: dmartin@nsf.gov

Managing Program Officer
Name: Robin L McCarley
Email: rmccarle@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75).



NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:2040378 **PI Name** [redacted]

AWARD NOTICE

AWARD DATE: July 16, 2020

ORIGINAL GRANT NUMBER (FAIN):	2000610
START DATE OF TRANSFER:	July 1 , 2020
(becomes start date of transferred award)	
END DATE OF GRANT: August 31, 2020	
1. Original Grant Amount (including amendments actually awarded, if any)	$163,302
2. Total estimated disbursements and unpaid obligations (at effective date of transfer)	$0
3. Estimated unobligated balance (amount to be transferred)	
Net	$163,302

ORIGINAL GRANTEE NAME AND ADDRESS

[redacted]
Director of Sponsored Programs and Research
Northwestern University
750 N. Lake Shore Drive
Rubloff 7th Floor
Chicago, IL
[redacted]

DUNS ID: 160079455

TRANSFER ORGANIZATION (NEW GRANTEE) NAME AND ADDRESS

[redacted]
Director, Office of Grants Administration
Harvard College, President & Fellows of
Harvard University
1033 Massachusetts Ave
5th Floor
Cambridge, MA 02138-5369
[redacted]

DUNS ID: 082359691

Acceptance of this transfer by the new grantee organization constitutes agreement by that organization to assume responsibility for completion of the project effort and to administer the grant (as awarded) from the transfer date to completion in accordance with any special terms and conditions and the applicable general terms and conditions that normally govern NSF awards made to the transferee institution and as noted below.

NEW GRANT NUMBER (FAIN):	2040378
TRANSFERRED AMOUNT:	$163,302
AWARD END DATE:	June 30, 2023

NSF APPROVAL AND NOTIFICATION

NSF GRANTS AND AGREEMENTS OFFICER	NSF PROGRAM OFFICER
Aprile Roberson	James Matthew
Douglass	
Grants Officer	(703) 292-2467

PI: [redacted]

Increments:

FY 2021	$86,188
FY 2022	$86,510

Please view the project reporting requirements for this award at the following web

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:2040378 **PI Name:** [redacted]

address .

Costs of entertainment, amusement, diversion and social activities, and any costs directly associated with such costs (such as meals, lodging, rentals, transportation and gratuities) are unallowable. When certain meals are an integral and necessary part of a conference or meeting (i.e., working meals where business is transacted), grant funds may be used for such meals. Grant funds may also be used to furnish a reasonable amount of coffee or soft drinks for conference or meeting participants and attendees during coffee breaks.

No NSF funds may be spent on meals or coffee breaks for intramural meetings of an organization or any of its components, including, but not limited to, laboratories, departments and centers.

Research Terms and Conditions (RTCs) dated March 14, 2017, and NSF Agency Specific Requirements, dated February 25, 2019, available at: https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots..

The cognizant grants official contact is Lynda Kummelt (703) 292-7721.

CFDA No: 47.049

DMS-2040378 000

SUMMARY PROPOSAL BUDGET

Person MOS	cal	acad	sumr	Funds granted By NSF
A. (1.00) Total Senior personnel	1.12	0.00	0.00	$30,000
B. Other Personnel				
1. (0.00) Post Doctoral associates	0.00	0.00	0.00	$0
2. (0.00) Other professionals	0.00	0.00	0.00	$0
3. (1.00) Graduate students				$15,280
4. (0.00) Secretarial-clerical				$0
5. (0.00) Undergraduate students				$0
6. (0.00) Other				$0
Total salaries and wages (A+B)				$45,280
C. Fringe benefits (if charged as direct cost)				$6,960
Total salaries wages and fringes (A+B+C)				$52,240
D. Total permanent equipment				$0
E. Travel				
1. Domestic				$18,523
2. International				$15,000
F. Total participant support costs				$0
G. Other direct costs				
1. Materials and supplies				$0
2. Publication costs/page charges				$0
3. Consultant services				$0
4. Computer (ADPE) services				$0
5. Subawards				$0
6. Other				$27,796
Total other direct costs				$27,796
H. Total direct costs (A through G)				$113,559
I. Total indirect costs				$49,743
(For information on the rate used, please refer to the award notice)				
J. Total direct and indirect costs (H+I)				$163,302
K. Fee				$0
L. Amount of this request (J) or (J+K)				$163,302
M. Cost sharing				$0

NSF_Harvard000159

NATIONAL SCIENCE FOUNDATION

Grant Letter

Award:2040378 **PI Name** [redacted]

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2040378

Managing Division Abbreviation: DMS

Amendment Number: 003

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: No Cost Extensions
Amendment Date: 02/22/2024
Amendment Number: 003
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to extend the end date from 04/30/2024 to 04/30/2025 without additional funds to allow for the completion of the agreed-to level of effort.

Except as modified by this amendment, the award conditions remain unchanged.

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Lynda Kummelt
Email: lkummelt@nsf.gov
Phone: (703) 292-7721

Awarding Official
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Managing Program Officer
Name: James M. Douglass
Email: mdouglas@nsf.gov
Phone: (703) 292-2467

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2045981
Managing Division Abbreviation: DMS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 Massachusetts Ave 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 01/14/2021
Amendment Number: 000
Proposal Number: 2045981
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above as modified by revised budget dated 12/01/2020.

AWARD INFORMATION

Award Number (FAIN): 2045981
Award Instrument: Continuing Grant
Award Date: 01/14/2021
Award Period of Performance: Start Date: 07/01/2021 End Date: 06/30/2026
Project Title: CAREER: Beyond Conditional Independence: New Model-Free Targets for High-Dimensional Inference
Managing Division Abbreviation: DMS
Research and Development Award: Yes
Funding Opportunity: NSF 20-525 Faculty Early Career Development Program
CFDA Number and Name: 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $75,529

Total Intended Award Amount: $400,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $75,529
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2022	$77,693
2023	$79,922
2024	$82,219
2025	$84,637

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Institution:** Harvard University

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Awarding Official
Name: Aprile N Roberson
Email: aroberso@nsf.gov

Managing Program Officer
Name: Edsel A Pena
Email: epena@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 03/14/2017, and NSF Agency Specific Requirements, dated 11/12/2020, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 20-525 Faculty Early Career Development Program.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	1.00

Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$15,111
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	1.00
Graduate Students Amount	$24,075
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$39,186
C. Fringe Benefits	$3,506
Total Salaries, Wages, Fringe Benefits (A + B + C)	$42,692
D. Equipment	$0
E. Travel	
Domestic	$2,000
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0

Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$44,692**
I. Indirect Costs*	**$30,837**
J. Total Direct and Indirect Costs (H + I)	$75,529
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$75,529**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2045981

Managing Division Abbreviation: DMS

Amendment Number: 001

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: Other Admin No Fund Actions
Amendment Date: 05/20/2021
Amendment Number: 001
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to correct the date of the Research Terms and Conditions (RTCs) cited in a previous amendment to the award. This award is subject to the RTCs dated 11/12/2020, and NSF Agency Specific Requirements, dated 11/12/2020, available at https://www.nsf.gov/awards/managing/rtc.jsp

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Institution: Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Awarding Official
Name: Joseph M. Kittle
Email: jkittle@nsf.gov

Managing Program Officer
Name: Edsel A Pena
Email: epena@nsf.gov

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2047192
Managing Division Abbreviation: EAR **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 03/23/2021
Amendment Number: 000
Proposal Number: 2047192
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above .

AWARD INFORMATION

Award Number (FAIN): 2047192
Award Instrument: Continuing Grant
Award Date: 03/23/2021
Award Period of Performance: Start Date: 06/01/2021 End Date: 05/31/2026
Project Title: CAREER: Ecological turnover at the dawn of the Great Ordovician Biodiversification Event - quantifying the Cambro-Ordovician transition through the lens of exceptional preservation
Managing Division Abbreviation: EAR
Research and Development Award: Yes
Funding Opportunity: NSF 20-525 Faculty Early Career Development Program
CFDA Number and Name: 47.050 Geosciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $126,123

Total Intended Award Amount: $829,539
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $126,123
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2022	$207,317
2023	$218,725
2024	$136,800
2025	$140,574

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Institution: Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Angela A. Turner
Email: aturner@nsf.gov

Awarding Official
Name: Angela A. Turner
Email: aturner@nsf.gov

Managing Program Officer
Name: Dena Michelle Smith-Nufio
Email: dmsmith@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 03/14/2017, and NSF Agency Specific Requirements, dated 11/12/2020, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 20-525 Faculty Early Career Development Program.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00

Senior Personnel Calendar Months	1.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$10,533
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	1.00
Post Doctoral Calendar Months	8.40
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$38,917
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	1.00
Undergraduate Students Amount	$6,000
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$55,450
C. Fringe Benefits	$12,679
Total Salaries, Wages, Fringe Benefits (A + B + C)	$68,129
D. Equipment	$0
E. Travel	
Domestic	$1,500
International	$2,500
F. Participant Support Costs	

Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$1,000
Publication Costs	$0
Consultant Services	$0
Computer Services	$1,500
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$2,500
H. Total Direct Costs (A Through G)	**$74,629**
I. Indirect Costs*	**$51,494**
J. Total Direct and Indirect Costs (H + I)	$126,123
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$126,123**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2047192

Managing Division Abbreviation: EAR

Amendment Number: 006

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Other Admin No Fund Actions
Amendment Date: 12/10/2024
Amendment Number: 006
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to authorize the awardee to enter into the proposed subaward agreement in accordance with the Subawarding, Transferring or Contracting Out Part of an NSF Award request submitted on 10/30/2024.

The subaward agreement should contain appropriate provisions in accordance with the award terms and conditions in effect at the time of this award amendment, and contain any special conditions included in this award.

Except as modified by this amendment, the award conditions remain unchanged.

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Angela A. Turner

Awarding Official
Name: Angela A. Turner
Email: aturner@nsf.gov

Managing Program Officer
Name: Yurena Yanes

Email: aturner@nsf.gov
Phone: (703) 292-7524

Email: yyanes@nsf.gov
Phone: (703) 292-2649

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2101884
Managing Division Abbreviation: DBI **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 07/20/2021
Amendment Number: 000
Proposal Number: 2101884
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above .

Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies and procedures to segregate participant support costs.

The Foundation authorizes the awardee to enter into the proposed subaward arrangement and to fund the subaward with award funds up to the amount indicated in the approved budget or NSF-approved post award request. The subaward should contain appropriate provisions consistent with Appendix B of the Research Terms and Conditions (RTC) dated November 12, 2020, or Articles 8.a.4. and 9 of the NSF Grant General Conditions (GC-1) dated November 12, 2020 (as appropriate), as well as any special conditions included in this award.

AWARD INFORMATION

Award Number (FAIN): 2101884
Award Instrument: Continuing Grant
Award Date: 07/20/2021

Award Period of Performance: Start Date: 09/15/2021 End Date: 08/31/2025
Project Title: Digitization TCN: Collaborative Research: Bringing Asia to digital life: mobilizing underrepresented Asian herbarium collections in the US to propel biodiversity discovery
Managing Division Abbreviation: DBI
Research and Development Award: Yes
Funding Opportunity: NSF 15-576 Advancing Digitization of Biodiversity Collections
CFDA Number and Name: 47.074 Biological Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $485,585
Total Intended Award Amount: $1,632,344
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $485,585
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2022	$410,400
2023	$361,448
2024	$374,911

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Institution:** Harvard University

Co-Principal Investigator: [redacted] **Email:** [redacted] **Institution:** Harvard University

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Institution
2101884	Y	[redacted]	Harvard College, President & Fellows of Harvard University
2100755	N		The New York Botanical Garden
2101773	N		Missouri

2101846	N	[redacted]	Botanical Garden University of Colorado
2101868	N		Regents of the University of Michigan
2101886	N		Trustees of Boston University
2101966	N		Bernice P. Bishop Museum

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Denise L Hundley
Email: dhundley@nsf.gov

Awarding Official
Name: Denise L Hundley
Email: dhundley@nsf.gov

Managing Program Officer
Name: Reed Schiele Beaman
Email: rsbeaman@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 11/12/2020, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 15-576 Advancing Digitization of Biodiversity Collections.

BUDGET

A. Senior Personnel	
Senior Personnel Count	0.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic	0.00

Months	
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	4.00
Other Professionals Calendar Months	12.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$162,077
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$162,077
C. Fringe Benefits	$90,763
Total Salaries, Wages, Fringe Benefits (A + B + C)	$252,840
D. Equipment	$0
E. Travel	
Domestic	$39,588
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs	$5,094

Travel	
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	6.00
Total Participant Costs (F)	$5,094
G. Other Direct Costs	
Materials Supplies	$1,800
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$62,937
Other	$2,178
Total Other Direct Costs (G)	$66,915
H. Total Direct Costs (A Through G)	**$364,437**
I. Indirect Costs*	**$121,148**
J. Total Direct and Indirect Costs (H + I)	$485,585
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$485,585**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC Harvard Budget	34.0000%
MTDC, UMASS	34.0000%
MTDC, UNH	34.0000%
MTDC, UVM	34.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2104150
Managing Division Abbreviation: DBI **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 07/27/2021
Amendment Number: 000
Proposal Number: 2104150
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above .

AWARD INFORMATION

Award Number (FAIN): 2104150
Award Instrument: Continuing Grant
Award Date: 07/27/2021
Award Period of Performance: Start Date: 08/01/2021 End Date: 07/31/2024
Project Title: Collaborative Research: LightningBug, An Integrated Pipeline to Overcome The Biodiversity Digitization Gap
Managing Division Abbreviation: DBI
Research and Development Award: Yes
Funding Opportunity: NSF 21-502 Infrastructure Innovation for Biological Research
CFDA Number and Name: 47.074 Biological Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $45,090

Total Intended Award Amount: $111,116
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $45,090
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2022	$63,346
2023	$2,680

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Institution:** Harvard University

Co-Principal Investigator: [redacted] **Email:** [redacted] **Institution:** Harvard University

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Institution
2104149	Y	[redacted]	Yale University
2104150	N		Harvard College, President & Fellows of Harvard University
2104151	N		The University of Chicago
2104152	N		University of Florida

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Denise L Hundley
Email: dhundley@nsf.gov

Awarding Official
Name: Vanessa L. Richardson
Email: vlrichar@nsf.gov

Managing Program Officer
Name: Peter H. McCartney
Email: pmccartn@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 11/12/2020, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-502 Infrastructure Innovation for Biological Research.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	1.20
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$9,667
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	1.00
Other Professionals Calendar Months	3.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$10,601
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	1.00
Undergraduate Students Amount	$3,000

Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$23,268
C. Fringe Benefits	$9,881
Total Salaries, Wages, Fringe Benefits (A + B + C)	$33,149
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$500
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$500
H. Total Direct Costs (A Through G)	**$33,649**
I. Indirect Costs*	**$11,441**
J. Total Direct and Indirect Costs (H + I)	$45,090
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$45,090**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	34.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2104150

Managing Division Abbreviation: DBI

Amendment Number: 001

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: No Cost Extensions
Amendment Date: 09/19/2022
Amendment Number: 001
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to extend the end date from 07/31/2024 to 07/31/2025 without additional funds to allow for the completion of the agreed-to level of effort.

The FY 2022 continuing grant increment has been deferred; please see new funding schedule below:

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2023	$63,346
2024	$2,680

Except as modified by this amendment, the award conditions remain unchanged.

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

co-Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact) **Name:** Christine Castell **Email:** ccastell@nsf.gov	**Awarding Official** **Name:** Vanessa L. Richardson **Email:** vlrichar@nsf.gov	**Managing Program Officer** **Name:** Peter H. McCartney **Email:** pmccartn@nsf.gov

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2105048
Managing Division Abbreviation: DMR **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Renewal
Amendment Date: 03/30/2022
Amendment Number: 000
Proposal Number: 2105048
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above as modified by revised budget dated 01/13/2022.

The Foundation authorizes the awardee to enter into the proposed subaward arrangement and to fund the subaward with award funds up to the amount indicated in the approved budget or NSF-approved post award request. The subaward should contain appropriate provisions consistent with Appendix B of the Research Terms and Conditions (RTC) dated November 12, 2020, or Articles 8.a.4. and 9 of the NSF Grant General Conditions (GC-1) dated November 12, 2020 (as appropriate), as well as any special conditions included in this award.

AWARD INFORMATION

Award Number (FAIN): 2105048
Award Instrument: Continuing Grant
Award Date: 03/30/2022
Award Period of Performance: Start Date: 04/15/2022 End Date: 03/31/2026
Project Title: Transport on van der Wals Superconductor Heretostructures
Managing Division Abbreviation: DMR
Research and Development Award: Yes
Funding Opportunity: NSF 20-589 Division of Materials Research: Topical Materials Research Programs: Biomaterials (BMAT), Condensed Matter Physics (CMP), Metals and Metallic Nanostructures (MMN), Polymers (POL)

Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $190,000
Total Intended Award Amount: $760,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $190,000
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2023	$190,000
2024	$190,000
2025	$190,000

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

co-Principal Investigator: [redacted] **Email:** [redacted] **Organization:** UNIVERSITY OF CHICAGO, THE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Elizabeth Gebremedhin
Email: egebreme@nsf.gov

Awarding Official
Name: Elizabeth Gebremedhin
Email: egebreme@nsf.gov

Managing Program Officer
Name: Tomasz Durakiewicz
Email: tdurakie@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 10/04/2021, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 20-589 Division of Materials Research: Topical Materials Research Programs: Biomaterials (BMAT), Condensed Matter Physics (CMP), Metals and Metallic Nanostructures (MMN), Polymers (POL).

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	0.20
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$5,981
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	2.00
Graduate Students Amount	$46,865
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0

Total Salaries and Wages (A+B)	$52,846
C. Fringe Benefits	$1,411
Total Salaries, Wages, Fringe Benefits (A + B + C)	$54,257
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$11,504
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$40,000
Other	$21,614
Total Other Direct Costs (G)	$73,118
H. Total Direct Costs (A Through G)	**$127,375**
I. Indirect Costs*	**$62,625**
J. Total Direct and Indirect Costs (H + I)	$190,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$190,000**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC Basis (Excludes tuition)	69.0000%
Subaward (69% on !st $25k of each)	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2105903
Managing Division Abbreviation: DEB **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 07/12/2021
Amendment Number: 000
Proposal Number: 2105903
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above .

AWARD INFORMATION

Award Number (FAIN): 2105903
Award Instrument: Continuing Grant
Award Date: 07/12/2021
Award Period of Performance: Start Date: 07/15/2021 End Date: 06/30/2026
Project Title: Collaborative Research: MRA: Modeling and forecasting phenology across spatiotemporal and taxonomic scales using ecological observatory and mobilized digital herbarium data
Managing Division Abbreviation: DEB
Research and Development Award: Yes
Funding Opportunity: NSF 20-506 Macrosystems Biology and NEON-Enabled Science
CFDA Number and Name: 47.074 Biological Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $224,956

Total Intended Award Amount: $548,109
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $224,956
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2023	$323,153

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Institution:** Harvard University

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Institution
2105932	Y	[redacted]	University of California, Santa Barbara
2105903	N		Harvard College, President & Fellows of Harvard University
2105907	N		Bryn Mawr College

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Staci Jenkins
Email: sjenkins@nsf.gov

Awarding Official
Name: Staci Jenkins
Email: sjenkins@nsf.gov

Managing Program Officer
Name: Diana Pilson
Email: dpilson@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 11/12/2020, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 20-506 Macrosystems Biology and NEON-Enabled Science.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	2.60
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$37,000
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	1.00
Post Doctoral Calendar Months	12.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$50,000
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0

Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$87,000
C. Fringe Benefits	$16,110
Total Salaries, Wages, Fringe Benefits (A + B + C)	$103,110
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$30,000
Total Other Direct Costs (G)	$30,000
H. Total Direct Costs (A Through G)	**$133,110**
I. Indirect Costs*	**$91,846**
J. Total Direct and Indirect Costs (H + I)	$224,956
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$224,956**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

The indirect cost rate(s) for this award is/are not available. These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal

& Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2107078
Managing Division Abbreviation: CNS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 06/28/2021
Amendment Number: 000
Proposal Number: 2107078
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above .

In accordance with sections 1869a and 1869b of title 42 of the United States Code, the awardee will do the following: 1. Obtain from the school board or comparable authority responsible for the schools considering participation in the project, written approval prior to involvement of pre-college students in pre-college education research and development, pilot-testing, evaluation, and revision of experimental and innovative pre-college curriculum. 2. Include in every publication, testing, or distribution agreement involving instructional materials developed under this grant (including, but not limited to, teachers' manuals, textbooks, films, tapes, or other supplementary material) a requirement that such material be made available within the school district using it for inspection by parents or guardians of children engaged in educational programs or projects using such material of that school district.

AWARD INFORMATION

Award Number (FAIN): 2107078
Award Instrument: Continuing Grant
Award Date: 06/28/2021
Award Period of Performance: Start Date: 07/01/2021 End Date: 06/30/2025
Project Title: CNS Core: Medium: Approximation and Randomization in the Programmable Data Plane
Managing Division Abbreviation: CNS

Research and Development Award: Yes
Funding Opportunity: NSF 20-591 Computer and Information Science and Engineering (CISE): Core Programs
CFDA Number and Name: 47.070 Computer and Information Science and Engineering

FUNDING INFORMATION

Amount Obligated by this Amendment: $860,000
Total Intended Award Amount: $1,200,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $860,000
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2023	$340,000

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Institution:** Harvard University

Co-Principal Investigator: [redacted] **Email:** [redacted] **Institution:** Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Irene C. Sattler
Email: isattler@nsf.gov

Awarding Official
Name: Irene C. Sattler
Email: isattler@nsf.gov

Managing Program Officer
Name: Ann Chrstine Von Lehmen
Email: avonlehm@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 11/12/2020, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 20-591 Computer and

Information Science and Engineering (CISE): Core Programs.

BUDGET

A. Senior Personnel	
Senior Personnel Count	4.00
Senior Personnel Calendar Months	4.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$117,313
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	1.00
Post Doctoral Calendar Months	12.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$78,308
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	4.00
Graduate Students Amount	$206,658
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$402,279
C. Fringe Benefits	$47,812

Total Salaries, Wages, Fringe Benefits (A + B + C)	$450,091
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$2,540
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$95,056
Total Other Direct Costs (G)	$97,596
H. Total Direct Costs (A Through G)	**$547,687**
I. Indirect Costs*	**$312,313**
J. Total Direct and Indirect Costs (H + I)	$860,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$860,000**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Direct Costs Subject to overhead	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG)

Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2107078
Managing Division Abbreviation: CNS **Amendment Number:** 001

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Supplement
Amendment Date: 05/20/2022
Amendment Number: 001
Proposal Number: 2226205
Amendment Description:

The purpose of this amendment is to:

- Add supplemental support to the award in the amount shown below in the Funding Information section.

Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies and procedures to segregate participant support costs.

Funds provided by this award include support for "Research Experiences for Undergraduates" in accordance with the NSF program solicitation NSF 19-582.

Except as modified by this amendment, the award conditions remain unchanged.

AWARD INFORMATION

Award Number (FAIN): 2107078
Award Instrument: Continuing Grant
Award Date: 06/28/2021

Award Period of Performance: Start Date: 07/01/2021 End Date: 06/30/2025
Project Title: CNS Core: Medium: Approximation and Randomization in the Programmable Data Plane
Managing Division Abbreviation: CNS
Research and Development Award: Yes
Funding Opportunity: NSF 20-591 Computer and Information Science and Engineering (CISE): Core Programs
Assistance Listing Number(s) and Name(s): 47.070 Computer and Information Science and Engineering

FUNDING INFORMATION

Amount Obligated by this Amendment: $16,000
Total Intended Award Amount: $1,200,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $876,000

PROJECT PERSONNEL

Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE
co-Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Irene C. Sattler
Email: isattler@nsf.gov

Awarding Official
Name: Jannele L. Gosey
Email: jgosey@nsf.gov

Managing Program Officer
Name: Ann Chrstine Von Lehmen
Email: avonlehm@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	0.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$0
C. Fringe Benefits	$0
Total Salaries, Wages, Fringe Benefits (A + B + C)	$0
D. Equipment	$0
E. Travel	

Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$7,600
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$8,400
Participant Support Costs Other	$0
Total Number of Participants	2.00
Total Participant Costs (F)	$16,000
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$16,000**
I. Indirect Costs*	**$0**
J. Total Direct and Indirect Costs (H + I)	$16,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$16,000**
M. Cost Sharing Proposed Level	$0

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2107391
Managing Division Abbreviation: IIS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 07/20/2021
Amendment Number: 000
Proposal Number: 2107391
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above .

Incentive payments or gifts to participants must be made in accordance with written institutional policies and procedures and supported by auditable documentation. The allowability of these costs will ultimately be based on the awardee institution's ability to adequately demonstrate that the incentives have been disbursed in accordance with its policies and procedures.

It is the grantee's responsibility to ensure that any human subjects work conducted under this award has an Institutional Review Board (IRB) approval, where required, and that such approval remains valid at all times that human subjects work is conducted under the award. Failure to comply with this condition will result in suspension and/or termination of the award.

AWARD INFORMATION

Award Number (FAIN): 2107391
Award Instrument: Standard Grant
Award Date: 07/20/2021
Award Period of Performance: Start Date: 10/01/2021 End Date: 09/30/2025
Project Title: HCC: Medium: Improving Human-AI Collaboration on Decision-Making Tasks
Managing Division Abbreviation: IIS
Research and Development Award: Yes

Funding Opportunity: NSF 20-591 Computer and Information Science and Engineering (CISE): Core Programs
CFDA Number and Name: 47.070 Computer and Information Science and Engineering

FUNDING INFORMATION

Amount Obligated by this Amendment: $1,200,000
Total Intended Award Amount: $1,200,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $1,200,000
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]	**Email:** [redacted]	**Institution:** Harvard University
Co-Principal Investigator: [redacted]	**Email:** [redacted]	**Institution:** Harvard University
Co-Principal Investigator: [redacted]	**Email:** [redacted]	**Institution:** Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact) **Name:** Tianay M. Robinson **Email:** trobinso@nsf.gov	**Awarding Official** **Name:** Tianay M. Robinson **Email:** trobinso@nsf.gov	**Managing Program Officer** **Name:** Todd Leen **Email:** tleen@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 11/12/2020, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 20-591 Computer and Information Science and Engineering (CISE): Core Programs.

BUDGET

A. Senior Personnel	
Senior Personnel Count	12.00
Senior Personnel Calendar Months	4.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$73,638
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	12.00
Graduate Students Amount	$436,199
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$509,837
C. Fringe Benefits	$17,084

Total Salaries, Wages, Fringe Benefits (A + B + C)	$526,921
D. Equipment	$0
E. Travel	
Domestic	$26,004
International	$15,000
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$224,267
Total Other Direct Costs (G)	$224,267
H. Total Direct Costs (A Through G)	**$792,192**
I. Indirect Costs*	**$407,808**
J. Total Direct and Indirect Costs (H + I)	$1,200,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$1,200,000**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC - On Site - Research	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost

rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2107391
Managing Division Abbreviation: IIS **Amendment Number:** 001

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Supplement
Amendment Date: 03/25/2025
Amendment Number: 001
Proposal Number: 2505221
Amendment Description:

The purpose of this amendment is to:

- Add supplemental support to the award in the amount shown below in the Funding Information section.
- Extend the end date from 09/30/2025 to 12/31/2025.

Except as modified by this amendment, the award conditions remain unchanged.

AWARD INFORMATION

Award Number (FAIN): 2107391
Award Instrument: Standard Grant
Award Date: 07/20/2021
Award Period of Performance: Start Date: 10/01/2021 End Date: 12/31/2025
Project Title: HCC: Medium: Improving Human-AI Collaboration on Decision-Making Tasks
Managing Division Abbreviation: IIS
Research and Development Award: Yes
Funding Opportunity: NSF 20-591 Computer and Information Science and Engineering (CISE): Core Programs
Assistance Listing Number(s) and Name(s): 47.070 Computer and Information Science and Engineering (See Amendment 000 for source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $30,000
Total Intended Award Amount: $1,200,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $1,230,000

PROJECT PERSONNEL

Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE
co-Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE
co-Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Tianay M. Robinson
Email: trobinso@nsf.gov
Phone: (703) 292-7859

Awarding Official
Name: Tianay M. Robinson
Email: trobinso@nsf.gov

Managing Program Officer
Name: Todd Leen
Email: tleen@nsf.gov
Phone: (703) 292-7215

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to NSF Grant General Conditions (GC-1), dated 10/01/2024, available at https://www.nsf.gov/awards/managing/general_conditions.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00

Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	1.00
Post Doctoral Calendar Months	3.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$14,527
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$14,527
C. Fringe Benefits	$3,225
Total Salaries, Wages, Fringe Benefits (A + B + C)	$17,752
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0

Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$17,752**
I. Indirect Costs*	**$12,248**
J. Total Direct and Indirect Costs (H + I)	$30,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$30,000**
M. Cost Sharing Proposed Level	$0

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2417241
Managing Division Abbreviation: SES **Amendment Number:** 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 11/14/2024
Amendment Number: 000
Proposal Number: 2417241
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above.

Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies and procedures to segregate participant support costs.

AWARD INFORMATION

Award Number (FAIN): 2417241
Award Instrument: Continuing Grant
Award Date: 11/14/2024
Award Period of Performance: Start Date: 10/15/2024 End Date: 09/30/2027
Project Title: SBE-UKRI: Resource Rational Contractualism: A foundation for moral judgment and decision making
Managing Division Abbreviation: SES
Research and Development Award: Yes
Funding Opportunity: NSF 23-1 Proposal & Award Policies & Procedures Guide - PAPPG
Assistance Listing Number(s) and Name(s): 47.075 Social, Behavioral, and Economic Sciences (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $212,203
Total Intended Award Amount: $690,003
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $212,203
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2026	$261,833
2027	$215,967

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov
Phone: (703) 292-7046

Awarding Official
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov

Managing Program Officer
Name: Robert E O'Connor
Email: roconnor@nsf.gov
Phone: (703) 292-7263

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to NSF Grant General Conditions (GC-1), dated 10/01/2024, available at https://www.nsf.gov/awards/managing/general_conditions.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	0.50
Senior Personnel Academic	0.00

Months	
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$12,738
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	1.00
Post Doctoral Calendar Months	12.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$65,000
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	6.00
Undergraduate Students Amount	$14,000
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$91,738
C. Fringe Benefits	$18,086
Total Salaries, Wages, Fringe Benefits (A + B + C)	$109,824
D. Equipment	$0
E. Travel	
Domestic	$6,000
International	$1,000
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0

Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$2,500
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$6,240
Total Other Direct Costs (G)	$8,740
H. Total Direct Costs (A Through G)	**$125,564**
I. Indirect Costs*	**$86,639**
J. Total Direct and Indirect Costs (H + I)	$212,203
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$212,203**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
F&A	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2421119
Managing Division Abbreviation: IOS **Amendment Number:** 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/14/2024
Amendment Number: 000
Proposal Number: 2421119
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above.

It is the grantee's responsibility to ensure that any vertebrate animal work conducted under this award has Institutional Animal Care and Use Committee (IACUC) approval, where required, that the approval be from an organization that has a current Public Health Service-approved Animal Welfare Assurance, and that such approval remains valid at all times that vertebrate animal work is conducted under the award. See the NSF PAPPG Chapter II.D.4, for additional information. This condition extends to vertebrate animal work funded via use of a subaward. Failure to comply with this condition will result in suspension and/or termination of the award.

AWARD INFORMATION

Award Number (FAIN): 2421119
Award Instrument: Continuing Grant
Award Date: 08/14/2024
Award Period of Performance: Start Date: 10/01/2024 End Date: 09/30/2028
Project Title: Collaborative Research: EDGE CMT: Shared genetic and cellular mechanisms of vertebrate limb and fin regeneration.
Managing Division Abbreviation: IOS
Research and Development Award: Yes
Funding Opportunity: NSF 21-546 Enabling Discovery through GEnomics

Assistance Listing Number(s) and Name(s): 47.074 Biological Sciences (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $251,118
Total Intended Award Amount: $334,824
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $251,118
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2025	$83,706

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2421117	Y	[redacted]	Louisiana State University
2421118	N		University of California, Irvine
2421119	N		Harvard College, President & Fellows of Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Termia M. Millard
Email:

Awarding Official
Name: Vanessa L. Richardson
Email: vlrichar@nsf.gov

Managing Program Officer
Name: Matthew Fujita
Email: mfujita@nsf.gov
Phone: (703) 292-7814

tmillard@nsf.gov
Phone: (703) 292-7074

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/20/2024, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-546 Enabling Discovery through GEnomics.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	1.80
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$23,220
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	

Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	3.00
Other Amount	$61,839
Total Salaries and Wages (A+B)	$85,059
C. Fringe Benefits	$30,531
Total Salaries, Wages, Fringe Benefits (A + B + C)	$115,590
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$33,000
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$33,000
H. Total Direct Costs (A Through G)	**$148,590**
I. Indirect Costs*	**$102,528**
J. Total Direct and Indirect Costs (H + I)	$251,118
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$251,118**

M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Modified Total Direct Cost	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2421461
Managing Division Abbreviation: EFMA **Amendment Number:** 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 07/22/2024
Amendment Number: 000
Proposal Number: 2421461
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies and procedures to segregate participant support costs.

AWARD INFORMATION

Award Number (FAIN): 2421461
Award Instrument: Standard Grant
Award Date: 07/22/2024
Award Period of Performance: Start Date: 11/01/2024 End Date: 10/31/2027
Project Title: TRAILBLAZER: Biodegradable Living Materials
Managing Division Abbreviation: EFMA
Research and Development Award: Yes
Funding Opportunity: NSF 23-629 NSF Trailblazer Engineering Impact Award (TRAILBLAZER)
Assistance Listing Number(s) and Name(s): 47.041 Engineering Grants (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $2,972,873
Total Intended Award Amount: $2,972,873
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $2,972,873
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Tamika Lloyd
Email: tlloyd@nsf.gov
Phone:

Awarding Official
Name: Willis Phan
Email: wiphan@nsf.gov

Managing Program Officer
Name: Alias Smith
Email: alismith@nsf.gov
Phone: (703) 292-8367

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/20/2024, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 23-629 NSF Trailblazer Engineering Impact Award (TRAILBLAZER).

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	6.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00

Senior Personnel Amount	$189,390
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	6.00
Post Doctoral Calendar Months	36.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$405,835
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	12.00
Graduate Students Amount	$624,361
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$1,219,586
C. Fringe Benefits	$127,973
Total Salaries, Wages, Fringe Benefits (A + B + C)	$1,347,559
D. Equipment	$0
E. Travel	
Domestic	$52,500
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$42,000
Participant Support Costs Travel	$0

Participant Support Costs Subsistence	$24,000
Participant Support Costs Other	$0
Total Number of Participants	6.00
Total Participant Costs (F)	$66,000
G. Other Direct Costs	
Materials Supplies	$150,000
Publication Costs	$6,000
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$266,782
Total Other Direct Costs (G)	$422,782
H. Total Direct Costs (A Through G)	**$1,888,841**
I. Indirect Costs*	**$1,084,032**
J. Total Direct and Indirect Costs (H + I)	$2,972,873
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$2,972,873**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2121239
Managing Division Abbreviation: BCS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/31/2021
Amendment Number: 000
Proposal Number: 2121239
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 07/20/2021.

AWARD INFORMATION

Award Number (FAIN): 2121239
Award Instrument: Standard Grant
Award Date: 08/31/2021
Award Period of Performance: Start Date: 01/01/2022 End Date: 12/31/2025
Project Title: Collaborative Research: HNDS-I: A global seafood trade network database for sustainable food systems, human health, and nutrition security
Managing Division Abbreviation: BCS
Research and Development Award: Yes
Funding Opportunity: NSF 21-514 Human Networks and Data Science
CFDA Number and Name: 47.075 Social, Behavioral, and Economic Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $114,760

Total Intended Award Amount: $114,760
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $114,760
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Institution:** Harvard University

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Institution
2121238	Y	[redacted]	The American University
2121239	N		Harvard College, President & Fellows of Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Christine Castell
Email: ccastell@nsf.gov

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: Patricia Van Zandt
Email: pvanzand@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 11/12/2020, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-514 Human Networks and Data Science.

BUDGET

A. Senior Personnel	
Senior Personnel Count	4.00
Senior Personnel Calendar Months	2.16
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$25,621
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	4.00
Graduate Students Amount	$40,000
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$65,621
C. Fringe Benefits	$6,329
Total Salaries, Wages, Fringe Benefits (A + B + C)	$71,950
D. Equipment	$0

E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$71,950**
I. Indirect Costs*	**$42,810**
J. Total Direct and Indirect Costs (H + I)	$114,760
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$114,760**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Modified Total Direct Costs	59.5000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2123965
Managing Division Abbreviation: CCF **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 06/08/2021
Amendment Number: 000
Proposal Number: 2123965
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above .

The project must ensure that one or more of the PIs, Co-PIs, senior personnel, senior graduate students, and/or postdoctoral researchers funded under this grant will attend, and actively participate in, the FMiTF PI meeting to be held in 2023.

Incentive payments or gifts to participants must be made in accordance with written institutional policies and procedures and supported by auditable documentation. The allowability of these costs will ultimately be based on the awardee institution's ability to adequately demonstrate that the incentives have been disbursed in accordance with its policies and procedures.

AWARD INFORMATION

Award Number (FAIN): 2123965
Award Instrument: Standard Grant
Award Date: 06/08/2021
Award Period of Performance: Start Date: 10/01/2021 End Date: 09/30/2025
Project Title: Collaborative Research: FMitF: Track I: Usable Synthesis-based End-User Programming with Rich Interaction Modalities
Managing Division Abbreviation: CCF
Research and Development Award: Yes

Funding Opportunity: NSF 20-613 Formal Methods in the Field
CFDA Number and Name: 47.070 Computer and Information Science and Engineering

FUNDING INFORMATION

Amount Obligated by this Amendment: $350,000
Total Intended Award Amount: $350,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $350,000
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]
Email: [redacted]
Institution: Harvard University

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Institution
2123654	Y	[redacted]	Regents of the University of Michigan
2123965	N		Harvard College, President & Fellows of Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Daniel P McEnrue
Email: dpmcenru@nsf.gov

Awarding Official
Name: Daniel P McEnrue
Email: dpmcenru@nsf.gov

Managing Program Officer
Name: Dan R. Cosley
Email: dcosley@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 11/12/2020, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 20-613 Formal Methods in the Field.

BUDGET

A. Senior Personnel	
Senior Personnel Count	4.00
Senior Personnel Calendar Months	1.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$14,202
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	4.00
Graduate Students Amount	$129,315
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00

Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$143,517
C. Fringe Benefits	$3,296
Total Salaries, Wages, Fringe Benefits (A + B + C)	$146,813
D. Equipment	$0
E. Travel	
Domestic	$5,036
International	$14,964
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$64,636
Total Other Direct Costs (G)	$64,636
H. Total Direct Costs (A Through G)	**$231,449**
I. Indirect Costs*	**$118,551**
J. Total Direct and Indirect Costs (H + I)	$350,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$350,000**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost

	Rate
MTDC - On Site - Research	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2127882
Managing Division Abbreviation: CHE **Amendment Number:** 001

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Creativity Extension
Amendment Date: 08/09/2024
Amendment Number: 001
Proposal Number: 2440743
Amendment Description:

The purpose of this amendment is to:

- Add additional support for creativity to the award in the amount shown below in the Funding Information section.
- Extend the end date from 08/31/2024 to 08/31/2025.
- The Foundation authorizes the awardee to enter into the proposed subaward arrangement. The subaward agreement should contain appropriate provisions in accordance with the award terms and conditions in effect at the time of this award amendment, and contain any special conditions included in this award.

Except as modified by this amendment, the award conditions remain unchanged.

AWARD INFORMATION

Award Number (FAIN): 2127882
Award Instrument: Standard Grant
Award Date: 08/12/2021
Award Period of Performance: Start Date: 09/01/2021 End Date: 08/31/2025
Project Title: Collaborative Research: MFB: Deciphering the Logic of PTM Crosstalk via Novel Chemical Technology: Histones and Beyond
Managing Division Abbreviation: CHE
Research and Development Award: Yes

Funding Opportunity: NSF 21-540 Molecular Foundations for Biotechnology
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences (See Amendment 000 for source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $500,000
Total Intended Award Amount: $1,500,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $2,000,000

PROJECT PERSONNEL

Principal Investigator: [redacted]
Email: [redacted]
Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

co-Principal Investigator: [redacted]
Email: [redacted]
Organization: WASHINGTON UNIVERSITY, THE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Pamela V. Conyers
Email: pconyers@nsf.gov
Phone: (703) 292-5329

Awarding Official
Name: Denise M. Martin
Email: dmartin@nsf.gov

Managing Program Officer
Name: Tingyu Li
Email: tli@nsf.gov
Phone: (703) 292-4949

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/20/2024, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel

Senior Personnel Count	2.00
Senior Personnel Calendar Months	0.46
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$11,178
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	2.00
Post Doctoral Calendar Months	100.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$71,429
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	1.00
Graduate Students Amount	$49,211
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$131,818
C. Fringe Benefits	$28,198
Total Salaries, Wages, Fringe Benefits (A + B + C)	$160,016
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0

F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$36,747
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$155,549
Other	$11,103
Total Other Direct Costs (G)	$203,399
H. Total Direct Costs (A Through G)	**$363,415**
I. Indirect Costs*	**$136,585**
J. Total Direct and Indirect Costs (H + I)	$500,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$500,000**
M. Cost Sharing Proposed Level	$0

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2127882
Managing Division Abbreviation: CHE **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/12/2021
Amendment Number: 000
Proposal Number: 2127882
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above .

The Foundation authorizes the awardee to enter into the proposed subaward arrangement and to fund the subaward with award funds up to the amount indicated in the approved budget or NSF-approved post award request. The subaward should contain appropriate provisions consistent with Appendix B of the Research Terms and Conditions (RTC) dated November 12, 2020, or Articles 8.a.4. and 9 of the NSF Grant General Conditions (GC-1) dated November 12, 2020 (as appropriate), as well as any special conditions included in this award.

AWARD INFORMATION

Award Number (FAIN): 2127882
Award Instrument: Standard Grant
Award Date: 08/12/2021
Award Period of Performance: Start Date: 09/01/2021 End Date: 08/31/2024
Project Title: Collaborative Research: MFB: Deciphering the Logic of PTM Crosstalk via Novel Chemical Technology: Histones and Beyond
Managing Division Abbreviation: CHE
Research and Development Award: Yes
Funding Opportunity: NSF 21-540 Molecular Foundations for Biotechnology
CFDA Number and Name: 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $1,500,000
Total Intended Award Amount: $1,500,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $1,500,000
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Institution:** Harvard University

Co-Principal Investigator: [redacted] **Email:** [redacted] **Institution:** Washington University

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Pamela V. Conyers
Email: pconyers@nsf.gov

Awarding Official
Name: Pamela V. Conyers
Email: pconyers@nsf.gov

Managing Program Officer
Name: Max Funk
Email: mfunk@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 11/12/2020, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-540 Molecular Foundations for Biotechnology.

BUDGET

A. Senior Personnel	
Senior Personnel Count	6.00
Senior Personnel Calendar Months	1.80
Senior Personnel Academic Months	0.00

Senior Personnel Summer Months	0.00
Senior Personnel Amount	$42,874
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	3.00
Post Doctoral Calendar Months	36.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$177,154
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	3.00
Graduate Students Amount	$64,656
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$284,684
C. Fringe Benefits	$71,693
Total Salaries, Wages, Fringe Benefits (A + B + C)	$356,377
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0

Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$67,965
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$750,000
Other	$14,032
Total Other Direct Costs (G)	$831,997
H. Total Direct Costs (A Through G)	**$1,188,374**
I. Indirect Costs*	**$311,626**
J. Total Direct and Indirect Costs (H + I)	$1,500,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$1,500,000**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC Salaries&Fringe ,supplies and subaward base(10 months)	69.0000%
MTDC Salaries&Fringe ,supplies and subaward base(2 months)	69.5000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2129576
Managing Division Abbreviation: AGS **Amendment Number:** 001

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Supplement
Amendment Date: 12/19/2024
Amendment Number: 001
Proposal Number: 2513434
Amendment Description:

The purpose of this amendment is to:

- Add supplemental support to the award in the amount shown below in the Funding Information section.

Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies and procedures to segregate participant support costs.

Except as modified by this amendment, the award conditions remain unchanged.

AWARD INFORMATION

Award Number (FAIN): 2129576
Award Instrument: Standard Grant
Award Date: 11/09/2021
Award Period of Performance: Start Date: 11/15/2021 End Date: 10/31/2025
Project Title: Explaining the Surprising Simplicity of Continental Evapotranspiration
Managing Division Abbreviation: AGS
Research and Development Award: Yes

Funding Opportunity: PD 06-5740 Climate and Large-Scale Dynamics
Assistance Listing Number(s) and Name(s): 47.050 Geosciences (See Amendment 000 for source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $24,120
Total Intended Award Amount: $310,789
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $334,909

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Staci Jenkins
Email: sjenkins@nsf.gov
Phone: (703) 292-5042

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: Eric DeWeaver
Email: edeweave@nsf.gov
Phone: (703) 292-8527

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to NSF Grant General Conditions (GC-1), dated 10/01/2024, available at https://www.nsf.gov/awards/managing/general_conditions.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	0.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer	0.00

Months	
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$0
C. Fringe Benefits	$0
Total Salaries, Wages, Fringe Benefits (A + B + C)	$0
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$24,120
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0

Total Number of Participants	16.00
Total Participant Costs (F)	$24,120
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$24,120**
I. Indirect Costs*	**$0**
J. Total Direct and Indirect Costs (H + I)	$24,120
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$24,120**
M. Cost Sharing Proposed Level	$0

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2129576
Managing Division Abbreviation: AGS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 11/09/2021
Amendment Number: 000
Proposal Number: 2129576
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

AWARD INFORMATION

Award Number (FAIN): 2129576
Award Instrument: Standard Grant
Award Date: 11/09/2021
Award Period of Performance: Start Date: 11/15/2021 End Date: 10/31/2024
Project Title: Explaining the Surprising Simplicity of Continental Evapotranspiration
Managing Division Abbreviation: AGS
Research and Development Award: Yes
Funding Opportunity: PD 06-5740 Climate and Large-Scale Dynamics
Assistance Listing Number(s) and Name(s): 47.050 Geosciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $310,789
Total Intended Award Amount: $310,789

Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $310,789
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Institution: Harvard University

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Meredith Whitty
Email: mwhitty@nsf.gov

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: Eric DeWeaver
Email: edeweave@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 10/04/2021, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	3.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$36,080
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic	0.00

Months	
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	3.00
Graduate Students Amount	$122,948
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$159,028
C. Fringe Benefits	$8,371
Total Salaries, Wages, Fringe Benefits (A + B + C)	$167,399
D. Equipment	$0
E. Travel	
Domestic	$7,500
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$9,000

Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$9,000
H. Total Direct Costs (A Through G)	**$183,899**
I. Indirect Costs*	**$126,890**
J. Total Direct and Indirect Costs (H + I)	$310,789
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$310,789**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
F&A	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2129580

Managing Division Abbreviation: DBI

Amendment Number: 001

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: No Cost Extensions
Amendment Date: 08/16/2024
Amendment Number: 001
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to extend the end date from 09/30/2024 to 09/30/2025 in accordance with the NSF Approved No-Cost Extension request submitted on 08/02/2024 without additional funds to allow for the completion of the agreed-to level of effort.

Except as modified by this amendment, the award conditions remain unchanged.

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

co-Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

co-Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE
co-Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact) **Name:** Termia M. Millard **Email:** tmillard@nsf.gov **Phone:** (703) 292-7074	**Awarding Official** **Name:** Vanessa L. Richardson **Email:** vlrichar@nsf.gov	**Managing Program Officer** **Name:** Reed Schiele Beaman **Email:** rsbeaman@nsf.gov **Phone:** (703) 292-7163

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2129580
Managing Division Abbreviation: DBI **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/04/2021
Amendment Number: 000
Proposal Number: 2129580
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 07/23/2021.

AWARD INFORMATION

Award Number (FAIN): 2129580
Award Instrument: Standard Grant
Award Date: 08/04/2021
Award Period of Performance: Start Date: 10/01/2021 End Date: 09/30/2022
Project Title: Revitalizing a field wireless network for research, education and outreach at the Harvard Forest
Managing Division Abbreviation: DBI
Research and Development Award: Yes
Funding Opportunity: NSF 21-501 Infrastructure Capacity for Biological Research
CFDA Number and Name: 47.074 Biological Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $161,588

Total Intended Award Amount: $161,588
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $161,588
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]	**Email:** [redacted]	**Institution:** Harvard University
Co-Principal Investigator: [redacted]	**Email:** [redacted]	**Institution:** Harvard University
Co-Principal Investigator: [redacted]	**Email:** [redacted]	**Institution:** Harvard University
Co-Principal Investigator: [redacted]	**Email:** [redacted]	**Institution:** Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact) **Name:** Denise L Hundley **Email:** dhundley@nsf.gov	**Awarding Official** **Name:** Vanessa L. Richardson **Email:** vlrichar@nsf.gov	**Managing Program Officer** **Name:** Peter H. McCartney **Email:** pmccartn@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 11/12/2020, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-501 Infrastructure Capacity for Biological Research.

BUDGET

A. Senior Personnel	
Senior Personnel Count	4.00
Senior Personnel Calendar Months	1.50

Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$14,196
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	2.00
Other Professionals Calendar Months	2.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$11,202
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$25,398
C. Fringe Benefits	$12,043
Total Salaries, Wages, Fringe Benefits (A + B + C)	$37,441
D. Equipment	$88,738
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0

Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$16,085
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$840
Total Other Direct Costs (G)	$16,925
H. Total Direct Costs (A Through G)	**$143,104**
I. Indirect Costs*	**$18,484**
J. Total Direct and Indirect Costs (H + I)	$161,588
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$161,588**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	34.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2137723
Managing Division Abbreviation: OMA **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 09/08/2021
Amendment Number: 000
Proposal Number: 2137723
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above .

The Foundation authorizes the awardee to enter into the proposed subaward arrangement and to fund the subaward with award funds up to the amount indicated in the approved budget or NSF-approved post award request. The subaward should contain appropriate provisions consistent with Appendix B of the Research Terms and Conditions (RTC) dated November 12, 2020, or Articles 8.a.4. and 9 of the NSF Grant General Conditions (GC-1) dated November 12, 2020 (as appropriate), as well as any special conditions included in this award.

AWARD INFORMATION

Award Number (FAIN): 2137723
Award Instrument: Continuing Grant
Award Date: 09/08/2021
Award Period of Performance: Start Date: 09/15/2021 End Date: 08/31/2025
Project Title: QuIC-TAQS: Integrated Lithium Niobate Quantum Photonics Platform
Managing Division Abbreviation: OMA
Research and Development Award: Yes
Funding Opportunity: NSF 21-553 Enabling Quantum Leap: Quantum Interconnect Challenges for Transformational Advances in Quantum Systems
CFDA Number and Name: 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $1,235,603
Total Intended Award Amount: $2,500,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $1,235,603
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2022	$934,890
2023	$329,507

PROJECT PERSONNEL

Principal Investigator: [redacted]	**Email:** [redacted]	**Institution:** Harvard University
co-Principal Investigator: [redacted]	**Email:** [redacted]	**Institution:** Stanford University
co-Principal Investigator: [redacted]	**Email:** [redacted]	**Institution:** Massachusetts Institute of Technology
co-Principal Investigator: [redacted]	**Email:** [redacted]	**Institution:** University of Maryland, College Park
co-Principal Investigator: [redacted]	**Email:** [redacted]	**Institution:** Harvard University

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Awarding Official
Name: Aprile N Roberson
Email: aroberso@nsf.gov

Managing Program Officer
Name: Bogdan Mihaila
Email: bmihaila@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 11/12/2020, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement

which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-553 Enabling Quantum Leap: Quantum Interconnect Challenges for Transformational Advances in Quantum Systems.

BUDGET

A. Senior Personnel	
Senior Personnel Count	0.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	5.00
Graduate Students Amount	$166,449
Undergraduate Students	
Undergraduate Students Count	2.00
Undergraduate Students Amount	$5,075
Secretarial - Clerical	
Secretarial - Clerical Count	0.00

Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$171,524
C. Fringe Benefits	$396
Total Salaries, Wages, Fringe Benefits (A + B + C)	$171,920
D. Equipment	$40,000
E. Travel	
Domestic	$9,000
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$24,559
Publication Costs	$3,000
Consultant Services	$0
Computer Services	$0
Subawards	$725,994
Other	$58,094
Total Other Direct Costs (G)	$811,647
H. Total Direct Costs (A Through G)	**$1,032,567**
I. Indirect Costs*	**$203,036**
J. Total Direct and Indirect Costs (H + I)	$1,235,603
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$1,235,603**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Modified Total Direct Costs	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2140043
Managing Division Abbreviation: DMS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/10/2021
Amendment Number: 000
Proposal Number: 2140043
Amendment Description:

It is a pleasure to inform you that $1,000,000 is awarded to Harvard College, President & Fellows of Harvard University on behalf of [redacted] the recipient of the National Science Foundation's Alan T. Waterman Award. This award is intended to support research or advanced study in sciences. This award is presented annually to a U. S. scientist who has demonstrated outstanding research accomplishments in science or engineering, and exceptional promise for significant future achievement. The intent of Congress when it established the Alan T. Waterman Award, as expressed in P.L. 94-86 and its legislative history, was to give recognition to outstanding young scientists based on their previous achievements. Although the award takes the form of a "no strings" grant for further research or study, it is fundamentally a prize and not a consideration for future services. Further, in no sense is it to be considered as a scholarship or fellowship. (See H.R. Rep. No. 96-91, accompanying H.R. 2729, 96th Congress, 1st Session, P.L. 96-44)

This award provides funding for [redacted] endeavors for a period of five (5) years in the total amount of $1,000,000. The Harvard College, President & Fellows of Harvard University's role in receiving these funds is in the nature of institutional management of an escrow account for the use and benefit of [redacted]

Any publication of any material based on or developed under this award must contain an acknowledgment of NSF support and a disclaimer in the following terms:

This material is based upon research supported by the National Science Foundation under the Alan T. Waterman Award, Grant No. DMS-2140043.

Any opinions, findings, and conclusions or recommendations expressed in this publication are those of

the author and do not necessarily reflect the views of the National Science Foundation.

The Foundation congratulates both [redacted] and the Harvard College, President & Fellows of Harvard University on this prestigious award.

AWARD INFORMATION

Award Number (FAIN): 2140043
Award Instrument: Standard Grant
Award Date: 08/10/2021
Award Period of Performance: Start Date: 09/01/2021 End Date: 08/31/2026
Project Title: 2021 Waterman Award
Managing Division Abbreviation: DMS
Research and Development Award: Yes
Funding Opportunity: None
CFDA Number and Name: 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $1,000,000
Total Intended Award Amount: $1,000,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $1,000,000
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Institution:** Harvard University

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Awarding Official
Name: Denise M. Martin
Email: dmartin@nsf.gov

Managing Program Officer
Name: Andrew D. Pollington
Email: adpollin@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75).



NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2140743
Managing Division Abbreviation: DGE **Amendment Number:** 005

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Supplement
Amendment Date: 12/12/2024
Amendment Number: 005
Proposal Number: 2428816
Amendment Description:

The purpose of this amendment is to:

- Add supplemental support to the award in the amount shown below in the Funding Information section.

Except as modified by this amendment, the award conditions remain unchanged.

Internships under DCL 21-013 are considered equivalent to traineeships. The National Science Foundation claims no rights to any inventions or writings that might result from its traineeship awards. However, fellows and trainees should be aware that NSF, another Federal agency, or some private party may acquire such rights through other support for particular research. Also, fellows and trainees should note their obligation to include an Acknowledgment and Disclaimer in any publication.

AWARD INFORMATION

Award Number (FAIN): 2140743
Award Instrument: Fellowship Award
Award Date: 09/02/2021
Award Period of Performance: Start Date: 09/15/2021 End Date: 08/31/2026
Project Title: Graduate Research Fellowship Program (GRFP)
Managing Division Abbreviation: DGE
Research and Development Award: Yes
Funding Opportunity: None

Assistance Listing Number(s) and Name(s): 47.076 Education and Human Resources (See Amendment 000 for source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $45,215
Total Intended Award Amount: $4,958,032
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $43,051,421

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]@fas.harvard.edu

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Denisa Traboini
Email: dtraboin@nsf.gov
Phone: (703) 292-4916

Awarding Official
Name: Tracy N. Shields
Email: tshields@nsf.gov

Managing Program Officer
Name: Christopher L. Hill
Email: chill@nsf.gov
Phone: (703) 292-8776

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to NSF Grant General Conditions (GC-1), dated 10/01/2024, available at https://www.nsf.gov/awards/managing/general_conditions.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer	0.00

Months	
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	1.00
Graduate Students Amount	$18,500
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$18,500
C. Fringe Benefits	$0
Total Salaries, Wages, Fringe Benefits (A + B + C)	$18,500
D. Equipment	$0
E. Travel	
Domestic	$15,143
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0

Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$2,299
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$4,738
Total Other Direct Costs (G)	$7,037
H. Total Direct Costs (A Through G)	**$40,680**
I. Indirect Costs*	**$4,535**
J. Total Direct and Indirect Costs (H + I)	$45,215
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$45,215**
M. Cost Sharing Proposed Level	$0

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2140743
Managing Division Abbreviation: DGE **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 09/02/2021
Amendment Number: 000
Proposal Number: 2140743
Amendment Description:

The National Science Foundation hereby awards a Fellowship Award for support of the project described in the proposal referenced above .

The provisions of the Graduate Research Fellowship Program (GRFP) program solicitation (NSF 21-602) and "Graduate Research Fellowship Program Administrative Guide for Fellows and Coordinating Officials" (NSF 16-104) are available at https://www.nsf.gov/pubs/2021/nsf21602/nsf21602.pdf and https://www.nsf.gov/pubs/2016/nsf16104/nsf16104.pdf, respectively, are applicable to this grant. If any inconsistencies between the award terms and conditions and the Program Solicitation or Guide are discovered, the Program Solicitation and Guide shall take precedence.

Available grant balances may be used for any GRFP Fellow who is in compliance with applicable program guidelines. Thus, funds from prior year grants may be used to support any NSF Graduate Research Fellow duly enrolled at a GRFP Institution in an eligible advanced degree program in a field supported by NSF (see the "Program Solicitation" and "Guide" for guidance).

Each institution, in accepting the funds, also certifies that the Fellows are eligible to receive the Fellowship under these terms and conditions. The institution has full responsibility for the conduct of the project or activity supported under an NSF grant and for the results achieved.

Funds from this award and/or any amendments to this award are expected to be fully expended in support of the GRFP Fellows prior to expending funds from any newly issued GRFP award.

The GRFP Administrative Guide shall take precedence in the event of any Terms and Conditions conflicts.

AWARD INFORMATION

Award Number (FAIN): 2140743
Award Instrument: Fellowship Award
Award Date: 09/02/2021
Award Period of Performance: Start Date: 09/15/2021 End Date: 08/31/2026
Project Title: Graduate Research Fellowship Program (GRFP)
Managing Division Abbreviation: DGE
Research and Development Award: Yes
Funding Opportunity: None
CFDA Number and Name: 47.076 Education and Human Resources

FUNDING INFORMATION

Amount Obligated by this Amendment: $4,958,032
Total Intended Award Amount: $4,958,032
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $4,958,032
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Institution: Harvard University

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Cartia Brown-Morgan
Email: cbrownmo@nsf.gov

Awarding Official
Name: LeVar R. Farrior
Email: lfarrior@nsf.gov

Managing Program Officer
Name: Christopher Leigh Hill
Email: chill@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 11/12/2020, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.



NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2141382
Managing Division Abbreviation: EAR **Amendment Number:** 002

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Supplement
Amendment Date: 11/22/2024
Amendment Number: 002
Proposal Number: 2452404
Amendment Description:

The purpose of this amendment is to:

- Add supplemental support to the award in the amount shown below in the Funding Information section.

Except as modified by this amendment, the award conditions remain unchanged.

AWARD INFORMATION

Award Number (FAIN): 2141382
Award Instrument: Continuing Grant
Award Date: 01/05/2022
Award Period of Performance: Start Date: 01/15/2022 End Date: 12/31/2025
Project Title: Collaborative Research: Coupled flow-geomechanical models applied to assess earthquake triggering in tectonically active regions – The Los Angeles basin, CA
Managing Division Abbreviation: EAR
Research and Development Award: Yes
Funding Opportunity: NSF 17-554 Geophysics
Assistance Listing Number(s) and Name(s): 47.050 Geosciences (See Amendment 000 for source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $25,955
Total Intended Award Amount: $303,673
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $329,628

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Angela A. Turner
Email: aturner@nsf.gov
Phone: (703) 292-7524

Awarding Official
Name: Angela A. Turner
Email: aturner@nsf.gov

Managing Program Officer
Name: Wendy Panero
Email: wpanero@nsf.gov
Phone: (703) 292-5058

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to NSF Grant General Conditions (GC-1), dated 10/01/2024, available at https://www.nsf.gov/awards/managing/general_conditions.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	1.00
Post Doctoral Calendar Months	1.00

Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$6,417
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	1.00
Graduate Students Amount	$7,517
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$13,934
C. Fringe Benefits	$1,424
Total Salaries, Wages, Fringe Benefits (A + B + C)	$15,358
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0

Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$15,358**
I. Indirect Costs*	**$10,597**
J. Total Direct and Indirect Costs (H + I)	$25,955
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$25,955**
M. Cost Sharing Proposed Level	$0

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2141382
Managing Division Abbreviation: EAR **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 01/05/2022
Amendment Number: 000
Proposal Number: 2141382
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above .

Fiscal Year 2022 and 2023 budgets have been combined in this award. It is still the grantee's responsibility to submit an annual project report in accordance with the NSF Research Terms and Conditions (RTCs) dated November 12, 2020, and NSF Agency Specific Requirements, dated November 12, 2020.

AWARD INFORMATION

Award Number (FAIN): 2141382
Award Instrument: Continuing Grant
Award Date: 01/05/2022
Award Period of Performance: Start Date: 01/15/2022 End Date: 12/31/2024
Project Title: Collaborative Research: Coupled flow-geomechanical models applied to assess earthquake triggering in tectonically active regions – The Los Angeles basin, CA
Managing Division Abbreviation: EAR
Research and Development Award: Yes
Funding Opportunity: NSF 17-554 Geophysics
Assistance Listing Number(s) and Name(s): 47.050 Geosciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $196,051
Total Intended Award Amount: $303,673
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $196,051
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2024	$107,622

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Institution:** Harvard University

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Institution
2141382	Y	[redacted]	Harvard College, President & Fellows of Harvard University
2141316	N		Massachusetts Institute of Technology

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Angela A. Turner
Email: aturner@nsf.gov

Awarding Official
Name: Angela A. Turner
Email: aturner@nsf.gov

Managing Program Officer
Name: Paul Raterron
Email: praterro@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 10/04/2021, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement

which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 17-554 Geophysics.

BUDGET

A. Senior Personnel	
Senior Personnel Count	2.00
Senior Personnel Calendar Months	0.50
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$15,536
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	2.00
Post Doctoral Calendar Months	11.50
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$68,085
Other Professionals	
Other Professionals Count	1.00
Other Professionals Calendar Months	0.50
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$3,856
Graduate Students	
Graduate Students Count	2.00
Graduate Students Amount	$6,999
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00

Other Amount	$0
Total Salaries and Wages (A+B)	$94,476
C. Fringe Benefits	$21,531
Total Salaries, Wages, Fringe Benefits (A + B + C)	$116,007
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$116,007**
I. Indirect Costs*	**$80,044**
J. Total Direct and Indirect Costs (H + I)	$196,051
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$196,051**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Facilities + administrative costs	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2143077
Managing Division Abbreviation: IIS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/25/2022
Amendment Number: 000
Proposal Number: 2143077
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above.

It is the grantee's responsibility to ensure that any vertebrate animal work conducted under this award has Institutional Animal Care and Use Committee (IACUC) approval, where required, that the approval be from an organization that has a current Public Health Service-approved Animal Welfare Assurance, and that such approval remains valid at all times that vertebrate animal work is conducted under the award. See the NSF PAPPG Chapter II.D.4, for additional information. This condition extends to vertebrate animal work funded via use of a subaward. Failure to comply with this condition will result in suspension and/or termination of the award.

AWARD INFORMATION

Award Number (FAIN): 2143077
Award Instrument: Continuing Grant
Award Date: 08/25/2022
Award Period of Performance: Start Date: 10/01/2022 End Date: 09/30/2027
Project Title: CAREER: Defining how the primate visual system works under naturalistic conditions
Managing Division Abbreviation: IIS
Research and Development Award: Yes
Funding Opportunity: NSF 20-525 Faculty Early Career Development Program
Assistance Listing Number(s) and Name(s): 47.070 Computer and Information Science and

Engineering

FUNDING INFORMATION

Amount Obligated by this Amendment: $106,940
Total Intended Award Amount: $598,566
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $106,940
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2023	$491,626

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Tianay M. Robinson
Email: trobinso@nsf.gov

Awarding Official
Name: Tianay M. Robinson
Email: trobinso@nsf.gov

Managing Program Officer
Name: Kenneth C. Whang
Email: kwhang@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 20-525 Faculty Early Career Development Program.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	0.50
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$6,278
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	1.00
Graduate Students Amount	$42,257
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$48,535
C. Fringe Benefits	$1,475
Total Salaries, Wages, Fringe Benefits (A + B + C)	$50,010
D. Equipment	$0
E. Travel	
Domestic	$0

International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$2,000
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$14,613
Total Other Direct Costs (G)	$16,613
H. Total Direct Costs (A Through G)	**$66,623**
I. Indirect Costs*	**$40,317**
J. Total Direct and Indirect Costs (H + I)	$106,940
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$106,940**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC, On-Campus Research	69.5000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2143177
Managing Division Abbreviation: DMR **Amendment Number:** 001

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Increment
Amendment Date: 01/30/2023
Amendment Number: 001
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to add incremental funding to the award in the amount shown below in the Funding Information section.

Except as modified by this amendment, the award conditions remain unchanged.

AWARD INFORMATION

Award Number (FAIN): 2143177
Award Instrument: Continuing Grant
Award Date: 11/19/2021
Award Period of Performance: Start Date: 02/01/2022 End Date: 01/31/2027
Project Title: CAREER: Observing topological magnetoelectric effects by magneto-optics and quantum transport
Managing Division Abbreviation: DMR
Research and Development Award: Yes
Funding Opportunity: NSF 20-525 Faculty Early Career Development Program
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences (See Amendment 000 for source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $183,938
Total Intended Award Amount: $890,180
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $318,907

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Elizabeth Gebremedhin
Email: egebreme@nsf.gov
Phone: (703) 292-4444

Awarding Official
Name: Elizabeth Gebremedhin
Email: egebreme@nsf.gov

Managing Program Officer
Name: Mun Chan
Email: mchan@nsf.gov
Phone: (703) 292-7104

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	1.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$12,326
B. Other Personnel	
Post Doctoral Scholars	

Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	1.00
Graduate Students Amount	$42,099
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$54,425
C. Fringe Benefits	$2,909
Total Salaries, Wages, Fringe Benefits (A + B + C)	$57,334
D. Equipment	$0
E. Travel	
Domestic	$1,540
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$38,400
Participant Support Costs Travel	$1,500
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	3.00
Total Participant Costs (F)	$39,900

G. Other Direct Costs	
Materials Supplies	$12,000
Publication Costs	$2,000
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$16,051
Total Other Direct Costs (G)	$30,051
H. Total Direct Costs (A Through G)	**$128,825**
I. Indirect Costs*	**$55,113**
J. Total Direct and Indirect Costs (H + I)	$183,938
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$183,938**
M. Cost Sharing Proposed Level	$0

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2143177
Managing Division Abbreviation: DMR **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 11/19/2021
Amendment Number: 000
Proposal Number: 2143177
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above .

Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies and procedures to segregate participant support costs.

AWARD INFORMATION

Award Number (FAIN): 2143177
Award Instrument: Continuing Grant
Award Date: 11/19/2021
Award Period of Performance: Start Date: 02/01/2022 End Date: 01/31/2027
Project Title: CAREER: Observing topological magnetoelectric effects by magneto-optics and quantum transport
Managing Division Abbreviation: DMR
Research and Development Award: Yes
Funding Opportunity: NSF 20-525 Faculty Early Career Development Program
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $134,969
Total Intended Award Amount: $890,180
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $134,969
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2023	$183,938
2024	$187,117
2025	$190,392
2026	$193,764

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Institution: Harvard University

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Elizabeth Gebremedhin
Email: egebreme@nsf.gov

Awarding Official
Name: Elizabeth Gebremedhin
Email: egebreme@nsf.gov

Managing Program Officer
Name: Tom N Oder
Email: toder@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 10/04/2021, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 20-525 Faculty Early Career Development Program.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	1.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$11,967
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	1.00
Graduate Students Amount	$40,873
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$52,840
C. Fringe Benefits	$2,824
Total Salaries, Wages, Fringe Benefits (A + B + C)	$55,664
D. Equipment	$0
E. Travel	
Domestic	$0

International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$12,000
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$15,787
Total Other Direct Costs (G)	$27,787
H. Total Direct Costs (A Through G)	**$83,451**
I. Indirect Costs*	**$51,518**
J. Total Direct and Indirect Costs (H + I)	$134,969
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$134,969**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Modified Total Direct Costs	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2143343
Managing Division Abbreviation: SES **Amendment Number:** 002

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Frwd Funded
Amendment Date: 08/22/2023
Amendment Number: 002
Proposal Number: 2342863
Amendment Description:

The purpose of this amendment is to forward fund FY 2024 and FY 2025 scheduled incremental funding to the award in the amount shown below in the Funding Information section.

Except as modified by this amendment, the award conditions remain unchanged.

AWARD INFORMATION

Award Number (FAIN): 2143343
Award Instrument: Continuing Grant
Award Date: 04/06/2022
Award Period of Performance: Start Date: 04/01/2022 End Date: 03/31/2027
Project Title: CAREER: The AI Revolution and Autocratic Institutions
Managing Division Abbreviation: SES
Research and Development Award: Yes
Funding Opportunity: NSF 20-525 Faculty Early Career Development Program
Assistance Listing Number(s) and Name(s): 47.075 Social, Behavioral, and Economic Sciences (See Amendment 000 for source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $162,156
Total Intended Award Amount: $486,467
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $405,389

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov
Phone: (703) 292-7046

Awarding Official
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov

Managing Program Officer
Name: Kwabena Gyimah-Brempong
Email: kgyimahb@nsf.gov
Phone: (703) 292-7466

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	0.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00

Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$0
C. Fringe Benefits	$0
Total Salaries, Wages, Fringe Benefits (A + B + C)	$0
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	

Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$162,156
Total Other Direct Costs (G)	$162,156
H. Total Direct Costs (A Through G)	**$162,156**
I. Indirect Costs*	**$0**
J. Total Direct and Indirect Costs (H + I)	$162,156
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$162,156**
M. Cost Sharing Proposed Level	$0

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2143343
Managing Division Abbreviation: SES **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 04/06/2022
Amendment Number: 000
Proposal Number: 2143343
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above.

It is the grantee's responsibility to ensure that any human subjects work conducted under this award has an Institutional Review Board (IRB) approval, where required, and that such approval remains valid at all times that human subjects work is conducted under the award. Failure to comply with this condition will result in suspension and/or termination of the award.

Incentive payments or gifts to participants must be made in accordance with written institutional policies and procedures and supported by auditable documentation. The allowability of these costs will ultimately be based on the awardee institution's ability to adequately demonstrate that the incentives have been disbursed in accordance with its policies and procedures.

AWARD INFORMATION

Award Number (FAIN): 2143343
Award Instrument: Continuing Grant
Award Date: 04/06/2022
Award Period of Performance: Start Date: 04/01/2022 End Date: 03/31/2027
Project Title: CAREER: The AI Revolution and Autocratic Institutions
Managing Division Abbreviation: SES
Research and Development Award: Yes

Funding Opportunity: NSF 20-525 Faculty Early Career Development Program
Assistance Listing Number(s) and Name(s): 47.075 Social, Behavioral, and Economic Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $121,617
Total Intended Award Amount: $486,467
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $121,617
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2023	$121,616
2024	$91,078
2025	$71,078
2026	$81,078

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: Kwabena Gyimah-Brempong
Email: kgyimahb@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 10/04/2021, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 20-525 Faculty Early Career Development Program.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	2.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$23,940
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	2.00
Undergraduate Students Amount	$29,465
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$53,405
C. Fringe Benefits	$6,225
Total Salaries, Wages, Fringe Benefits (A + B + C)	$59,630
D. Equipment	$0

E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$307
Consultant Services	$0
Computer Services	$1,228
Subawards	$0
Other	$10,798
Total Other Direct Costs (G)	$12,333
H. Total Direct Costs (A Through G)	**$71,963**
I. Indirect Costs*	**$49,654**
J. Total Direct and Indirect Costs (H + I)	$121,617
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$121,617**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Modified Total Direct Costs	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2145925
Managing Division Abbreviation: IOS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 01/07/2022
Amendment Number: 000
Proposal Number: 2145925
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above as modified by revised budget dated 12/15/2021.

It is the grantee's responsibility to ensure that any vertebrate animal work conducted under this award has Institutional Animal Care and Use Committee (IACUC) approval, where required, that the approval be from an organization that has a current Public Health Service-approved Animal Welfare Assurance, and that such approval remains valid at all times that vertebrate animal work is conducted under the award. See the NSF PAPPG Chapter II.D.4, for additional information. This condition extends to vertebrate animal work funded via use of a subaward. Failure to comply with this condition will result in suspension and/or termination of the award.

AWARD INFORMATION

Award Number (FAIN): 2145925
Award Instrument: Continuing Grant
Award Date: 01/07/2022
Award Period of Performance: Start Date: 01/15/2022 End Date: 12/31/2026
Project Title: CAREER: Linking systemic stem cell activation to vertebrate limb regeneration
Managing Division Abbreviation: IOS
Research and Development Award: Yes
Funding Opportunity: NSF 20-525 Faculty Early Career Development Program
Assistance Listing Number(s) and Name(s): 47.074 Biological Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $262,400
Total Intended Award Amount: $1,012,400
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $262,400
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2023	$450,000
2024	$100,000
2026	$200,000

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Institution: Harvard University

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Christine Castell
Email: ccastell@nsf.gov

Awarding Official
Name: Vanessa L. Richardson
Email: vlrichar@nsf.gov

Managing Program Officer
Name: Steven L Klein
Email: sklein@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 10/04/2021, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 20-525 Faculty Early Career Development Program.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00

Senior Personnel Calendar Months	2.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$23,647
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	1.00
Post Doctoral Calendar Months	9.60
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$45,144
Other Professionals	
Other Professionals Count	2.00
Other Professionals Calendar Months	4.80
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$20,770
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$89,561
C. Fringe Benefits	$26,896
Total Salaries, Wages, Fringe Benefits (A + B + C)	$116,457
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	

Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$8,809
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$30,000
Total Other Direct Costs (G)	$38,809
H. Total Direct Costs (A Through G)	**$155,266**
I. Indirect Costs*	**$107,134**
J. Total Direct and Indirect Costs (H + I)	$262,400
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$262,400**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Indirect cost rate	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2147694
Managing Division Abbreviation: CNS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 06/21/2022
Amendment Number: 000
Proposal Number: 2147694
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

The project must ensure that one or more of the PI(s), senior personnel, and/or postdoctoral researchers funded under this grant will attend and actively participate in the annual SaTC PI meeting or other biennial SaTC PI meeting to be held during the term of this grant.

AWARD INFORMATION

Award Number (FAIN): 2147694
Award Instrument: Standard Grant
Award Date: 06/21/2022
Award Period of Performance: Start Date: 06/15/2022 End Date: 05/31/2026
Project Title: Collaborative Research: SaTC: CORE: Medium: Foundations of Trust-Centered Multi-Agent Distributed Coordination
Managing Division Abbreviation: CNS
Research and Development Award: Yes
Funding Opportunity: NSF 21-500 Secure and Trustworthy Cyberspace
Assistance Listing Number(s) and Name(s): 47.070 Computer and Information Science and Engineering

FUNDING INFORMATION

Amount Obligated by this Amendment: $489,462
Total Intended Award Amount: $489,462
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $489,462
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2147641	Y	[redacted]	Arizona Board of Regents Arizona State University
2147631	N		Trustees of Princeton University
2147694	N		Harvard College, President & Fellows of Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Irene C. Sattler
Email: isattler@nsf.gov

Awarding Official
Name: Jannele L. Gosey
Email: jgosey@nsf.gov

Managing Program Officer
Name: Phillip A Regalia
Email: pregalia@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-500 Secure and Trustworthy Cyberspace.

BUDGET

A. Senior Personnel	
Senior Personnel Count	4.00
Senior Personnel Calendar Months	2.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$30,318
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	4.00
Graduate Students Amount	$170,997
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$201,315

C. Fringe Benefits	$7,155
Total Salaries, Wages, Fringe Benefits (A + B + C)	$208,470
D. Equipment	$0
E. Travel	
Domestic	$8,000
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$36,906
Publication Costs	$6,000
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$51,115
Total Other Direct Costs (G)	$94,021
H. Total Direct Costs (A Through G)	**$310,491**
I. Indirect Costs*	**$178,971**
J. Total Direct and Indirect Costs (H + I)	$489,462
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$489,462**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2150290
Managing Division Abbreviation: AGS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/16/2022
Amendment Number: 000
Proposal Number: 2150290
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 05/27/2022, and email dated 08/16/2022.

No work with human subjects, including recruitment, may be conducted under this protocol or grant until IRB approval has been obtained.

Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies and procedures to segregate participant support costs.

Costs of entertainment, amusement, diversion and social activities, and any costs directly associated with such activities (such as meals, lodging, rentals, transportation and gratuities) are unallowable. When certain meals are an integral and necessary part of a conference or meeting (i.e., working meals where business is transacted), grant funds may be used for such meals. Grant funds may also be used to furnish a reasonable amount of coffee or soft drinks for conference or meeting participants and attendees during coffee breaks. No NSF funds may be spent on meals or coffee breaks for intramural meetings of an organization or any of its components, including, but not limited to, laboratories, departments and centers.

Incentive payments or gifts to participants must be made in accordance with written institutional

policies and procedures and supported by auditable documentation. The allowability of these costs will ultimately be based on the awardee institution's ability to adequately demonstrate that the incentives have been disbursed in accordance with its policies and procedures.

AWARD INFORMATION

Award Number (FAIN): 2150290
Award Instrument: Standard Grant
Award Date: 08/16/2022
Award Period of Performance: Start Date: 09/01/2022 End Date: 08/31/2025
Project Title: REU Site: Summer Program at Harvard in Earth and Environmental Research (SPHEER): Investigating a changing planet across multiple timescales
Managing Division Abbreviation: AGS
Research and Development Award: Yes
Funding Opportunity: NSF 19-582 Research Experiences for Undergraduates
Assistance Listing Number(s) and Name(s): 47.050 Geosciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $523,416
Total Intended Award Amount: $523,416
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $523,416
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

co-Principal Investigator: [redacted] **Email** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Meredith Whitty
Email: mwhitty@nsf.gov

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: Amanda S. Adams
Email: amadams@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 19-582 Research Experiences for Undergraduates.

BUDGET

A. Senior Personnel	
Senior Personnel Count	30.00
Senior Personnel Calendar Months	0.27
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$5,148
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	3.01
Other Professionals Calendar Months	0.74
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$6,662
Graduate Students	
Graduate Students Count	3.01
Graduate Students Amount	$7,907
Undergraduate Students	
Undergraduate Students Count	5.99
Undergraduate Students	$13,446

Amount	
Secretarial - Clerical	
Secretarial - Clerical Count	3.01
Secretarial - Clerical Amount	$8,444
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$41,607
C. Fringe Benefits	$9,844
Total Salaries, Wages, Fringe Benefits (A + B + C)	$51,451
D. Equipment	$0
E. Travel	
Domestic	$16,740
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$179,996
Participant Support Costs Travel	$41,998
Participant Support Costs Subsistence	$119,997
Participant Support Costs Other	$0
Total Number of Participants	30.00
Total Participant Costs (F)	$341,991
G. Other Direct Costs	
Materials Supplies	$7,199
Publication Costs	$0
Consultant Services	$13,499
Computer Services	$6,751
Subawards	$0
Other	$11,716
Total Other Direct Costs (G)	$39,165
H. Total Direct Costs (A Through G)	**$449,347**
I. Indirect Costs*	**$74,069**
J. Total Direct and Indirect Costs (H + I)	$523,416
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$523,416**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2150813
Managing Division Abbreviation: BCS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 06/10/2022
Amendment Number: 000
Proposal Number: 2150813
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

AWARD INFORMATION

Award Number (FAIN): 2150813
Award Instrument: Standard Grant
Award Date: 06/10/2022
Award Period of Performance: Start Date: 07/01/2022 End Date: 06/30/2025
Project Title: Collaborative Research: Reconstructing Classic Genetic and Social Kinship Networks
Managing Division Abbreviation: BCS
Research and Development Award: Yes
Funding Opportunity: PD 98-1391 Archaeology and Archaeometry
Assistance Listing Number(s) and Name(s): 47.075 Social, Behavioral, and Economic Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $261,102
Total Intended Award Amount: $261,102

Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $261,102
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator:	Email:	Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
[redacted]	[redacted]	

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2150813	Y	[redacted]	Harvard College, President & Fellows of Harvard University
2150814	N		University of California, Santa Barbara

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: John E. Yellen
Email: jyellen@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	2.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	2.00
Post Doctoral Calendar Months	24.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$103,530
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$103,530
C. Fringe Benefits	$25,779
Total Salaries, Wages, Fringe Benefits (A + B + C)	$129,309
D. Equipment	$0
E. Travel	
Domestic	$1,000

International	$8,480
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$13,959
Publication Costs	$1,750
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$15,709
H. Total Direct Costs (A Through G)	**$154,498**
I. Indirect Costs*	**$106,604**
J. Total Direct and Indirect Costs (H + I)	$261,102
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$261,102**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Indirect Costs	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2151294
Managing Division Abbreviation: MCB **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 06/02/2022
Amendment Number: 000
Proposal Number: 2151294
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

AWARD INFORMATION

Award Number (FAIN): 2151294
Award Instrument: Standard Grant
Award Date: 06/02/2022
Award Period of Performance: Start Date: 06/15/2022 End Date: 05/31/2025
Project Title: Remote homology detection with evolutionary profile HMMs
Managing Division Abbreviation: MCB
Research and Development Award: Yes
Funding Opportunity: PD 18-7334 Mathematical Biology
Assistance Listing Number(s) and Name(s): 47.074 Biological Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $665,188
Total Intended Award Amount: $665,188

Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $665,188
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Staci Jenkins
Email: sjenkins@nsf.gov

Awarding Official
Name: Staci Jenkins
Email: sjenkins@nsf.gov

Managing Program Officer
Name: Arcady R. Mushegian
Email: amushegi@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	6.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$82,500
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	3.00
Post Doctoral Calendar Months	36.00

Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$185,454
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$267,954
C. Fringe Benefits	$65,648
Total Salaries, Wages, Fringe Benefits (A + B + C)	$333,602
D. Equipment	$0
E. Travel	
Domestic	$12,000
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$39,000

Publication Costs	$9,000
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$48,000
H. Total Direct Costs (A Through G)	**$393,602**
I. Indirect Costs*	**$271,586**
J. Total Direct and Indirect Costs (H + I)	$665,188
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$665,188**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2152149
Managing Division Abbreviation: DMS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 07/13/2022
Amendment Number: 000
Proposal Number: 2152149
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by the NSF Program Office.

AWARD INFORMATION

Award Number (FAIN): 2152149
Award Instrument: Standard Grant
Award Date: 07/13/2022
Award Period of Performance: Start Date: 07/15/2022 End Date: 06/30/2025
Project Title: FRG: Collaborative Research: Definability and Computability over Arithmetically Significant Fields
Managing Division Abbreviation: DMS
Research and Development Award: Yes
Funding Opportunity: NSF 16-577 Focused Research Groups in the Mathematical Sciences
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $203,163

Total Intended Award Amount: $203,163
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $203,163
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator:	**Email:**	**Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE
[redacted]	[redacted]	

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2152304	Y	[redacted]	University of Pennsylvania
2152095	N		George Washington University
2152098	N		East Carolina University
2152149	N		Harvard College, President & Fellows of Harvard University
2152182	N		Ohio State University
2152262	N		University of California, Irvine

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Awarding Official
Name: Aprile N Roberson
Email: aroberso@nsf.gov

Managing Program Officer
Name: Adriana Salerno
Email: asalerno@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 16-577 Focused Research Groups in the Mathematical Sciences.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	3.00
Senior Personnel Amount	$83,062
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students	$0

Amount	
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$83,062
C. Fringe Benefits	$19,602
Total Salaries, Wages, Fringe Benefits (A + B + C)	$102,664
D. Equipment	$0
E. Travel	
Domestic	$9,000
International	$8,550
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$120,214**
I. Indirect Costs*	**$82,949**
J. Total Direct and Indirect Costs (H + I)	$203,163
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$203,163**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2152991
Managing Division Abbreviation: DMS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 03/29/2022
Amendment Number: 000
Proposal Number: 2152991
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above as modified by revised budget dated 03/20/2022.

AWARD INFORMATION

Award Number (FAIN): 2152991
Award Instrument: Continuing Grant
Award Date: 03/29/2022
Award Period of Performance: Start Date: 07/01/2022 End Date: 06/30/2026
Project Title: Interactions of Combinatorics and Physics
Managing Division Abbreviation: DMS
Research and Development Award: Yes
Funding Opportunity: PD 18-7970 Combinatorics
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $101,934
Total Intended Award Amount: $440,000

Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $101,934
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2023	$99,705
2024	$238,361

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Awarding Official
Name: LeVar R. Farrior
Email: lfarrior@nsf.gov

Managing Program Officer
Name: Stefaan Guido De Winter
Email: sgdewint@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 10/04/2021, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	1.00

Senior Personnel Amount	$32,754
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	1.00
Graduate Students Amount	$10,969
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$43,723
C. Fringe Benefits	$7,730
Total Salaries, Wages, Fringe Benefits (A + B + C)	$51,453
D. Equipment	$0
E. Travel	
Domestic	$3,000
International	$3,000
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0

Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$2,863
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$2,863
H. Total Direct Costs (A Through G)	**$60,316**
I. Indirect Costs*	**$41,618**
J. Total Direct and Indirect Costs (H + I)	$101,934
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$101,934**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2153335
Managing Division Abbreviation: DMS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 05/23/2022
Amendment Number: 000
Proposal Number: 2153335
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 04/28/2022.

AWARD INFORMATION

Award Number (FAIN): 2153335
Award Instrument: Standard Grant
Award Date: 05/23/2022
Award Period of Performance: Start Date: 07/01/2022 End Date: 06/30/2025
Project Title: Random Matrices, Random Schrödinger Operators, and Applications
Managing Division Abbreviation: DMS
Research and Development Award: Yes
Funding Opportunity: PD 18-1263 Probability
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $330,000
Total Intended Award Amount: $330,000

Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $330,000
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Awarding Official
Name: Aprile N Roberson
Email: aroberso@nsf.gov

Managing Program Officer
Name: Pawel Jan Hitczenko
Email: phitczen@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	3.00
Senior Personnel Amount	$108,314
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00

Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	3.00
Graduate Students Amount	$51,571
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$159,885
C. Fringe Benefits	$25,562
Total Salaries, Wages, Fringe Benefits (A + B + C)	$185,447
D. Equipment	$0
E. Travel	
Domestic	$3,620
International	$6,200
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0

Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$195,267**
I. Indirect Costs*	**$134,733**
J. Total Direct and Indirect Costs (H + I)	$330,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$330,000**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2154245
Managing Division Abbreviation: DEB **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 03/15/2022
Amendment Number: 000
Proposal Number: 2154245
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

AWARD INFORMATION

Award Number (FAIN): 2154245
Award Instrument: Standard Grant
Award Date: 03/15/2022
Award Period of Performance: Start Date: 07/01/2022 End Date: 06/30/2025
Project Title: Collaborative Research: PurSUiT: Understanding the Neotropical Velvet Worms (Onychophora, Peripatidae, Neopatida), a Cretaceous Radiation of Terrestrial Panarthropods
Managing Division Abbreviation: DEB
Research and Development Award: Yes
Funding Opportunity: NSF 21-504 Division of Environmental Biology (core programs)
Assistance Listing Number(s) and Name(s): 47.074 Biological Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $809,585

Total Intended Award Amount: $809,585
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $809,585
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator:	**Email:**	**Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE
[redacted]	[redacted]	

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2154245	Y	[redacted]	Harvard College, President & Fellows of Harvard University
2154246	N		George Washington University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Staci Jenkins
Email: sjenkins@nsf.gov

Awarding Official
Name: Deidre R. Coates
Email: dcoates@nsf.gov

Managing Program Officer
Name: Maureen M Kearney
Email: mkearney@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 10/04/2021, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-504 Division of Environmental Biology (core programs).

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	3.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$88,292
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	1.00
Post Doctoral Calendar Months	36.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$160,727
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	1.00
Undergraduate Students Amount	$15,000
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$264,019
C. Fringe Benefits	$62,028
Total Salaries, Wages, Fringe Benefits (A + B + C)	$326,047
D. Equipment	$21,807
E. Travel	
Domestic	$14,100

International	$32,850
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$16,875
Publication Costs	$4,000
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$72,269
Total Other Direct Costs (G)	$93,144
H. Total Direct Costs (A Through G)	**$487,948**
I. Indirect Costs*	**$321,637**
J. Total Direct and Indirect Costs (H + I)	$809,585
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$809,585**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2200449
Managing Division Abbreviation: DMS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 04/11/2022
Amendment Number: 000
Proposal Number: 2200449
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above as modified by revised budget dated 03/31/2022.

AWARD INFORMATION

Award Number (FAIN): 2200449
Award Instrument: Continuing Grant
Award Date: 04/11/2022
Award Period of Performance: Start Date: 07/01/2022 End Date: 06/30/2025
Project Title: Shimura Varieties and Abelian Varieties
Managing Division Abbreviation: DMS
Research and Development Award: Yes
Funding Opportunity: PD 20-1264 Algebra and Number Theory
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $132,417
Total Intended Award Amount: $400,000

Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $132,417
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2023	$133,130
2024	$134,453

PROJECT PERSONNEL

Principal Investigator [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Awarding Official
Name: Denise M. Martin
Email: dmartin@nsf.gov

Managing Program Officer
Name: Adriana Salerno
Email: asalerno@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 10/04/2021, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	1.50

Senior Personnel Amount	$52,015
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	1.00
Graduate Students Amount	$14,062
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$66,077
C. Fringe Benefits	$12,276
Total Salaries, Wages, Fringe Benefits (A + B + C)	$78,353
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0

Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$78,353**
I. Indirect Costs*	**$54,064**
J. Total Direct and Indirect Costs (H + I)	$132,417
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$132,417**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2200981

Managing Division Abbreviation: DMS

Amendment Number: 001

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Other Admin No Fund Actions
Amendment Date: 12/05/2023
Amendment Number: 001
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to change the PI or co-PI in accordance with the Change PI and Add/Change Co-PI request submitted on 11/07/2023. Effective with this amendment, the project is now under the direction of [redacted]

Except as modified by this amendment, the award conditions remain unchanged.

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Lynda Kummelt

Awarding Official
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Managing Program Officer
Name: Adriana Salerno

Email: lkummelt@nsf.gov
Phone: (703) 292-7721

Email: asalerno@nsf.gov
Phone: (703) 292-2271

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2200981
Managing Division Abbreviation: DMS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 04/08/2022
Amendment Number: 000
Proposal Number: 2200981
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

AWARD INFORMATION

Award Number (FAIN): 2200981
Award Instrument: Standard Grant
Award Date: 04/08/2022
Award Period of Performance: Start Date: 07/01/2022 End Date: 06/30/2025
Project Title: Unlikely Intersections in Diophantine Geometry and Dynamics
Managing Division Abbreviation: DMS
Research and Development Award: Yes
Funding Opportunity: PD 20-1264 Algebra and Number Theory
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $162,012
Total Intended Award Amount: $162,012

Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $162,012
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Awarding Official
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Managing Program Officer
Name: Adriana Salerno
Email: asalerno@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 10/04/2021, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	6.00
Senior Personnel Amount	$59,357
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00

Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$59,357
C. Fringe Benefits	$14,008
Total Salaries, Wages, Fringe Benefits (A + B + C)	$73,365
D. Equipment	$0
E. Travel	
Domestic	$4,500
International	$18,000
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0

Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$95,865**
I. Indirect Costs*	**$66,147**
J. Total Direct and Indirect Costs (H + I)	$162,012
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$162,012**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2202113
Managing Division Abbreviation: AGS **Amendment Number:** 001

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Supplement
Amendment Date: 02/08/2024
Amendment Number: 001
Proposal Number: 2406720
Amendment Description:

The purpose of this amendment is to:

- Add supplemental support to the award in the amount shown below in the Funding Information section.

Except as modified by this amendment, the award conditions remain unchanged.

AWARD INFORMATION

Award Number (FAIN): 2202113
Award Instrument: Standard Grant
Award Date: 05/09/2022
Award Period of Performance: Start Date: 06/01/2022 End Date: 05/31/2025
Project Title: AGS-FIRP Track 3: Methane Emissions Quantification at Scales from 20m to 200km Using the MethaneAIR Imaging Spectrometer on the NSF Gulfstream-V (MAIR-E)
Managing Division Abbreviation: AGS
Research and Development Award: Yes
Funding Opportunity: NSF 21-611 Facility and Instrumentation Request Process
Assistance Listing Number(s) and Name(s): 47.050 Geosciences (See Amendment 000 for source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $209,000
Total Intended Award Amount: $1,045,206
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $1,254,206

PROJECT PERSONNEL

Principal Investigator: [redacted]
Email: [redacted]
Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

co-Principal Investigator: [redacted]
Email [redacted]
Organization: UNIVERSITY OF UTAH

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Staci Jenkins
Email: sjenkins@nsf.gov
Phone: (703) 292-5042

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: Sylvia Edgerton
Email: sedgerto@nsf.gov
Phone: (703) 292-8522

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	0.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer	0.00

Months	
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	1.00
Other Professionals Calendar Months	4.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$41,126
Graduate Students	
Graduate Students Count	2.00
Graduate Students Amount	$22,040
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$63,166
C. Fringe Benefits	$16,985
Total Salaries, Wages, Fringe Benefits (A + B + C)	$80,151
D. Equipment	$0
E. Travel	
Domestic	$13,900
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs	$0

Subsistence	
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$33,494
Total Other Direct Costs (G)	$33,494
H. Total Direct Costs (A Through G)	**$127,545**
I. Indirect Costs*	**$81,455**
J. Total Direct and Indirect Costs (H + I)	$209,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$209,000**
M. Cost Sharing Proposed Level	$0

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2202113
Managing Division Abbreviation: AGS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 05/09/2022
Amendment Number: 000
Proposal Number: 2202113
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

The Foundation authorizes the awardee to enter into the proposed subaward arrangement. The subaward agreement should contain appropriate provisions in accordance with the award terms and conditions in effect at the time of this award amendment, and contain any special conditions included in this award.

AWARD INFORMATION

Award Number (FAIN): 2202113
Award Instrument: Standard Grant
Award Date: 05/09/2022
Award Period of Performance: Start Date: 06/01/2022 End Date: 05/31/2025
Project Title: AGS-FIRP Track 3: Methane Emissions Quantification at Scales from 20m to 200km Using the MethaneAIR Imaging Spectrometer on the NSF Gulfstream-V (MAIR-E)
Managing Division Abbreviation: AGS
Research and Development Award: Yes
Funding Opportunity: NSF 21-611 Facility and Instrumentation Request Process
Assistance Listing Number(s) and Name(s): 47.050 Geosciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $1,045,206
Total Intended Award Amount: $1,045,206
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $1,045,206
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]
Email: [redacted]
Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

co-Principal Investigator: [redacted]
Email: [redacted]
Organization: UNIVERSITY OF UTAH, THE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Meredith Whitty
Email: mwhitty@nsf.gov

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: Sylvia Edgerton
Email: sedgerto@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 10/04/2021, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-611 Facility and Instrumentation Request Process.

BUDGET

A. Senior Personnel	
Senior Personnel Count	6.00
Senior Personnel Calendar Months	15.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00

Senior Personnel Amount	$100,336
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	6.00
Graduate Students Amount	$168,859
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	3.00
Other Amount	$39,409
Total Salaries and Wages (A+B)	$308,604
C. Fringe Benefits	$32,980
Total Salaries, Wages, Fringe Benefits (A + B + C)	$341,584
D. Equipment	$0
E. Travel	
Domestic	$18,628
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0

Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$312,232
Other	$90,406
Total Other Direct Costs (G)	$402,638
H. Total Direct Costs (A Through G)	**$762,850**
I. Indirect Costs*	**$282,356**
J. Total Direct and Indirect Costs (H + I)	$1,045,206
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$1,045,206**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2202698
Managing Division Abbreviation: AGS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 06/27/2022
Amendment Number: 000
Proposal Number: 2202698
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

AWARD INFORMATION

Award Number (FAIN): 2202698
Award Instrument: Standard Grant
Award Date: 06/27/2022
Award Period of Performance: Start Date: 07/01/2022 End Date: 06/30/2025
Project Title: Collaborative Research: P2C2--Constraints on Last Interglacial and Late Holocene Global Mean Sea Level and Fingerprinting Polar Ice Mass Flux from Broadly Distributed Coastal Caves
Managing Division Abbreviation: AGS
Research and Development Award: Yes
Funding Opportunity: NSF 17-582 Paleo Perspectives on Climate Change
Assistance Listing Number(s) and Name(s): 47.050 Geosciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $68,389

Total Intended Award Amount: $68,389
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $68,389
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator:	**Email:**	**Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE
[redacted]	[redacted]	

COLLABORATIVE INFORMATION

Proposal ID	**Lead**	**PI Name**	**Organization**
2202683	Y	[redacted]	University of South Florida
2202698	N		Harvard College, President & Fellows of Harvard University
2202712	N		University of New Mexico

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)	**Awarding Official**	**Managing Program Officer**
Name: Meredith Whitty	**Name:** Willie M. Powell	**Name:** Soumaya Belmecheri
Email: mwhitty@nsf.gov	**Email:** wpowell@nsf.gov	**Email:** sbelmech@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 17-582 Paleo Perspectives on Climate Change.

BUDGET

A. Senior Personnel	
Senior Personnel Count	0.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	3.00
Graduate Students Amount	$31,972
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$31,972
C. Fringe Benefits	$0
Total Salaries, Wages, Fringe Benefits (A + B + C)	$31,972
D. Equipment	$0
E. Travel	

Domestic	$5,495
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$3,000
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$3,000
H. Total Direct Costs (A Through G)	**$40,467**
I. Indirect Costs*	**$27,922**
J. Total Direct and Indirect Costs (H + I)	$68,389
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$68,389**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2202772
Managing Division Abbreviation: AGS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 05/06/2022
Amendment Number: 000
Proposal Number: 2202772
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

Costs of entertainment, amusement, diversion and social activities, and any costs directly associated with such activities (such as meals, lodging, rentals, transportation and gratuities) are unallowable. When certain meals are an integral and necessary part of a conference or meeting (i.e., working meals where business is transacted), grant funds may be used for such meals. Grant funds may also be used to furnish a reasonable amount of coffee or soft drinks for conference or meeting participants and attendees during coffee breaks. No NSF funds may be spent on meals or coffee breaks for intramural meetings of an organization or any of its components, including, but not limited to, laboratories, departments and centers.

AWARD INFORMATION

Award Number (FAIN): 2202772
Award Instrument: Standard Grant
Award Date: 05/06/2022
Award Period of Performance: Start Date: 07/01/2022 End Date: 06/30/2025
Project Title: High Spatial Resolution Assessment of the Speleothem Magnetization Proxy
Managing Division Abbreviation: AGS
Research and Development Award: Yes
Funding Opportunity: PD 98-1530 Paleoclimate

Assistance Listing Number(s) and Name(s): 47.050 Geosciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $313,105
Total Intended Award Amount: $313,105
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $313,105
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Meredith Whitty
Email: mwhitty@nsf.gov

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: Soumaya Belmecheri
Email: sbelmech@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 10/04/2021, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	1.50
Senior Personnel Academic Months	0.00

Senior Personnel Summer Months	0.00
Senior Personnel Amount	$18,765
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	2.00
Graduate Students Amount	$83,991
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$102,756
C. Fringe Benefits	$4,429
Total Salaries, Wages, Fringe Benefits (A + B + C)	$107,185
D. Equipment	$43,313
E. Travel	
Domestic	$13,924
International	$5,537
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0

Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$10,257
Publication Costs	$6,400
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$16,337
Total Other Direct Costs (G)	$32,994
H. Total Direct Costs (A Through G)	**$202,953**
I. Indirect Costs*	**$110,152**
J. Total Direct and Indirect Costs (H + I)	$313,105
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$313,105**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Facilities and Administrative Costs	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2416022
Managing Division Abbreviation: BCS **Amendment Number:** 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 07/24/2024
Amendment Number: 000
Proposal Number: 2416022
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

It is the grantee's responsibility to ensure that any human subjects work conducted under this award has an Institutional Review Board (IRB) approval, where required, and that such approval remains valid at all times that human subjects work is conducted under the award. Failure to comply with this condition will result in suspension and/or termination of the award.

Incentive payments or gifts to participants must be made in accordance with written institutional policies and procedures and supported by auditable documentation. The allowability of these costs will ultimately be based on the awardee institution's ability to adequately demonstrate that the incentives have been disbursed in accordance with its policies and procedures.

AWARD INFORMATION

Award Number (FAIN): 2416022
Award Instrument: Standard Grant
Award Date: 07/24/2024
Award Period of Performance: Start Date: 01/15/2025 End Date: 12/31/2026
Project Title: Doctoral Dissertation Research: Understanding the Long-Term Drivers of Community

Reconciliation in Post-Conflict Societies
Managing Division Abbreviation: BCS
Research and Development Award: Yes
Funding Opportunity: NSF 23-502 Cultural Anthropology Program - Doctoral Dissertation Research Improvement Grants
Assistance Listing Number(s) and Name(s): 47.075 Social, Behavioral, and Economic Sciences (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $31,185
Total Intended Award Amount: $31,185
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $31,185
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

co-Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Tyffani N. Smith
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Phone: (703) 292-7046

Awarding Official
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov

Managing Program Officer
Name: Tarini Bedi
Email: tbedi@nsf.gov
Phone:

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/20/2024, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 23-502 Cultural Anthropology Program - Doctoral Dissertation Research Improvement Grants.

BUDGET

A. Senior Personnel	
Senior Personnel Count	2.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$0
C. Fringe Benefits	$0

Total Salaries, Wages, Fringe Benefits (A + B + C)	$0
D. Equipment	$0
E. Travel	
Domestic	$0
International	$17,300
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$2,160
Publication Costs	$0
Consultant Services	$0
Computer Services	$210
Subawards	$0
Other	$5,080
Total Other Direct Costs (G)	$7,450
H. Total Direct Costs (A Through G)	**$24,750**
I. Indirect Costs*	**$6,435**
J. Total Direct and Indirect Costs (H + I)	$31,185
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$31,185**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Modified Total Direct Costs - Off Campus Research	26.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2417150
Managing Division Abbreviation: DUE **Amendment Number:** 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/05/2024
Amendment Number: 000
Proposal Number: 2417150
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 04/08/2024.

AWARD INFORMATION

Award Number (FAIN): 2417150
Award Instrument: Standard Grant
Award Date: 08/05/2024
Award Period of Performance: Start Date: 08/15/2024 End Date: 07/31/2027
Project Title: Tracking Adaptation and Investigating Learning Outcomes for Reforming Mathematics for Life Sciences
Managing Division Abbreviation: DUE
Research and Development Award: Yes
Funding Opportunity: NSF 23-510 Improving Undergraduate STEM Education: Directorate for STEM Education
Assistance Listing Number(s) and Name(s): 47.076 Education and Human Resources (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $55,346
Total Intended Award Amount: $55,346
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $55,346
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2417149	Y	[redacted]	Texas State University-San Marcos
2417150	N		Harvard College, President & Fellows of Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Khoren Claiborne
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Awarding Official
Name: Khoren Claiborne
Email: kclaibor@nsf.gov

Managing Program Officer
Name: Keith A. Sverdrup
Email: ksverdru@nsf.gov
Phone: (703) 292-4671

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/20/2024, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 23-510 Improving Undergraduate STEM Education: Directorate for STEM Education.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	1.50
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$20,555
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$20,555
C. Fringe Benefits	$4,420
Total Salaries, Wages, Fringe Benefits (A + B + C)	$24,975
D. Equipment	$0
E. Travel	

Domestic	$15,200
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$3,750
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$3,750
H. Total Direct Costs (A Through G)	**$43,925**
I. Indirect Costs*	**$11,421**
J. Total Direct and Indirect Costs (H + I)	$55,346
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$55,346**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Harvard IDC	26.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2341785
Managing Division Abbreviation: SES **Amendment Number:** 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 07/08/2024
Amendment Number: 000
Proposal Number: 2341785
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above as modified by revised budget dated 02/05/2024.

AWARD INFORMATION

Award Number (FAIN): 2341785
Award Instrument: Continuing Grant
Award Date: 07/08/2024
Award Period of Performance: Start Date: 07/15/2024 End Date: 06/30/2027
Project Title: Pluralism in Biological Models of Sex
Managing Division Abbreviation: SES
Research and Development Award: Yes
Funding Opportunity: NSF 22-629 Science and Technology Studies
Assistance Listing Number(s) and Name(s): 47.075 Social, Behavioral, and Economic Sciences (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $193,699
Total Intended Award Amount: $432,782
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $193,699
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2025	$201,110
2026	$37,973

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov
Phone: (703) 292-7046

Awarding Official
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov

Managing Program Officer
Name: Christine Leuenberger
Email: cleuenbe@nsf.gov
Phone: (703) 292-7563

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/20/2024, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 22-629 Science and Technology Studies.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	0.00

Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	1.00
Post Doctoral Calendar Months	12.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$75,000
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	1.00
Other Amount	$18,000
Total Salaries and Wages (A+B)	$93,000
C. Fringe Benefits	$16,615
Total Salaries, Wages, Fringe Benefits (A + B + C)	$109,615
D. Equipment	$0
E. Travel	
Domestic	$2,500
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0

Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$2,500
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$2,500
H. Total Direct Costs (A Through G)	**$114,615**
I. Indirect Costs*	**$79,084**
J. Total Direct and Indirect Costs (H + I)	$193,699
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$193,699**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Modified Total Direct Costs	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2342821
Managing Division Abbreviation: DMS **Amendment Number:** 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Renewal
Amendment Date: 01/24/2024
Amendment Number: 000
Proposal Number: 2342821
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

The "Administration of NSF Conference or Group Travel Award Grant Conditions (FL 26)" in effect the date of this amendment are applicable. The FL 26 special award conditions can be found at: https://www.nsf.gov/awards/managing/special_conditions.jsp.

Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies and procedures to segregate participant support costs.

Costs of entertainment, amusement, diversion and social activities, and any costs directly associated with such activities (such as meals, lodging, rentals, transportation and gratuities) are unallowable. When certain meals are an integral and necessary part of a conference or meeting (i.e., working meals where business is transacted), grant funds may be used for such meals. Grant funds may also be used to furnish a reasonable amount of coffee or soft drinks for conference or meeting participants and attendees during coffee breaks.

No NSF funds may be spent on meals or coffee breaks for intramural meetings of an organization or any of its components, including, but not limited to, laboratories, departments and centers.

AWARD INFORMATION

Award Number (FAIN): 2342821
Award Instrument: Standard Grant
Award Date: 01/24/2024
Award Period of Performance: Start Date: 02/01/2024 End Date: 01/31/2027
Project Title: Conference: Emerging Statistical and Quantitative Issues in Genomic Research in Health Sciences
Managing Division Abbreviation: DMS
Research and Development Award: Yes
Funding Opportunity: NSF 21-541 Conferences and Workshops in the Mathematical Sciences
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $61,920
Total Intended Award Amount: $61,920
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $61,920
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

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Managing Program Officer
Name: Tapabrata Maiti
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Phone: (703) 292-5307

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-541 Conferences and Workshops in the Mathematical Sciences.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$0
C. Fringe Benefits	$0

Total Salaries, Wages, Fringe Benefits (A + B + C)	$0
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$27,000
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$34,920
Total Number of Participants	132.00
Total Participant Costs (F)	$61,920
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$61,920**
I. Indirect Costs*	**$0**
J. Total Direct and Indirect Costs (H + I)	$61,920
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$61,920**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

The indirect cost rate(s) for this award is/are not available. These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2343233
Managing Division Abbreviation: EAR **Amendment Number:** 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 07/26/2024
Amendment Number: 000
Proposal Number: 2343233
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

AWARD INFORMATION

Award Number (FAIN): 2343233
Award Instrument: Standard Grant
Award Date: 07/26/2024
Award Period of Performance: Start Date: 09/01/2024 End Date: 08/31/2027
Project Title: Collaborative Research: Time-dependent imaging of earthquake cycle behavior across the Japan fault system
Managing Division Abbreviation: EAR
Research and Development Award: Yes
Funding Opportunity: NSF 22-563 Geophysics
Assistance Listing Number(s) and Name(s): 47.050 Geosciences (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $227,954
Total Intended Award Amount: $227,954
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $227,954
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]
Email: [redacted]
Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2343233	Y	[redacted]	Harvard College, President & Fellows of Harvard University
2343234	N		Smith College

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Angela A. Turner
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Awarding Official
Name: Angela A. Turner
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Managing Program Officer
Name: Elizabeth Hearn
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Phone:

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/20/2024, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 22-563 Geophysics.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	1.50
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$41,439
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	3.00
Graduate Students Amount	$75,636
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$117,075
C. Fringe Benefits	$8,910
Total Salaries, Wages, Fringe Benefits (A + B + C)	$125,985
D. Equipment	$0

E. Travel	
Domestic	$6,900
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$2,000
Total Other Direct Costs (G)	$2,000
H. Total Direct Costs (A Through G)	**$134,885**
I. Indirect Costs*	**$93,069**
J. Total Direct and Indirect Costs (H + I)	$227,954
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$227,954**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Facilities & Administration	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2343922

Managing Division Abbreviation: SES

Amendment Number: 001

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Other Admin No Fund Actions
Amendment Date: 04/05/2024
Amendment Number: 001
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to:

- Correct the award end date from 02/28/2029 to 02/28/2027.

Except as modified by this amendment, the award conditions remain unchanged.

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov
Phone: (703) 292-7046

Awarding Official
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov

Managing Program Officer
Name: Eric A Bahel
Email: ebahel@nsf.gov
Phone: (703) 292-7858

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2343922
Managing Division Abbreviation: SES **Amendment Number:** 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 03/06/2024
Amendment Number: 000
Proposal Number: 2343922
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 01/29/2024.

No work with human subjects, including recruitment, may be conducted under this protocol or grant until IRB approval has been obtained.

Incentive payments or gifts to participants must be made in accordance with written institutional policies and procedures and supported by auditable documentation. The allowability of these costs will ultimately be based on the awardee institution's ability to adequately demonstrate that the incentives have been disbursed in accordance with its policies and procedures.

AWARD INFORMATION

Award Number (FAIN): 2343922
Award Instrument: Standard Grant
Award Date: 03/06/2024
Award Period of Performance: Start Date: 03/15/2024 End Date: 02/28/2029
Project Title: NSF-BSF: Mechanism Design for All
Managing Division Abbreviation: SES
Research and Development Award: Yes
Funding Opportunity: PD 23-1320 Economics
Assistance Listing Number(s) and Name(s): 47.075 Social, Behavioral, and Economic Sciences

(Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $462,400
Total Intended Award Amount: $462,400
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $462,400
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov
Phone: (703) 292-7046

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: Eric A Bahel
Email: ebahel@nsf.gov
Phone: (703) 292-7858

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	6.00
Senior Personnel Calendar Months	4.00
Senior Personnel Academic Months	0.00

Senior Personnel Summer Months	0.00
Senior Personnel Amount	$96,382
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	2.00
Graduate Students Amount	$69,643
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	2.00
Other Amount	$41,781
Total Salaries and Wages (A+B)	$207,806
C. Fringe Benefits	$20,722
Total Salaries, Wages, Fringe Benefits (A + B + C)	$228,528
D. Equipment	$0
E. Travel	
Domestic	$2,000
International	$7,200
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0

Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$3,036
Publication Costs	$250
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$49,654
Total Other Direct Costs (G)	$52,940
H. Total Direct Costs (A Through G)	**$290,668**
I. Indirect Costs*	**$171,732**
J. Total Direct and Indirect Costs (H + I)	$462,400
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$462,400**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
PI Salary, Grad student supp., Undergrad student supp., fringe	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2345627
Managing Division Abbreviation: DEB **Amendment Number:** 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 05/30/2024
Amendment Number: 000
Proposal Number: 2345627
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 02/20/2024.

AWARD INFORMATION

Award Number (FAIN): 2345627
Award Instrument: Standard Grant
Award Date: 05/30/2024
Award Period of Performance: Start Date: 08/01/2024 End Date: 07/31/2026
Project Title: Collaborative Research: Revealing the vast diversity within the legume-rhizobia mutualism
Managing Division Abbreviation: DEB
Research and Development Award: Yes
Funding Opportunity: NSF 23-549 Division of Environmental Biology (core programs)
Assistance Listing Number(s) and Name(s): 47.074 Biological Sciences (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $30,608
Total Intended Award Amount: $30,608
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $30,608
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2345626	Y	[redacted]	The University of North Carolina Greensboro
2345627	N		Harvard College, President & Fellows of Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Sharon D. Glivens
Email: sglivens@nsf.gov
Phone: (703) 292-7837

Awarding Official
Name: Sharon D. Glivens
Email: sglivens@nsf.gov

Managing Program Officer
Name: Kari Segraves
Email: ksegrave@nsf.gov
Phone: (703) 292-8935

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 23-549 Division of Environmental Biology (core programs).

BUDGET

A. Senior Personnel	
Senior Personnel Count	2.00
Senior Personnel Calendar Months	0.50
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$6,603
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	1.00
Other Professionals Calendar Months	1.20
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$5,094
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$11,697
C. Fringe Benefits	$3,524

Total Salaries, Wages, Fringe Benefits (A + B + C)	$15,221
D. Equipment	$0
E. Travel	
Domestic	$2,890
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$18,111**
I. Indirect Costs*	**$12,497**
J. Total Direct and Indirect Costs (H + I)	$30,608
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$30,608**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2346137
Managing Division Abbreviation: TI **Amendment Number:** 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 06/13/2024
Amendment Number: 000
Proposal Number: 2346137
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

AWARD INFORMATION

Award Number (FAIN): 2346137
Award Instrument: Standard Grant
Award Date: 06/13/2024
Award Period of Performance: Start Date: 06/15/2024 End Date: 05/31/2025
Project Title: POSE: Phase I: Open Source Soft Robotics (OSSR): An Open-Source Ecosystem to Increase Access and Enable Discovery of Soft Robotic Technologies
Managing Division Abbreviation: TI
Research and Development Award: Yes
Funding Opportunity: NSF 23-556 Pathways to Enable Open-Source Ecosystems
Assistance Listing Number(s) and Name(s): 47.084 NSF Technology, Innovation and Partnerships (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $300,000
Total Intended Award Amount: $300,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $300,000
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Austin Torretti
Email: atorrett@nsf.gov
Phone: (703) 292-4371

Awarding Official
Name: Austin Torretti
Email: atorrett@nsf.gov

Managing Program Officer
Name: Peter S. Atherton
Email: patherto@nsf.gov
Phone: (703) 292-8772

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/20/2024, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 23-556 Pathways to Enable Open-Source Ecosystems.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	0.36
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$9,260

B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	1.00
Post Doctoral Calendar Months	12.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$66,463
Other Professionals	
Other Professionals Count	1.00
Other Professionals Calendar Months	12.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$26,074
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$101,797
C. Fringe Benefits	$21,886
Total Salaries, Wages, Fringe Benefits (A + B + C)	$123,683
D. Equipment	$0
E. Travel	
Domestic	$16,244
International	$4,488
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0

Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$7,500
Computer Services	$0
Subawards	$0
Other	$25,600
Total Other Direct Costs (G)	$33,100
H. Total Direct Costs (A Through G)	**$177,515**
I. Indirect Costs*	**$122,485**
J. Total Direct and Indirect Costs (H + I)	$300,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$300,000**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC base	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2346173
Managing Division Abbreviation: TI **Amendment Number:** 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 06/27/2024
Amendment Number: 000
Proposal Number: 2346173
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above as modified by revised budget dated 04/16/2024, and email dated 05/30/2024.

The Foundation authorizes the awardee to enter into the proposed subaward arrangement. The subaward agreement should contain appropriate provisions in accordance with the award terms and conditions in effect at the time of this award amendment, and contain any special conditions included in this award.

Costs of entertainment, amusement, diversion and social activities, and any costs directly associated with such activities (such as meals, lodging, rentals, transportation and gratuities) are unallowable. When certain meals are an integral and necessary part of a conference or meeting (i.e., working meals where business is transacted), grant funds may be used for such meals. Grant funds may also be used to furnish a reasonable amount of coffee or soft drinks for conference or meeting participants and attendees during coffee breaks.

No NSF funds may be spent on meals or coffee breaks for intramural meetings of an organization or any of its components, including, but not limited to, laboratories, departments and centers.

AWARD INFORMATION

Award Number (FAIN): 2346173
Award Instrument: Continuing Grant

Award Date: 06/27/2024
Award Period of Performance: Start Date: 07/01/2024 End Date: 06/30/2026
Project Title: NSF POSE: Phase II: MLCommons Research for Science: Enabling Open-Source Ecosystems for Scientific Foundation Models by Community Standards and Benchmarks
Managing Division Abbreviation: TI
Research and Development Award: Yes
Funding Opportunity: NSF 23-556 Pathways to Enable Open-Source Ecosystems
Assistance Listing Number(s) and Name(s): 47.084 NSF Technology, Innovation and Partnerships (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $738,226
Total Intended Award Amount: $1,500,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $738,226
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2025	$761,774

PROJECT PERSONNEL

Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE
co-Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** RECTOR & VISITORS OF THE UNIVERSITY OF VIRGINIA
co-Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** UNIVERSITY OF TENNESSEE
co-Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** UNIVERSITY OF TENNESSEE
co-Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** UNIVERSITY OF TENNESSEE

NSF CONTACT INFORMATION

Managing Grants Official	Awarding Official	Managing Program Officer
(Primary Contact)	**Name:** Austin Torretti	**Name:** Peter S. Atherton
Name: Austin Torretti	**Email:** atorrett@nsf.gov	**Email:** patherto@nsf.gov

Email: atorrett@nsf.gov
Phone: (703) 292-4371

Phone: (703) 292-8772

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/20/2024, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 23-556 Pathways to Enable Open-Source Ecosystems.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	0.25
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$4,870
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	1.00
Post Doctoral Calendar Months	12.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$71,225
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	

Graduate Students Count	2.00
Graduate Students Amount	$56,209
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$132,304
C. Fringe Benefits	$16,361
Total Salaries, Wages, Fringe Benefits (A + B + C)	$148,665
D. Equipment	$0
E. Travel	
Domestic	$4,000
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$2,000
Consultant Services	$0
Computer Services	$0
Subawards	$396,399
Other	$36,629
Total Other Direct Costs (G)	$435,028
H. Total Direct Costs (A Through G)	**$587,693**
I. Indirect Costs*	**$150,533**
J. Total Direct and Indirect Costs (H + I)	$738,226
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$738,226**

M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
On-Campus Research MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2347423
Managing Division Abbreviation: CBET **Amendment Number:** 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 04/04/2024
Amendment Number: 000
Proposal Number: 2347423
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 11/21/2023.

AWARD INFORMATION

Award Number (FAIN): 2347423
Award Instrument: Standard Grant
Award Date: 04/04/2024
Award Period of Performance: Start Date: 03/01/2024 End Date: 02/28/2027
Project Title: Collaborative Research: CDS&E: Generalizable RANS Turbulence Models through Scientific Multi-Agent Reinforcement Learning
Managing Division Abbreviation: CBET
Research and Development Award: Yes
Funding Opportunity: PD 23-8084 Computational and Data-Enabled Science and Engineering
Assistance Listing Number(s) and Name(s): 47.041 Engineering Grants (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $350,000
Total Intended Award Amount: $350,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $350,000
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2347422	Y	[redacted]	University of Texas at Austin
2347423	N		Harvard College, President & Fellows of Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Wendy Simmons
Email: wsimmons@nsf.gov
Phone: (703) 292-2803

Awarding Official
Name: Willis Phan
Email: wiphan@nsf.gov

Managing Program Officer
Name: Ronald Douglas Joslin
Email: rjoslin@nsf.gov
Phone: (703) 292-7030

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	0.80
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$28,289
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	3.00
Graduate Students Amount	$126,143
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$154,432
C. Fringe Benefits	$6,083
Total Salaries, Wages, Fringe Benefits (A + B + C)	$160,515
D. Equipment	$0

E. Travel	
Domestic	$13,196
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$56,429
Total Other Direct Costs (G)	$56,429
H. Total Direct Costs (A Through G)	**$230,140**
I. Indirect Costs*	**$119,860**
J. Total Direct and Indirect Costs (H + I)	$350,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$350,000**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

The indirect cost rate(s) for this award is/are not available. These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2348924
Managing Division Abbreviation: DBI **Amendment Number:** 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 02/23/2024
Amendment Number: 000
Proposal Number: 2348924
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 02/12/2024.

Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies and procedures to segregate participant support costs.

AWARD INFORMATION

Award Number (FAIN): 2348924
Award Instrument: Standard Grant
Award Date: 02/23/2024
Award Period of Performance: Start Date: 03/15/2024 End Date: 02/28/2027
Project Title: REU Site: Summer Research Program in Ecology at Harvard Forest
Managing Division Abbreviation: DBI
Research and Development Award: Yes
Funding Opportunity: NSF 23-601 Research Experiences for Undergraduates
Assistance Listing Number(s) and Name(s): 47.074 Biological Sciences (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $504,194
Total Intended Award Amount: $504,194
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $504,194
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

co-Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Termia M. Millard
Email: tmillard@nsf.gov
Phone: (703) 292-7074

Awarding Official
Name: Vanessa L. Richardson
Email: vlrichar@nsf.gov

Managing Program Officer
Name: Amanda Alice Simcox
Email: asimcox@nsf.gov
Phone: (703) 292-8165

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 23-601 Research Experiences for Undergraduates.

BUDGET

A. Senior Personnel	
Senior Personnel Count	6.00
Senior Personnel Calendar Months	0.00

Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	3.00
Other Professionals Calendar Months	3.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$16,134
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$16,134
C. Fringe Benefits	$6,663
Total Salaries, Wages, Fringe Benefits (A + B + C)	$22,797
D. Equipment	$0
E. Travel	
Domestic	$7,500
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$231,000

Participant Support Costs Travel	$48,300
Participant Support Costs Subsistence	$140,250
Participant Support Costs Other	$10,500
Total Number of Participants	30.00
Total Participant Costs (F)	$430,050
G. Other Direct Costs	
Materials Supplies	$3,000
Publication Costs	$1,275
Consultant Services	$6,000
Computer Services	$0
Subawards	$0
Other	$3,300
Total Other Direct Costs (G)	$13,575
H. Total Direct Costs (A Through G)	**$473,922**
I. Indirect Costs*	**$30,272**
J. Total Direct and Indirect Costs (H + I)	$504,194
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$504,194**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Modified Total Direct Costs	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

PROPOSAL BUDGET

ORGANIZATION **Harvard University**				FOR NSF USE ONLY PROPOSAL NO.	DURATION (months) Proposed	Granted
PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR [redacted]				AWARD NO. **2321651**		
A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each seperately with title, A.7. show number in brackets)	NSF Funded Person-months CAL	ACAD	SUM	Funds Requested by proposer	Funds granted by NSF (if different)	
1.				$	$	
2.						
3.						
4.						
5.						
6. ( ) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)						
7. (**1**) TOTAL SENIOR PERSONNEL (1-6)	**1.0**	**0.0**	**0.0**			**8,449**
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)						
1. (**0**) POST DOCTORAL SCHOLARS	**0.0**	**0.0**	**0.0**			**0**
2. (**1**) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	**2.4**	**0.0**	**0.0**			**6,544**
3. (**1**) GRADUATE STUDENTS						**4,850**
4. (**0**) UNDERGRADUATE STUDENTS						**0**
5. (**0**) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)						**0**
6. (**0**) OTHER						**0**
TOTAL SALARIES AND WAGES (A + B)						**19,843**
C. FRINGE BENIFITS (IF CHARGED AS DIRECT COSTS)						**4,288**
TOTAL SALARIES, WAGES AND FRINGE BENIFITS (A + B + C)						**24,131**
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING $5000.)						
1			$			
2			$			
3			$			
Others: (see budget comment page ...)			$			
TOTAL EQUIPMENT						**0**
E. TRAVEL 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)						**2,098**
2. INTERNATIONAL						**0**
F. PARTICIPANT SUPPORT COSTS 1. STIPENDS $ 2. TRAVEL 3. SUBSISTENCE 4. OTHER						
(**0**) TOTAL PARTICIPANT COSTS						**0**
G. OTHER DIRECT COSTS						
1. MATERIALS AND SUPPLIES						**2,098**
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION						**0**
3. CONSULTANT SERVICES						**0**
5. COMPUTER SERVICES						**0**
5. SUBAWARDS						**0**
6. OTHER						**1,259**
TOTAL OTHER DIRECT COSTS						**3,357**
H. TOTAL DIRECT COSTS (A THROUGH G)						**29,586**
I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)						
TOTAL INDIRECT COSTS (F&A)						**20,414**
J. TOTAL DIRECT AND INDIRECT COSTS (A THROUGH G)						**50,000**
K. FEE						
K1 RESIDUAL FUNDS						**0**
K2 FEE						**0**
L. AMOUNT OF THIS REQUEST(J) OR (J - K1 + K2)				$	$	**50,000**

M. COST SHARING PROPOSED LEVEL $ **0**	AGREED LEVEL IF DIFFERENT $			
PI/PD TYPED NAME & SIGNATURE*	DATE	FOR NSF USE ONLY INDIRECT COST RATE VERIFICATION		
ORG. REP. TYPED NAME & SIGNATURE*	DATE	Date Checked	Date of Rate Sheet	Initials - ORG

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NATIONAL SCIENCE FOUNDATION

PROPOSAL BUDGET

ORGANIZATION **Harvard University**				FOR NSF USE ONLY PROPOSAL NO.	DURATION (months) Proposed	 Granted
PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR [redacted]				AWARD NO. **2323102**		
A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each seperately with title, A.7. show number in brackets)	NSF Funded Person-months CAL	ACAD	SUM	Funds Requested by proposer	Funds granted by NSF (if different)	
1.				$	$	
2.						
3.						
4.						
5.						
6. ( ) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)						
7. (**2**) TOTAL SENIOR PERSONNEL (1-6)	**0.5**	**0.0**	**0.0**			**11,607**
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)						
1. (**0**) POST DOCTORAL SCHOLARS	**0.0**	**0.0**	**0.0**			**0**
2. (**0**) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	**0.0**	**0.0**	**0.0**			**0**
3. (**0**) GRADUATE STUDENTS						**0**
4. (**0**) UNDERGRADUATE STUDENTS						**0**
5. (**0**) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)						**0**
6. (**0**) OTHER						**0**
TOTAL SALARIES AND WAGES (A + B)						**11,607**
C. FRINGE BENIFITS (IF CHARGED AS DIRECT COSTS)						**2,565**
TOTAL SALARIES, WAGES AND FRINGE BENIFITS (A + B + C)						**14,172**
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING $5000.)						
1			**$**			
2			**$**			
3			**$**			
Others: (see budget comment page ...)			**$**			
TOTAL EQUIPMENT						**0**
E. TRAVEL 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)						**0**
2. INTERNATIONAL						**0**
F. PARTICIPANT SUPPORT COSTS 1. STIPENDS $ 2. TRAVEL 3. SUBSISTENCE 4. OTHER						
(**0**) TOTAL PARTICIPANT COSTS						**0**
G. OTHER DIRECT COSTS						
1. MATERIALS AND SUPPLIES						**0**
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION						**0**
3. CONSULTANT SERVICES						**0**
5. COMPUTER SERVICES						**0**
5. SUBAWARDS						**0**
6. OTHER						**15,000**
TOTAL OTHER DIRECT COSTS						**15,000**
H. TOTAL DIRECT COSTS (A THROUGH G)						**29,172**
I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)						
TOTAL INDIRECT COSTS (F&A)						**20,129**
J. TOTAL DIRECT AND INDIRECT COSTS (A THROUGH G)						**49,301**
K. FEE						
K1 RESIDUAL FUNDS						**0**
K2 FEE						**0**
L. AMOUNT OF THIS REQUEST(J) OR (J - K1 + K2)				$	$	**49,301**
M. COST SHARING PROPOSED LEVEL $ **0**	AGREED LEVEL IF DIFFERENT $					

PI/PD TYPED NAME & SIGNATURE*	DATE	FOR NSF USE ONLY INDIRECT COST RATE VERIFICATION		
ORG. REP. TYPED NAME & SIGNATURE*	DATE	Date Checked	Date of Rate Sheet	Initials - ORG

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NATIONAL SCIENCE FOUNDATION

PROPOSAL BUDGET

ORGANIZATION **Harvard University**				FOR NSF USE ONLY PROPOSAL NO.	DURATION (months) Proposed	 Granted
PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR [redacted]				AWARD NO. **2333466**		
A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each seperately with title, A.7. show number in brackets)	NSF Funded Person-months CAL	ACAD	SUM	Funds Requested by proposer	Funds granted by NSF (if different)	
1.				$	$	
2.						
3.						
4.						
5.						
6. ( ) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)						
7. (**1**) TOTAL SENIOR PERSONNEL (1-6)	**0.0**	**0.0**	**0.0**			**0**
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)						
1. (**0**) POST DOCTORAL SCHOLARS	**0.0**	**0.0**	**0.0**			**0**
2. (**0**) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	**0.0**	**0.0**	**0.0**			**0**
3. (**0**) GRADUATE STUDENTS						**0**
4. (**0**) UNDERGRADUATE STUDENTS						**0**
5. (**0**) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)						**0**
6. (**0**) OTHER						**0**
TOTAL SALARIES AND WAGES (A + B)						**0**
C. FRINGE BENIFITS (IF CHARGED AS DIRECT COSTS)						**0**
TOTAL SALARIES, WAGES AND FRINGE BENIFITS (A + B + C)						**0**
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING $5000.)						
1			**$**			
2			**$**			
3			**$**			
Others: (see budget comment page ...)			**$**			
TOTAL EQUIPMENT						**0**
E. TRAVEL 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)						**0**
2. INTERNATIONAL						**0**
F. PARTICIPANT SUPPORT COSTS						
1. STIPENDS $						
2. TRAVEL						
3. SUBSISTENCE						
4. OTHER						
(**0**) TOTAL PARTICIPANT COSTS						**0**
G. OTHER DIRECT COSTS						
1. MATERIALS AND SUPPLIES						**0**
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION						**0**
3. CONSULTANT SERVICES						**0**
5. COMPUTER SERVICES						**0**
5. SUBAWARDS						**0**
6. OTHER						**88,740**
TOTAL OTHER DIRECT COSTS						**88,740**
H. TOTAL DIRECT COSTS (A THROUGH G)						**88,740**
I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)						
TOTAL INDIRECT COSTS (F&A)						**61,231**
J. TOTAL DIRECT AND INDIRECT COSTS (A THROUGH G)						**149,971**
K. FEE						
K1 RESIDUAL FUNDS						**0**
K2 FEE						**0**
L. AMOUNT OF THIS REQUEST(J) OR (J - K1 + K2)				$	$	**149,971**
M. COST SHARING PROPOSED LEVEL $ **0**	AGREED LEVEL IF DIFFERENT $					
PI/PD TYPED NAME & SIGNATURE*	DATE	FOR NSF USE ONLY INDIRECT COST RATE VERIFICATION				
ORG. REP. TYPED NAME & SIGNATURE*	DATE	Date Checked	Date of Rate Sheet	Initials - ORG		

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NATIONAL SCIENCE FOUNDATION

PROPOSAL BUDGET

FOR NSF USE ONLY

ORGANIZATION: **Harvard University**

PROPOSAL NO. | DURATION (months): Proposed | Granted

PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR: [redacted]

AWARD NO.: **2333888**

A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each seperately with title, A.7. show number in brackets)	NSF Funded Person-months CAL	ACAD	SUM	Funds Requested by proposer	Funds granted by NSF (if different)
1.				$	$
2.					
3.					
4.					
5.					
6. ( ) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)					
7. (2) TOTAL SENIOR PERSONNEL (1-6)	1.0	0.0	0.0		27,211
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)					
1. (1) POST DOCTORAL SCHOLARS	12.0	0.0	0.0		67,600
2. (0) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	0.0	0.0	0.0		0
3. (0) GRADUATE STUDENTS					0
4. (1) UNDERGRADUATE STUDENTS					9,548
5. (0) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)					0
6. (0) OTHER					0
TOTAL SALARIES AND WAGES (A + B)					104,359
C. FRINGE BENIFITS (IF CHARGED AS DIRECT COSTS)					21,112
TOTAL SALARIES, WAGES AND FRINGE BENIFITS (A + B + C)					125,471
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING $5000.)					
1 $					
2 $					
3 $					
Others: (see budget comment page ...) $					
TOTAL EQUIPMENT					0
E. TRAVEL 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)					4,085
2. INTERNATIONAL					0
F. PARTICIPANT SUPPORT COSTS					
1. STIPENDS $					
2. TRAVEL					
3. SUBSISTENCE					
4. OTHER					
(20) TOTAL PARTICIPANT COSTS					2,000
G. OTHER DIRECT COSTS					
1. MATERIALS AND SUPPLIES					1,500
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION					1,000
3. CONSULTANT SERVICES					0
5. COMPUTER SERVICES					0
5. SUBAWARDS					0
6. OTHER					1,000
TOTAL OTHER DIRECT COSTS					3,500
H. TOTAL DIRECT COSTS (A THROUGH G)					135,056
I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)					
TOTAL INDIRECT COSTS (F&A)					91,809
J. TOTAL DIRECT AND INDIRECT COSTS (A THROUGH G)					226,865
K. FEE					
K1 RESIDUAL FUNDS					0
K2 FEE					0
L. AMOUNT OF THIS REQUEST(J) OR (J - K1 + K2)				$	$ 226,865

M. COST SHARING PROPOSED LEVEL $ **0** | AGREED LEVEL IF DIFFERENT $

PI/PD TYPED NAME & SIGNATURE*	DATE	FOR NSF USE ONLY INDIRECT COST RATE VERIFICATION		
ORG. REP. TYPED NAME & SIGNATURE*	DATE	Date Checked	Date of Rate Sheet	Initials - ORG

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NATIONAL SCIENCE FOUNDATION

PROPOSAL BUDGET

FOR NSF USE ONLY

ORGANIZATION: **Harvard University**

PROPOSAL NO. | DURATION (months): Proposed | Granted

PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR: [redacted]

AWARD NO.: **2333904**

A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each seperately with title, A.7. show number in brackets)	NSF Funded Person-months CAL	ACAD	SUM	Funds Requested by proposer	Funds granted by NSF (if different)
1.				$	$
2.					
3.					
4.					
5.					
6. ( ) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)					
7. (1) TOTAL SENIOR PERSONNEL (1-6)	0.5	0.0	0.0		18,853
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)					
1. (1) POST DOCTORAL SCHOLARS	6.0	0.0	0.0		33,641
2. (1) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	2.6	0.0	0.0		18,540
3. (0) GRADUATE STUDENTS					0
4. (0) UNDERGRADUATE STUDENTS					0
5. (0) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)					0
6. (0) OTHER					0
TOTAL SALARIES AND WAGES (A + B)					71,034
C. FRINGE BENIFITS (IF CHARGED AS DIRECT COSTS)					13,103
TOTAL SALARIES, WAGES AND FRINGE BENIFITS (A + B + C)					84,137
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING $5000.)					
1 $					
2 $					
3 $					
Others: (see budget comment page ...) $					
TOTAL EQUIPMENT					0
E. TRAVEL 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)					0
2. INTERNATIONAL					0
F. PARTICIPANT SUPPORT COSTS					
1. STIPENDS $					
2. TRAVEL					
3. SUBSISTENCE					
4. OTHER					
(0) TOTAL PARTICIPANT COSTS					0
G. OTHER DIRECT COSTS					
1. MATERIALS AND SUPPLIES					0
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION					1,500
3. CONSULTANT SERVICES					0
5. COMPUTER SERVICES					0
5. SUBAWARDS					0
6. OTHER					0
TOTAL OTHER DIRECT COSTS					1,500
H. TOTAL DIRECT COSTS (A THROUGH G)					85,637
I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)					
TOTAL INDIRECT COSTS (F&A)					59,090
J. TOTAL DIRECT AND INDIRECT COSTS (A THROUGH G)					144,727
K. FEE					
K1 RESIDUAL FUNDS					0
K2 FEE					0
L. AMOUNT OF THIS REQUEST(J) OR (J - K1 + K2)				$	$ 144,727

M. COST SHARING PROPOSED LEVEL $ **0** AGREED LEVEL IF DIFFERENT $

PI/PD TYPED NAME & SIGNATURE*	DATE	FOR NSF USE ONLY INDIRECT COST RATE VERIFICATION		
ORG. REP. TYPED NAME & SIGNATURE*	DATE	Date Checked	Date of Rate Sheet	Initials - ORG

NSF Form 1030 (10/99) Supersedes all previous editions

*SIGNATURES REQUIRED ONLY FOR REVISED BUDGET

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2116702
Managing Division Abbreviation: BCS **Amendment Number:** 002

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Supplement
Amendment Date: 07/31/2024
Amendment Number: 002
Proposal Number: 2412239
Amendment Description:

The purpose of this amendment is to:

- Add supplemental support to the award in the amount shown below in the Funding Information section.
- Extend the end date from 02/28/2027 to 02/29/2028.

The Foundation authorizes the awardee to enter into the proposed subaward arrangement. The subaward agreement should contain appropriate provisions in accordance with the award terms and conditions in effect at the time of this award amendment, and contain any special conditions included in this award.

In accordance with 2 CFR 200, Appendix III, C.7, the grantee must use the negotiated rates for indirect costs (F&A) in effect at the time of the initial award throughout the life of the sponsored agreement (including any continuing grant increments and any supplemental funding awarded under the agreement.) Award levels for sponsored agreements may not be adjusted in future years as a result of changes in negotiated rates.

Except as modified by this amendment, the award conditions remain unchanged.

AWARD INFORMATION

Award Number (FAIN): 2116702
Award Instrument: Continuing Grant

Award Date: 08/04/2022
Award Period of Performance: Start Date: 09/01/2022 End Date: 02/29/2028
Project Title: Collaborative Research: How Events are Conceptualized by Users of Homesign and by Users of an Established Sign Language
Managing Division Abbreviation: BCS
Research and Development Award: Yes
Funding Opportunity: PD 98-1311 Linguistics
Assistance Listing Number(s) and Name(s): 47.075 Social, Behavioral, and Economic Sciences (See Amendment 000 for source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $98,620
Total Intended Award Amount: $545,696
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $466,696

PROJECT PERSONNEL

Principal Investigator: [redacted]
Email: [redacted]
Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov
Phone: (703) 292-7046

Awarding Official
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov

Managing Program Officer
Name: Jorge Valdes Kroff
Email: jvaldesk@nsf.gov
Phone: (703) 292-7920

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/20/2024, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$0
C. Fringe Benefits	$0
Total Salaries, Wages, Fringe Benefits (A + B + C)	$0
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0

F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$81,370
Other	$0
Total Other Direct Costs (G)	$81,370
H. Total Direct Costs (A Through G)	**$81,370**
I. Indirect Costs*	**$17,250**
J. Total Direct and Indirect Costs (H + I)	$98,620
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$98,620**
M. Cost Sharing Proposed Level	$0

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2116702
Managing Division Abbreviation: BCS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/04/2022
Amendment Number: 000
Proposal Number: 2116702
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above as modified by revised budget dated 07/11/2022.

Fiscal Year 2022 and 2023 budgets have been combined in this award. It is still the grantee's responsibility to submit an annual project report in accordance with the award terms and conditions.

It is the grantee's responsibility to ensure that any human subjects work conducted under this award has an Institutional Review Board (IRB) approval, where required, and that such approval remains valid at all times that human subjects work is conducted under the award. Failure to comply with this condition will result in suspension and/or termination of the award.

Incentive payments or gifts to participants must be made in accordance with written institutional policies and procedures and supported by auditable documentation. The allowability of these costs will ultimately be based on the awardee institution's ability to adequately demonstrate that the incentives have been disbursed in accordance with its policies and procedures.

AWARD INFORMATION

Award Number (FAIN): 2116702
Award Instrument: Continuing Grant
Award Date: 08/04/2022
Award Period of Performance: Start Date: 09/01/2022 End Date: 02/28/2026

Project Title: Collaborative Research: How Events are Conceptualized by Users of Homesign and by Users of an Established Sign Language
Managing Division Abbreviation: BCS
Research and Development Award: Yes
Funding Opportunity: PD 98-1311 Linguistics
Assistance Listing Number(s) and Name(s): 47.075 Social, Behavioral, and Economic Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $361,626
Total Intended Award Amount: $545,696
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $361,626
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2024	$184,070

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2116702	Y	[redacted]	Harvard College, President & Fellows of Harvard University
2116180	N		University of Connecticut

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: William J. Badecker
Email: wbadecke@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	2.00
Senior Personnel Calendar Months	0.80
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$20,000
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	2.00
Other Professionals Calendar Months	20.35
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$109,491
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00

Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	2.00
Other Amount	$30,320
Total Salaries and Wages (A+B)	$159,811
C. Fringe Benefits	$44,929
Total Salaries, Wages, Fringe Benefits (A + B + C)	$204,740
D. Equipment	$0
E. Travel	
Domestic	$1,500
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$5,240
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$2,500
Total Other Direct Costs (G)	$7,740
H. Total Direct Costs (A Through G)	**$213,980**
I. Indirect Costs*	**$147,646**
J. Total Direct and Indirect Costs (H + I)	$361,626
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$361,626**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Indirect Costs	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2119351
Managing Division Abbreviation: DMR **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: Harvard College, President & Fellows of Harvard University
Awardee Address: 1033 MASSACHUSETTS AVE 5th Floor Cambridge, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (DUNS ID): 082359691

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/05/2021
Amendment Number: 000
Proposal Number: 2119351
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above .

AWARD INFORMATION

Award Number (FAIN): 2119351
Award Instrument: Standard Grant
Award Date: 08/05/2021
Award Period of Performance: Start Date: 10/01/2021 End Date: 09/30/2025
Project Title: Collaborative Research: DMREF: Design of Superionic Conductors by Tuning Lattice Dynamics
Managing Division Abbreviation: DMR
Research and Development Award: Yes
Funding Opportunity: NSF 21-522 Designing Materials to Revolutionize and Engineer our Future
CFDA Number and Name: 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $457,194

Total Intended Award Amount: $457,194
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $457,194
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]
Email: [redacted]
Institution: Harvard University

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Institution
2119273	Y	[redacted]	Duke University
2118463	N		Michigan State University
2119351	N		Harvard College, President & Fellows of Harvard University
2119377	N		North Carolina State University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Elizabeth Gebremedhin
Email: egebreme@nsf.gov

Awarding Official
Name: Elizabeth Gebremedhin
Email: egebreme@nsf.gov

Managing Program Officer
Name: Bryan Boudouris
Email: bboudour@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 11/12/2020, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-522 Designing Materials to Revolutionize and Engineer our Future.

BUDGET

A. Senior Personnel	
Senior Personnel Count	4.00
Senior Personnel Calendar Months	2.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$33,144
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	4.00
Graduate Students Amount	$168,056
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$201,200

C. Fringe Benefits	$7,689
Total Salaries, Wages, Fringe Benefits (A + B + C)	$208,889
D. Equipment	$0
E. Travel	
Domestic	$16,000
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$8,000
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$63,612
Total Other Direct Costs (G)	$71,612
H. Total Direct Costs (A Through G)	**$296,501**
I. Indirect Costs*	**$160,693**
J. Total Direct and Indirect Costs (H + I)	$457,194
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$457,194**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Indirect Costs	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2202984
Managing Division Abbreviation: DMS **Amendment Number:** 002

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Increment
Amendment Date: 06/25/2024
Amendment Number: 002
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to add incremental funding to the award in the amount shown below in the Funding Information section.

Except as modified by this amendment, the award conditions remain unchanged.

AWARD INFORMATION

Award Number (FAIN): 2202984
Award Instrument: Continuing Grant
Award Date: 04/29/2022
Award Period of Performance: Start Date: 07/01/2022 End Date: 06/30/2025
Project Title: Partially Wrapped Fukaya Categories and Functoriality in Mirror Symmetry
Managing Division Abbreviation: DMS
Research and Development Award: Yes
Funding Opportunity: PD 20-1267 Topology
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences (See Amendment 000 for source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $184,572
Total Intended Award Amount: $539,063
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $539,063

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Lynda Kummelt
Email: lkummelt@nsf.gov
Phone: (703) 292-7721

Awarding Official
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Managing Program Officer
Name: Swatee Naik
Email: snaik@nsf.gov
Phone: (703) 292-4876

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/20/2024, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	1.00
Senior Personnel Amount	$33,607
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00

Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	2.00
Graduate Students Amount	$58,676
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$92,283
C. Fringe Benefits	$7,931
Total Salaries, Wages, Fringe Benefits (A + B + C)	$100,214
D. Equipment	$0
E. Travel	
Domestic	$4,000
International	$4,000
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	

Materials Supplies	$1,000
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$1,000
H. Total Direct Costs (A Through G)	**$109,214**
I. Indirect Costs*	**$75,358**
J. Total Direct and Indirect Costs (H + I)	$184,572
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$184,572**
M. Cost Sharing Proposed Level	$0

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2202984
Managing Division Abbreviation: DMS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 04/29/2022
Amendment Number: 000
Proposal Number: 2202984
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above as modified by revised budget dated 04/21/2022.

AWARD INFORMATION

Award Number (FAIN): 2202984
Award Instrument: Continuing Grant
Award Date: 04/29/2022
Award Period of Performance: Start Date: 07/01/2022 End Date: 06/30/2025
Project Title: Partially Wrapped Fukaya Categories and Functoriality in Mirror Symmetry
Managing Division Abbreviation: DMS
Research and Development Award: Yes
Funding Opportunity: PD 20-1267 Topology
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $174,851
Total Intended Award Amount: $539,063

Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $174,851
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2023	$179,640
2024	$184,572

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization:
PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Lynda Kummelt
Email: lkummelt@nsf.gov

Awarding Official
Name: Aprile N Roberson
Email: aroberso@nsf.gov

Managing Program Officer
Name: Swatee Naik
Email: snaik@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 10/04/2021, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer	1.00

Months	
Senior Personnel Amount	$31,678
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	2.00
Graduate Students Amount	$55,308
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$86,986
C. Fringe Benefits	$7,476
Total Salaries, Wages, Fringe Benefits (A + B + C)	$94,462
D. Equipment	$0
E. Travel	
Domestic	$4,000
International	$4,000
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs	$0

Subsistence	
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$1,000
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$1,000
H. Total Direct Costs (A Through G)	**$103,462**
I. Indirect Costs*	**$71,389**
J. Total Direct and Indirect Costs (H + I)	$174,851
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$174,851**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2203621

Managing Division Abbreviation: CHE

Amendment Number: 002

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Other Admin No Fund Actions
Amendment Date: 01/15/2025
Amendment Number: 002
Proposal Number: Not Applicable
Amendment Description:

The purpose of this amendment is to change the PI or co-PI in accordance with the Change PI and Add/Change Co-PI request submitted on 01/13/2025. Effective with this amendment, the project is now under the direction of [redacted]

Except as modified by this amendment, the award conditions remain unchanged.

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

co-Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official **Awarding Official** **Managing Program**

(Primary Contact) **Name:** Pamela V. Conyers **Email:** pconyers@nsf.gov **Phone:** (703) 292-5329	**Name:** Pamela V. Conyers **Email:** pconyers@nsf.gov	**Officer** **Name:** John Michael Papanikolas **Email:** jpapanik@nsf.gov **Phone:** (703) 292-8173

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2203621
Managing Division Abbreviation: CHE **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Renewal
Amendment Date: 07/10/2022
Amendment Number: 000
Proposal Number: 2203621
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 06/27/2022.

AWARD INFORMATION

Award Number (FAIN): 2203621
Award Instrument: Standard Grant
Award Date: 07/10/2022
Award Period of Performance: Start Date: 09/01/2022 End Date: 08/31/2025
Project Title: Quantum Charge Tunneling through Self-Assembled Monolayers (SAMs)
Managing Division Abbreviation: CHE
Research and Development Award: Yes
Funding Opportunity: NSF 21-589 Division of Chemistry: Disciplinary Research Programs
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $800,000
Total Intended Award Amount: $800,000

Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $800,000
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Pamela V. Conyers
Email: pconyers@nsf.gov

Awarding Official
Name: Elizabeth Gebremedhin
Email: egebreme@nsf.gov

Managing Program Officer
Name: John Michael Papanikolas
Email: jpapanik@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-589 Division of Chemistry: Disciplinary Research Programs.

BUDGET

A. Senior Personnel	
Senior Personnel Count	4.00
Senior Personnel Calendar Months	2.40
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$80,447

B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	4.00
Post Doctoral Calendar Months	48.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$229,430
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	2.00
Undergraduate Students Amount	$12,600
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$322,477
C. Fringe Benefits	$77,074
Total Salaries, Wages, Fringe Benefits (A + B + C)	$399,551
D. Equipment	$0
E. Travel	
Domestic	$4,500
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0

Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$46,601
Publication Costs	$11,000
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$11,720
Total Other Direct Costs (G)	$69,321
H. Total Direct Costs (A Through G)	**$473,372**
I. Indirect Costs*	**$326,628**
J. Total Direct and Indirect Costs (H + I)	$800,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$800,000**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MDTC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2206110
Managing Division Abbreviation: AST **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/17/2022
Amendment Number: 000
Proposal Number: 2206110
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 07/18/2022.

AWARD INFORMATION

Award Number (FAIN): 2206110
Award Instrument: Standard Grant
Award Date: 08/17/2022
Award Period of Performance: Start Date: 09/01/2022 End Date: 08/31/2025
Project Title: WoU-MMA: The Electromagnetic Counterparts of Gravitational Wave Sources
Managing Division Abbreviation: AST
Research and Development Award: Yes
Funding Opportunity: PD 18-5115 WINDOWS ON THE UNIVERSE: THE ERA OF MULTI-MESSENGER ASTROPHYSICS
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $468,687

Total Intended Award Amount: $468,687
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $468,687
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Elizabeth Gebremedhin
Email: egebreme@nsf.gov

Awarding Official
Name: Elizabeth Gebremedhin
Email: egebreme@nsf.gov

Managing Program Officer
Name: Hans Albert Krimm
Email: hkrimm@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	2.00
Senior Personnel Calendar Months	1.50
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$37,020
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	3.00

Post Doctoral Calendar Months	15.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$85,220
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	3.00
Graduate Students Amount	$67,358
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$189,598
C. Fringe Benefits	$29,742
Total Salaries, Wages, Fringe Benefits (A + B + C)	$219,340
D. Equipment	$0
E. Travel	
Domestic	$14,400
International	$19,200
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	

Materials Supplies	$0
Publication Costs	$6,600
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$30,064
Total Other Direct Costs (G)	$36,664
H. Total Direct Costs (A Through G)	**$289,604**
I. Indirect Costs*	**$179,083**
J. Total Direct and Indirect Costs (H + I)	$468,687
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$468,687**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Modified Total Direct Costs	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2207119
Managing Division Abbreviation: EAR **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 07/24/2022
Amendment Number: 000
Proposal Number: 2207119
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

AWARD INFORMATION

Award Number (FAIN): 2207119
Award Instrument: Standard Grant
Award Date: 07/24/2022
Award Period of Performance: Start Date: 08/01/2022 End Date: 07/31/2025
Project Title: Controls on ground surface deformation in thrust and reverse fault earthquakes
Managing Division Abbreviation: EAR
Research and Development Award: Yes
Funding Opportunity: NSF 22-515 Tectonics
Assistance Listing Number(s) and Name(s): 47.050 Geosciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $238,111
Total Intended Award Amount: $238,111

Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $238,111
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Angela A. Turner
Email: aturner@nsf.gov

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: Audrey Huerta
Email: ahuerta@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 22-515 Tectonics.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	0.75
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$24,249
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00

Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	3.00
Other Professionals Calendar Months	4.50
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$35,583
Graduate Students	
Graduate Students Count	3.00
Graduate Students Amount	$63,943
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$123,775
C. Fringe Benefits	$14,119
Total Salaries, Wages, Fringe Benefits (A + B + C)	$137,894
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0

Publication Costs	$3,000
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$3,000
H. Total Direct Costs (A Through G)	**$140,894**
I. Indirect Costs*	**$97,217**
J. Total Direct and Indirect Costs (H + I)	$238,111
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$238,111**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Facilities and Administrative Costs	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2207659
Managing Division Abbreviation: PHY **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Renewal
Amendment Date: 07/08/2022
Amendment Number: 000
Proposal Number: 2207659
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

AWARD INFORMATION

Award Number (FAIN): 2207659
Award Instrument: Standard Grant
Award Date: 07/08/2022
Award Period of Performance: Start Date: 07/15/2022 End Date: 06/30/2025
Project Title: Topics In General Relativity
Managing Division Abbreviation: PHY
Research and Development Award: Yes
Funding Opportunity: NSF 21-593 Division of Physics: Investigator-Initiated Research Projects
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $403,935
Total Intended Award Amount: $403,935

Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $403,935
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Pamela V. Conyers
Email: pconyers@nsf.gov

Awarding Official
Name: Pamela V. Conyers
Email: pconyers@nsf.gov

Managing Program Officer
Name: Pedro Marronetti
Email: pmarrone@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-593 Division of Physics: Investigator-Initiated Research Projects.

BUDGET

A. Senior Personnel	
Senior Personnel Count	0.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	3.00

Post Doctoral Calendar Months	18.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$115,909
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	3.00
Graduate Students Amount	$76,793
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$192,702
C. Fringe Benefits	$28,862
Total Salaries, Wages, Fringe Benefits (A + B + C)	$221,564
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	

Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$29,492
Total Other Direct Costs (G)	$29,492
H. Total Direct Costs (A Through G)	**$251,056**
I. Indirect Costs*	**$152,879**
J. Total Direct and Indirect Costs (H + I)	$403,935
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$403,935**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2207972
Managing Division Abbreviation: PHY **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 06/24/2022
Amendment Number: 000
Proposal Number: 2207972
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 06/09/2022.

AWARD INFORMATION

Award Number (FAIN): 2207972
Award Instrument: Standard Grant
Award Date: 06/24/2022
Award Period of Performance: Start Date: 09/01/2022 End Date: 08/31/2025
Project Title: NSF BSF: Nonlinear Photon Interactions in Cooperative Quantum Optical Systems
Managing Division Abbreviation: PHY
Research and Development Award: Yes
Funding Opportunity: NSF 21-593 Division of Physics: Investigator-Initiated Research Projects
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $300,000
Total Intended Award Amount: $300,000

Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $300,000
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Pamela V. Conyers
Email: pconyers@nsf.gov

Awarding Official
Name: Elizabeth Gebremedhin
Email: egebreme@nsf.gov

Managing Program Officer
Name: Robert Forrey
Email: rforrey@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-593 Division of Physics: Investigator-Initiated Research Projects.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	1.50
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$33,552
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	3.00

Post Doctoral Calendar Months	7.50
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$41,418
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	3.00
Graduate Students Amount	$60,333
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$135,303
C. Fringe Benefits	$17,894
Total Salaries, Wages, Fringe Benefits (A + B + C)	$153,197
D. Equipment	$0
E. Travel	
Domestic	$0
International	$6,000
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	

Materials Supplies	$2,327
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$27,024
Total Other Direct Costs (G)	$29,351
H. Total Direct Costs (A Through G)	**$188,548**
I. Indirect Costs*	**$111,452**
J. Total Direct and Indirect Costs (H + I)	$300,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$300,000**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC Basis	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2209623
Managing Division Abbreviation: OAC **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/18/2022
Amendment Number: 000
Proposal Number: 2209623
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 07/18/2022.

AWARD INFORMATION

Award Number (FAIN): 2209623
Award Instrument: Standard Grant
Award Date: 08/18/2022
Award Period of Performance: Start Date: 09/01/2022 End Date: 08/31/2025
Project Title: Collaborative Research: Elements: Enriching Scholarly Communication with Augmented Reality
Managing Division Abbreviation: OAC
Research and Development Award: Yes
Funding Opportunity: NSF 21-617 Cyberinfrastructure for Sustained Scientific Innovation
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences, 47.070 Computer and Information Science and Engineering

FUNDING INFORMATION

Amount Obligated by this Amendment: $402,107
Total Intended Award Amount: $402,107
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $402,107
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2209623	Y	[redacted]	Harvard College, President & Fellows of Harvard University
2209624	N	[redacted]	Northeastern University
2209625	N	[redacted]	The Johns Hopkins University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Daniel P McEnrue
Email: dpmcenru@nsf.gov

Awarding Official
Name: Jannele L. Gosey
Email: jgosey@nsf.gov

Managing Program Officer
Name: Varun Chandola
Email: vchandol@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-617 Cyberinfrastructure for Sustained Scientific Innovation.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	2.24
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$65,701
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	3.00
Other Professionals Calendar Months	0.06
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$6,232
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	3.00
Undergraduate Students Amount	$12,298
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$84,231

C. Fringe Benefits	$17,936
Total Salaries, Wages, Fringe Benefits (A + B + C)	$102,167
D. Equipment	$0
E. Travel	
Domestic	$11,936
International	$14,920
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$2,486
Publication Costs	$11,936
Consultant Services	$89,514
Computer Services	$0
Subawards	$0
Other	$4,974
Total Other Direct Costs (G)	$108,910
H. Total Direct Costs (A Through G)	**$237,933**
I. Indirect Costs*	**$164,174**
J. Total Direct and Indirect Costs (H + I)	$402,107
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$402,107**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2210173
Managing Division Abbreviation: OPP **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 07/07/2022
Amendment Number: 000
Proposal Number: 2210173
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

AWARD INFORMATION

Award Number (FAIN): 2210173
Award Instrument: Standard Grant
Award Date: 07/07/2022
Award Period of Performance: Start Date: 08/01/2022 End Date: 07/31/2025
Project Title: Collaborative Research: Impacts of Global Change on Terrestrial Mercury in the Arctic
Managing Division Abbreviation: OPP
Research and Development Award: Yes
Funding Opportunity: NSF 21-526 Arctic Research Opportunities
Assistance Listing Number(s) and Name(s): 47.078 Polar Programs

FUNDING INFORMATION

Amount Obligated by this Amendment: $578,882
Total Intended Award Amount: $578,882

Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $578,882
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator:	Email:	Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
[redacted]	[redacted]	

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2210172	Y	[redacted]	University of Colorado
2210173	N	[redacted]	Harvard College, President & Fellows of Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Angela A. Turner
Email: aturner@nsf.gov

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: Kelly McCarrick Brunt
Email: kbrunt@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-526 Arctic Research Opportunities.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	1.50
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$35,270
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	3.00
Graduate Students Amount	$127,576
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$162,846
C. Fringe Benefits	$8,324
Total Salaries, Wages, Fringe Benefits (A + B + C)	$171,170
D. Equipment	$0
E. Travel	
Domestic	$13,500

International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$4,500
Consultant Services	$124,462
Computer Services	$0
Subawards	$0
Other	$48,844
Total Other Direct Costs (G)	$177,806
H. Total Direct Costs (A Through G)	**$362,476**
I. Indirect Costs*	**$216,406**
J. Total Direct and Indirect Costs (H + I)	$578,882
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$578,882**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2210757
Managing Division Abbreviation: AGS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 06/05/2022
Amendment Number: 000
Proposal Number: 2210757
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

AWARD INFORMATION

Award Number (FAIN): 2210757
Award Instrument: Standard Grant
Award Date: 06/05/2022
Award Period of Performance: Start Date: 07/01/2022 End Date: 06/30/2025
Project Title: Using Hothouse Climates to Generalize Understanding of Convection, Clouds, and Circulation
Managing Division Abbreviation: AGS
Research and Development Award: Yes
Funding Opportunity: PD 06-5740 Climate and Large-Scale Dynamics
Assistance Listing Number(s) and Name(s): 47.050 Geosciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $396,217

Total Intended Award Amount: $396,217
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $396,217
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Meredith Whitty
Email: mwhitty@nsf.gov

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: Varavut Limpasuvan
Email: vlimpasu@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	1.50
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$33,484
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	3.00
Post Doctoral Calendar Months	24.00

Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$144,281
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$177,765
C. Fringe Benefits	$43,828
Total Salaries, Wages, Fringe Benefits (A + B + C)	$221,593
D. Equipment	$0
E. Travel	
Domestic	$6,855
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0

Publication Costs	$6,000
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$6,000
H. Total Direct Costs (A Through G)	**$234,448**
I. Indirect Costs*	**$161,769**
J. Total Direct and Indirect Costs (H + I)	$396,217
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$396,217**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2211383
Managing Division Abbreviation: CNS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/30/2022
Amendment Number: 000
Proposal Number: 2211383
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 07/22/2022.

AWARD INFORMATION

Award Number (FAIN): 2211383
Award Instrument: Standard Grant
Award Date: 08/30/2022
Award Period of Performance: Start Date: 10/01/2022 End Date: 09/30/2026
Project Title: Collaborative Research: CNS Core: Medium: A Stateful Switch Architecture for In-Network Compute
Managing Division Abbreviation: CNS
Research and Development Award: Yes
Funding Opportunity: NSF 21-616 Computer and Information Science and Engineering (CISE): Core Programs
Assistance Listing Number(s) and Name(s): 47.070 Computer and Information Science and Engineering

FUNDING INFORMATION

Amount Obligated by this Amendment: $240,000
Total Intended Award Amount: $240,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $240,000
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2211381	Y	[redacted]	Purdue University
2211382	N	[redacted]	Massachusetts Institute of Technology
2211383	N	[redacted]	Harvard College, President & Fellows of Harvard University
2211384	N	[redacted]	Stanford University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Irene C. Sattler
Email: isattler@nsf.gov

Awarding Official
Name: Irene C. Sattler
Email: isattler@nsf.gov

Managing Program Officer
Name: Ann Chrstine Von Lehmen
Email: avonlehm@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and

NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-616 Computer and Information Science and Engineering (CISE): Core Programs.

BUDGET

A. Senior Personnel	
Senior Personnel Count	4.00
Senior Personnel Calendar Months	0.80
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$21,080
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	4.00
Graduate Students Amount	$94,568
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0

Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$115,648
C. Fringe Benefits	$4,658
Total Salaries, Wages, Fringe Benefits (A + B + C)	$120,306
D. Equipment	$0
E. Travel	
Domestic	$3,750
International	$2,000
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$4,250
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$19,789
Total Other Direct Costs (G)	$24,039
H. Total Direct Costs (A Through G)	**$150,095**
I. Indirect Costs*	**$89,905**
J. Total Direct and Indirect Costs (H + I)	$240,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$240,000**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2216066
Managing Division Abbreviation: CHE **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/12/2022
Amendment Number: 000
Proposal Number: 2216066
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 06/21/2022.

The grantee may allow access to the instrumentation to non-Federal outside organizations for a fee, if excess time is available on the equipment. However, the grantee shall not use this equipment to provide services to such organizations for a fee that is less than private companies charge for equivalent services. In addition, the users as outlined in the proposal must have the highest priority when allocating instrument access time.

As a condition of this award, the grantee agrees to provide cost sharing as specified in the referenced proposal, as amended, in the amount of $128,886. 2 CFR 200.306 prescribes the criteria and procedures for the allowability of cash and in-kind contributions. No Federal funds may be used to meet the grantee's cost sharing obligation for this project. The amount of cost sharing must be documented on an annual and final basis, certified by the Authorized Organizational Representative, and reported to the cognizant NSF Program Officer via FastLane. Mandatory cost sharing commitments are subject to audit.

AWARD INFORMATION

Award Number (FAIN): 2216066
Award Instrument: Standard Grant
Award Date: 08/12/2022

Award Period of Performance: Start Date: 08/15/2022 End Date: 07/31/2025
Project Title: MRI: Acquisition of Single-Crystal Diffractometer for Small Molecule Crystallography and Cryosystem
Managing Division Abbreviation: CHE
Research and Development Award: Yes
Funding Opportunity: NSF 18-513 Major Research Instrumentation Program:
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $300,735
Total Intended Award Amount: $300,735
Total Approved Cost Share or Matching Amount: $128,886
Total Amount Obligated to Date: $300,735
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE
co-Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE
co-Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE
co-Principal Investigator: [redacted]	**Email:** [redacted]	**Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact) **Name:** Lisa Smith **Email:** lismith@nsf.gov	**Awarding Official** **Name:** Jason M. Madigan **Email:** jmadigan@nsf.gov	**Managing Program Officer** **Name:** Kenneth R. Carter **Email:** krcarter@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and

NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 18-513 Major Research Instrumentation Program:.

BUDGET

A. Senior Personnel	
Senior Personnel Count	0.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0

Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$0
C. Fringe Benefits	$0
Total Salaries, Wages, Fringe Benefits (A + B + C)	$0
D. Equipment	$300,735
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$300,735**
I. Indirect Costs*	**$0**
J. Total Direct and Indirect Costs (H + I)	$300,735
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$300,735**
M. Cost Sharing Proposed Level	$128,886

*Indirect Cost Rates

The indirect cost rate(s) for this award is/are not available. These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2217680
Managing Division Abbreviation: CCF **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/25/2022
Amendment Number: 000
Proposal Number: 2217680
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

The project must ensure that one or more of the PIs, Co-PIs, senior personnel, senior graduate students, and/or postdoctoral researchers funded under this grant will attend, and actively participate in, at least one DASS PI meeting to be held during the course of the award.

AWARD INFORMATION

Award Number (FAIN): 2217680
Award Instrument: Standard Grant
Award Date: 08/25/2022
Award Period of Performance: Start Date: 10/01/2022 End Date: 09/30/2025
Project Title: Collaborative Research: DASS: Co-design of law and computer science for privacy in sociotechnical software systems
Managing Division Abbreviation: CCF
Research and Development Award: Yes
Funding Opportunity: NSF 22-512 Designing Accountable Software Systems
Assistance Listing Number(s) and Name(s): 47.070 Computer and Information Science and Engineering, 47.075 Social, Behavioral, and Economic Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $249,681
Total Intended Award Amount: $249,681
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $249,681
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2217678	Y	[redacted]	Georgetown University
2217679	N	[redacted]	Trustees of Boston University
2217680	N	[redacted]	Harvard College, President & Fellows of Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Daniel P McEnrue
Email: dpmcenru@nsf.gov

Awarding Official
Name: Daniel P McEnrue
Email: dpmcenru@nsf.gov

Managing Program Officer
Name: Dan R. Cosley
Email: dcosley@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 22-512 Designing Accountable Software Systems.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	0.75
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$17,250
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	3.00
Other Professionals Calendar Months	12.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$80,000
Graduate Students	
Graduate Students Count	3.00
Graduate Students Amount	$21,000
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0

Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$118,250
C. Fringe Benefits	$25,629
Total Salaries, Wages, Fringe Benefits (A + B + C)	$143,879
D. Equipment	$0
E. Travel	
Domestic	$3,861
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$147,740**
I. Indirect Costs*	**$101,941**
J. Total Direct and Indirect Costs (H + I)	$249,681
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$249,681**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
DHHS 7/16/2021	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2217722
Managing Division Abbreviation: CCF **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 07/12/2022
Amendment Number: 000
Proposal Number: 2217722
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

AWARD INFORMATION

Award Number (FAIN): 2217722
Award Instrument: Standard Grant
Award Date: 07/12/2022
Award Period of Performance: Start Date: 09/01/2022 End Date: 08/31/2025
Project Title: Collaborative Research: DASS: Enabling Standards- and Disclosure-Based Regulations in and through Software Systems: Making Algorithmic Work Management Software Accountable to Law
Managing Division Abbreviation: CCF
Research and Development Award: Yes
Funding Opportunity: NSF 22-512 Designing Accountable Software Systems
Assistance Listing Number(s) and Name(s): 47.070 Computer and Information Science and Engineering, 47.075 Social, Behavioral, and Economic Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $250,000
Total Intended Award Amount: $250,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $250,000
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator:	**Email:**	**Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE
[redacted]	[redacted]	

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2217721	Y	[redacted]	University of Texas at Austin
2217722	N	[redacted]	Harvard College, President & Fellows of Harvard University
2217723	N	[redacted]	University of California, San Diego

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Daniel P McEnrue
Email: dpmcenru@nsf.gov

Awarding Official
Name: Daniel P McEnrue
Email: dpmcenru@nsf.gov

Managing Program Officer
Name: Reggie S Sheehan
Email: rsheehan@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement

which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 22-512 Designing Accountable Software Systems.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	4.27
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$118,065
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	

Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$118,065
C. Fringe Benefits	$27,864
Total Salaries, Wages, Fringe Benefits (A + B + C)	$145,929
D. Equipment	$0
E. Travel	
Domestic	$2,000
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$147,929**
I. Indirect Costs*	**$102,071**
J. Total Direct and Indirect Costs (H + I)	$250,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$250,000**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Modified Total Direct	69.0000%

Cost	

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2218427
Managing Division Abbreviation: BCS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/05/2022
Amendment Number: 000
Proposal Number: 2218427
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 07/06/2022.

It is the grantee's responsibility to ensure that any human subjects work conducted under this award has an Institutional Review Board (IRB) approval, where required, and that such approval remains valid at all times that human subjects work is conducted under the award. Failure to comply with this condition will result in suspension and/or termination of the award.

Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies and procedures to segregate participant support costs.

Incentive payments or gifts to participants must be made in accordance with written institutional policies and procedures and supported by auditable documentation. The allowability of these costs will ultimately be based on the awardee institution's ability to adequately demonstrate that the incentives have been disbursed in accordance with its policies and procedures.

Costs of entertainment, amusement, diversion and social activities, and any costs directly associated with such activities (such as meals, lodging, rentals, transportation and gratuities) are unallowable. When certain meals are an integral and necessary part of a conference or meeting (i.e., working meals where business is transacted), grant funds may be used for such meals. Grant funds may also be used to

furnish a reasonable amount of coffee or soft drinks for conference or meeting participants and attendees during coffee breaks.

No NSF funds may be spent on meals or coffee breaks for intramural meetings of an organization or any of its components, including, but not limited to, laboratories, departments and centers.

AWARD INFORMATION

Award Number (FAIN): 2218427
Award Instrument: Standard Grant
Award Date: 08/05/2022
Award Period of Performance: Start Date: 09/01/2022 End Date: 08/31/2025
Project Title: Identifying novel memory traces that improve action precision
Managing Division Abbreviation: BCS
Research and Development Award: Yes
Funding Opportunity: PD 09-7252 Perception, Action & Cognition
Assistance Listing Number(s) and Name(s): 47.075 Social, Behavioral, and Economic Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $633,223
Total Intended Award Amount: $633,223
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $633,223
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: Betty K. Tuller
Email: btuller@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and

NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	2.70
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$63,121
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	3.00
Post Doctoral Calendar Months	36.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$201,913
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00

Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$265,034
C. Fringe Benefits	$58,572
Total Salaries, Wages, Fringe Benefits (A + B + C)	$323,606
D. Equipment	$0
E. Travel	
Domestic	$6,000
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$18,000
Participant Support Costs Travel	$3,000
Participant Support Costs Subsistence	$12,600
Participant Support Costs Other	$0
Total Number of Participants	3.00
Total Participant Costs (F)	$33,600
G. Other Direct Costs	
Materials Supplies	$6,000
Publication Costs	$3,000
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$16,200
Total Other Direct Costs (G)	$25,200
H. Total Direct Costs (A Through G)	**$388,406**
I. Indirect Costs*	**$244,817**
J. Total Direct and Indirect Costs (H + I)	$633,223
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$633,223**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost

	Rate
Indirect on Total Modified Direct Costs	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2218460
Managing Division Abbreviation: EAR **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/09/2022
Amendment Number: 000
Proposal Number: 2218460
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 07/10/2022.

AWARD INFORMATION

Award Number (FAIN): 2218460
Award Instrument: Standard Grant
Award Date: 08/09/2022
Award Period of Performance: Start Date: 08/15/2022 End Date: 07/31/2027
Project Title: Collaborative Research: The Lake Superior Basin: Natural Geomorphic Experiment, Deepwater-Terminating Ice Stream, and Isostatically Adjusting Rift
Managing Division Abbreviation: EAR
Research and Development Award: Yes
Funding Opportunity: NSF 20-509 Frontier Research in Earth Sciences
Assistance Listing Number(s) and Name(s): 47.050 Geosciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $217,224

Total Intended Award Amount: $217,224
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $217,224
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2218457	Y	[redacted]	University of Minnesota-Twin Cities
2218460	N		Harvard College, President & Fellows of Harvard University
2218462	N		Minnesota State University, Mankato
2218463	N		The University of Wisconsin - Madison
2218464	N		University of Wisconsin, Superior

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Angela A. Turner
Email: aturner@nsf.gov

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: Douglas Edward Kowalewski
Email: dkowalew@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at

https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 20-509 Frontier Research in Earth Sciences.

BUDGET

A. Senior Personnel	
Senior Personnel Count	5.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	30.00
Graduate Students Amount	$110,342
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	

Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$110,342
C. Fringe Benefits	$0
Total Salaries, Wages, Fringe Benefits (A + B + C)	$110,342
D. Equipment	$0
E. Travel	
Domestic	$6,598
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$6,000
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$9,454
Total Other Direct Costs (G)	$15,454
H. Total Direct Costs (A Through G)	**$132,394**
I. Indirect Costs*	**$84,830**
J. Total Direct and Indirect Costs (H + I)	$217,224
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$217,224**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2218803
Managing Division Abbreviation: BCS **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 07/24/2022
Amendment Number: 000
Proposal Number: 2218803
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 06/24/2022.

No work with human subjects, including recruitment, may be conducted under this protocol or grant until IRB approval has been obtained.

AWARD INFORMATION

Award Number (FAIN): 2218803
Award Instrument: Standard Grant
Award Date: 07/24/2022
Award Period of Performance: Start Date: 09/01/2022 End Date: 08/31/2025
Project Title: HNDS-I: Bringing Differential Privacy to Social Science Data Repositories
Managing Division Abbreviation: BCS
Research and Development Award: Yes
Funding Opportunity: NSF 22-505 Human Networks and Data Science
Assistance Listing Number(s) and Name(s): 47.075 Social, Behavioral, and Economic Sciences, 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $860,000
Total Intended Award Amount: $860,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $860,000
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted]
Email: [redacted]
Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

co-Principal Investigator: [redacted]
Email: [redacted]
Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: Patricia Van Zandt
Email: pvanzand@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 22-505 Human Networks and Data Science.

BUDGET

A. Senior Personnel	
Senior Personnel Count	6.00
Senior Personnel Calendar Months	2.25
Senior Personnel Academic Months	0.00
Senior Personnel Summer	0.00

Months	
Senior Personnel Amount	$73,603
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	15.00
Other Professionals Calendar Months	27.36
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$292,706
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$366,309
C. Fringe Benefits	$124,567
Total Salaries, Wages, Fringe Benefits (A + B + C)	$490,876
D. Equipment	$0
E. Travel	
Domestic	$18,000
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs	$0

Subsistence	
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$508,876**
I. Indirect Costs*	**$351,124**
J. Total Direct and Indirect Costs (H + I)	$860,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$860,000**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2218803
Managing Division Abbreviation: BCS **Amendment Number:** 002

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Supplement
Amendment Date: 06/18/2024
Amendment Number: 002
Proposal Number: 2432128
Amendment Description:

The purpose of this amendment is to:

- Add supplemental support to the award in the amount shown below in the Funding Information section.
- Extend the end date from 08/31/2026 to 02/28/2027.

Funds provided by this award include support for "Research Experiences for Undergraduates" in accordance with the NSF program solicitation NSF 23-601.

Except as modified by this amendment, the award conditions remain unchanged.

AWARD INFORMATION

Award Number (FAIN): 2218803
Award Instrument: Standard Grant
Award Date: 07/24/2022
Award Period of Performance: Start Date: 09/01/2022 End Date: 02/28/2027
Project Title: HNDS-I: Bringing Differential Privacy to Social Science Data Repositories
Managing Division Abbreviation: BCS
Research and Development Award: Yes
Funding Opportunity: NSF 22-505 Human Networks and Data Science
Assistance Listing Number(s) and Name(s): 47.075 Social, Behavioral, and Economic Sciences (See

Amendment 000 for source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $10,000
Total Intended Award Amount: $860,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $872,400

PROJECT PERSONNEL

Principal Investigator: [redacted]
Email: [redacted]
Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

co-Principal Investigator: [redacted]
Email: [redacted]
Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov
Phone: (703) 292-7046

Awarding Official
Name: Tyffani N. Smith
Email: tnsmith@nsf.gov

Managing Program Officer
Name: Patricia Van Zandt
Email: pvanzand@nsf.gov
Phone: (703) 292-7437

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/20/2024, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	2.00
Senior Personnel Calendar	0.00

Months	
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$0
C. Fringe Benefits	$0
Total Salaries, Wages, Fringe Benefits (A + B + C)	$0
D. Equipment	$0
E. Travel	
Domestic	$0
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$7,000

Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$3,000
Total Number of Participants	1.00
Total Participant Costs (F)	$10,000
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$0
Total Other Direct Costs (G)	$0
H. Total Direct Costs (A Through G)	**$10,000**
I. Indirect Costs*	**$0**
J. Total Direct and Indirect Costs (H + I)	$10,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$10,000**
M. Cost Sharing Proposed Level	$0

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2219069
Managing Division Abbreviation: EAR **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/10/2022
Amendment Number: 000
Proposal Number: 2219069
Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

AWARD INFORMATION

Award Number (FAIN): 2219069
Award Instrument: Standard Grant
Award Date: 08/10/2022
Award Period of Performance: Start Date: 09/01/2022 End Date: 08/31/2025
Project Title: NSFGEO-NERC: Collaborative Research: The first actinopterygian 'adaptive radiation': integrating fossils, function and phylogeny to illuminate innovation in a post-extinction world
Managing Division Abbreviation: EAR
Research and Development Award: Yes
Funding Opportunity: NSF 17-536 Sedimentary Geology and Paleobiology
Assistance Listing Number(s) and Name(s): 47.050 Geosciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $299,883

Total Intended Award Amount: $299,883
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $299,883
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2219007	Y	[redacted]	Regents of the University of Michigan
2218892	N		The University of Chicago
2219069	N		Harvard College, President & Fellows of Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Angela A. Turner
Email: aturner@nsf.gov

Awarding Official
Name: Angela A. Turner
Email: aturner@nsf.gov

Managing Program Officer
Name: Dena Michelle Smith-Nufio
Email: dmsmith@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 17-536 Sedimentary

Geology and Paleobiology.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	0.75
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$9,519
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	2.00
Other Professionals Calendar Months	24.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$87,992
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$97,511
C. Fringe Benefits	$51,346

Total Salaries, Wages, Fringe Benefits (A + B + C)	$148,857
D. Equipment	$0
E. Travel	
Domestic	$4,490
International	$3,290
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$14,108
Subawards	$0
Other	$6,700
Total Other Direct Costs (G)	$20,808
H. Total Direct Costs (A Through G)	**$177,445**
I. Indirect Costs*	**$122,438**
J. Total Direct and Indirect Costs (H + I)	$299,883
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$299,883**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2220446
Managing Division Abbreviation: OPP **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 08/26/2022
Amendment Number: 000
Proposal Number: 2220446
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above.

Please read the components carefully as they outline specific requirements for receiving this funding.

1. Projects receiving U.S. Antarctic Program (USAP) support for fieldwork in the Antarctic are subject to the Antarctic Conservation Act (ACA), as amended, 16 U.S.C. § 2401, et seq. Violations of the ACA may result in civil penalties up to approximately $28,000 per occurrence, imprisonment for up to one year, and, where appropriate, administrative sanctions up to and including debarment. Please refer to https://www.nsf.gov/geo/plr/antarct/aca/aca.jsp for general guidance.

2. The Polar Code of Conduct alerts participants to the NSF's expectations for professional conduct and acceptable behavior while deployed in Antarctica (https://www.nsf.gov/geo/opp/documents/policy/polar_coc.pdf). Participants in research supported by NSF are required to comply with this Code of Conduct. Participants are required to acknowledge receipt, acceptance and full understanding of the terms and expectations of the Polar Code of Conduct and to agree to abide by its terms and expectations. As noted in the Code, violations "may be shared with current and future Antarctic or Arctic program support contractors, federal agency partners, or grantee institutions" and "may result in adverse consequences to the individual, including, but not limited to, removal from a USAP or Arctic station, field camp, other facility, ship, or aircraft; termination of employment (by the employer); or other administrative, civil, or criminal enforcement actions, as appropriate." The Antarctic Program is committed to ensuring a safe and inclusive research environment free from harassment of any kind for all participants.

3. Principal investigators are required to comply with the OPP Data Management Policy (NSF 16-055) and evidence of compliance is required in final project reports. Upon receipt of their award, investigators must register their projects with the USAP-Data Center (USAP-DC) at https://www.usap-dc.org/. In all project reports submitted to NSF, principal investigators must address the status of storing metadata files, physical/biological samples, full data sets, and derived data products into long-lived and publicly accessible archive(s). Final reports must include an Antarctic Master Directory (AMD) metadata entry under the "Other Products" or "website" sections. Collaborative proposals can have a single AMD entry, but it must be referenced in each collaborative final report. As part of your registration, USAP-DC will create an AMD entry for this project.

4. You are expected to specifically address progress on activities related to your proposed Broader Impacts in annual and final reports.

5. As part of the Office of Polar Programs efforts to increase diversity and inclusion in the Antarctic please seek to recruit qualified students and others working on your project from historically underrepresented groups in STEM, e.g., women, minorities, persons with disabilities, LGBTQ+ students and veterans. Diversifying and broadening participation is a priority for the Antarctic Sciences Section.

6. Projects receiving USAP support for fieldwork in the Antarctic shall include the following acknowledgement in publications resulting from the project (in addition to acknowledging NSF grant support as described in the NSF Proposal & Award Policies & Procedures Guide Chapter XI.E.4): "Logistical support for this project in Antarctica was provided by the U.S. National Science Foundation through the U.S. Antarctic Program."

AWARD INFORMATION

Award Number (FAIN): 2220446
Award Instrument: Continuing Grant
Award Date: 08/26/2022
Award Period of Performance: Start Date: 09/01/2022 End Date: 08/31/2027
Project Title: Collaborative Research: Imaging the Beginning of Time from the South Pole: Completing the BICEP Array Survey
Managing Division Abbreviation: OPP
Research and Development Award: Yes
Funding Opportunity: NSF 21-567 Antarctic Research
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $584,986
Total Intended Award Amount: $2,085,318
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $584,986
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2023	$361,619
2024	$371,028
2025	$378,159
2026	$389,526

PROJECT PERSONNEL

Principal Investigator: [redacted] **Email:** [redacted] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2220444	Y	[redacted]	University of Minnesota-Twin Cities
2220445	N		California Institute of Technology
2220446	N		Harvard College, President & Fellows of Harvard University
2220447	N		University of Cincinnati
2220448	N		Stanford University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Angela A. Turner
Email: aturner@nsf.gov

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: Vladimir O. Papitashvili
Email: vpapita@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended

(42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 21-567 Antarctic Research.

BUDGET

A. Senior Personnel	
Senior Personnel Count	2.00
Senior Personnel Calendar Months	11.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$96,059
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	1.00
Post Doctoral Calendar Months	12.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$74,112
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	2.00
Graduate Students Amount	$73,823
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0

Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$243,994
C. Fringe Benefits	$41,124
Total Salaries, Wages, Fringe Benefits (A + B + C)	$285,118
D. Equipment	$50,000
E. Travel	
Domestic	$9,246
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$1,500
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$34,976
Total Other Direct Costs (G)	$36,476
H. Total Direct Costs (A Through G)	**$380,840**
I. Indirect Costs*	**$204,146**
J. Total Direct and Indirect Costs (H + I)	$584,986
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$584,986**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Total Direct Cost	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2220446
Managing Division Abbreviation: OPP **Amendment Number:** 005

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366
Official Recipient Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Supplement
Amendment Date: 08/25/2024
Amendment Number: 005
Proposal Number: 2444674
Amendment Description:

The purpose of this amendment is to:

- Add supplemental support to the award in the amount shown below in the Funding Information section.

Except as modified by this amendment, the award conditions remain unchanged.

AWARD INFORMATION

Award Number (FAIN): 2220446
Award Instrument: Continuing Grant
Award Date: 08/26/2022
Award Period of Performance: Start Date: 09/01/2022 End Date: 08/31/2027
Project Title: Collaborative Research: Imaging the Beginning of Time from the South Pole: Completing the BICEP Array Survey
Managing Division Abbreviation: OPP
Research and Development Award: Yes
Funding Opportunity: NSF 21-567 Antarctic Research
Assistance Listing Number(s) and Name(s): 47.078 Polar Programs (See Amendment 000 for source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: $398,021
Total Intended Award Amount: $2,085,318
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $2,530,198

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Angela A. Turner
Email: aturner@nsf.gov
Phone: (703) 292-7524

Awarding Official
Name: Willie M. Powell
Email: wpowell@nsf.gov

Managing Program Officer
Name: Vladimir O. Papitashvili
Email: vpapita@nsf.gov
Phone: (703) 292-7425

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/20/2024, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	2.00
Senior Personnel Calendar Months	4.40
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$60,270
B. Other Personnel	

Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	$0
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	1.00
Other Amount	$15,804
Total Salaries and Wages (A+B)	$76,074
C. Fringe Benefits	$20,002
Total Salaries, Wages, Fringe Benefits (A + B + C)	$96,076
D. Equipment	$166,300
E. Travel	
Domestic	$10,800
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0
Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00

Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$0
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$30,237
Total Other Direct Costs (G)	$30,237
H. Total Direct Costs (A Through G)	**$303,413**
I. Indirect Costs*	**$94,608**
J. Total Direct and Indirect Costs (H + I)	$398,021
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$398,021**
M. Cost Sharing Proposed Level	$0

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2220703
Managing Division Abbreviation: DMR **Amendment Number:** 000

AWARDEE INFORMATION

Award Recipient: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
Awardee Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369
Official Awardee Email Address: [redacted]
Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 06/29/2022
Amendment Number: 000
Proposal Number: 2220703
Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above.

Fiscal Year 2022, 2023, and 2024 budgets have been combined in this award. It is still the grantee's responsibility to submit an annual project report in accordance with the award terms and conditions.

AWARD INFORMATION

Award Number (FAIN): 2220703
Award Instrument: Continuing Grant
Award Date: 06/29/2022
Award Period of Performance: Start Date: 08/01/2022 End Date: 07/31/2026
Project Title: Topological order and Anyons in and out of Equilibrium
Managing Division Abbreviation: DMR
Research and Development Award: Yes
Funding Opportunity: NSF 20-582 Condensed Matter and Materials Theory
Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: $420,000
Total Intended Award Amount: $560,000
Total Approved Cost Share or Matching Amount: $0
Total Amount Obligated to Date: $420,000
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2025	$140,000

PROJECT PERSONNEL

Principal Investigator: [redacted]

Email: [redacted]

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)
Name: Elizabeth Gebremedhin
Email: egebreme@nsf.gov

Awarding Official
Name: Elizabeth Gebremedhin
Email: egebreme@nsf.gov

Managing Program Officer
Name: Serdar Ogut
Email: sogut@nsf.gov

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/13/2022, available at https://www.nsf.gov/awards/managing/rtc.jsp.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 20-582 Condensed Matter and Materials Theory.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	1.50

Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	$43,548
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	$0
Graduate Students	
Graduate Students Count	3.00
Graduate Students Amount	$131,963
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	$0
Other	
Other Count	0.00
Other Amount	$0
Total Salaries and Wages (A+B)	$175,511
C. Fringe Benefits	$10,277
Total Salaries, Wages, Fringe Benefits (A + B + C)	$185,788
D. Equipment	$0
E. Travel	
Domestic	$8,943
International	$0
F. Participant Support Costs	
Participant Support Costs Stipends	$0

Participant Support Costs Travel	$0
Participant Support Costs Subsistence	$0
Participant Support Costs Other	$0
Total Number of Participants	0.00
Total Participant Costs (F)	$0
G. Other Direct Costs	
Materials Supplies	$0
Publication Costs	$7,500
Consultant Services	$0
Computer Services	$0
Subawards	$0
Other	$70,368
Total Other Direct Costs (G)	$77,868
H. Total Direct Costs (A Through G)	**$272,599**
I. Indirect Costs*	**$147,401**
J. Total Direct and Indirect Costs (H + I)	$420,000
K. Fees	$0
L. Total Amount of Request (J) OR (J + K)	**$420,000**
M. Cost Sharing Proposed Level	$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.