IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

JAZZ PHARMACEUTICALS, INC., Plaintiff, v. AVADEL CNS PHARMACEUTICALS LLC, Defendant.	Case No. 1:21-cv-00691-GBW

DECLARATION OF CATHERINE COOK

I, Catherine (Kate) M. Cook, declare:

1. I am the owner of a firm that provides legal and regulatory consulting services in connection with FDA regulated medical products, including pharmaceutical products.

2. I submit this declaration to explain that FDA's current silence as to whether Xywav's orphan drug exclusivity will block FDA approval of LUMRYZ does not at all suggest that Xywav's orphan drug exclusivity will in fact block FDA approval of LUMRYZ.

3. I graduated from Swarthmore College in 1980 and from New York University School of Law in 1986. My work has focused on FDA law and regulation since 1994, when I joined FDA's Office of Chief Counsel. In my 22 years at FDA, I worked in the Office of Chief Counsel, as the Associate Director for Policy in the Center for Devices and Radiological Health, and as a Senior Advisor in the Office of the Center Director for the Center for Biologics Evaluation and Research (CBER). I was in the last-described position when FDA proposed and finalized the 2014 amendments to the Orphan Drug regulations, and I provided a policy review of the relevant documents for CBER. After leaving FDA in 2016, I joined Greenleaf Health, a regulatory consulting firm, where I provided advice on a range of issues, including qualification for orphan

drug designation and exclusivity. I left Greenleaf to start my own firm in summer 2022. I am currently admitted to practice in Maryland and the District of Columbia. A copy of my resume is attached as Exhibit A.[1]

4. I have been asked by Defendant Avadel CNS Pharmaceuticals LLC ("Avadel") to provide my expert opinions regarding the following two statements, which I understand are excerpted from Jazz's brief seeking a stay pending appeal:

> Avadel's product is not marketable at this time. Rather, FDA still must complete additional steps in the approval process for Avadel's FT218 product, including by addressing whether the regulatory Orphan Drug Exclusivity ("ODE") afforded to Jazz's oxybate products (Xyrem® and Xywav®) bars approval of FT218 until 2027.
> ...
>
> ODE is designed to provide the necessary incentive for the development and evaluation of new treatments for rare diseases, which is a key priority for the FDA. The FDA has not yet determined whether the ODE protection granted to Jazz's oxybate products precludes approval of Avadel's 505(b)(2) NDA until 2027. Indeed, the FDA's tentative approval letter to Avadel expressly states that it "does not address whether any orphan drug exclusivity (ODE) recognized for Xyrem ... or for Xywav ... affects the approvability of Avadel's application."

5. Jazz appears to suggest that the fact that FDA has not yet addressed the scope of the Orphan Drug exclusivity afforded to Jazz's oxybate products should be understood to mean that its orphan drug exclusivity will bar approval of Lumryz until 2027. That suggestion is not supported.[2]

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[1] I have not testified as an expert at trial or by deposition in the previous four years. I am being compensated for the preparation of this report at my usual hourly rate for work in connection with litigation, which is $850/hr. I note that I also provide consulting services to Avadel to assist Avadel in navigating FDA regulations; that is pursuant to a separate agreement, and I am compensated for that work separately. My opinions here are my own and are based on my personal knowledge, training, and experience. They are not affected by the compensation that I receive from Avadel.

[2] I also note that Jazz refers to "regulatory Orphan Drug Exclusivity ("ODE") afforded to Jazz's oxybate products (Xyrem® and Xywav®)." In fact, although Xyrem was afforded orphan drug

6. In fact, FDA's current silence on this issue is consistent not only with the Agency's current practice for communicating its decisions on orphan drug exclusivity only after an orphan-designated drug is approved, but also with FDA's orphan drug regulations, which expressly require in 21 CFR § 316.34(a) that exclusivity decisions be communicated "once the marketing application for a designated orphan-drug product has been approved."

7. In other words, FDA's silence to date is to be expected as a legally required regulatory practice. It is the result of the fact that there is a statutory stay in place as a result of the lawsuit filed by Jazz on the '963 REMS patent listed in the FDA Orange Book. Only after that statutory stay expires or is otherwise terminated will FDA communicate its exclusivity decision.

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exclusivity for two approved indications, those periods of exclusivity expired in 2009 and 2012. Jazz's only unexpired period of orphan drug exclusivity is attached to the Xywav product. https://www.accessdata.fda.gov/scripts/opdlisting/oopd/detailedIndex.cfm?cfgridkey=85894 (accessed 11/27/2022).

I declare under penalty of perjury under the laws of the United States of America that the foregoing declaration is true and correct.

Executed on November 29, 2022
Silver Spring, Maryland

Catherine M. Cook

EXHIBIT A

CATHERINE (KATE) COOK
301-335-5150
Kate.Cook@CatherineMCook.com

Education:

Swarthmore College
Swarthmore, Pennsylvania
B.A. degree, 1980

New York University School of Law
New York, New York
J.D. degree 1986
Admitted in Washington, D.C. and Maryland

Experience:

Catherine M. Cook Group, LLC 7/2022-Present
7913 Takoma Avenue
Silver Spring, MD 20910

Managing owner of new firm providing legal and regulatory consulting services in connection with FDA regulated medical products. Advise clients on full range of FDA legal and regulatory issues including FDA hearings, post market safety including safety labeling changes, orphan drug and other exclusive product approvals, 505(b)(2) application issues, and more.

Greenleaf Health, Inc. 10/2016 - 6/2022
1055 Thomas Jefferson Street NW
Washington, DC 20007

Principal, Regulatory Policy 2021- 2022
Executive Vice President for Drugs and Biologics 2016-2021
Provide regulatory consulting, regulatory policy advice, and advisory services to drug, biological product, biosimilar, device, and combination product sponsors and investors from the pre-clinical stage throughout the product life-cycle, with emphasis on regulatory strategy, qualification for regulatory programs and special designations including orphan drug exclusivity, fast track, breakthrough therapy, RMAT, priority review, priority review voucher qualification, emergency use authorn, initial and amended product labeling, and more.

U.S. Health Resources and Services Administration 4/2016 - 7/2016
Division of Transplantation
Rockville, MD

Expert appointment related to hematopoietic stem cell project.

U.S. Food and Drug Administration 9/1994-2/2016
Silver Spring, MD

Office of Chief Counsel 9/1994-2/2008; 5/2014-2/2016
Legal counsel on critical FDA regulatory issues for biological products, drugs, and medical devices. Areas of concentration included biosimilars, vaccines, allergenics, human tissue and cellular products, and blood products, initial approved labeling and

labeling amendments including safety labeling changes during the product life cycle, advertising and promotion, combination products, and human subject protection.

Prosecuted administrative, civil, and criminal enforcement actions including administrative clinical investigator disqualifications, civil injunction, and seizure actions. Appointed Special Assistant United States Attorney in District of New Jersey, Western District of Oklahoma, and Southern District of Texas in criminal enforcement actions. Presented oral argument in Fifth Circuit Court of Appeals.

Senior Advisor 9/2009-5/2014
Immediate Office of the Center Director
Center for Biologics Evaluation and Research
Provided direction on strategic initiatives related to the regulation of biological products and medical devices. Developed and implemented policies and regulations applicable to biological products, including vaccines, stem cells and human tissues, combination products, and medical devices regulated by CBER.

Associate Director for Regulations and Policy 2/2008 - 9/2009
Center for Devices and Radiological Health
Led strategic development and implementation of policies and regulations applicable to medical devices and radiation emitting products regulated by CDRH and the FDA. Oversaw CDRH's implementation of FDAAA (new legislation enacted in late September, 2007), in the areas of pediatric device development and regulation, electronic registration and listing of medical device manufacturers, clinical trial registration, and user fee programs.

Powell, Goldstein, Frazer & Murphy 6/1991 - 8/1994
Washington, DC
Associate Attorney

Represented individuals in criminal investigations. Conducted internal investigations. Represented federal clients (National Credit Union Administration and Federal Deposit Insurance Corporation) in civil actions, including actions related to fraudulent documentation under the Real Estate Settlement Procedures Act.

New York County District Attorney's Office 9/1986-5/1991
New York, NY
Assistant District Attorney

Trial Division 10/1988-5/1991
Investigation and prosecution of over 100 felony complaints from arraignment through trial and sentencing. In People v. Hernandez and Santana, obtained convictions after trial for the murder of a New York State Trooper.

Appeals Bureau 8/1986-10/1988
Briefed approximately 50 appellate cases. Presented oral argument in over 30 appellate cases.

Representative Speaking Engagements and Publications:

"Tips For Your Virtual Meetings With The FDA," Cell & Gene 2022

Webinar: "CBER's Five Year Plan" 2021

"Are You At Risk For An FDA ClinicalTrials.gov-Related Monetary Penalty?" 2020

FDA Regulation of Biosimilars, Beijing, China 2018

Combination Product Regulation, DIA 2017

Georgetown University Regulatory Science Program 2013, 2014

"The US Food and Drug Administration Review of the Safety and Effectiveness of Nonstandardized Allergen Extracts," Journal of Allergy and Clinical Immunology, April 2012, Volume 129, Issue 4, Pages 1014-1019 (with co-authors Slater et al.)

National Institute of Trial Advocacy, Instructor, 2010, 2012

DC Bar Association, Regulation of Clinical Trials: The New Life Sciences Frontier, Continuing Legal Education Program 2008, 2009, 2010, 2011

Practising Law Institute, Healthcare 2010: Legal and Ethical Issues in Clinical Studies, Continuing Legal Education Program 2010

Food and Drug Law Institute Annual Meeting 2009

Florida Medical Manufacturers Consortium 2009

American Bar Association, New York, New York 2008

Medical Device Manufacturers Association, Washington, DC 2008

AdvaMed Pediatric Device Conference, Tysons Corner, Virginia 2008

Food and Drug Law Institute 50th Annual Conference, Bethesda, Maryland 2007

American Association of Blood Banks Annual Meeting, Miami, Florida 2006

United States-India Conference on Research Ethics, New Delhi, India 2006

Pro Bono and Volunteer Work:

Senior Legal Services, Baltimore 2016-present
Prepare estate planning documents, advise on City tax sale issues, and provide informal legal advice to low income seniors.

Legal Aid Bureau, Baltimore 2016-present
Prepare expungement petitions and provide informal legal advice to low income Baltimore City residents.

Maryland Volunteer Lawyers Service, Baltimore 2016-present

Advise low income Baltimore City residents on issues related to real estate titles after the death of the property owner.