

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INITIATIVE FOR MEDICINES, ACCESS & KNOWLEDGE (I-MAK), INC.
Petitioner

v.

GILEAD PHARMASSET LLC
Patent Owner

Case IPR2018-00123
Patent 8,735,372

**PATENT OWNER GILEAD PHARMASSET LLC'S
PRELIMINARY RESPONSE**

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LIST OF EXHIBITS

Exhibit No.	Exhibit Description
GIL 2001	Carroll et al. <i>Nucleoside Analog Inhibitors of Hepatitis C Virus Replication</i> . Infectious Disorders – Drug Targets, 2006
GIL 2002	Chung, M.D. et al. <i>Curing Chronic Hepatitis C – The Arc of a Medical Triumph</i> . The New England Journal of Medicine, 2014.
GIL 2003	Tucker, Miriam E. <i>FDA Approves ‘Game Changer’ Hepatitis C Drug Sofosbuvir</i> . Medscape, 2013.
GIL 2004	HARVONI® label
GIL 2005	Norton, Amy. <i>Hepatitis C Killing More Americans than HIV: Studies</i> . Reuters, 2012.
GIL 2006	Secrist III et al. <i>Clofarabine: From Design to Approval</i> . Modified Nucleosides: in Biochemistry, Biotechnology and Medicine, 2008.
GIL 2007	<i>America’s Overspend: How the Pharmaceutical Patent Problem is Fueling High Drug Prices</i> . I-MAK, 2017.
GIL 2008	I-MAK: Our People
GIL 2009	Lawitz et al. <i>Development of Sofosbuvir for the Treatment of Hepatitis C Virus Infection</i> . Annals of the New York Academy of Sciences, 2014.
GIL 2010	Ninburg, Michael. <i>Hepatitis C Deserves the Attention</i> . Seattlepi.com, 2007.
GIL 2011	Pollack, Andrew. <i>F.D.A. Approves Pill to Treat Hepatitis C</i> . The New York Times, 2013.
GIL 2012	Rockoff, Jonathan D. <i>FDA Approves Gilead’s Hepatitis C Drug</i> . The Wall Street Journal, 2013.
GIL 2013	RESERVED
GIL 2014	RESERVED
GIL 2015	Sofia et al. <i>Discovery of a β-D-2’-Deoxy-2’-β-C-methyluridine Nucleotide Prodrug (PSI-7977) for the Treatment of Hepatitis C Virus</i> . Journal of Medicinal Chemistry Article, 2010.
GIL 2016	RESERVED
GIL 2017	Meier, C. <i>Pro-Nucleotides – Recent Advances in the Design of Efficient Tools for the Delivery of Biologically Active Nucleoside Monophosphates</i> . Synlett, 1997
GIL 2018	RESERVED
GIL 2019	Krise et al. <i>Prodrugs of Phosphates, Phosphonates, and</i>

	<i>Phosphinates. Advanced Drug Delivery Review, 1996.</i>
GIL 2020	Romero-Lopez et al. <i>Targets and Tools: Recent Advances in the Development of Anti-HCV Nucleic Acids. Infectious Disorders – Drug Targets, 2006.</i>
GIL 2021	Wyles et al. <i>Synergy of Small Molecular Inhibitors of Hepatitis C Virus Replication Directed at Multiple Viral Targets. Journal of Virology, 2007.</i>
GIL 2022	O’Leary et al. <i>Hepatitis C Virus Replication and Potential Targets for Direct-Acting Agents. Therapeutic Advances in Gastroenterology, 2010.</i>

I. INTRODUCTION

U.S. 8,735,372 (“the Sofia ’372 patent”) covers a method of treating Hepatitis C virus (“HCV”) by administering sofosbuvir in combination with an antiviral agent known as an “NS5A inhibitor.” This combination forms Gilead’s revolutionary HCV therapies HARVONI®, EPCLUSA®, and VOSEVI®.¹ HCV is a global health crisis. In the United States alone, more than three million people have been infected with the virus. EX. 2009 (Lawitz et al.), p. 1. Left untreated, HCV leads to liver disease and is a primary cause of liver cancer. EX. 2002 (Chung), p. 1. Before sofosbuvir, the standard of care HCV treatment had debilitating, often permanent, side effects and low success rates. As a result, many patients opted to live with the disease rather than attempt treatment. The invention of sofosbuvir, and its use in combination with an NS5A inhibitor, changed all of that.

On December 6, 2013, after expedited review, the FDA approved sofosbuvir. Sofosbuvir’s approval was hailed throughout the scientific and popular press, including the front pages of the *New York Times* and *Wall Street Journal*, and was recognized as a “game changer.” EX. 2003 (Tucker); EX. 2011 (Pollack); EX. 2012 (Rockoff). FDA approved HARVONI®, which combined sofosbuvir

¹ Sofosbuvir alone forms Gilead’s HCV therapy sold under the name SOVALDI®.

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