

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAREPTA THERAPEUTICS, INC.,

Petitioner

v.

THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA,

Patent Owner

IPR2024-00580

Patent 11,680,274

PETITIONER’S UPDATED EXHIBIT LIST

EXHIBITS

Number	Description
EX1001	U.S. Patent No. 11,680,274 (“the ’274 patent”)
EX1002	Prosecution history of U.S. Patent No. 11,680,274 (“the ’274 Prosecution History”)
EX1003	U.S. Provisional Patent Application No. 60/669,083, filed on April 7, 2005 (“the ’083 Provisional”)
EX1004	U.S. Provisional Patent Application No. 60/733,497, filed on November 4, 2005 (“the ’497 Provisional”)
EX1005	Declaration of Dr. David V. Schaffer under 37 C.F.R. § 1.68 (“Schaffer Decl.”)
EX1006	<i>Curriculum vitae</i> of Dr. David V. Schaffer (“Schaffer CV”)
EX1007	U.S. Patent Application Publication 2003/0138772 (“the ’772 Publication”)
EX1008	Xie <i>et al.</i> , “The atomic structure of adeno-associated virus (AAV-2), a vector for human gene therapy,” <i>Proc. Nat’l Acad. Sci.</i> , 2002, pp. 10405-10410 (“Xie”)
EX1009	Snowdy, “Nuclear targeting by adeno-associated virus capsid proteins and virions,” A dissertation submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the curriculum of Neurobiology (2003) (“Snowdy”)
EX1010	Fabb <i>et al.</i> , “Adeno-associated virus vector gene transfer and sarcolemmal expression of a 144 kDa micro-dystrophin effectively the dystrophin-associated protein complex and inhibits myofibre degeneration in nude/ <i>mdx</i> mice,” <i>Human Molecular Genetics</i> , 2002, Vol. 11, No. 7, pp. 733-741 (“Fabb”)
EX1011	Opening Expert Report of Paola Leone (Public Excerpts) (“Leone Opening Report”)
EX1012	Rebuttal Expert Report of Paola Leone (Public Excerpts) (“Leone Rebuttal Report”)

Number	Description
EX1013	Rebuttal Expert Report of Michael Metzker (Excerpts) (“Metzker Rebuttal Report”)
EX1014	U.S. Patent No. 10,526,617 (“the ’617 patent”)
EX1015	Declaration of Thomas Hyatt under 37 C.F.R. § 1.68 (“Hyatt Decl.”)
EX1016	Declaration of Christopher DuBose under 37 C.F.R. § 1.68 (“DuBose Decl.”)
EX1017	Jans and Jans, “Negative charge at the casein kinase II site flanking the nuclear localization signal of the SV40 large T-antigen is mechanistically important for enhanced nuclear import,” <i>Oncogene</i> , 1994, Vol. 9, No. 10, pp. 2961-2968 (“Jans & Jans”)
EX1018	Sequence Alignment of AAVrh.46 (SEQ ID NO: 4) from the ’274 Patent and AAVrh.10 (SEQ ID NO: 81) from the ’772 Publication (“AAVrh.10/AAVrh.46 Alignment”)
EX1019	Sequence Alignment of AAVrh.10 (SEQ ID NO: 81) and AAV8 (SEQ ID NO: 95) Capsid Protein Sequences from the ’772 Publication (“AAVrh.10/AAV8 Alignment”)
EX1020	Sequence Alignment of AAV2, AAVrh.10, and AAV8 Capsid Protein Sequences (“AAV2/AAVrh.10/AAV8 Alignment”)
EX1021	NetPhos/AAVrh.10 Phosphorylation Sites (“NetPhos-AAVrh.10”)
EX1022	Sequence Alignment of AAVrh.10 (SEQ ID NO: 81) and AAV8 (SEQ ID NO: 95) Capsid Protein Sequences from the ’772 Publication Showing Differences In Phosphorylation Sites (“AAVrh.10/AAV8 Phosphorylation Sites”)
EX1023	Table Showing Xie Surface Amino Acids (“Xie Surface Table”)
EX1024	D.I. 1, Complaint, Regenxbio Inc., <i>et al.</i> v. Sarepta Therapeutics, Inc. <i>et al.</i> , C.A. No. 20-1226-RGA (D. Del.) (“Penn-I Complaint”)

Number	Description
EX1025	D.I. 1, Complaint, Regenxbio Inc., <i>et al.</i> v. Sarepta Therapeutics, Inc. <i>et al.</i> , C.A. No. 23-667-RGA (D. Del.) (“Penn-II Complaint”)
EX1026	12/20/23 Regenxbio’s Initial Claim Chart Relating Accused Product to the Asserted Claims of U.S. Patent 11,680,274, Regenxbio Inc., <i>et al.</i> v. Sarepta Therapeutics, Inc. <i>et al.</i> , C.A. No. 23-667-RGA (D. Del.) (“Initial Claim Chart”)
EX1027	U.S. Patent 9,434,928 (“the ’928 patent”)
EX1028	D.I. 20, Scheduling Order, Regenxbio Inc., <i>et al.</i> v. Sarepta Therapeutics, Inc. <i>et al.</i> , C.A. No. 23-667-RGA (D. Del.) (“Scheduling Order”)
EX1029	Kwon and Schaffer, “Designer Gene Delivery Vectors: Molecular Engineering and Evolution of Adeno-Associated Viral Vectors for Enhanced Gene Transfer,” <i>Pharm. Research</i> , 2008, Vol. 25, No. 3, pp. 489-499 (“Kwon”)
EX1030	Kotterman and Schaffer, “Engineering adeno-associated viruses for clinical gene therapy,” <i>Nature Reviews, Genetics</i> , 2014, Vol. 15, pp. 445-451 (“Kotterman”)
EX1031	Grimm and Kay, “From Virus Evolution to Vector Revolution: Use of Naturally Occurring Serotypes of Adeno-associated Virus (AAV) as Novel Vectors for Human Gene Therapy,” <i>Curr. Gene Therapy</i> , 2003, Vol. 3, pp. 281-304 (“Grimm”)
EX1032	Wu <i>et al.</i> , “Mutational Analysis of the Adeno-Associated Virus Type 2 (AAV2) Capsid Gene and Construction of AAV2 Vectors with Altered Tropism,” <i>J. Virol.</i> , 2000, Vol. 74, No. 18, pp. 8635-8647 (“Wu”)
EX1033	Blom <i>et al.</i> , “Sequence and Structure-based Prediction of Eukaryotic Protein Phosphorylation Sites,” <i>J. Mol. Biol.</i> , 1999, Vol. 294, pp. 1351-1362 (“Blom”)
EX1034	Ivanov <i>et al.</i> , “Phosphorylation of the Potyvirus Capsid Protein by Protein Kinase CK2 and Its Relevance for Virus Infection,” <i>The Plant Cell</i> , 2003, Vol. 15, pp. 2124–2139 (“Ivanov”)

Number	Description
EX1035	Chen <i>et al.</i> , “Signal-induced site specific phosphorylation targets I κ B α to the ubiquitin-proteasome pathway,” <i>Genes & Dev.</i> , 1995, Vol. 9, pp. 1586-1597 (“Chen”)
EX1036	Lange <i>et al.</i> , “Phosphorylation of human progesterone receptors at serine-294 by mitogen-activated protein kinase signals their degradation by the 26S proteasome,” <i>Proc. Nat’l Acad. Sci.</i> , 2000, Vol. 97, pp. 1032-1037 (“Lange”)
EX1037	Patrick <i>et al.</i> , “p35, the Neuronal-specific Activator of Cyclin-dependent Kinase 5 (Cdk5) Is Degraded by the Ubiquitin-Proteasome Pathway,” <i>J. Biol. Chem.</i> , 1998, Vol. 273, pp. 24057-24064 (“Patrick”)
EX1038	Penrose and McBride, “Proteasome-Mediated Degradation of the Papillomavirus E2-TA Protein Is Regulated by Phosphorylation and Can Modulate Viral Genome Copy Number,” <i>J. Virol.</i> , 2000, Vol. 74, No. 13, pp. 6031-6038 (“Penrose”)
EX1039	Whiteside <i>et al.</i> , “N- and C-Terminal Sequences Control Degradation of MAD3/I κ B α in Response to Inducers of NF- κ B Activity,” <i>Mol. and Cell. Biol.</i> , 1995, Vol. 15, pp. 5339-5345 (“Whiteside”)
EX1040	Alberts, MOLECULAR BIOLOGY OF THE CELL, 3rd Ed., Chapters 2 (excerpt), 3, and 6 (“Alberts I”)
EX1041	https://www.genome.gov/about-genomics/fact-sheets/Deoxyribonucleic-Acid-Fact-Sheet (“DNA Fact Sheet”)
EX1042	https://www.genome.gov/about-genomics/educational-resources/fact-sheets/human-genomic-variation (“Genomic Variation”)
EX1043	https://www.genome.gov/genetics-glossary/Central-Dogma (“Central Dogma”)
EX1044	https://www.genome.gov/genetics-glossary/Genetic-Code (“Genetic Code”)

Number	Description
EX1045	https://www.genome.gov/about-genomics/fact-sheets/Polymerase-Chain-Reaction-Fact-Sheet (“PCR Fact Sheet”)
EX1046	https://www.fda.gov/vaccines-blood-biologics/cellular-gene-therapy-products/what-gene-therapy (“Gene Therapy”)
EX1047	https://patienteducation.asgct.org/gene-therapy-101/vectors-101 (“Vectors 101”)
EX1048	Mandal <i>et al.</i> , “Optical Backbone-Sidechain Charge Transfer Transitions in Proteins Sensitive to Secondary Structure and Modifications,” <i>Faraday Discussions</i> , 2018, Vol. 207, pp. 115-135 (“Mandal”)
EX1049	Ponnazhagan <i>et al.</i> , “Adeno-associated Virus for Cancer Gene Therapy,” <i>Cancer Research</i> , 2001, Vol. 61, pp. 6313-6321 (“Ponnazhagan”)
EX1050	Chiorini <i>et al.</i> , “Cloning and Characterization of Adeno-Associated Virus Type 5,” <i>J. Virol.</i> , 1999, Vol. 73, No. 2, pp. 1309-1319 (“Chiorini”)
EX1051	Mori <i>et al.</i> , “Two novel adeno-associated viruses form cynomolgus monkey: pseudotyping characterization of capsid protein,” <i>Virology</i> , 2004, Vol. 330, pp. 375-383 (“Mori”)
EX1052	Hauck and Xiao, “Characterization of Tissue Tropism Determinants of Adeno-Associated Virus Type 1,” <i>J. Virol.</i> , 2003, Vol. 77, pp. 2768-2774 (“Hauck”)
EX1053	Matsushita <i>et al.</i> , “Adeno-associated virus vectors can be efficiently produced without helper virus,” <i>Gene Therapy</i> , 1998, Vol. 5, pp. 938-945 (“Matsushita”)
EX1054	Kim <i>et al.</i> , “Substrate Specificities and Identification of Putative Substrates of ATM Kinase Family Members,” <i>J. Biol. Chem.</i> , 1999, Vol. 274, pp. 37538–37543 (“Kim”)
EX1055	U.S. Patent 8,999,678 File History (Excerpts)
EX1056	Alberts, MOLECULAR BIOLOGY OF THE CELL, 3rd Ed., Chapters 7 and 8 (“Alberts II”)

Number	Description
EX1058	Haberman <i>et al.</i> , “Therapeutic Liabilities of <i>in vivo</i> Viral Vector Tropism: Adeno-Associated Virus Vectors, NMDAR1 Antisense, and Focal Seizure Sensitivity,” <i>Molecular Therapy</i> (2002): 495-500 (“Haberman”)
EX1059	U.S. Provisional Patent Application 60/636,126 (“the ’126 provisional”)
EX1060	Wu <i>et al.</i> , “Single Amino Acid Changes Can Influence Titer, Heparin Binding, and Tissue Tropism in Different Adeno-Associated Virus Serotypes,” <i>Journal of Virology</i> (2006): 11393-97 (“Wu 2006”)
EX1061	U.S. Patent No. 7,892,809 (“the ’809 patent”)
EX1062	Bowles <i>et al.</i> “Phase 1 Gene Therapy for Duchenne Muscular Dystrophy Using a Translational Optimized AAV Vector,” <i>Molecular Therapy</i> (2012): 443-55 (“Bowles”)
EX1063	March 6, 2025 Samulski Deposition Transcript (“Samulski Dep. Tr.”)
EX1064	Nov. 1, 2024 Schaffer Deposition Transcript, with errata (“Schaffer Dep. Tr.”)
EX1065	U.S. Patent No. 9,012,224 (“the ’224 patent”)
EX1066	U.S. Patent Application Publication 2005/0053922 (“the ’922 publication”)
EX1067	PCT/US2005/045552 (“the ’552 PCT”)
EX1068	Kern <i>et al.</i> , “Identification of a Heparin-Binding Motif on Adeno-Associated Virus Type 2 Capsids,” <i>Journal of Virology</i> (2003): 11072-81 (“Kern”)
EX1069	U.S. Provisional Patent Application 60/484,111 (“the ’111 provisional”)
EX1070	Maersch <i>et al.</i> “Optimization of stealth adeno-associated virus vectors by randomization of immunogenic epitopes,” <i>Virology</i> (2010): 167-75 (“Maersch”)

Number	Description
EX1071	Wang <i>et al.</i> , “Comparative Study of Liver Gene Transfer With AAV Vectors Based on Natural and Engineered AAV Capsids,” <i>Molecular Therapy</i> (2015): 1877-87 (“Wang”)
EX1072	Reply Declaration of David V. Schaffer, Ph.D.
EX1073	Lu <i>et al.</i> , “506. Transductional and Genome Biodistribution of Novel AAV Serotype Vectors after Systemic Delivery and Their Liver Specific Dose Response Profiles in Mice,” <i>Molecular Therapy</i> (2005): S196 (“Lu”)
EX1074	2025-05-22 Demonstrative Slides for Oral Argument, <i>Sarepta Therapeutics, Inc. v. The Trustees of the University of Pennsylvania</i> , Case No. IPR2024-00580

May 22, 2025

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR § 42.6(e), the undersigned certifies that on May 22, 2025, a complete and entire copy of this Petitioner's Updated Exhibit List and the Demonstrative Slides as an exhibit were provided via email to the Patent Owner and Exclusive Licensee by serving the email correspondence addresses of record as follows:

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