

Case IPR2020-00988  
Patent No. 10,407,458

Filed: March 30, 2021

UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE PATENT TRIAL AND APPEAL BOARD

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ILLUMINA, INC.,  
Petitioner,

v.

THE TRUSTEES OF COLUMBIA UNIVERSITY  
IN THE CITY OF NEW YORK  
Patent Owner.

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IPR2020-00988 (Patent 10,407,458)

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**PATENT OWNER'S UPDATED EXHIBIT LIST**

Pursuant to 37 C.F.R. § 42.63(e), Patent Owner The Trustees of Columbia University in the City of New York hereby provides an updated list of its exhibits in this proceeding.

### EXHIBIT LIST

Exhibit No.	Description
2001	Defendant Illumina, Inc.'s Response to Plaintiffs' Opening Claim Construction Brief
2002	Metzker, et al., "Elimination of residual natural nucleotides from 3'-O-modified-dNTP syntheses by enzymatic mop-up," <i>BioTechniques</i> , 25:814-817 (1998)
2003	PCT Publication WO 00/53805 ("Stemple")
2004	Defendant Illumina, Inc.'s Initial Invalidity Contentions, <i>The Trustees of Columbia University in the City of New York and Qiagen Sciences, LLC v. Illumina, Inc.</i> , 19-cv-01681 (D. Del.)
2005	U.S. Patent No. 6,087,095 ("Rosenthal")
2006	Welch & Burgess, "Synthesis of fluorescent, photolabile 3'-O-protected nucleoside triphosphates for the base addition sequencing scheme," <i>Nucleosides &amp; Nucleotides</i> , 18:197-201 (1999)
2007	Canard & Sarfati, "DNA polymerase fluorescent substrates with reversible 3'-tags," <i>Gene</i> , 148:1-6 (1994)
2008	IPR2017-02172 Petition for <i>Inter Partes</i> Review of U.S. Patent No. 7,566,537
2009	IPR2017-02172 Preliminary Response of Patent Owner Illumina Cambridge Ltd.
2010	IPR2017-02174 Preliminary Response of Patent Owner Illumina Cambridge Ltd.
2011	IPR2013-00517 Illumina's Patent Owner Response

2012	IPR2013-00517 Final Written Decision
2013	IPR2013-00517 Deposition of Floyd Romesberg, Ph.D., July 8, 2014
2014	IPR2018-00291 Petitioner's Reply
2015	U.S. Patent No. 5,808,045
2016	Curriculum Vitae of Kenneth A. Johnson, Ph.D.
2017	IPR2018-00291, IPR2018-00318, IPR2018-00322, IPR2018-00385, IPR2018-00797 Illumina's Demonstratives for Oral Hearing
2018	IPR2018-00291, IPR2018-00318, IPR2018-00322, IPR2018-00385, IPR2018-00797 Illumina's Reply to Patent Owner's Opposition to Motion to Exclude
2019	IPR2018-00291 Institution Decision
2020	Declaration of Kenneth A. Johnson
2021	WO 96/23807 ("Kwiatkowski")
2022	Ronaghi, et al. "A sequencing method based on real-time pyrophosphate," <i>Science</i> , 281(5375):363-365 (1998)
2023	Brief of Patent Owner-Appellant Illumina Cambridge Ltd., <i>Illumina Cambridge Ltd. v. Intelligent Bio-Systems, Inc.</i> , D.I. 27, 2015-1123 (Fed. Cir.)
2024	U.S. Patent No. 5,858,671 ("Jones")
2025	U.S. Patent No. 6,013,445 ("Albrecht")
2026	Excerpts from the Prosecution History of U.S. Patent No. 9,718,852

2027	Complaint for Patent Infringement, <i>The Trustees of Columbia University in the City of New York and Qiagen Sciences, LLC v. Illumina, Inc.</i> , D.I. 1, 19-cv-01681 (D. Del.)
2028	Docket, <i>The Trustees of Columbia University in the City of New York and Qiagen Sciences, LLC v. Illumina, Inc.</i> , 19-cv-01681 (D. Del.)
2029	Amended Complaint for Patent Infringement, <i>The Trustees of Columbia University in the City of New York and Qiagen Sciences, LLC v. Illumina, Inc.</i> , D.I. 12, 19-cv-01681 (D. Del.)
2030	Exhibit 7 to Complaint for Patent Infringement, <i>The Trustees of Columbia University in the City of New York and Qiagen Sciences, LLC v. Illumina, Inc.</i> , D.I. 1-7, 19-cv-01681 (D. Del.)
2031	Exhibit 8 to Complaint for Patent Infringement, <i>The Trustees of Columbia University in the City of New York and Qiagen Sciences, LLC v. Illumina, Inc.</i> , D.I. 1-8, 19-cv-01681 (D. Del.)
2032	Docket, <i>The Trustees of Columbia University in the City of New York and Qiagen Sciences, LLC v. Illumina, Inc.</i> , 19-2302 (Fed. Cir.)
2033	Zhu, Z., et al., “Directly labeled DNA probes using fluorescent nucleotides with different length linkers,” <i>Nucleic Acids Res.</i> , 22:3418-3422 (1994)
2034	IPR2018-00291, Petition for <i>Inter Partes</i> Review of U.S. Patent No. 9,718,852
2035	U.S. Patent No. 7,566,537
2036	Joint Claim Construction Brief, <i>The Trustees of Columbia University in the City of New York and Qiagen Sciences, LLC v. Illumina, Inc.</i> , D.I. 54, 19-cv-01681 (D. Del.)
2037	Excerpts of Joint Claim Construction Appendix (Declaration of John Kuriyan, Ph.D. in Support Of Plaintiffs’ Opening Claim Construction Brief; Expert Declaration of Dr. Floyd Romesberg in Support of Illumina’s Response to Plaintiffs’ Opening Claim Construction Brief), <i>The Trustees of Columbia University in the City of New York and Qiagen Sciences, LLC v. Illumina, Inc.</i> , D.I. 55, 19-cv-01681 (D. Del.)
2038-2045	Reserved

2046	Protective Order, <i>The Trustees of Columbia University in the City of New York and Qiagen Sciences, LLC v. Illumina, Inc.</i> , 19-cv-01681 (D. Del.)
2047-2053	Reserved
2054	Excerpts from the <i>Ex Parte</i> Reexamination History of U.S. Patent No. 5,808,045
2055-2058	Reserved
2059	Tabor, S. & C. C. Richardson, "A single residue in DNA polymerases of the Escherichia coli DNA polymerase I family is critical for distinguishing between deoxy- and dideoxyribonucleotides," Proc. Natl. Acad. Sci. U.S.A., 92(14):6339-6343 (1995)
2060-2070	Reserved
2071	Declaration of Kenneth A. Johnson, March 30, 2021, IPR2020-00988, -01065, -01125, -01177, -01323
2072	Deposition Transcript for Videotaped Deposition of Floyd Romesberg, Ph.D., March 15, 2021, IPR2020-00988, -01065, -01125, -01177, -01323
2073	Curriculum Vitae of Kenneth A. Johnson, Ph.D.
2074	EP 3 034 627 ("Columbia's EP'627 patent")
2075	Illumina's October 29, 2019 Opposition against Columbia's EP'627 patent
2076	Illumina's March 25, 2021 Response in support of its Opposition against Columbia's EP'627 patent
2077	U.S. Patent No. 7,057,026 ("Barnes")
2078	Johnson, K. A., "Conformational coupling in DNA polymerase fidelity," Annu. Rev. Biochem., 62:685-713 (1993)

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