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On behalf of **Illumina, Inc.**
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ILLUMINA, INC.
Petitioner,

v.

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

IPR2020-01177
Patent 10,435,742

ILLUMINA UPDATED EXHIBIT LIST

Pursuant to 37 C.F.R. § 42.63(e), Petitioner Illumina, Inc. ("Illumina") hereby provides an updated list of its exhibits in this proceeding.

EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 10,407,458 ("Ju") – (guanine with allyl proviso)
1002	U.S. Patent No. 10,407,459 ("Ju") – (adenine with allyl proviso)
1003	U.S. Patent No. 10,457,984 ("Ju") – (cytosine with allyl proviso)
1004	U.S. Patent No. 10,435,742 ("Ju") – (thymine with allyl proviso)
Exhibit numbers 1005-1012 not used.	
1013	U.S. Patent No. 7,790,869 ("Ju")
1014	U.S. Patent No. 7,713,698 ("Ju")
1015	U.S. Patent No. 8,088,575 ("Ju")
1016	U.S. Patent No. 9,718,852 ("Ju") – (adenine)
1017	U.S. Patent No. 9,719,139 ("Ju") – (thymine)
1018	U.S. Patent No. 9,708,358 ("Ju") – (cytosine)
1019	U.S. Patent No. 9,725,480 ("Ju") – (guanine)
1020	U.S. Patent No. 9,868,985 ("Ju") – (method)
1021	2014-03-06 IPR2012-00007, Paper 140, Final Written Decision
1022	2014-03-06 IPR2012-00006, Paper 128, Final Written Decision
1023	2014-03-06 IPR2013-00011, Paper 130, Final Written Decision
1024	2019-06-21 IPR2018-00291, -00318, -00322, -00385, Final Written Decisions

Exhibit No.	Description
Exhibit numbers 1025-1027 not used.	
1028	2019-09-09 IPR2018-00797, Final Written Decision
1029	2015-07-17 Federal Circuit Opinion Affirming IPR2012-00006, IPR2012-00007 and IPR2013-00011
1030	U.S. Patent No. 5,547,839 ("Dower")
1031	WO 91/06678 ("Tsien")
1032	***Exhibit number not used***
1033	Welch et al., "Syntheses of Nucleosides Designed for Combinatorial DNA Sequencing," Chem. Eur. J., 5:951-960 (1999) ("Welch")
Exhibit numbers 1034-1036 not used.	
1037	Alberts et al., "Molecular Biology of the Cell," Third Edition, Garland Publishing Inc., New York (1994)
1038	***Exhibit number not used***
1039	Metzker et al., "Termination of DNA synthesis by novel 3'-modified-deoxyribonucleoside 5'-triphosphates," Nucleic Acids Research, 22:4259-67 (1994) ("Metzker")
1040	Sanger et al., "DNA sequencing with chain-terminating inhibitors," Proc. Nat'l Acad. Sci. USA, 74:5463-5467 (1977) ("Sanger")
1041	Prober et al., "A System for Rapid DNA Sequencing with Fluorescent Chain-Terminating Dideoxynucleotides," Science, 238:336-341 (1987) ("Prober")
1042	U.S. Patent No. 5,302,509 ("Cheeseman")
1043	U.S. Patent No. 5,763,594 ("Hiatt")

Exhibit No.	Description
1044	Pelletier et al., "Structures of Ternary Complexes of Rat DNA Polymerase β, a DNA Template-Primer, and ddCTP," Science, 264:1891-1903 (1994) ("Pelletier")
1045	***Exhibit number not used***
1046	Rosenblum et al., "New dye-labeled terminators for improved DNA sequencing patterns," Nucleic Acid Research, 25:4500-4504 (1997) ("Rosenblum")
1047	***Exhibit number not used***
1048	Excerpts from 2019-01-14 Deposition Transcript of Dr. Menchen in IPR2018-00291, -00318, -00322, and -00797
1049	2018-05-04 IPR2018-00385, Paper 13, Patent Owner Preliminary Response
1050	Canard et al., "Catalytic editing properties of DNA polymerases," Proc. Nat'l Acad. Sci. USA, 92:10859-10863 (1995) ("Canard")
1051	***Exhibit number not used***
1052	Yu et al., "Cyanine dye dUTP analogs for enzymatic labeling of DNA probes," Nucleic Acids Research, 22:3226-3232 (1994) ("Yu")
1053	Livak et al., "Detection of single base differences using biotinylated nucleotides with very long linker arms," Nucleic Acids Research, 20:4831-4837 (1992) ("Livak")
1054	Stryer, "Biochemistry," Fourth Edition, W.H. Freeman and Co., New York (1995) ("Stryer")
1055	Watson & Crick, "Genetical Implication of the Structure of Deoxyribonucleic Acid," Nature, 171:964-967 (1953) ("Watson & Crick")
1056	U.S. Patent No. 5,151,507 ("Hobbs")

Exhibit No.	Description
1057	***Exhibit number not used***
1058	Excerpts from Sept. 4-5, 2013 Deposition Transcript of Dr. George L. Trainor in IPR2012-00007
1059	***Exhibit number not used***
1060	Hovinen et al., "Synthesis of 3′-O-(ω-Aminoalkoxymethyl)thymidine 5′-Triphosphates, Terminators of DNA Synthesis that Enable 3'-Labeling," J. Chem. Soc. Perkin Trans. 1, 211-217 (1994) ("Hovinen")
1061	***Exhibit number not used***
1062	Excerpt from Prosecution History of U.S. Patent No. 9,725,480
1063	Ireland et al., "Approach to the Total Synthesis of Chlorothricolide: Synthesis of (±)-19,20-Dihydro-24-*O*-methylchlorothricolide, Methyl Ester, Ethyl Carbonate," J. Org. Chem. 51:635-648 (1986) ("Ireland")
1064	***Exhibit number not used***
1065	Excerpt from Prosecution History of U.S. Patent No. 10,428,380 [U.S. Appl. No. 16/150,191] (2019-03-12 Pre-interview first office action)
1066	Ruparel et al., "Design and synthesis of a 3′-*O*-allyl photocleavable fluorescent nucleotide as a reversible terminator for DNA sequencing by synthesis," PNAS, Vol. 102, No. 17, 5932-37 (2005) ("Ruparel")
1067	Ju et al., "Four-color DNA sequencing by synthesis using cleavable fluorescent nucleotide reversible terminators," PNAS, Vol. 103, No. 52, 19635-40 (2006) ("Ju")
1068	2015-02-11 IPR2013-00517, Paper 87, Final Written Decision
1069	2016-05-09 Federal Circuit Opinion Affirming IPR2013-00517
1070	U.S. Patent No. 5,449,767 ("Ward")
1071	***Exhibit number not used***

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