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

Thermo Fisher Scientific Inc., Petitioner

v.

The Regents of the University of California, Patent Owner

> Case IPR2018-01156 Patent No. RE46,817

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. RE46,817

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Alexandria, VA 22313-1450



Petition for Inter Partes Review of U.S. Patent No. RE46,817

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EXHIBIT LIST

Thermo Fisher Exhibit #	Description
1001	Bazan <i>et al</i> ,. "Methods and Compositions For Detection And Analysis of Polynucleotides Using Light Harvesting Multichromophores," U.S. Patent No. RE46,817, (filed March 29, 2017; issued May 1, 2018)
1002	Declaration of Kirk S. Schanze, Ph.D.
1003	Cardullo, R., <i>et al.</i> , "Detection of nucleic acid hybridization by nonradiative fluorescence resonance energy transfer" <i>PNAS</i> 85: 8790-8794 (1988)
1004	LeClerc <i>et al.</i> , "Detection of Negatively Charged Polymers Using Water-Soluble, Cationic, Polythiophene Derivatives," International Publication No. WO 02/081735, (filed April 5, 2002; published October 17, 2002)
1005	McQuade, D., <i>et al.</i> , "Signal Amplification of a "Turn-On" Sensor: Harvesting the Light Captured by a Conjugated Polymer," <i>J. Am. Chem. Soc.</i> 122: 12389-12390 (2000)
1006	Harrison, B., <i>et al.</i> , "Amplified Fluorescence Quenching in a Poly(p-phenylene)-Based Cationic Polyelectrolyte," <i>J. Am. Chem. Soc.</i> 122: 8561-8562 (2000)
1007	Bazan <i>et al.</i> , "Methods and Compositions For Detection and Analysis of Polynucleotides Using Light Harvesting Multichromophores," U.S. Patent No. 9,085,799 (filed August 14, 2014; issued July 21, 2015)
1008	File History of U.S. Application No. 14/460,245



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1009	File History of U.S. Application No. 15/473,316	
1010	Plaintiff's Opening Claim Construction Brief, <i>The Regents of The University of California, and Becton, Dickinson and Company v. Affymetrix, Inc. and Life Technologies Corp.</i> , Case No. 17-01394 (S.D. Cal., dated February 23, 2018)	
1011	Declaration of Timothy M. Swager, Ph.D. in support of Plaintiff Becton Dickenson and Company's Motion for Preliminary Injunction, <i>The Regents of The University of California, and Becton,</i> <i>Dickinson and Company v. Affymetrix, Inc. and Life Technologies</i> <i>Corp.</i> , Case No. 17-01394 (S.D. Cal., dated January 26, 2018)	
1012	Claim Construction Order for the '799 Patent, the '673 Patent, and the '113 Patent, <i>The Regents of The University of California, and Becton, Dickinson and Company v. Affymetrix, Inc. and Life Technologies Corp.</i> , Civil Action No. 17-01394 (S.D. Cal., dated March 26, 2018)	
1013	Burgess <i>et al.</i> , "Through Bond Energy Transfer In Fluorescent Dyes For Labelling Biological Molecules," U.S. Patent No. 6,340,750 (filed December 14, 1999; issued January 22, 2002)	
1014	Reppy <i>et al.</i> , "Method For Detecting An Analyte By Fluorescence," International Publication No. WO 01/71317 (filed March 20, 2001; published September 27, 2001)	
1015	Kool, "Fluorescent Nucleoside Analogs and Combinatorial Fluorophore Arrays Comprising Same," International Publication No. WO 01/044220 (filed December 13, 2000; published June 21, 2001)	
1016	Kang, T., <i>et al.</i> , "Photoluminescence properties of various polythiophene derivatives," <i>Synthetic Metals</i> 69: 377-378 (1995)	



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1017	Glazer et al., "Dyes Designed For High Sensitivity	
1017	Detection of Double-Stranded DNA," U.S. Patent No. 5,783,687 (filed September 5, 1996; issued July 21, 1998)	
1018	De Angelis, D., "Why FRET over genomics?" <i>Physiological Genomics</i> 1: 93-99 (1999)	
1019	Didenko, V., "DNA Probes Using Fluorescence Resonance Energy Transfer (FRET): Designs and Applications," <i>Biotechniques</i> 31: 1106–1121 (2001)	
	LeClerc, M., "Optical and Electrochemical Transducers	
1020	Based on Functionalized Conjugated Polymers," <i>Adv. Mater.</i> 11: 1491 – 1498 (1999)	
1021	Wang, J., et al., "Photoluminescence of Water-Soluble Conjugated Polymers: Origin of Enhanced Quenching by Charge Transfer," <i>Macromolecules</i> 33: 5153-5158 (2000)	
1022	Liu, B., <i>et al.</i> , "Synthesis of a novel cationic water-soluble efficient blue photoluminescent conjugated polymer," <i>Chem. Comm.</i> 551-552 (2000)	
	Gaylord, B., et al., "DNA detection using water-soluble conjugated	
1023	polymers and peptide nucleic acid probes," <i>PNAS</i> 99: 10954-10957 (2002)	
1024	The Nobel Prize in Chemistry 2000, Conductive Polymers, The Royal Swedish Academy of Sciences	
	Chen, L., et al., "Highly sensitive biological and chemical sensors	
1025	based on reversible fluorescence quenching in a conjugated polymer," <i>PNAS</i> 96: 12287-12292 (1999)	



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