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CHRISTOPHER A. VELLTURO President

Over the course of his career, Dr. Vellturo has performed a wide variety of economic and econometric analyses and provided expert testimony in the context of mergers and acquisitions, antitrust litigation, intellectual property litigation and numerous other matters spanning a broad array of industries. Dr. Vellturo has testified on economics-related matters in numerous U.S. District Courts, as well as at the Canadian Competition Bureau, and the American Arbitration Association. He has appeared before the U.S. Department of Justice, the Federal Trade Commission, various states' Attorneys General offices, the Federal Reserve Bank Board of Governors, and numerous other regulatory agencies on merger-related issues and other antitrust matters. Dr. Vellturo has also made appearances at hearings before the European Commission, and other antitrust enforcement agencies around the world. To date, he has performed economic analyses in over one hundred merger matters, in excess of seventy antitrust actions and well over one hundred intellectual property actions.

Dr. Vellturo has taught graduate-level economics at Boston University's School of Management.

Prior to forming Quantitative Economic Solutions, LLC (QES), Dr. Vellturo was a Principal at Analysis Group/Economics (AG/E) and a Senior Vice President and member of the Board of Directors at National Economic Research Associates (NERA).

Dr. Vellturo has published on a variety of topics, including merger and acquisition-related efficiencies, price discrimination, differentiated product analysis and market definition. His research has appeared in leading academic journals, including *Antitrust*, the *Antitrust Law Journal*, and the *Journal of Economics and Management Strategy*. Dr. Vellturo is a recipient of the Bradley Fellowship in Public Economics and has served as a referee for *American Economic Review* and *Rand Journal of Economics*.

A Ph.D. graduate in Economics from the Massachusetts Institute of Technology, Dr. Vellturo also holds a Sc.B. in Applied Mathematics and Economics from Brown University, where he graduated *magna cum laude* and *Phi Beta Kappa*.

EDUCATION

1989 Ph.D. in Economics, Massachusetts Institute of Technology

Primary Fields: Econometrics, Industrial Organization

Secondary Fields: Public Finance, Game Theory, Law and Economics

1983 Sc.B. in Applied Mathematics and Economics (magna cum laude), Brown University

PROFESSIONAL EXPERIENCE

2008-Present Boston University, School of Management

Instructor – Department of Finance & Economics

2002-Present Quantitative Economic Solutions, LLC

President/Manager - Direct research on microeconomic issues in litigation and non-litigation matters. Areas of particular focus include: antitrust, regulation, and damages

assessment in intellectual property and contract matters.

2000-2002 Analysis Group/Economics

Principal - Direct research and provide expert testimony on a variety of

microeconomic issues with particular emphasis on antitrust, intellectual property, and mergers and acquisitions. Expert reports and testimony presented in U.S. District Court. Presented antitrust economic analyses to Federal Trade Commission, U.S. Department of Justice, Federal Reserve Bank Board of Governors and the European

Commission.

1996-2000 National Economic Research Associates, Inc.

Senior Vice President (1999-2000)

Vice President (1996-1999)

1991-1996 Cambridge Economics, Inc.

Director - Directed research and provided expert testimony on a variety of

microeconomic issues with particular emphasis on antitrust, intellectual property, and mergers and acquisitions. Prior expert testimony provided in U.S. District Court and before the American Arbitration Association. Presented antitrust economic analyses to U.S. Department of Justice, Federal Trade Commission (Antitrust Division), state

Attorneys General offices, and the Federal Reserve Bank Board of Governors.

1989-1991 National Economic Research Associates, Inc.

Senior Consultant - Directed and performed research relating to issues of antitrust,

intellectual property, mergers and regulation.

1987 Department of Economics, M.I.T.

Teaching Assistant - Undergraduate econometrics.

Dean Ann F. Friedlaender, M.I.T. 1985-1989

Research Associate - Participated in research relating to transportation pricing and capital allocation responses to regulatory changes.

1983-1985 National Economic Research Associates, Inc.

Research Associate - Conducted research on a wide variety of issues including antitrust, railroad rate setting, optimal landfill pricing, and PCB and asbestos abatement strategies.

AWARDS AND PROFESSIONAL ACTIVITIES

1987-1989	Recipient, Bradley Fellowship in Public Economics
1986	M.I.T. Departmental Fellowship
1983	Phi Beta Kappa, Brown University
1983	Sigma Xi, Brown University
Present	Journal Referee for American Economic Review and Rand Journal of Economics
Present	Member, American Economic Association

Present Member, American Bar Association

TESTIFYING HISTORY (PAST FOUR YEARS)

- Merck Sharp & Dohme Corp, v. Hospira, Inc. U.S. District Court, District of Delaware, Consolidated Civil Action No. 14-915-RGA
- Gilead Sciences, Inc., Gilead Pharmasset LLC and Gilead Sciences Limited v. AbbVie Inc., and AbbVie Ireland Unlimited Company U.S. District Court, District of Delaware, Consolidated Civil Action No. 13-2034-GMS
- MSC. Software Corporation v. Altair Engineering, Incorporated et al. U.S. District Court, Eastern District of Michigan Southern Division, Case No. 2:07-cv-12807
- UCB, Inc., UCB Pharma GMBH, Research Corporation Technologies, Inc. and Harris FRC Corporation v. Accord Healthcare, Inc., et al. U.S. District Court, District of Delaware, Civil Action No. 1:13-cv-1206-LPS
- SAS Institute Inc. v. World Programming Limited U.S. District Court, District of North Carolina, Civil Action No. 5:10-cv-00025-FL (E.D.N.C.)
- In Re: Certain Consolidated Zoledronic Acid Cases U.S. District Court, District of New Jersey, Consolidated Civil Action No. 12-03967 (SDW) (SCM) [Consolidated with Civil Action Nos. 12-cv-04393, 13-cv-01028, 13-cv-02379, 13-cv-4669, 13-cv-5125, 13-cv-6835, 13-v-7914, and 14-cv-1841]

- Ronald A. Katz Technology Licensing L.P. v. FedEx Corporation, Federal Express Corporation, FedEx Corporate Services, INC., and FedEx Customer Information Services, Inc.
 U.S. District Court, Western District of Tennessee, Case No. 2:15-cv-02329-JPM-tmp
- Janssen Pharmaceuticals, INC., et al v. Actavis Elizabeth LLC, et al.,
 U.S. District Court, District of New Jersey, Civil Action No. 2:13-cv-04507-CCC-MF
- Unimed Pharmaceuticals, LLC, Besins Healthcare Inc, and Besins Healthcare Luxembourg, Sarl v. Perrigo Company and Perrigo Israel Pharmaceuticals LTD
 U.S. District Court, District of Delaware, Consolidated Civil Action No. 13-236 (RGA)
- AstraZeneca LP and AstraZeneca AB v. Breath Ltd./AstraZeneca LP and AstraZeneca AB v. Apotex, Inc. and Apotex Corp./AstraZeneca LP and AstraZeneca AB v. Sandoz, Inc./AstraZeneca LP and AstraZeneca AB v. Watson Laboratories, Inc.
 U.S. District Court, District of New Jersey, Consolidated Civil Action No. 08 CV 1512 (RMB)(AMD).
- L'Oreal S.A. and L'Oreal USA, Inc.v. Merck and Co., Inc., Merck Sharp & Dohme Corp. and MSD Consumer Care, Inc.
 U.S. District Court, District of Delaware, Civil Action No. 12-99-GMS.
- Aetna Inc. v. Blue Cross Blue Shield of Michigan,
 U.S. District Court, Eastern District of Michigan, Civil Action No. 2:11-cv-15346-BAF-RSW
- Medac Phamra, Inc. and medac Gesellschaft für klinische Spezialpräparate mbH v. Antares Pharma, Inc., Leo Pharma A/S and Leo Pharma Inc.,
 U.S. District Court, District of New Jersey, Civil Action No. 1:14-cv-01498-JBS-KMW
- Koninklijke Philips Electronics, N.V. and Philips Electronics North America Corporation v. ZOLL Medical Corporation,
 U.S. District Court, District of Massachusetts, Civil Action Nos. 1:10-cv-11041-NMG, 1:12-cv-12255-NMG
- Bayer Pharma AG, Bayer Intellectual Property GMBH and Bayer Healthcare Pharmaceuticals, INC. v. Watson Laboratories, INC.
 U. S. District Court, District of Delaware, Civil Action No. 12-1726 (LPS)(CBJ)
- Pfizer Inc., Wyeth LLC, Wyeth Pharmaceuticals Inc. and PF Prism C.V. v. Apotex Inc., et al. U.S. District Court, District of Delaware, Civil Action No. 12-808-SLR.
- Apple Inc. v. Samsung Electronics Co., et al.
 U.S. District Court, Northern District of California, Case No. 12-CV-00630-LHK.
- Stragent, LLC and Seesaw Foundation v. Intel Corporation. U.S. District Court, Eastern District of Texas, Tyler Division, Case No. 6:11-CV-421.

- Aetna, Inc. v. Blue Cross Blue Shield of Michigan, a Michigan nonprofit healthcare corporation.
 U.S. District Court, District of Michigan, Civil Action No. 2:11-cv-15346-DPH-MKM.
- In Re: American Express Antisteering Rules Antitrust Litigation (II)
 U.S. District Court, Southern District of New York, Master File No.: 11-MD-02221 (NGG)(RER).
- Altana Pharma AG and Wyeth v. Teva Pharmaceuticals USA, Inc., et al. and Sun Pharmaceuticals Industries, Ltd., et al.
 U.S. District Court, District of New Jersey, Consolidated Civil Action Nos. 04-2355 (JLL) (MAH)/05-1966 (JLL) (MAH)/05-3290 (JLL) (MAH)/06-3672 (JLL) (MAH).
- VirnetX Inc. v. Cisco Systems, et al.
 U.S. District Court, Eastern District of Texas, Tyler Division, Case No. 6:10-cv-417.
- Dainippon Sumitomo Pharma Co., Ltd. v. Merck Sharp & Dohme Corp., Merck & Co., Inc., and Essex Chemie AG
 International Chamber of Commerce, International Court of Arbitration, No.: 17953/VRO.
- Markem-Imaje Corporation (Plaintiff and Counterclaim Defendant) v. Zipher Ltd. and Videojet Technologies,
 Inc. (Defendants and Counterclaim Plaintiffs)
 U.S. District Court, District of New Hampshire, Civil Action No. 1:10-CV-00112-PB.
- In Re: Chocolate Confectionary Antitrust Litigation
 U.S. District Court, Middle District of Pennsylvania, Civil Action No. 1:08-MDL-1935.
- Life Technologies Corp. and Applied Biosystems, LLC (Claimants) and AB Sciex PTE Ltd. and DH Technologies Development PTE Ltd.
 JAMS Arbitration, JAMS Case No. 1400013323.
- Genzyme Corporation v. Seikagaku Corporation, Zimmer Holdings, Inc., Zimmer, Inc., and Zimmer U.S., Inc.
 U.S. District Court, District of Massachusetts, C.A. No.: 1:11-cv-10636-DPW.
- Pfizer Inc., Pharmacia & Upjohn Company LLC and Pfizer Health AB v. Impax Laboratories, Inc./Mylan, Inc. and Mylan Pharmaceiticals, Inc./Sandoz Inc.
 U.S. District Court, District of New Jersey, Civil Action Nos. 08-CV-2137 (DMC)(JAD)/10-CV-3246 (DMC)(JAD)/20-CV-3250 (DMC)(JAD) (consolidated).
- In the Matter of Certain Communication Equipment Components Thereof and Products Containing the Same, Including Power over Ethernet Telephones, Switches, Wireless Access Points, Routers and Other Devices Used in LANs and Cameras
 International Trade Commission, Investigation No. 337-TA-817.
- Abaxis, Inc. v. Cepheid
 U.S. District Court, Northern District of California, San Jose Division, Case No. C 10-2840-LHK.

- GlaxoSmithKline, PLC, et al. v. Hikma Pharmaceutical Co., Ltd., et al.
 U.S. District Court, District of New Jersey, Case No. 3:12-cv-01965-FLW-DEA.
- Schering Corporation v. Apotex Inc. and Apotex Corp.
 U.S. District Court, District of New Jersey, Civil Action No. 09-6373 (PGS)(TJB).
- Hoffmann-LaRoche Inc. v. Apotex Inc. and Apotex Corp.; Hoffmann-LaRoche Inc. v. Watson Laboratories, Inc., Watson Pharmaceuticals, Inc., Watson Pharma, Inc., Cobalt Pharmaceuticals Inc. and Cobalt Laboratories, Inc.; Hoffmann-LaRoche Inc. v. Mylan, Inc., Myland Pharmaceuticals Inc., Genpharm ULC (f/k/a Genpharm Inc.) and Genpharm, L.P.
 U.S. District Court, District of New Jersey, Civil Action Nos. 10-6241 (SRC)(MAS) (consolidated with 07-4417 for all purposes)/10-6206 (SRC)(MAS) (consolidated with 07-4539 for all purposes)/11-0579 (SRC)(MAS) (consolidated with 07-4661 for all purposes).
- Uniloc USA, Inc. and Uniloc Singapore Private Ltd. v. Microsoft Corporation District of Rhode Island, Civil Action No. 03-CV-440 (WES).
- Wyeth Holdings Corporation, Wyeth-Ayerst Lederle LLC and Wyeth LLC v. Sandoz Inc.
 U.S. District Court, District of Delaware, Civil Action No. 09-955-JJF.
- Hoffmann-LaRoche Inc. v. Apotex Inc. and Apotex Corp.; Hoffmann-LaRoche Inc. v. Watson Laboratories, Inc., Watson Pharmaceuticals, Inc., Watson Pharma, Inc., Cobalt Pharmaceuticals Inc. and Cobalt Laboratories, Inc.; Hoffmann-LaRoche Inc. v. Dr. Reddy's Laboratories, Ltd. and Dr. Reddy's Laboratories, Inc.; Hoffmann-LaRoche Inc. v. Orchid Chemicals & Pharmaceuticals Ltd., Orchid Healthcare, Orchid Pharmaceuticals Inc. and Orgenus Pharma Inc.; Hoffmann-LaRoche Inc. v. Mylan, Inc., Myland Pharmaceuticals Inc., Genpharm ULC (f/k/a Genpharm Inc.) and Genpharm, L.P. U.S. District Court, District of New Jersey, Civil Action Nos. 10-6241 (SRC)(MAS) (consolidated with 07-4417 for all purposes)/10-6206 (SRC)(MAS) (consolidated with 07-4539 for all purposes)/10-5623 (SRC)(MAS) (consolidated with 07-4516 for all purposes); 10-4050 (SRC)(MAS) (consolidated with 07-4582 for all purposes)/11-0579 (SRC)(MAS) (consolidated with 07-4661 for all purposes).
- Hoffman—La Roche Inc. v. Teva Pharmaceuticals USA, Inc. and Teva Pharmaceuticals Industries Ltd.;
 Hoffman—La Roche Inc. v. Roxane Laboratories, Inc. and Boehringer Ingelheim Roxane, Inc.
 U.S. District Court, District of New Jersey, Civil Action Nos. 09-5283-(ES)(CLW)/09-6335(ES)(CLW).
- Multimedia Patent Trust v. DIRECTV, INC., et al.
 U.S. District Court, Southern District of California, Case No. 09-CV-00278-H (CAB).
- Pfizer Inc., Warner-Lambert Company LLC, C.P. Pharmaceuticals International C.V. and Northwestern University v. Teva Pharmaceuticals USA, Inc. and Teva Pharmaceuticals Industries, Ltd., et al. U.S. District Court, District of Delaware, C.A. No. 09-307 (GMS) (Consolidated).

- Affinity Labs of Texas, LLC v. Apple Inc.
 U.S. District Court, Northern District of California, Oakland Division, Case No. CV09-4436-CW.
- Merck & Co., Inc. and Merck Sharp & Dohme Corp. v. Sandoz Inc.
 U.S. District Court, District of New Jersey, Civil Action Nos.: 10-cv-01625-SRC-PS and 10-cv-02308-SRC-PS.
- Bayer Schering Pharma AG and Bayer HealthCare Pharmaceuticals Inc. (Plaintiffs/Counterdefendants) v.
 Lupin Ltd. and Lupin Pharmaceuticals, Inc. (Defendants/Counterclaimants)
 U.S. District Court, District of Nevada, No. 2:10-cv-01166(RCJ)(ECS).

PUBLICATIONS AND PRESENTATIONS

"Mock Trial: Carnival Comics, Inc. v. DigiCom, LLP, et al." Presented at the 61st Annual Spring Meeting of the ABA Section of Antitrust Law, Washington, DC, April 11, 2013.

"Understanding How the Patent Cliff Will Re-Define the Endgame." Presented at the 12th Annual Maximizing Pharmaceutical Patent Life Cycles Conference, New York, NY, October 4, 2011.

"Differentiated Products" in <u>Issues in Competition Law and Policy</u>, <u>Volume I</u>, ed. D. Wayne Collins, Section of Antitrust Law of the American Bar Association, 2008.

"When Fraud on the Patent Office Violates Section 2: A Mock Trial." Presented at the 52nd Annual Spring Meeting of the ABA Section of Antitrust Law, Washington, DC, April 1, 2004.

"What Drives Consolidation?" Presented at the 28th Semiannual Members Meeting MIT/CRE, Cambridge, MA, May 14, 1998.

"Proving Unilateral Effects and Efficiencies in Merger Cases: A Demonstration." Presented at the 46th Annual Spring Meeting of the ABA Section of Antitrust Law, Washington, DC, April 1, 1998.

"Creating An Effective Diversion: Evaluating Mergers With Differentiated Products," *Antitrust*, Spring 1997.

"Economic Battles in the Antitrust Wars: Network Industries and Their Relevance to Antitrust in the Computer Industry." Presented at the Washington State Bar Association's Thirteenth Annual Antitrust, Consumer Protection and Unfair Business Practices Conference, November 8, 1996.

"Differentiated Products: New Tools for New Methods." Presented at NERA's Seventeenth Annual Antitrust & Trade Regulation Seminar, Santa Fe, NM, July 5, 1996.

"Market Definition Under Price Discrimination" (with J. A. Hausman and G. K. Leonard), Antitrust Law Journal, Vol. 64, No. 2 (Winter 1996).

"Learning-by-Doing in the Context of Antitrust Analysis" (with J. Hausman), April 1995.

"An Economic Analysis of ATM Surcharging," prepared for Southeast Switch Inc., October 5, 1995.

"Cost Effects of Mergers and Deregulation in the U.S. Rail Industry" (with Berndt, et al.), Productivity Issues in Services at the Micro Level, ed. Zvi Griliches and Jacques Mairesse, Kluwer Academic Publishers, 1993.

"Cost Effects of Mergers and Deregulation in the U.S. Rail Industry" (with Berndt, et al.), Journal of Productivity Analysis, 4, 127-144, 1993.

"Rail Costs and Capital Adjustments in a Quasi-Regulated Environment" (with Friedlaender, et al.), Journal of Transport Economics and Policy, 131-152, May 1993.

"Deregulation, Mergers and Cost Savings in Class I U.S. Railroads, 1974-1986" (with Berndt, et al.), Journal of Economics and Management Strategy, Vol. 1, No. 2, 1992.

"Observations on Pre-Trial Bargaining Models," MIT Mimeo, September 1989.

"The Deregulation of the U.S. Rail Industry: Efficiency and Equity in Attaining Rail Viability," Ph.D. Dissertation, Department of Economics, MIT, 1989.

"Achieving Cost Efficiency Through Merger: Evidence from the U.S. Rail Industry," Presented at the American Economic Association Symposium on Mergers and Acquisitions, New York, December 29, 1988.