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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 before arbitral tribunals acting under the rules of arbitration of 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**

1989Ph.D. in Economics, Massachusetts Institute of Technology<br/>Primary Fields: Econometrics, Industrial Organization<br/>Secondary Fields: Public Finance, Game Theory, Law and Economics

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

## **PROFESSIONAL EXPERIENCE**

- 2002-Present **Quantitative Economic Solutions, LLC**  *President/Manager* – Direct research on microeconomic issues in litigation and nonlitigation matters. Areas of particular focus include: antitrust, regulation, and damages assessment in intellectual property and contract matters.
- 2008-2015 **Boston University, School of Management** *Instructor* – Department of Finance & Economics

#### 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.

# 1987Department of Economics, M.I.T.Teaching Assistant - Undergraduate econometrics.

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

- <u>Colibri Heart Valve LLC</u> v. Medtronic CoreValve LLC United States District Court for the District of California Southern Division, C.A. No. 8:20-cv-00847 (DOC) (JDE)
- <u>Indivior Inc., Indivior UK Limited</u>, and Aquestive Therapeutics, Inc. v. Alvogen Pine Brook LLC United States District Court for the District of New Jersey, C.A. No. 17-cv-07106 (KM) (CLW)
- <u>Astellas Pharma Inc., Astellas Ireland Co., LTD., and Astellas Pharma Global Development, Inc.</u> v. Sandoz Inc., et al.
  United States District Court for the District of Delaware, C.A. No. 20-CV-01589
- Teva Pharmaceuticals International GMBH and Teva Pharmaceuticals USA, Inc. v. <u>Eli Lilly and Company</u> United States District Court for the District of Massachusetts, C.A. No. 1:18-cv-12029-ADB
- <u>Novartis Pharmaceuticals Corporation</u> v. Mylan Pharmaceuticals, Inc.
  United States District Court for the District of Delaware, C.A. No. 1:19-cv-1118-LPS
- <u>Novartis Pharmaceuticals Corporation</u> v. Accord Healthcare, Inc., et al. United States District Court for the District of Delaware, C.A. No. 1:18-cv-1043-KAJ
- United Services Automobile Association v. <u>PNC Bank, N.A.</u> United States District Court for the Eastern District of Texas Marshall Division, Case No. 2:21cv-0246-JRG
- <u>Advantest America, Inc.; and Advantest Test Solutions, Inc.</u> v. Samer Kabbani; Lattice Innovation, Inc.; AEM Holdings LTD; and Wavem US Inc.
   Before the JAMS Arbitration Panel, Reference No: 1200057839
- Boston Scientific Corp. and Boston Scientific Neuromodulation Corp. v. <u>Neuro Corp.</u> United States District Court for the District of Delaware, C.A. No. 16-1163 (CFC)
- <u>Astellas US LLC: Astellas Pharma US, Inc.</u>; and Gilead Sciences Inc. v. Hospira, Inc. United States District Court for the District of Delaware, C.A. No. 18-1675-CFC-CJB (Consolidated)
- United Services Automobile Association v. <u>PNC Bank, N.A.</u> United States District Court for the Eastern District of Texas Marshall Division, Case No. 2:20cv-00319-JRG
- Anthony Colucci, Vanessa Lorraine Skipper, Individually and on Behalf of Those Similarly Situated v. <u>Health</u> <u>First, Inc.</u> United States District Court for the Middle District of Florida, C.A. No. 6:21-cv-00681-RBD-GJK
- *I-Mab v. <u>Tracon Pharmaceuticals, Inc.</u>* ICC Case No. 25372/MK

- <u>Novo Nordisk Inc. and Novo Nordisk A/S</u> v. Sandoz Inc.
  United States District Court for the District of Delaware, C.A. No. 20-00747-CFC
- <u>Indivior Inc. and Indivior UK Limited</u> v. Dr. Reddy's Laboratories S.A. and Dr. Reddy's Laboratories, Inc. United States District Court for the District of New Jersey, Civil Action No. 17-07111-KM-CLW
- <u>Amgen Inc.</u> et al. v. Sandoz Inc., et al. United States District Court for the District of New Jersey, Civil Action No. 18-11026 (MAS)(DEA)
- <u>Plastipak Packaging, Inc.</u> v. Premium Waters Inc.
  United States District Court for the Western District of Wisconsin (Madison), Civil Action No. 3:20-cv-00098
- <u>Boehringer Ingelheim Pharmaceuticals Inc., et al.</u> v. Mankind Pharma LTD., et al. United States District Court for the District of Delaware, CA. No. 1:18-cv-01689-CFC (Consolidated)
- <u>AMO Development, LLC, AMO Manufacturing USA, LLC and AMO Sales and Service, Inc.</u> v. Alcon LenSx, Inc., Alcon Vision, LLC, Alcon Laboratories, Inc. and Alcon Research, LLC.; Alcon Inc., Alcon LenSx, Inc., Alcon Research, LLC, and Alcon Vision, LLC. v. <u>AMO Development, LLC, AMO</u> <u>Manufacturing USA, LLC, AMO Sales and Service, Inc., and Johnson and Johnson Surgical Vision, Inc.</u> United States District Court for the District of Delaware, C.A. No. 20-842 (CFC)
- <u>Novo Nordisk Inc. and Novo Nordisk A/S</u> v. Mylan Institutional LLC United States District Court for the District of Delaware, C.A. No. 19-01551-CFC
- The Trustees of the University of Pennsylvania v. <u>Eli Lilly and Company</u>, ImClone LLC, and Bristol-Myers Squibb Company
   United States District Court for the Eastern District of Pennsylvania, Case No. 2:15-cv-06133-PD
- In the Matter of an Arbitration Under the CPR Non-Administered Arbitration Rules Between <u>Ford Motor</u> <u>Company</u>, on behalf of itself, its wholly and majority-owned subsidiaries, v. Ibiden Company, LTD., and all its direct and indirect subsidiaries.
- <u>H. Lundbeck A/S; Takeda Pharmaceutical Company LTD.; Takeda Pharmaceuticals U.S.A., Inc; Takeda Pharmaceuticals International AG; and Takeda Pharmaceuticals America, Inc.</u> v. Apotex, Inc., et al. United States District Court for the District of Delaware, C.A. No. 18-88 (LPS) (Consolidated)
- ViiV Healthcare Company, Shionogi & Co., Ltd. and ViiV Healthcare UK (No. 3) Limited v. <u>Gilead</u> <u>Sciences, Inc.</u> United States District Court for the District of Delaware, C.A. No. 18-224-CFC-CJB
- Ferring B.V., Ferring International Center S.A., and Ferring Pharmaceuticals, Inc. v. <u>Serenity</u> <u>Pharmaceuticals, LLC and Reprise Biopharmaceuticals, LLC</u> United States District Court for the Southern District of New York, Case No. 17-cv-9922 (RWS) ECF CASE

- OJ Commerce LLC; and Naomi Home, Inc. v. <u>KidKraft, LP</u>; and MidOcean Partners, LP. United States District Court for the Southern District of Florida, Case No. 19-CV-60341-CIV-Cooke/Hunt
- <u>SAS Institute Inc.</u> v. World Programming Limited; Luminex Software, Inc.; Yum! Brands, Inc.; Pizza Hut, Inc.; and Shaw Industries Group, Inc.
   United States District Court for the Eastern District of Texas Marshall Division, Civil Action No. 2:18-CV-00295-JRG
- <u>Pfizer Inc.</u>, et al. v. Zydus Pharmaceuticals (USA), et al. United States District Court for the District of Delaware, C.A. No. 17-158 (LPS)
- <u>Abbott Cardiovascular Systems, Inc., and Evalve, Inc.</u> v. Edwards Lifesciences, LLC, and Edwards Lifesciences, Corp.
   United States District Court for the District of Delaware, Case No. 1:19-cv-00149-MN
- <u>3M Company & 3M Innovative Properties Company</u> v. Kerr Corporation United States District Court for the District of Delaware, C.A. No. 17-01730-LPS-CJB
- <u>CardioNet LLC. and Braemar Manufacturing, LLC</u> v. InfoBionic, Inc.
  United States District Court for the District of Massachusetts, Civil Action No. 1:15-cv-11803-IT
- <u>Novartis Pharmaceuticals Corporation</u> v. Accord Healthcare, Inc., et al. United States District Court for the District of Delaware, C.A. No. 18-1043-LPS
- Array Technologies, Inc. v. Colin Mitchell, <u>NEXTracker, Marco Garcia, Daniel S. Shugar, Scott Graybeal, and Flextronics International U.S.A., Inc.</u>
  United States District Court for the District of New Mexico, Civil Action No. 1:17-cv-00087-JAP-LF
- In the matter of the arbitration between Intellia Therapeutics, Inc. and <u>Caribou Biosciences, Inc.</u> Before the JAMS Arbitration Panel, Reference No.: 1425027888
- <u>Astellas Pharma Inc., Astellas Ireland Co., Ltd., and Astellas Pharma Global Development, Inc.</u> v. Actavis Elizabeth LLC, et al. United States District Court for the District of Delaware, C.A. No. 1:16-905 (JFB0 (CJB) (Consolidated)
- <u>Orexo AB and Orexo US, Inc.</u> v. Actavis Elizabeth, LLC, Actavis Pharma, Inc., Teva Pharmaceuticals USA, Inc., and Teva Pharmaceuticals Industries, Ltd.
   United States District Court for the District of Delaware, C.A. No. 17-205-CFC
- Adocia S.A. v. <u>Eli Lilly and Company</u> The American Arbitration Association, AAA Case No. 01-17-0005-2264
- <u>RELX Inc.</u> v. Informatica Corp.
  United States District Court for the Southern District of New York, Case No. 16-cv-9718

- <u>Novo Nordisk Inc. and Novo Nordisk A/S</u> v. Teva Pharmaceuticals USA, Inc.
  United States District Court for the District of Delaware, C.A. No. 1:17-cv-00227
- Zimmer Surgical, Inc. and Dornoch Medical Systems, Inc. v. <u>Stryker Corporation and Stryker Sales Corporation:</u> <u>Stryker Corporation and Stryker Sales Corporation</u> v. Zimmer Surgical, Inc., Zimmer, Inc. and Dornoch Medical Systems, Inc.
   United States District Court for the District of Delaware, C.A. No. 16-679-RGA
- <u>Immunex Corporation, Amgen Manufacturing, Limited</u> and Hoffman La-Roche Inc. v. Sandoz Inc., Sandoz International GMBH and Sandoz GMBH
   United States District Court for the District of New Jersey, Civil Action No. 2:16-cv-01118

### PUBLICATIONS AND PRESENTATIONS

"Trade Secrets Damages: Dangerous Waters." Presented at the Practicing Law Institute (PLI) Conference, Trade Secrets 2017: What every Lawyer Should Know, October 27, 2017.

"Lunch at Texas Law with Panel of Damages Experts." Presented at the University of Texas School of Law's Patent Damages Conference, Austin, Texas, June 9, 2016.

"Mock Trial: *Carnival Comics, Inc. v. DigiCom, LLP, et al.*" Presented at the 61<sup>st</sup> 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 12<sup>th</sup> Annual Maximizing Pharmaceutical Patent Life Cycles Conference, New York, NY, October 4, 2011.

"Differentiated Products" in *Issues in Competition Law and Policy, Volume I*, 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 52<sup>nd</sup> 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 46<sup>th</sup> 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.