

HEARINGS ON THE EVOLVING IP MARKETPLACE
The Operation of IP Markets
March 18-19, 2009
Speaker Biographies

Robert A. Armitage

Robert A. Armitage became Senior Vice President and General Counsel for Eli Lilly and Company in January 2003, and is a member of the company's executive committee. He joined the company as Vice President and General Patent Counsel, Lilly Research Laboratories, in October 1999.

Mr. Armitage received a B.A. degree in physics and mathematics in 1970 from Albion College. He received a master's degree in physics from the University of Michigan in 1971 and a J.D. from the University of Michigan Law School in 1973. Prior to joining Lilly, Mr. Armitage was Chief Intellectual Property Counsel for The Upjohn Company from 1983 to 1993. He also was a partner in the Washington, D.C., office of Vinson & Elkins LLP from 1993 to 1999.

Mr. Armitage is a member and a past President of the American Intellectual Property Law Association (AIPLA) and the Association of Corporate Patent Counsel (ACPC). He is also a past chair of the Patent Committee of the Pharmaceutical Research and Manufacturers of America (PhRMA), the National Council of Intellectual Property Law Associations (NCIPLA), the Intellectual Property Committee of the National Association of Manufacturers (NAM), the Fellows of the American Intellectual Property Law Association, and the Intellectual Property Law Section of the State Bar of Michigan.

Mr. Armitage has served as an Adjunct Professor of Law at George Washington University, as a member of the board of directors of Human Genome Sciences, Inc., and as President of the Board of Directors of the Hospice of Southwest Michigan, Inc. He also has served as a member of the Board of Directors of both Intellectual Property Owners (IPO) and the National Inventors Hall of Fame Foundation (NIHFF). He currently is serving as a member of the Council for the Intellectual Property Law Section of the American Bar Association (ABA IPL Section), a member of the Board of Directors of the Indianapolis Symphony Orchestra, a member of the Greater Indianapolis Progress Committee and the Indianapolis Race Relations Leadership Network, and a trustee on the Albion College Board of Trustees.

Ashish Arora

Ashish Arora is currently a visiting professor of strategy at the Fuqua School of Business at Duke University, on leave from Carnegie Mellon University, where he holds the H. John Heinz, III, Professorship of Economics, Innovation and Economic Development. His research focuses on the economics of technology and technical change. Professor Arora's research includes the study of technology-intensive industries such as software, biotechnology and chemicals, the role of patents and licensing in promoting technology startups, and the economics of information security. Along with Alfonso Gambardella and Andrea Fosfuri, he authored *Markets for Technology: The Economics of Innovation and Corporate Strategy*, MIT Press, 2001.

Professor Arora served as a co-director of the Software Industry Center at Carnegie Mellon University until 2006. He is an Associate Editor for *Management Science* and is on the editorial board of several other academic journals including *Strategic Management Journal*, *Research Policy*, and *Industrial & Corporate Change*. Professor Arora has served on a number of committees for bodies such as the National Academy of Sciences and the Association of Computing Machinery. He recently completed his service on the Advisory Committee on Measuring Innovation in the 21st Century to the Secretary of Commerce.

Professor Arora received his Ph.D. in economics from Stanford University in 1992.

Christine P. Bellon

Christine P. Bellon is Vice President of Intellectual Property & Legal Affairs for Hydra Biosciences and is responsible for all legal matters for the company. Dr. Bellon was previously Assistant General Counsel, Intellectual Property, for Infinity Pharmaceuticals, where she focused on the company's intellectual property strategy and patent portfolio. Prior to joining Infinity, Dr. Bellon was Patent Counsel at Wyeth, where she was responsible for the company's small molecule Cardiovascular and Metabolic Disease patent portfolio and the company's structural biology patent portfolio. Prior to Wyeth, Dr. Bellon was an attorney in the Boston office of Fish & Richardson P.C., where her practice focused on patent prosecution and client counseling in the areas of pharmaceuticals, chemicals, polymers, and biotechnology.

Dr. Bellon graduated from Yale University with honors, with a B.S. in chemistry. She received a Ph.D. in organic chemistry from the Massachusetts Institute of Technology, where she did research in ligand accelerated catalysis and asymmetric synthesis under the direction of K. Barry Sharpless. Dr. Bellon holds a J.D. degree from Columbia Law School.

James Bessen

James Bessen is recognized as an innovator in the electronic publishing industry, having developed one of the first commercially-successful desktop publishing programs. As an economics researcher, a former software developer and CEO, he brings a unique perspective to the study of innovation.

Mr. Bessen wrote the first WYSIWYG (what-you-see-is-what-you-get) PC publishing software in 1983 and founded a company, Bestinfo, in 1984 to market desktop publishing solutions to commercial publishers. Over the next few years, Bestinfo developed the first system to support PC publishing networks and the first single-source system for commercial-quality page makeup and color imaging. Over 1,000 commercial publishers purchased Bestinfo systems ranging from the Sears Catalogue to TV Guide. In 1986, Bestinfo received funding from Sevin Rosen Venture Capital and in 1993 it was acquired by Intergraph.

Mr. Bessen is currently Lecturer in Law at Boston University School of Law where he does research on the economics of technological innovation, including patents and Free/Open Source Software. His research on software patents with Eric Maskin (Nobel Laureate in Economics) and Robert Hunt

has been influential in European policy deliberations. He is the author (along with Michael J. Meurer) of *Patent Failure: How Judges, Bureaucrats, and Lawyers Put Innovators at Risk* (Princeton 2008).

Dan L. Burk

Dan L. Burk is Chancellor's Professor of Law at the University of California, Irvine, where he is a founding member of the law faculty. An internationally prominent authority on issues related to high technology, he lectures, teaches, and writes in the areas of patent, copyright, electronic commerce, and biotechnology law. He is the author of numerous papers on the legal and societal impact of new technologies, including articles on scientific misconduct, on the regulation of biotechnology, and on the intellectual property implications of global computer networks.

Professor Burk holds a B.S. in microbiology from Brigham Young University, an M.S. in molecular biology and biochemistry from Northwestern University, a J.D. from Arizona State University, and a J.S.M. from Stanford University.

Prior to joining the faculty at the University of California, Irvine, he taught at the University of Minnesota; he has also taught at a number of prominent institutions across Europe and North America, including Cornell University, the University of California at Berkeley, University of Toronto, University of Genoa, and the University of Tilburg. He has served as a legal advisor to a variety of private, governmental, and intergovernmental organizations, including the American Civil Liberties Union Committee on Patent Policy, the OECD Committee on Consumer Protection, and the United States State Department Working Group on Intellectual Property, Interoperability, and Standards.

Robert A. Clarke

Rob Clarke is the Director of the Office of Patent Legal Administration (OPLA), under the Deputy Commissioner for Patent Examination Policy at the U.S. Patent and Trademark Office. Mr. Clarke began his tenure with OPLA in 1999 as a legal advisor. In 2005 he was named Deputy Director and was appointed to his current position in 2007. Significant initiatives that Mr. Clarke has worked on include: 1) three of the rulemaking packages to implement American Inventors Protection Act (AIPA) of 1999 (i.e., Requests for Continued Examination (RCEs), Patent Term Adjustment (PTA), and Pre Grant Publication (PGPub)); 2) implementation of the revisions to 35 USC §§102(e) and 374 by the AIPA of 1999, as amended by H.R. 2215 (Technical Amendments Act) enacted November 2, 2002, but effective November 29, 2000; 3) the Patent Business Goals final rule (published September 2000) which included the manner of making amendments in applications; 4) the Changes to Implement the Office's 21st Century Strategic Plan final rule (published September 2004); 5) the revisions to the patent fees and the final rule to implement the CREATE Act per legislation enacted in December 2004; 6) revising practices and regulations to enable electronic filing of applications and Office processing in an image file wrapper (IFW); 7) the three major proposed rule makings published in 2006 to impose limits on: i) claims and cases with patentably indistinct claims; ii) continuations and RCEs; and iii) IDSs; and 8) implementation issues associated with pending Patent Reform bills.

Mr. Clarke began his career at the Office in 1990 as a patent examiner in former Group 3300, now TC 3700. He received a bachelors degree in molecular genetics from the University of Rochester in 1989, a J.D. with honors from the Catholic University of America in 1995, and is a member of the Virginia State Bar. Mr. Clarke has been the recipient of two Department of Commerce Silver Medals. The first medal was awarded in 2001 for his efforts in implementation of the AIPA of 1999. The second medal was awarded in 2004 for his work related to patent examination in the electronic environment.

Christopher A. Cotropia

Christopher Cotropia is an Associate Professor of Law at the University of Richmond School of Law. He is also a member of the School's Intellectual Property Institute. He teaches intellectual property, patent law, copyright law, cyberlaw, and property. He has authored numerous articles and book chapters in the areas of patent law and federal courts. He has also testified before the Senate Judiciary Committee and the United States International Trade Commission.

Professor Cotropia received his B.S. in both electrical engineering and computer engineering from Northwestern University. He received his J.D. from The University of Texas School of Law, where he graduated Order of the Coif and served as an editor of the Texas Intellectual Property Law Journal. He then clerked for the Honorable Alvin A. Schall of the United States Court of Appeals for the Federal Circuit and practiced at the Washington, DC office of Fish & Richardson PC. Before joining the faculty at the University of Richmond, he was an Associate Professor of Law at Tulane University School of Law where he was the C.J. Morrow Research Professor for the 2005-06 academic year in recognition of his productivity as a scholar.

Gary L. Griswold

Mr. Griswold is a Consultant to 3M and was the President and Chief Intellectual Property Counsel of 3M Innovative Properties Company. He has a B.S. in chemical engineering from Iowa State University, a M.S. in industrial administration from Purdue University, and a J.D., with honors, from the University of Maryland. He has practiced intellectual property law at 3M and E. I. du Pont de Nemours and Co. for over 34 years. For a six year period Mr. Griswold managed the Dental Products Division of 3M. He is a past President of the Intellectual Property Owners, Inc. and the American Intellectual Property Law Association, past President of the Association of Corporate Patent Counsel, a Fellow of the American Intellectual Property Law Association and a member of the Council of the Intellectual Property Law Section of the American Bar Association. He was Chair of the National Council of Intellectual Property Law Associations, a member of the Board of the National Inventors Hall of Fame Foundation, a member of the U.S. Secretary of Commerce's Industry Functional Advisory Committee on Intellectual Property Rights for Trade Policy Matters, and an alternate member of the U.S. Secretary of Commerce's Advisory Commission on Patent Law Reform, 1991-1992.

Sarah T. Harris

Ms. Harris is Vice President and Chief Counsel, Intellectual Property at AOL, LLC in Dulles, Virginia. She is responsible for establishing AOL's intellectual property policies and strategies and managing all of AOL's intellectual property issues, including those related to patent litigation, patent prosecution and copyrights, trademarks, and domain names. Prior to joining AOL, Ms. Harris was the Chief Intellectual Property Counsel at Cooper Industries, an electrical products and tools manufacturing company headquartered in Houston, was Of Counsel at Haynes and Boone in Houston and held several different Intellectual Property related roles at Hewlett Packard and Compaq Computer Corporation in Houston.

Ms. Harris received her B.S. in electric engineering from Texas A&M and her J.D. from The University of Houston Law Center.

Carl B. Horton

Carl Horton is GE's Chief IP Counsel. Prior to becoming GE's Chief IP Counsel, Mr. Horton served as lead IP counsel for GE's Healthcare Business where he was responsible for all intellectual property matters including procurement, licensing and enforcement of all patents, trademarks, trade secrets, and copyrights as well as all legal components of GE Healthcare's academic relationships. From 1995 to 2001, Mr. Horton served as lead IP Counsel for GE's Electrical Distribution and Control businesses and later GE's Industrial Systems businesses. Mr. Horton joined GE in 1992 where he worked in Pittsfield, MA, as IP Counsel for several of GE's Plastic/Advanced Materials divisions. Prior to joining GE, Mr. Horton worked for 4 years at the intellectual property law firm of Burns, Doane, Swecker & Mathis in Alexandria, VA.

In the past 12 years Mr. Horton has led IP teams in over 10 countries throughout the world in protecting a wide range of products and services for GE ranging from diagnostic imaging equipment such as MRI, CT, PET & ultrasound equipment and related contrast agents, to hospital information technology systems and genomic/proteomic-based products, to circuit breakers and reliable power transmission systems, switches, drive systems, motors and a host of high temperature thermoplastic materials. Mr. Horton was lead IP counsel on over 40 acquisitions ranging in value from \$10 million to over \$10 billion as well as lead internal IP counsel for countless IP disputes including litigation, interference, opposition, arbitration and mediation.

Mr. Horton received a degree in chemical engineering with honors from the University of Utah, and a J.D., *cum laude*, from the National Law Center at George Washington University.

In 2008, Mr. Horton was featured on the cover of IP Law & Business' article "*Top 50 under 45.*" Mr. Horton has also been a frequent speaker at IP meetings in the United States and abroad including LES, ACCA, EPO, IPO, ABA, UNFCCC and the U.S. Chamber. Before joining the IPO Board of Directors, Mr. Horton chaired the U.S. Patent Law Committee of the IPO where he helped analyze numerous provisions contained in the various patent reform proposals in the United States.

Bob Hunt

Bob Hunt is an Assistant Vice President at the Federal Reserve Bank of Philadelphia. After ten years in the Research Department, he joined the bank's Payment Cards Center in January 2009.

Dr. Hunt's research has focused on the economics of innovation, intellectual property, economic geography, consumer payments and consumer finance. His work includes studies of the effects of changes in intellectual property reform, the emergence and effects of patents on computer programs and business methods, the effects of patents for financial services, and the distribution of innovation across firms, locations, and time.

Dr. Hunt has also written on the dynamics of consumer credit reporting industry, credit counseling organizations, debt collection, and antitrust issues in consumer payment networks.

Dr. Hunt received a B.A. from Butler University in 1986 and a Ph.D. in economics from the University of Pennsylvania in 1996. Prior to joining the Bank in 1998, he worked for the U.S. Congressional Budget Office.

Stephen C. Jensen

Stephen C. Jensen is a partner in the Orange County office of Knobbe Martens Olson & Bear LLP. Mr. Jensen's practice emphasizes intellectual property litigation, negotiation, licensing and strategic counseling matters. He has handled extensive and diverse cases, involving virtually all aspects of intellectual property, and has negotiated and drafted diverse license and other technology related agreements between companies worldwide.

Mr. Jensen represents clients in a wide range of technologies, such as medical devices and instrumentation, semiconductors, computer hardware and software, complex digital signal processing, telecommunications including wireless, antennas, video and audio processing, optics, solid state cooling and heating, control systems, and other areas. In 2003, he was named by the Daily Journal as one of the top 20 lawyers under 40 in California.

Mr. Jensen received his bachelor of science in electrical engineering from Brigham Young University, graduating *magna cum laude*. While completing his degree in electrical engineering, Mr. Jensen worked for Hughes Aircraft in the microwave phased array antenna department, where he was involved in development of radar systems. He received a law degree from University of California, Los Angeles School of Law, where he was elected to the Order of the Coif.

David J. Kappos

Mr. Kappos is Vice President and Assistant General Counsel, Intellectual Property Law and Strategy, for IBM Corporation. Based in Armonk, New York, Mr. Kappos directs IBM's Intellectual Property Law function, providing legal counsel over all facets of protecting and licensing IBM's intellectual property assets and leading IBM's engagement of intellectual property law policy issues, as well as setting legal strategy for the company across IBM's technology-based business units. In

particular, Mr. Kappos is responsible for the management of IBM's patent and trademark portfolios; protecting and licensing intellectual property (patents, copyrights, trademarks, know how and technology) worldwide; directing intellectual property law operations relating to the research, services, consulting, computer systems, storage products, semiconductor and technology development, software, marketing and other groups, divisions, and entities within IBM. In addition, Mr. Kappos has responsibility for IP policy and coordination with IBM's litigation and corporate development groups in matters relating to intellectual property.

Mr. Kappos serves on the Board of Directors of the American Intellectual Property Law Association, the Intellectual Property Owners Association, and the International Intellectual Property Society. He is also the Vice President of the Intellectual Property Owners Association. He has held various previous leadership positions in intellectual property law associations in Asia and the U.S. He has written and spoken widely in Asia, Europe, and the U.S. on intellectual property topics.

Mr. Kappos received his B.S. degree in electrical and computer engineering from the University of California Davis in 1983, and his law degree from the University of California Berkeley in 1990. He joined IBM in 1983 as a Development Engineer and has served as an Intellectual Property Law attorney in IBM's Storage Division and Litigation group, as IP Law Counsel in IBM Software Group, as Assistant General Counsel in IBM Asia/Pacific, IBM Corporate Counsel and as Assistant General Counsel prior to his current position.

Ron D. Katznelson

Dr. Katznelson is the Founder and President of Bi-Level Technologies in Encinitas, CA. From 1990 to 2005, he was Chief Technology Officer, Founder and Chairman of Broadband Innovations, (formerly known as MCSI), where he led the company's entry into the digital RF CATV industry. From 1983 to 1989, he was with the VideoCipher Division of M/A-COM Linkabit Corp., later acquired by General Instrument Corp. (GIC), where he served as Director of New Technology Development. At GIC, he directed R&D in the areas of Advanced Television Systems that led to GIC's video compression technology, now forming the core of the MPEG-2 standard and a basis for the Grand-Alliance ATSC High Definition Television standard. His responsibilities also included the management and development of the VideoCipher Division's intellectual property portfolio as well as representation in industry groups and standard bodies.

From 1982 to 1985, Dr. Katznelson was a Professor of Electrical Engineering at the University of California, San Diego (UCSD). He taught courses in Linear System Analysis, Probability and Stochastic Processes.

Dr. Katznelson co-authored a book and authored numerous technical publications in areas including semiconductor device physics, digital RF signal processing, satellite television transmission techniques, and HDTV transmission systems. His recent publications also include articles on product lifecycles and patent law. He is a named inventor in more than 25 U.S. patents and his research and development interests include optimal signal design, digital RF signal processing, digital television, signal representation and sampling theory, intellectual property management and patent law.

Dr. Katznelson served as a member of CableLabs' DOCSIS Working Group and a coauthor of the DOCSIS downstream digital transmission specifications. He is an advisor to high technology firms, a member of the University of California Library Advisory Board, and a member of the San Diego Intellectual Property Law Association.

Dr. Katznelson received his Ph.D. in electrical engineering (communication theory and systems) in 1982 from the University of California, San Diego, CA. He received a dual B.Sc. in mathematics and physics in 1975 and a M.Sc. in applied semiconductor physics in 1977, both from the Hebrew University in Jerusalem, Israel. He is a licensed private pilot and a licensed ham radio operator.

Joe E. Kiani

Joe Kiani is the CEO and Chairman of Masimo Corp. Mr. Kiani founded Masimo in 1989 as a private company to improve the accuracy of noninvasive patient monitoring. He was convinced that the use of adaptive signal processing in the measurement of physiological parameters could solve the problems of motion artifact and low signal to noise that plagued invivo monitoring, especially pulse oximetry. Under Mr. Kiani's leadership, Masimo has grown from a "garage start-up" into a successful publicly-traded medical technology company employing over 1,700 people worldwide with annual sales growth nearly 25-fold in the last five years. In addition, with technology license and OEM agreements with leading patient monitoring manufacturers spanning the globe - such as Atom, Datascope, GE Medical, Medtronic, Philips, Spacelabs, and Zoll - Masimo is not only the inventor, but the market-leading measure-through motion and low-perfusion pulse oximetry technology.

Over the last 20 years, Mr. Kiani and Masimo have helped to solve the "unsolvable" problems that have plagued patient monitoring within the healthcare industry - garnering more than 50 awards and industry honors - and today, Masimo is responsible for the development of innovative, award-winning noninvasive patient monitoring technologies that have revolutionized pulse oximetry.

Mr. Kiani holds a B.S.E.E. and an M.S.E.E. from San Diego State University and is an inventor on more than 50 patents related to signal processing, sensors and patient monitoring, including patents for the invention of measure-through motion and low-perfusion pulse oximetry. Prior to founding Masimo Corporation, Mr. Kiani served as regional technical manager for Anthem Electronics, field applications engineer for Bell Industries, and product engineer for Unisys. Currently, Mr. Kiani serves on the board of SABA and is Chairman of the Medical Device Manufacturers Association (MDMA).

F. Scott Kieff

F. Scott Kieff is a Professor at Washington University School of Law with a secondary appointment in the School of Medicine's Department of Neurological Surgery, and a Senior Fellow at Stanford's Hoover Institution, where he directs the Project on Commercializing Innovation, which studies the law, economics, and politics of innovation, including entrepreneurship, corporate governance, finance, economic development, intellectual property, antitrust, and bankruptcy. He also serves on Hoover's Property Rights Task Force and as a faculty member of the Munich Intellectual Property

Law Center at Germany's Max Planck Institute; and previously has been a visiting professor in the law schools at Northwestern, Chicago, and Stanford, as well as a faculty fellow in the Olin Program on Law and Economics at Harvard. Before attending law school at the University of Pennsylvania, he studied molecular biology and microeconomics at M.I.T. and conducted research in molecular genetics at the Whitehead Institute.

Having practiced law for over six years as a trial lawyer and patent lawyer for Pennie & Edmonds in New York and Jenner & Block in Chicago and as law clerk to U.S. Circuit Judge Giles S. Rich, he regularly serves as a testifying and consulting expert, mediator, and arbitrator to law firms, businesses, government agencies, and courts. He served for the first two years of the Federal Circuit's Appellate Mediation Panel until November 2007 and that December was appointed by Secretary of Commerce Gutierrez to serve a three-year term on the nine-person Patent Public Advisory Committee of the Patent and Trademark Office, which was created by Congress to advise the government on the policies, goals, performance, budget, and user fees of the patent operation. In May of 2008, he was recognized as one of the Nation's "Top 50 under 45" by the magazine *IP Law & Business*.

Noreen Krall

Noreen Krall is Vice President and Chief IP Counsel, Intellectual Property Law, for Sun Microsystems. Based in Menlo Park, California, Ms. Krall directs Sun's Intellectual Property Law function and provides legal counsel over all facets of Sun's intellectual property assets, leading Sun's engagement on intellectual property law policy issues. In particular, Ms. Krall is responsible for the management of Sun's patent and trademark portfolios, protecting, licensing, purchasing and sale of intellectual property (patents, copyrights, trademarks) worldwide. Ms. Krall is also responsible for managing all commercial and intellectual property litigation for Sun.

Ms. Krall serves on the Board of Directors for the Intellectual Property Owners Association, and on the High Tech Advisory Board for Santa Clara University, College of Law.

Ms. Krall received her B.E. in electrical engineering from Manhattan College in 1987, her masters degree in computer science from Iona College in 1989, and her J.D. from Denver University in 1994.

Stephen G. Kunin

Stephen G. Kunin is a partner at Oblon, Spivak, McClelland, Maier & Neustadt, P.C., and is the former Deputy Commissioner for Patent Examination Policy with the U.S. Patent and Trademark Office. He has more than 37 years of expertise in intellectual property rights protection and 24 years of organizational management and leadership experience. He was appointed to his former position in March 2000 and has served in a similar capacity since November 1994, under the position's prior title, "Deputy Assistant Commissioner for Patent Policy and Projects." Previously, beginning in July 1989, Mr. Kunin served as Deputy Assistant Commissioner for Patents. He participated in the

establishment of patent policy for the various Patent Organizations under the Commissioner for Patents, including changes in patent practice, revision of rules of practice and procedures, establishment of examining priorities and classification of technological arts, and oversaw the operations of the Office of Patent Legal Administration, Patent Cooperation Treaty Legal Administration, and the Office of Petitions. Additionally, in January 1993, Mr. Kunin was designated by the Secretary of Commerce to perform the functions of the Assistant Commissioner for Patents on an acting basis until a new Assistant Commissioner for Patents was appointed in 1994.

Mr. Kunin, as a Partner, serves as a patent consultant who advises clients on patent prosecution and policy matters and prepares infringement and non-infringement opinions. He also serves as an expert witness on patent law, policy, practice and procedure.

Mr. Kunin also now serves as the Intellectual Property Program Director at the George Mason School of Law where he is an adjunct professor who teaches patent law and intellectual property law classes.

Mr. Kunin graduated with honors from Washington University in May of 1970 with a B.S. degree in electrical engineering. He attended the National Law Center of the George Washington University, receiving his J.D., with honors, in May of 1975. He is a graduate of the Harvard University Kennedy School of Government SMG Program.

Mr. Kunin received numerous awards during his career at the USPTO, including four Gold Medals, four Silver Medals and a Bronze medal from the Department of Commerce, a USPTO Career Achievement Award and the Vice President's Reinventing Government Hammer Award. In 2001 he was named by Intellectual Property Today magazine as one of the most influential people in IP law and was the recipient of the Meritorious Executive Presidential Rank Award. In the February 2002 issue of the Practising Law Company's magazine "Global Counsel" he was named as one of the most inspiring regulators in the federal government. In December 2004 he received the IPO Leadership Award. In November 2007 he received the Joseph Rossman Memorial Award from the Journal of the U.S. Patent and Trademark Office Society. In June 2008 he was ranked by Chambers USA as one of the top Intellectual Property Lawyers.

Michael V. Messinger

Michael V. Messinger is a director in the Electronics Group at intellectual property law firm Sterne, Kessler, Goldstein & Fox P.L.L.C.. He works with company managers, directors and employees to identify and leverage intellectual property assets, and has extensive experience prosecuting U.S. and international patent applications and developing strategic patent portfolios. He has written and prosecuted numerous patent applications including those related to computer networking (Internet, World-Wide Web, Java technologies), communications protocols, high-speed optical communications, photonics, graphics processing, data mining, voice-over-IP, cryptography, spread spectrum technology, and multi-processor computer architecture. He has handled complex patent matters involving appeals reissue and re-examination. Mr. Messinger has also provided

infringement and validity analysis in opinion work and in support of litigation for computer-related patents.

Prior to joining Sterne Kessler, Mr. Messinger worked as a patent examiner for more than six years in Group 2500 (Radiant Energy) at the United States Patent and Trademark Office. He examined patent applications and granted U.S. patents covering a variety of optical electronic circuits and systems including video camera inspection systems, scanners, fiber optic sensors, imaging CCD arrays, and photosensitive semiconductor junctions. Mr. Messinger regularly publishes and speaks on emerging topics in patent strategy and practice in the United States and abroad.

Steven W. Miller

Steven W. Miller is Vice President & General Counsel – Intellectual Property for the Procter & Gamble Company (“P&G”), having joined P&G in August, 1984. In this position, he oversees about 150 patent and trademark attorneys worldwide, and advises P&G’s senior management on intellectual property issues. Mr. Miller has authored numerous P&G patents and patent applications and has been involved in a number of license agreements, acquisitions, interferences, arbitrations, and litigation, both in the U.S. and abroad.

Mr. Miller is currently President of the Intellectual Property Owners Association (IPO); on the Board of Directors for IPO and the IPO Education Foundation; on the Board of Directors for the AIPLA Education Foundation; on the Board of Directors for the National Inventors Hall of Fame; on the Steering Committee for the Coalition for 21st Century Patent Reform; on the Executive Committee for the Association of Corporate Patent Counsels (ACPC); on the Dean’s National Council for The Ohio State University Moritz College of Law; on the Advisory Council for Intellectual Property at the Franklin Pierce Law Center; and is a member of the American Intellectual Property Law Association (AIPLA), American Bar Association – Intellectual Property Committee, and Cincy IP.

Mr. Miller has held a number of positions at Procter & Gamble. His first assignment at P&G was to support the Paper Division. In June, 1989, he was appointed Senior Patent Counsel. In December, 1994, he was appointed Associate General Counsel - Patents. In July 1999, Mr. Miller was promoted to Vice President & Associate General Counsel-Patents for the Baby Care Global Business Unit. In August 2000, Mr. Miller was appointed Chief Patent Counsel. In July 2001, Mr. Miller was appointed to his current position.

Mr. Miller has been a frequent speaker at events for the Intellectual Property Owners Association, Association of Corporate Patent Counsel, Cincy IP, and other bar associations and groups, on various IP topics including licensing and open innovation. He received a J.D. with Honors and a B.S. in mechanical engineering, cum laude, from The Ohio State University. He is licensed to practice in Ohio; U.S. Patent & Trademark Office; United States District Court for the Southern District of Ohio; United States Court of Appeals for the Sixth and Federal Circuits; and the United States Supreme Court.

Jeffrey N. Myers

Jeff Myers is Vice President and Assistant General Counsel, Intellectual Property Enforcement, for Pfizer Inc. Dr. Myers is responsible for management of all patent litigation matters for the company worldwide, including assertion of the company's patents, defense against allegations of infringement, and advising the company on IP enforcement issues.

Prior to joining Pfizer, Dr. Myers practiced patent law at Fitzpatrick, Cella, Harper & Scinto, where he worked on ANDA litigation and provided advice on pharmaceutical and biotechnology issues. Before joining FCH&S, Dr. Myers worked at Synaptic Pharmaceutical Corporation (now part of Lundbeck), primarily engaged in patent drafting and prosecution in the chemical arts and biotechnology.

Dr. Myers serves on the Board of Directors of the New York Intellectual Property Law Association and has presented and appeared on panels on patent litigation for the American Conference Institute and New Jersey Intellectual Property Law Association.

Dr. Myers holds a J.D. from Fordham University and a Ph.D. in Chemistry from Cornell University, and was a postdoctoral fellow at Columbia University and the University of Texas.

Richard F. Phillips

Richard Phillips is the Chief Intellectual Property Counsel of ExxonMobil Chemical Company. He began employment with ExxonMobil in 1982 and held positions in various ExxonMobil affiliates and ventures prior to assuming his present position in 1998. He began his IP career with Caterpillar Corporation in Peoria, Illinois. He also worked for a year as a field engineer overseas immediately after getting his law degree-- this on the theory it would be a lot more fun than practicing law. It wasn't.

Richard is a member of the IPO Board and is active in other IP related associations. In the IPO, Richard serves on the Board of the Education Foundation and is active in the Amicus Committee.

Richard holds a B. S. in nuclear engineering from Texas A&M University (1976). He holds his J.D. from the University of Illinois (1979), where he was not a member of the law review and was not a member of the Order of the Coif.

Richard is a very active Scout leader. He enjoys cycling, woodworking and canoeing. Richard and his wife Carol have three sons between the ages of 18 and 23, all of whom are much smarter than their parents.

Arti Rai

Arti Rai is an authority in patent law, administrative law, law and the biopharmaceutical industry, and health care regulation. Her current research on innovation policy in areas such as green technology, drug development, and software is funded by NIH, the Kauffman Foundation, and Chatham House. She has published widely in both peer-reviewed journals and law reviews, including Nature Biotechnology, PLoS Biology, PLoS Medicine, the Annals of Internal Medicine, and the Columbia, Georgetown, and Northwestern law reviews. She is currently editing a book on intellectual property rights in biotechnology and has also co-authored a casebook on law and the mental health system.

Professor Rai has served as a peer reviewer for Science, Research Policy, the Journal of Legal Studies, various National Academy of Sciences reports on intellectual property, and various NIH study sections. She has also testified before the U.S. Senate on innovation policy issues. She is currently the chair of the Intellectual Property Committee of the Administrative Law Section of the American Bar Association.

Professor Rai joined the Duke Law faculty in 2003. In the winter of 2007, Professor Rai was the Hieken Visiting Professor in Patent Law at Harvard Law School. Prior to joining Duke, she was on the faculty of the University of Pennsylvania Law School, where she was also a visiting professor in Fall 2000.

Professor Rai graduated from Harvard College, *magna cum laude*, with a B.A. in biochemistry and history (history and science), attended Harvard Medical School for the 1987-1988 academic year, and received her J.D., *cum laude*, from Harvard Law School in 1991.

Teresa Stanek Rea

Teresa Stanek Rea is partner in the Washington, D.C. office of Crowell & Moring, LLP and is a member of the Intellectual Property Section.

Ms. Rea is recognized throughout the professional community for the depth and breadth of her knowledge in the area of intellectual property. In a career spanning more than 25 years, she often has been on the leading edge of emerging trends and developments. In recognition, she was named to the Best Lawyers in America© for Biotechnology Law.

Ms. Rea focuses on complex patent litigation and *inter partes* matters, as well as patent procurement and portfolio management, including patent preparation and prosecution. She has experience in drafting infringement and validity opinions and licensing matters. She has handled many patent term extensions under 35 U.S.C. § 156, and, through her foreign filing experience, she has coordinated oppositions in Europe, Australia and Japan.

Ms. Rea represents emerging companies, corporations and universities and focuses her practice on biotechnology, pharmaceutical chemistry, medical devices, immunology, specialty chemicals, including polymers and nanotechnology. She also has experience in export control. Ms. Rea is a

registered pharmacist in the state of Michigan and worked for years as a hospital pharmacist. This experience, along with her experience as a corporate patent attorney and her work with various venture capital organizations, provides a solid foundation for seeking patent protection for her clients.

In addition to the work discussed above, Ms. Rea is a member of many technical and legal associations and is a frequent lecturer and publisher on patent topics including biotechnology, nanotechnology, licensing, technology transfer, patent practice, export control and interferences. She speaks annually on Hatch-Waxman issues for the Food and Drug Law Institute. She is also on the Advisory Board of BNA's Pharmaceutical Law and Industry Report as well as the Life Sciences Law and Industry Report.

She currently is President of American Intellectual Property Law Association having served many positions since 1986. She was on the Executive Council of the American Association of Pharmaceutical Scientist (past chair, Biotechnology Section), the Council for the American Bar Association's Intellectual Property Section (past chair, Biotechnology Committee), the American Society of Pharmacy Law, past chair of the Bar Association of the District of Columbia, President of the National Inventors Hall of Fame Board, board member for the National Inventors Hall of Fame Foundation Board, and the State Bar of Michigan's Intellectual Property Law Section. She has also served on the board of directors of the American Intellectual Property Law Education Fund, which distributes scholarship money to qualified minority law school students with an interest in intellectual property law.

Alexander H. Rogers

Alex Rogers is a Senior Vice President and Legal Counsel for Qualcomm Inc. and the head of its litigation group. He joined Qualcomm in January 2001 and has managed intellectual property and commercial litigation matters for the company since then. Prior to joining Qualcomm, he was an associate and then a partner with the law firm of Gray, Cary, Ware & Friedenrich, now DLA Piper, where he was a litigator and trial lawyer for fourteen years. He received his B.A. from Georgetown University in 1979, including one year of study at the Hebrew University in Israel. He received a master's degree in literature from Georgetown University in 1985 and a law degree from Georgetown in 1987.

Matthew M. Sarboraria

Matthew M. Sarboraria is Senior Patent Counsel at Oracle Corporation, the world's largest enterprise software company. His responsibilities cover all areas of patent practice, including patent litigation, licensing, procurement, and patent-related due diligence in mergers and acquisitions. Prior to joining Oracle, Mr. Sarboraria was in private practice at Weil, Gotshal & Manges LLP, where he focused on patent litigation. He has litigated cases throughout the country involving a wide variety of technologies, including database and application software, semiconductors, computer networking, and telecommunications equipment. Mr. Sarboraria earned his undergraduate degree from U.C. Berkeley and his J.D. from U.C. Berkeley's Boalt Hall School of Law, where he was an editor of the California Law Review.

Herbert F. Schwartz

Herb Schwartz is an Adjunct Professor of Law at both University of Pennsylvania Law School and New York University School of Law. Mr. Schwartz was a partner in Ropes & Gray's Intellectual Property Group until his retirement on December 31, 2007. He joined Ropes & Gray in 2005 when it merged with Fish & Neave, the IP boutique where he was a partner from 1971 to 2004 and Managing Partner from 1985 to 1991.

Mr. Schwartz spent his career litigating intellectual property law matters. He represented various clients in many well-known high profile intellectual property disputes, including Purdue Pharma in *Purdue v. Endo*, AstraZeneca and Aventis in *Housey v. AstraZeneca*, et al., Digital Equipment in *Digital v. Intel*, Motorola in *NBA v. Motorola* and Polaroid Corporation in *Polaroid v. Kodak*. In recent years, Mr. Schwartz represented many clients in significant patent, trademark, copyright, trade secret and licensing litigation. He tried many cases and argued many appeals on behalf of these clients. He also served as a special master and mediator in numerous intellectual property litigations.

He is the author of *Patent Law and Practice*, the first edition of which was originally published in 1988. BNA released the sixth edition, co-authored by Robert J. Goldman, in 2008. He is co-author, with Donald S. Chisum, Craig Allen Nard, Pauline Newman and F. Scott Kieff of a 1998 patent law casebook entitled *Principles of Patent Law*. The second edition was published by Foundation Press in 2001 and the third edition in 2004. The fourth edition, co-authored by F. Scott Kieff, Pauline Newman and Henry Smith, was published by Foundation Press in 2008. He has testified at different times before Congress at its invitation on issues relating to innovation and patent law reform, served as a Special Master in patent litigation, and has written and spoken widely on intellectual property issues.

Mr. Schwartz earned a B.S.E.E. from Massachusetts Institute of Technology, an M.A. in applied economics from The Wharton School, University of Pennsylvania, and an LL.B., *cum laude*, from the University of Pennsylvania Law School. At the University of Pennsylvania Law School he was elected to the Order of the Coif and served as Editor of the *Law Review*.

Maggie Shafmaster

Maggie Shafmaster is Senior Vice President and Chief Patent Counsel at Genzyme Corporation, where she is responsible for managing the creation, protection, licensing and enforcement of Genzyme's intellectual property worldwide. Genzyme is a global healthcare company that develops and commercializes a variety of biotechnology and pharmaceutical products including small molecule drugs, recombinant proteins, gene and cell therapeutics, biomaterials, diagnostics and genetic testing services. She joined Genzyme in 1997.

Prior to joining Genzyme, Dr. Shafmaster spent eight years at the IP boutique firm of Fish & Neave in New York where her practice focused on patent interference and opposition proceedings, U.S. and foreign patent litigation and client counseling.

Dr. Shafmaster holds a Ph.D. in Molecular Biology and Virology from Cornell University and a J.D. *summa cum laude* from New York Law School.

Steven D. Singer

Steven D. Singer is the Chair of the Technology Transactions and Licensing Practice Group and Co-Chair of the Life Sciences Group at WilmerHale. He joined the firm in 1979.

Mr. Singer has focused his practice in the life sciences industry for nearly three decades. He has served as counsel for public and private companies in the life sciences sector, including biotechnology, medical device and pharmaceutical companies. His practice focuses on joint ventures and strategic alliances, corporate and securities laws, public offerings and venture capital transactions.

Mr. Singer graduated *summa cum laude* with a B.A from Tufts University in 1976. He received his J.D., *magna cum laude*, from Harvard Law School in 1979, where he served as a member of the Harvard Law Review. Mr. Singer is a member of the American Bar Association, the Biotechnology Industry Organization and the Massachusetts Biotechnology Council.

Mr. Singer is frequently honored for his contributions to the legal community; among his many awards, he was named one of the world's leading life sciences lawyers in *Who's Who Legal: The International Who's Who of Life Sciences Lawyers 2008* and recognized as a leader in the life sciences field in the 2008 and 2009 editions of *Chambers Global: The World's Leading Lawyers*. He has been selected by his peers for inclusion in the 2006, 2007, 2008 and 2009 editions of *The Best Lawyers in America*, recognized for his work in biotechnology law (2006, 2008 and 2009), corporate law (2006, 2007, 2008 and 2009) and M&A law (2008 and 2009).

Russ Slifer

Russ Slifer is the Chief Patent Counsel for Micron Technology based in Boise, Idaho. His responsibilities include managing the company's patent portfolio and advising company management regarding various Intellectual Property and patent related issues. Prior to joining Micron Technology, Mr. Slifer was in private practice in Minnesota specializing in intellectual property matters. Mr. Slifer is currently a member of the Board of Directors for the Intellectual Property Owners Association and a member of the Executive Committee of the Association of Corporate Patent Counsel. He has a B.S.E.E. from Iowa State University and a J.D. from Northern Illinois University.

Jon Soderstrom

Jon Soderstrom is currently the Managing Director of the Office of Cooperative Research at Yale University. The Office is responsible for developing and executing commercialization strategies for inventions resulting from Yale's scientific research including patent license agreements and the formation of new business ventures.

Since joining the Office in 1996, he has participated in the formation of more than 25 new ventures including polyGenomics, Molecular Staging (acquired by Qiagen), Agilix, Asilas Genomic Systems, Achillion Pharmaceuticals (NASQ: ACHN), PhytoCeutica, Protometrix (acquired by Invitrogen), Iconic Therapeutics, Applied Spine Technologies, HistoRx, VaxInnate, Affomix and Kolltan Pharmaceuticals. Collectively, these companies have raised over \$400 million in professional venture capital.

Dr. Soderstrom was a founding board member and past president of the Association of Federal Technology Transfer Executives as well as a member of the Licensing Executive Society and Association of University Technology Managers where he was the 2008 President, has served as Vice President for Public Policy and a member of the Board of Directors and Executive Committee. He is frequently asked to lecture and teach seminars on various aspects of the technology transfer process and economic development both within the United States and abroad. He has testified before Congress on technology transfer issues and served as an expert witness in patent infringement litigation.

Jennifer Stec

Jennifer Stec is Intellectual Property Counsel for Ford Global Technologies, a wholly owned subsidiary of Ford Motor Company responsible for all intellectual property matters across Ford's worldwide enterprise. Ms. Stec manages Ford's patent litigation, as well as patent and licensing matters related to Ford's telematics and infotronics technologies. Prior to joining Ford in 2000, Ms. Stec was Counsel at another automotive OEM and also practiced intellectual property law at a Detroit area intellectual property firm. Ms. Stec is a graduate of General Motors Institute (B.S.E.E.) and received her law degree from the University of Detroit.

Scott Stern

Scott Stern is an Associate Professor of Management and Strategy at the Kellogg School of Management at Northwestern University. Professor Stern is also the co-organizer of the NBER Innovation Policy and the Economy Working Group and a Senior Fellow of the Searle Center on Law, Regulation and Economic Growth. He is an Associate Editor of *Management Science*, the *Journal of Industrial Economics*, the *International Journal of Industrial Organization*, serves on the Board of Management of the International Schumpeter Society, and has served on the editorial boards of the *Antitrust Law Journal* and the *Journal of Business and Economics Statistics*. In 2005, Professor Stern was awarded the first Ewing Marion Kauffman Prize Medal for Distinguished Research in Entrepreneurship.

Professor Stern explores how innovation - the production and distribution of "ideas" - differs from more traditional economic goods, and the implications of these differences for business and public policy. Often focusing on life sciences industries, this research is at the intersection between industrial organization and the economics of technical change. Recent studies examine the determinants of R&D productivity, the role of incentives and organizational design on the process of innovation, and the drivers of commercialization strategy for technology entrepreneurs.

Professor Stern graduated with a B.A. degree in economics from New York University, and received his Ph.D. in economics from Stanford University in 1996. From 1995-2001, Professor Stern was Assistant Professor of Management at the Sloan School at M.I.T., and, from 2001-2003, Professor Stern was a Non-Resident Senior Fellow of the Brookings Institution.

John Thorne

John Thorne is Senior Vice President and Deputy General Counsel at Verizon Communications Inc., where he works on antitrust, intellectual property, privacy, merger review, and strategic initiatives. He is also an adjunct faculty member at Columbia Law School and Georgetown University Law Center.

Mr. Thorne won three groundbreaking antitrust cases in the Supreme Court: *Bell Atlantic Corp. v. Twombly*; *Verizon v. Trinko*; and *NYNEX v. Discon*. Mr. Thorne testified before the Antitrust Modernization Commission in 2005 and before a joint hearing of the Department of Justice Antitrust Division and Federal Trade Commission in 2007.

Mr. Thorne's intellectual property group was named one of the five best intellectual property practices in the world by the Global Counsel Awards 2008. American Lawyer Magazine ranked the decision in *Verizon v. Vonage* number 25 on the top 100 jury verdicts of 2007.

Mr. Thorne was counsel of record in a seminal case to protect Internet subscriber privacy against subpoenas, *Recording Industry Association of America v. Verizon Internet Services*. Mr. Thorne's early victories in antitrust and first amendment cases paved the way for Verizon to offer FiOS television.

Mr. Thorne is coauthor of the principal academic treatises on telecommunications law, *Federal Telecommunications Law*, *Federal Broadband Law*, and *Federal Telecommunications Law*. His remarks to the New York Bar Association on the 20th anniversary of the AT&T breakup were reprinted in *Vital Speeches of the Day*, May 15, 2004. His keynote address to the Madrid meeting of the International Bar Association, "Five Freedoms," was reprinted in *Vital Speeches of the Day*, June 1, 2005.

Mr. Thorne was a *summa cum laude* mathematics major at Kenyon College, was Order of the Coif and law review articles editor at Northwestern University Law School, and clerked for Chief Judge Walter Cummings of the U.S. Court of Appeals for the Seventh Circuit.

Mr. Thorne is chair of the governing board of the Bishop John T. Walker School for Boys, a tuition-free private school for boys from low-income families in the Anacostia neighborhood of Washington, DC.

Thomas G. Woolston

Thomas G. Woolston is an inventor and entrepreneur. He is the named inventor or co-inventor on nine United States patents. He is the founder and currently Chief Executive Officer for MercExchange, L.L.C.. He is on the technical advisory board of the George Washington University School of Electrical Engineering and Applied Sciences. He has organized companies, hired engineering talent, developed software systems, raised venture capital and company financing, licensed and enforced intellectual property rights. His companies have been both plaintiff and defendant in intellectual property disputes. He has been a principal and negotiated intellectual property agreements, joint venture agreements, technology transfer agreements, private placement agreements, company break up and stand still agreements. MercExchange has been a party to United States Supreme Court proceedings and decisions and United States Patent and Trademark Office examination and *ex parte* reexamination proceedings. He was formerly with the United States Central Intelligence Agency and the United States Air Force.

Mr. Woolston received his B.S. in electrical engineering and computer engineering, *cum laude*, from the George Washington University School of Engineering and Applied Sciences, and his J.D. from George Washington University. He has published *Copyright Protection for Artificial Neural Networks* in the Bulletin for Law, Science and Technology.