# DR. ANDREW W. TORRANCE

# PAUL E. WILSON DISTINGUISHED PROFESSOR OF LAW

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# **EDUCATION**

2000	J.D., Harvard Law School, Cambridge, MA
1997	Ph.D. Biology, Harvard University, Cambridge, MA Dissertation: "Evolution, Phylogeny, Biogeography, and Diversification of the Australasian Hydromyinae (Rodentia: Muridae)"
1994	A.M. Biology, Harvard University, Cambridge, MA
1991	B.Sc. (Honours) Biology, Queen's University, Kingston, Ontario
TEACHING	
2021	A Brave New Trial – Big Data, AI, Networks, Statistics, and Other Legal Analytics, Annual Conference of Judges Conference, Minnesota Judicial Branch (December 2, 2021)
2019-Present	Legal Analytics for Judges, LEC Judicial Education Program (Twice during the Fall 2019)
2018-Present	Legal Analytics, University of Kansas School of Law (numerical evaluations discontinued)
2014-Present	Biolaw, University of Kansas School of Law (latest evaluation 4.9/5.0)
2011	Intellectual Property, University of Washington School of Law (Co-Taught) (evaluation 4.8/5.0)
2011	Advanced IP, University of Washington School of Law (co-taught) (evaluation 5.0/5.0)
2011	Intro to U.S. Law, University of Washington School of Law (co-taught) (evaluation 4.9/5.0)
2009-Present	Food and Drug Law, University of Kansas School of Law (latest evaluation 4.9/5.0)
2007-Present	Biodiversity Law, University of Kansas School of Law (latest evaluation 5.0/5.0)
2006-Present	Patent Law, University of Kansas School of Law (latest evaluation 4.8/5.0)
2005-Present	Intellectual Property Law, University of Kansas School of Law (latest evaluation 4.8/5.0)
1999-2005	Biodiversity: Science, Policy and Law, Harvard University (no numerical evaluations, but class renewed every year based on positive student reviews)
2003	Conservation Biology, Harvard University (overall CUE teaching evaluation rating of 5.0/5.0: one of only two perfect CUE evaluation scores at Harvard University in the spring term of 2003)
1994-1996	Biological Diversity (Biology 20), Head Teaching Fellow, Harvard University (CUE teaching awards for all classes taught)
1992	Ethology (Biology 22), Teaching Fellow, Harvard University (CUE teaching award)
1991,1993,1996	Organismic and Evolutionary Biology (Biosciences 2), Teaching Fellow, Harvard University (CUE teaching awards for all classes taught)

# **EMPLOYMENT**

2019-Present	Paul E. Wilson Distinguished Professor of Law, University of Kansas School of Law
2021-Present	Associate Dean of Graduate and International Law, University of Kansas School of Law
2019-2021	Head of Intellectual Property (Senior Director), The Broad Institute of Harvard and MIT
2015-2019	Earl B. Shurtz Research Professor, University of Kansas School of Law
2013-Present	Visiting Scholar, Massachusetts Institute of Technology Sloan School of Management
2013-Present	Cofounder, PatentVector LLC
2011-2012	Visiting Professor, University of Washington School of Law
2011-Present	Tenured Full Professor, University of Kansas School of Law
2005-2011	Associate Professor, University of Kansas School of Law
2006-2017	Intellectual Property Counsel, Uhlig LLC
2005-2006	Consulting Patent Counsel, Inverness Medical Innovations, Inc.
2004-05	Patent Counsel, Inverness Medical Innovations, Inc.
1999-2005	Lecturer ("Tutor"), Department of Organismic and Evolutionary Biology, Harvard University
2003	Hrdy Visiting Professor in Conservation Biology, Harvard University
2003	Lecturer on Environmental Science and Public Policy, Harvard University
2000-04	Associate, Fish and Richardson PC., Boston, MA
1999	Summer Associate, Fish and Richardson P.C., Boston, MA.
1998, 1999	Summer Associate, Morrison and Foerster LLP, Washington DC.
1993-2000	Resident Tutor in Biology and Law, Eliot House, Harvard University
1993	Non-Resident Tutor in Biology, Leverett House, Harvard University

# SCHOLARLY METRICS

# **SSRN Downloads**

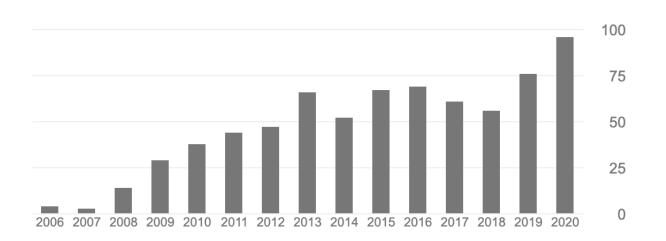
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- Ranked 4,307 overall on SSRN
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- Ranked 2<sup>nd</sup> for downloads at KU School of Law

### **Citations**

• Citations 891

h-index 16i10-index 27

# Citations per year



### **PUBLICATIONS**

- 81. Van de Wiele, V.L., Torrance, A.W., Kesselheim, A.S., 2022, "Characteristics Of Key Patents Covering Recent FDA-Approved Drugs: Study examines the characteristics of certain patents covering recent FDA-approved drugs", Health Affairs 41(8): 1117-1124.
- 80. Torrance, A.W., 2022, "Broad Institute Wins a Key Inventorship Battle in the Ongoing CRISPR Patent War", *GEN Biotechnology*, Volume 1, Number 2, 146-149 (published on April 20, 2022)(invited).
- 79. Torrance, A.W., 2022, "Myriad Laws in Defense of the Genome", *GEN Biotechnology*, Volume 1, Number 1, 35-36 (published on February 16, 2022)(invited).
- 78. Noonan, K., and Torrance, A.W., 2021, "Biotechnology Patent Law Top Ten of 2021: Experimentation, Blaze Marks, and Unspecified Ranges", *High Technology Law Review* (accepted; in editing).
- 77. Tomlinson, B., Nardi, B., Stokols, D., Raturi, A., and Torrance, A.W., 2022, "Returning ecological wealth to honhuman species through design: the case for ecosystems", *Ecology & Society* 27(2): 34 (peer reviewed).
- 76. Jacob S. Sherkow, Katharine B. Barker, Irus Braverman, Robert Cook-Deegan, Richard Durbin, Carla L. Easter, Melissa M. Goldstein, Maui Hudson, W. John Kress, Harris A. Lewin, Debra J. H. Mathews, Catherine McCarthy, Ann M. McCartney, Manuela da Silva, Andrew W. Torrance, and Henry T. Greely, 2022, "Ethical, legal, and social issues in the Earth BioGenome Project", *Proceedings of the National Academy of Sciences of the United States of America (PNAS)* January 25, 2022 119(4) e2115859119, <a href="https://doi.org/10.1073/pnas.2115859119">https://doi.org/10.1073/pnas.2115859119</a> (peer reviewed).
- 75. Potts, Jason, von Hippel, Eric, Torrance, Andrew, and Harhoff, Dietmar, 2021, "Innovation Commons" (in peer review at *Organization Science*).
- 74. Noonan, K., and Torrance, A.W., 2021, "Biotechnology Patent Law Top Ten of 2020: Secret Sales, Denied Appeals, and the Promise of Coronavirus Cures", *Texas A&M Journal of Property Law* (accepted).

- 73. Torrance, A.W., and West, J.D., 2021, "Patent Analytics: Information from Innovation", pages 257-287 *In* Katz, Daniel M., Dolin, Ron, and Bommarito, Michael J. (Eds.), LEGAL INFORMATICS, Cambridge University Press (invited).
- 72. Torrance, A.W., 2021, "Nothing Under the Sun That Is Made of Man", *Michigan State Law Review*, Volume 2020, 1425-1479.
- 71. Noonan, K., and Torrance, A.W., 2021, "Biotechnology Patent Law Top Ten of 2019: Secret Sales, Denied Appeals, and the Promise of Coronavirus Cures", *University of New Hampshire School of Law*, Volume 19, Number 2, 273-333.
- 70. B. Tomlinson, A. W. Torrance, 2020, "Fault Lines: An Empirical Legal Study of California Secession." *Seattle Journal of Technology, Environmental & Innovation Law*, Volume 11, Issue 1, 1-32.
- 69. B. Tomlinson, A. W. Torrance, R. W. Black, M. S. Silberman, Y. Xie, and P. S. Atwal, 2020, "Judging Corporate Directors by the Companies They Keep: Results from an Interactive Simulation about the Motivations of Corporate Directors", *University of Pennsylvania Journal of Law & Public Affairs*, Volume 6, Issue 1,75-113.
- 68. B. Tomlinson, M. S. Silberman, A. W. Torrance, Y. Xie, R. W. Black, K. Squire, P. S. Atwal, A. Mandalik, and S. Railkar, 2020, "Accountability with a Capital 'Ism': A Computational Simulation of the Accountable Capitalism Act vs. Delaware Corporate Law", *Ohio State Technology Law Journal*, Volume 17, Number 1, 75-121.
- 67. B. Tomlinson, M. S. Silberman, A. W. Torrance, N. Nikols, R. W. Black, K. Squire, P. S. Atwal, A. N. Mandalik, S. Railkar, and M. K. Workman. 2020. "Environment-selected directors": An interactive simulation experiment of environmental representation on corporate boards", *Ecological Economics*, Vol. 178, Article 106795, 1-9 (peer reviewed).
- 66. B. Tomlinson, M. S. Silberman, A. Torrance, K. Squire, P. S. Atwal, A. Mandalik, S. Railkar, R. W. Black, 2020, "A Participatory Simulation of the Accountable Capitalism Act", *Proceedings of the SIGCHI conference on human factors in computing systems (CHI '20)*, ACM.
- 65. Hopper, L.M, and Torrance, A.W., 2019, "User innovation: a novel framework for studying animal innovation within a comparative context", *Animal Cognition*, Volume 22, Issue 6, Vol. 22, (Nov 2019): 1185-1190 <a href="https://doi.org/10.1007/s10071-019-01303-z">https://doi.org/10.1007/s10071-019-01303-z</a> (peer reviewed).
- 64. Torrance, A.W., 2021, "Hamilton's Law" *In* Segerstråle, Ullica (Ed.) HAMILTON STILL RULES, Oxford University Press (Accepted).
- 63. Torrance, A.W., 2022, LEGAL ANALYTICS (Under contract with Wolters Kluwer Aspen Press).
- 62. Torrance, A.W., 2022, INNOVATION HYPERCYCLES: THE LIFE AND DEATH OF TECHNOLOGY HOTSPOTS (327 page draft) (in preparation).
- 61. Torrance, A.W., and Cheney, M., 2018, INNOVATION ECOSYSTEMS, Gruter Institute Innovation Series (Submission invited by Kauffman Foundation; rated "Strong" after review by Kauffman Foundation).
- 60. Torrance, A.W., 2017, "Building a Biological Commons", Centre for International Governance Innovation, Kitchener-Waterloo, Ontario, Canada (invited article)(forthcoming).
- 59. Torrance, A.W., 2017, "NightScout: A Case Study in Free Innovation", Centre for International Governance Innovation, Kitchener-Waterloo, Ontario, Canada (invited article)(forthcoming).

- 58. Torrance, A.W., 2018, "Life is What You Make It: Assembling an Ecosystem for Synthetic Biology", INNOVATION, Gruter Institute (invited)(in preparation).
- 57. von Hippel, E., DeMonaco, H., Torrance, A.W., and Oliveira, P., 2019, "When Patients Become Innovators" *MIT Sloan Management Review*, Spring 2019, 81-88.
- 56. Torrance, A.W., and West, J.D., 2022, "Global Ebbs and Flows in Knowledge: Technical Information Exchange within the Worldwide Patent System" *In* Taubman, A. and Watal, J. (Eds.) TRADE IN KNOWLEDGE INTELLECTUAL PROPERTY, TRADE AND DEVELOPMENT IN A TRANSFORMED GLOBAL ECONOMY, Cambridge University Press, February 28, 2022, Online ISBN: 9781108780919.
- 55. Noonan, K., and Torrance, A.W., 2019, "Top Biotechnology Patent Cases 2018", *Akron Law Review* Vol. 52, Issue 3, Article 2 pages 637-696 (invited).
- 54. Torrance, Andrew W., and West, Jevin D., 2018, CANADIAN INNOVATION IN THE CONTEXT OF THE WORLDWIDE PATENT NETWORK (Research report commissioned by the Canadian Intellectual Property Office).
- 53. Torrance, A.W., 2018, "Patent Laws Will Weather the NAFTA Storm", Centre for International Governance Innovation, Kitchener-Waterloo, Ontario, Canada, ), March 1, 2018, <a href="https://www.cigionline.org/articles/patent-laws-will-weather-nafta-storm/">https://www.cigionline.org/articles/patent-laws-will-weather-nafta-storm/</a> (invited).
- 52. Torrance, Andrew W., 2017, "CRISPR Becomes Clearer," *The Hastings Center Report*, Vol. 47, No. 5, pages 5-6.
- 51. Torrance, A.W., and West, J.D., 2017, "All Patents Great and Small A Big Data Network Approach to Valuation", *Virginia Journal of Law and Technology*, Vol. 20, No. 3, pages 466-504.

Listed on SSRN's monthly Top Ten download list for: ERN: Intellectual Property: Patent Law eJournal for all papers first announced in the last 60 days (22 Feb 2017 through 23 Apr 2017)(April 23, 2017)

Listed on SSRN's monthly Top Ten download list for: ERN: Intellectual Property (Topic) for all papers first announced in the last 60 days (22 Feb 2017 through 23 Apr 2017)(April 23, 2017)

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Listed on SSRN's Top Ten download list for: Corporate Finance: Valuation, Capital Budgeting & Investment Policy eJournal (17 February 2017 through 18 April 2017)(April 18, 2017)

Listed on SSRN's monthly Top Ten download list for: ERN: Intellectual Property (Topic) for all papers first announced in the last 60 days (14 Feb 2017 through 15 Apr 2017) (April 15, 2017)

Listed on SSRN's monthly Top Ten download list for: Intellectual Property: Empirical Studies eJournal (April 6, 2017)

50. Bassem Awad, Marsha Cadogan, Michael Geist, Ysolde Gendreau, E. Richard Gold, Ariel Katz, Konstantia Koutouki, Howard P. Knopf, Oluwatobiloba (Tobi) Moody, Jean-Frédéric Morin, Teresa Scassa, and Andrew Torrance, 2017, "NAFTA 2.0 and Intellectual Property Rights: Insights on Developing Canada's Knowledge Economy - Special Report", Centre for International Governance Innovation, Kitchener-Waterloo, Ontario, Canada, September 26, 2017, <a href="https://www.cigionline.org/publications/nafta-20-and-intellectual-property-rights-insights-developing-canadas-knowledge/">https://www.cigionline.org/publications/nafta-20-and-intellectual-property-rights-insights-developing-canadas-knowledge/</a> (invited).

- 49. Torrance, A.W., 2017, "From Broken Promise to New Promise? How a Supreme Court ruling defused one of the most explosive topics in the renegotiation of NAFTA", Centre for International Governance Innovation, Kitchener-Waterloo, Ontario, Canada, August 15, 2017, <a href="https://www.cigionline.org/articles/broken-promise-doctrine-new-promise">https://www.cigionline.org/articles/broken-promise-doctrine-new-promise</a> (invited).
- Torrance, A.W., and von Hippel, E.A., 2017, "A Meeting of Innovation Minds", Northwestern Law Review, Vol. 112, pp. 177-186 (Invited).
   Listed on SSRN's Top Ten download list for: Legal Writing eJournal as of March 8, 2018 (March 8, 2018)
- 47. Torrance, Andrew W., 2017, "Set Innovation Free", Centre for International Governance Innovation, Kitchener-Waterloo, Ontario, Canada, ), January 5, 2017, <a href="https://www.cigionline.org/articles/set-innovation-free">https://www.cigionline.org/articles/set-innovation-free</a> (invited).
- 46. Torrance, Andrew W., 2017, "Better to Give than to Receive An Uncommon Commons in Synthetic Biology", pgs. 192-221 *In* Strandburg, Katherine J., Madison, Michael J., and Frischmann, Brett M. (Eds.), GOVERNING MEDICAL KNOWLEDGE COMMONS (CAMBRIDGE STUDIES ON GOVERNING KNOWLEDGE COMMONS) Cambridge University Press, 2017 (invited).
- 45. Torrance, Andrew W., and West, Jevin D., 2016, CANADIAN INVENTORS OF U.S. PATENTS AN EMPIRICAL STUDY FOR THE CANADIAN MINISTRY OF INNOVATION, SCIENCE AND ECONOMIC DEVELOPMENT (Research report commissioned by the Canadian Ministry of Innovation, Science and Economic Development).
- 44. Holman, Christopher, Torrance, Andrew W., and Gustafsson, Claes, 2016, "Are Engineered Genetic Sequences Copyrightable?: The U.S. Copyright Office Addresses a Matter of First Impression", *Biotechnology Law Report*, Volume 35, Issue 3, 103-111.
- 43. Torrance, Andrew W., and von Hippel, Eric, 2016, "Protecting the Right to Innovate Our Innovation Wetlands", pages 45-74, *In* Sampsa Hyysalo, Torben Elgaard Jensen, and Nelly Oudshoorn (Eds.) THE NEW PRODUCTION OF USERS: CHANGING INNOVATION COLLECTIVES AND INVOLVEMENT STRATEGIES, Routledge Press (invited)

  (Updated version of Torrance, Andrew W., and von Hippel, Eric, 2015, "The Right to Innovate", *Michigan State Law Review*, Vol. 2015, Issue 2, 793-829)(THE NEW PRODUCTION OF USERS: CHANGING INNOVATION COLLECTIVES AND INVOLVEMENT STRATEGIES won the 2016 Freeman Prize,
  - State Law Review, Vol. 2015, Issue 2, 793-829)(THE NEW PRODUCTION OF USERS: CHANGING INNOVATION COLLECTIVES AND INVOLVEMENT STRATEGIES won the 2016 Freeman Prize, which is awarded "for a publication which is a significant collective contribution to the interaction of science and technology studies with the study of innovation" by the European Association for the Study of Science and Technology ("EASST")).
- 42. Torrance, Andrew W., 2016, "The Devil's Dictionary," pg. 431, *In* Switzer, Stacy (Ed.), TWENTY YEARS OF GRAND ARTS, Grand Arts Press (invited).
- 41. Contreras, Jorge L., Rai, Arti K., and Torrance, Andrew W., 2015), Intellectual Property Issues and Synthetic Biology Standards, *Nature Biotechnology* 33(1), 24-25.
- 40. Torrance, Andrew W., and von Hippel, Eric, 2015, "The Right to Innovate", *Michigan State Law Review*, Vol. 2015, Issue 2, 793-829.
- 39. Torrance, Andrew W., 2015, "Will Innovation Thrive Without Patents? A Natural Experiment in Biotechnology," pgs. 259-281 *In* Harhoff, Dietmar, and Lakhani, Karim (Eds.), REVOLUTIONIZING INNOVATION: USERS, COMMUNITIES, AND OPEN INNOVATION, MIT Press (invited).
- 38. Holman, Christopher, and Torrance, Andrew W., 2014, "On the Question: Is Copyright the Way to Gain Intellectual Property Protection for DNA Sequences?", 33 Biotechnology Law Report 139., No. 4, pages 139-140.

- 37. Vacca, Ryan, Chen, James Ming, Dratler, Jay, Folsom, Thomas, Hall, Timothy S., Heled, Yaniv, Pasquale, Frank A., Reilly, Elizabeth A., Samuels, Jeffrey, Strandburg, Katherine J., Torrance, Andrew W., Van Tassel, Katherine, A., 2014, Intellectual Property and Public Health A White Paper, *Akron Intellectual Property Journal*, Vol. 7.
- 36. Torrance, Andrew W., and Kahl, Linda J., 2014, "Bringing Standards to Life: Synthetic Biology Standards and Intellectual Property," *Santa Clara Computer and High Technology Law Journal*, Vol. 30, No. 2.
- 35. Torrance, Andrew W., and Seymour, William J., 2014, "(R)evolution in Design Patentable Subject Matter: The Shifting Meaning of 'Article of Manufacture'," *Stanford Technology Law Review*, Vol. 17, No. 1.
- 34. Tomlinson, Bill, Ross, Joel, Paul, Andre, Baumer, Eric P.S., Patterson, Donald J., Corneli, Joseph, Mahaux, Martin, Nobarany, Sayavash, Sambasivan, Nithya, Lazzari, Marco, Penzenstandler, Birgit, Torrance, Andrew W., Callele, David J., Olson, Gary M., Silberman, M. Six, Ständer, Marcus, Palamedi, Fabio Romancini, Salah, Albert Ali, Morrill, Eric, Franch, Xavier, Mueller, Florian 'Floyd', Kaye, Joseph 'Jofish', Black, Rebecca W., Cohn, Marisa L., Shih, Patrick C., Brewer, Johanna, Goyal, Nitesh Yashbir, Näkki, Pirjo, Huang, Jeff, Baghaei, Nilufar, Saper, Craig, 2013, "Massively Distributed Authorship of Academic Papers", *ACM Conference on Human Factors in Computing Systems (CHI 2012) Extended Abstracts (alt.chi)*.
- 33. Torrance, Andrew W., 2013, "The Unpatentable Human Being," *The Hastings Center Report*, Vol. 43, No. 5, pages 10-11.
- 32. Torrance, Andrew W., 2013, "Nothing Under the Sun that is Made of Man," SCOTUSblog (<a href="http://www.scotusblog.com/2013/02/nothing-under-the-sun-that-is-made-of-man/">http://www.scotusblog.com/2013/02/nothing-under-the-sun-that-is-made-of-man/</a>) (invited.)
- 31. Torrance, Andrew W., 2012, "Moving Away from Beauty as a Factor in Design Patent Validity," Patently-O (<a href="http://www.patentlyo.com/patent/2012/11/moving-away-from-beauty-as-a-factor-in-design-patent-validity.html">http://www.patentlyo.com/patent/2012/11/moving-away-from-beauty-as-a-factor-in-design-patent-validity.html</a>) (Invited adaptation of "Beauty Fades: An Experimental Study of Federal Court Design Patent Aesthetics").
- 30. Torrance, Andrew W., 2012, "Ideas for Growth An Essay in Honor of Gordon J. Getty," *The Gruter Institute* (invited).
- 29. Torrance, Andrew W., and Kahl, Linda J., 2012, "Synthetic Biology Standards and Intellectual Property," *The National Academies* (invited commissioned report).
- 28. Torrance, Andrew W., 2012, "Beauty Fades: An Experimental Study of Federal Court Design Patent Aesthetics," *Journal of Intellectual Property Law*, Vol. 19, No. 2, pages 389-408 (invited).
- 27. Bill Tomlinson, Joel Ross, Paul Andre, Eric Baumer, Donald Patterson, Joseph Corneli, Martin Mahaux, Syavash Nobarany, Marco Lazzari, Birgit Penzenstadler, Andrew W. Torrance, David Callele, Gary Olson, Six Silberman, Marcus Stünder, Fabio Romancini Palamedi, Albert Ali Salah, Eric Morrill, Xavier Franch, Florian Floyd Mueller, Joseph 'Jofish' Kaye, Rebecca W. Black, Marisa L. Cohn, Patrick C. Shih, Johanna Brewer, Nitesh Goyal, Pirjo Näkki, Jeff Huang, Nilufar Baghaei, and Craig Saper, 2012, "Massively Distributed Authorship of Academic Papers," Proceedings of the 2012 ACM Annual Conference on Human Factors in Computing Systems Extended Abstracts, pages 11-20 (competitively selected).
- 26. Torrance, Andrew W., 2012, "Planted Obsolescence: Synagriculture and the Law," *Idaho Law Review*, Vol. 48, pages 321-350 (invited).
- 25. Torrance, Andrew W., 2012, "DNA Copyright," Valparaiso Law Review, Volume 46, pages 1-41 (invited).
- 24. Torrance, Andrew W., and Tomlinson, Bill, 2012, "Property Rules, Liability Rules, and Innovation One Experimental View of the Cathedral," *Yale Journal of Law and Technology*, Volume 14, pages 138-161.

- 23. Torrance, Wendy E.F., and Torrance, A.W., 2011, "Spinning the Green Web: Transnational Environmentalism," pages 221-235 *in* GLOBAL ACTIVISM READER, Luc Reydams (Editor), The Continuum International Publishing Group (Updated version of Torrance, Wendy E.F., and Torrance, A.W., 2006, "Transnational Environmentalism: Spinning the Green Web," *in* TRANSNATIONAL CIVIL SOCIETY: AN INTRODUCTION, Srilatha Batliwala and David Brown (Editors), Kumarian Press).
- 22. Torrance, Andrew W., 2011, "Family Law and the Genomic Revolution," *UMKC Law Review*, Winter 2011, Volume 79, Number 2, pages 271-282 (invited).
- 21. Torrance, Andrew W., 2010, Book Review: "Human Rights and the WTO: The Case of Patents and Access to Medicines," by Holger Hestermeyer, *The IP Book Law Review*, Vol. 1, No. 1 (June 2010), pp. 46-49 (invited).
- 20. Torrance, Andrew W., 2010, "Synthesizing Law for Synthetic Biology," *Minnesota Journal of Law, Science, & Technology*, Vol. 11(2), pp. 629-665 (Special "Rising Stars Symposium" Issue) (invited).
- 19. Torrance, Andrew W., 2010, "Patent Law, HIPPO, and the Biodiversity Crisis," *The John Marshall Review of Intellectual Property Law*, Vol. 9, pp. 624-656 (Special "Green Patents" Issue) (invited).
- 18. Torrance, Andrew W., 2009, "Neurobiology and Patenting Thought," *IDEA: The Intellectual Property Law Review*, Vol. 50, Vol. 50, pp. 27-48 (50th Anniversary Issue) (invited).
- 17. Torrance, Andrew W., 2009, "Patent Rights and Civil Wrongs: The ACLU Lawsuit," *Bio-IT World*, Vol. 8, pp. 11-13 (July 2009) (invited).
- 16. Torrance, Andrew W., 2009. "Gene Concepts, Gene Patents, and Gene Talk," *Minnesota Journal of Law, Science, & Technology*, Vol. 11(1), pp. 157-191.
- 15. Torrance, Andrew W., 2009, "Physiological Steps Doctrine," *Berkeley Technology Law Journal*, Fall 2008, Vol. 23, Issue 4, pp. 1471-1505.
- 14. Torrance, A.W., and Tomlinson, W.M., 2009, "Patents and the Regress of Useful Arts," *Columbia Science and Technology Law Review*, Vol. 10, pp. 130-168. (Reviewed in *BusinessWeek* (online), *Forbes* (online), *BNA Patent*, *Copyright & Trademark Journal*)
- 13. Torrance, Andrew W., 2009, "Open and Proprietary Biological Innovation in Human Genetic Enhancement," *Washington University Journal of Law and Policy*. Vol. 30, pp. 93-138. (invited)
  - Listed on SSRN's ALL TIME TOP PAPERS Top Ten download list for: Biology eJournals (for all papers in this SSRN eLibrary subject area 2 Jan 1997 through 15 Apr 2017) (April 8, 2017)
- 12. Torrance, Andrew W., 2008, "Patent Expertise and the Regress of Useful Arts", *Southern Illinois University Law Journal*. Vol. 33, pp. 239-277. (invited)
- 11. Torrance, Andrew W., 2008, "Patenting Human Evolution," *Kansas Law Review*, Vol. 56, pp. 1075-1102 (invited).
- 10. Torrance, Andrew W. "An Extinction Bar to Patentability". 2008. *Georgetown International Environmental Law Review*, Winter 2008, Volume XX, Issue 2, pages 237-270.
- 9. Torrance, Andrew W., and McLean, Thomas. "Are the Brookhill-Wilk Patents Impediments to Market Growth in Cybersurgery?". 2008. *International Journal of Medical Robotics and Computer Assisted Surgery*, March 2008, Volume 4, Issue 1, pages 3-9 (peer reviewed).
- 8. Torrance, Andrew W.. "Metaphysics and Patenting Life". 2008. *UMKC Law Review*, Winter 2007, Volume 76, Number 2, pages 363-403 (invited).

- 7. Torrance, Andrew W.. 2007. "Intellectual Property as the Third Dimension of GMO Regulation", *The Kansas Journal of Law and Public Policy*, Spring 2007, Volume XVI, Number 3, pages 257-285 (invited).
- 6. Torrance, Andrew W. 2007. "Patents to the Rescue Disasters and Patent Law". *DePaul Journal of Health Care Law*, Volume 10, Number 3, Spring 2007, pages 309-358 (invited).
- 5. Torrance, Wendy E.F., and Torrance, A.W.. 2006. "Transnational Environmentalism: Spinning the Green Web", pages 101-123, in TRANSNATIONAL CIVIL SOCIETY: AN INTRODUCTION, Srilatha Batliwala and David Brown, Eds. Kumarian Press (invited).
- 4. Torrance, Andrew W. 2002. "After the Generush". *Bio-IT World* Vol. 1, No. 9, pp. 80-81 (November). (commissioned article to introduce special section on biotechnology patent law).
- 3. Torrance, Andrew W. 2001. "The E-Sign Act of 2000". *Technology Law Alert*. Vol. 27, No. 8, pp. 8-10 (April).
- 2. Torrance, Andrew W.. 2000. "Bioprospecting and the Convention on Biological Diversity". *Harvard Food and Drug Law* (electronic book).
- 1. "Evolution, Phylogeny, Biogeography, and Diversification of the Australasian Hydromyinae (Rodentia: Muridae)". 1997. Ph.D. Thesis, Biology, Harvard University, Cambridge, MA.

### SELECTED CITATIONS

- 2018 Patents and the Regress of Useful Arts (2009 article coauthored with Bill M. Tomlinson) tabled by the Commerce Committee of the New Zealand Parliament/Pāremata Aotearoa.
- 2017 Sampsa Hyysalo, Torben Elgaard Jensen, and Nelly Oudshoorn (Eds.), 2016, THE NEW PRODUCTION OF USERS: CHANGING INNOVATION COLLECTIVES AND INVOLVEMENT STRATEGIES, Routledge Press (*including* Torrance, Andrew W., and von Hippel, Eric, 2016, "Protecting the Right to Innovate Our Innovation Wetlands", pages 45-74). THE NEW PRODUCTION OF USERS: CHANGING INNOVATION COLLECTIVES AND INVOLVEMENT STRATEGIES won the 2016 Freeman Prize, which is awarded "for a publication which is a significant collective contribution to the interaction of science and technology studies with the study of innovation" by the European Association for the Study of Science and Technology ("EASST")).
- Lee, J.M., Hirschfeld, E., and Wedding, J., 2016, "A patient-designed do-it-yourself mobile technology system for diabetes: promise and challenges for a new era in medicine", Journal of the American Medical Association (JAMA), 315(14):1447-1448, 1447 (citing Torrance, Andrew W., and von Hippel, Eric, 2015, "The Right to Innovate", *Michigan State Law Review*, Vol. 2015, Issue 2, 793-829).
- 2015 Rinehart, A.S., 2015, "Myriad Lessons Learned", *UC Irvine Law Review*, Volume 5, pages 1147-1192 (citing Torrance, Andrew W., 2009. "Gene Concepts, Gene Patents, and Gene Talk," *Minnesota Journal of Law, Science, & Technology*, Vol. 11(1), pp. 157-191).
- Lemley, M.A., & Melamed, A.D., 2013, Missing the Forest for the Trolls, *Columbia Law Review*, Volume 113, Number 8, pages 2117-2189 (citing Torrance, Andrew W., and Tomlinson, Bill, 2012, "Property Rules, Liability Rules, and Innovation One Experimental View of the Cathedral," *Yale Journal of Law and Technology*, Volume 14, pages 138-161).
  - Lin, Albert C., 2013, *Prometheus Reimagined Technology, Environment, and Law in the Twenty-first Century*, The University of Michigan Press (citing Torrance, Andrew W.. 2007. "Intellectual Property as the Third Dimension of GMO Regulation", *The Kansas Journal of Law and Public Policy*, Spring 2007, Volume XVI, Number 3, pages 257-285).

The National Research Council of the National Academies, Committee on Intellectual Property Management in Standard-Setting Processes, Board on Science, Technology, and Economic Policy and Global Affairs, 2013, *Patent Challenges for Standard-Setting in the Global Economy – Lessons from Information and Communications Technology*, The National Academies Press (citing Torrance, Andrew W., and Kahl, Linda J., 2012, "Synthetic Biology Standards and Intellectual Property," *The National Academies* (commissioned paper)).

- Six citations in a report on synthetic biology commissioned by the Assemblée Nationale and Sénat of France: "Les enjeux de la biologie de synthèse" (Rapport de l'Office Parlemantaire d'Évaluation des Choix Scientifiques et Technologiques) (citing Torrance, Andrew W., 2010, "Synthesizing Law for Synthetic Biology," Minnesota Journal of Law, Science, & Technology, Vol. 11(2), pp. 629-665).
- Petitioner's brief supporting request for writ of *certiorari* to Supreme Court in *Mayo v. Prometheus* (U.S. 2012) (citing Torrance, A.W., and Tomlinson, W.M., 2009, "Patents and the Regress of Useful Arts," *Columbia Science and Technology Law Review*, Vol. 10, pp. 130-168).
- 2010 Amici curiae brief of American Medical Association et al., in Bilski v. Kappos (U.S. 2010) (citing Torrance, A.W., and Tomlinson, W.M., 2009, "Patents and the Regress of Useful Arts," Columbia Science and Technology Law Review, Vol. 10, pp. 130-168).

*Amicus curiae* brief of Red Hat, Inc., in *Bilski v. Kappos* (U.S. 2010) (citing Torrance, A.W., and Tomlinson, W.M., 2009, "Patents and the Regress of Useful Arts," *Columbia Science and Technology Law Review*, Vol. 10, pp. 130-168).

#### WEB PUBLISHING

- Torrance, Andrew W., 2013, "Nothing Under the Sun that is Made of Man," SCOTUSblog (<a href="http://www.scotusblog.com/2013/02/nothing-under-the-sun-that-is-made-of-man/">http://www.scotusblog.com/2013/02/nothing-under-the-sun-that-is-made-of-man/</a>)(Invited.)
- Torrance, Andrew W., 2012, "Moving Away from Beauty as a Factor in Design Patent Validity," Patently-O (<a href="http://www.patentlyo.com/patent/2012/11/moving-away-from-beauty-as-a-factor-in-design-patent-validity.html">http://www.patentlyo.com/patent/2012/11/moving-away-from-beauty-as-a-factor-in-design-patent-validity.html</a>) (Invited adaptation of "Beauty Fades: An Experimental Study of Federal Court Design Patent Aesthetics").

#### **GUEST LECTURES**

2022	"Innovation Law", MIT 15.356, MIT Sloan School of Management (May 4, 2022) (invited)
2021	"Intellectual Property", "Open Innovation", and "The Right to Innovate", MIT 15.356: Product and Service Innovation in the Internet Age, MIT Sloan School of Management (Filmed for MITx) (Invited by Prof. Eric von Hippel)(May 3 2021).
2021	"The Law of Genome Editing" (nine lectures), Università di Pavia, Pavia, Italy (March-April).
2020	"Patent Analytics", Emory Law School, Patent Law Class (Professor Liza Vertinsky), Atlanta, Georgia (Invited) (October 22, 2020).
	"The Right to Innovate", MIT 15.356: Product and Service Development in the Internet Age, MIT Sloan School of Management (Invited by Prof. Eric von Hippel)(April 2020)
2018	"Myriad and Isolated DNA Patents", World Intellectual Property Organization (WIPO) Advanced Patent Class (Invited)(March 15, 2018).

2017	"Innovation Hypercycles: The Birth and Death of Technology Hotspots", IT, Innovation, Value & Productivity, School of Information Management, Victoria University of Wellington, Wellington, New Zealand (Invited)(September 28, 2017)
	"The Right to Innovate", MIT 15.356: Product and Service Development in the Internet Age, MIT Sloan School of Management (Invited)(February 28, 2017)
2016	"Are Litigated Patents More Important?", Technology Law and Policy Colloquium: Intellectual Property and Cyberlaw Focus, Georgetown University Law Center (Invited)(February 8, 2016)
2015	"The Right to Innovation", MIT 15.356 - Product and Service Development in the Internet Age, MIT Sloan School of Management (Invited)
2014	Intellectual Property Law, University of Missouri-Kansas City School of Law
2014	Managing Innovation and Entrepreneurship, MIT Sloan School of Management
2014	Product and Service Development in the Internet Age, MIT Sloan School of Management
2013	How to Develop Breakthrough Products and Services, MIT Sloan School of Management
2013	Law and Emerging Technologies, Georgia State University College of Law
2012	Managing Innovation and Entrepreneurship, MIT Sloan School of Management
2012	Managing Innovation: Emerging Trends, MIT Sloan School of Management
2012	Brave New Crops, Washington University
2011	Intellectual Property Legal Systems, University of Washington School of Law
2011	International Intellectual Property Law, University of Washington School of Law

### PRESENTATIONS AND INVITED PARTICIPATION

### <u>2022</u>

# May

# **April**

"Innovation Goes Viral – An Early Glimpse from SARS-CoV-2 Patenting" (with Lisa C. Friedman), PatCon10 (April 1,2022)(competitively selected).

### March

"Innovation Goes Viral – An Early Glimpse from SARS-CoV-2 Patenting" (with Lisa C. Friedman), Gruter Conference on Parasites and Pandemics, The Royal Society, London, United Kingdom (March 26, 2022)(invited).

# <u>2021</u>

<sup>&</sup>quot;Innovation Law", MIT 15.356, MIT Sloan School of Management (May 4, 2022) (invited).

### <u>December</u>

A Brave New Trial – Big Data, AI, Networks, Statistics, and Other Legal Analytics, Annual Conference of Judges Conference, Minnesota Judicial Branch (December 2, 2021)

#### November

Academic Bio-Pharma Roundtable, George Mason University Antonin Scalia Law School Arlington, Virginia (Invited Participant)(November 18, 2021)

"The SARS-CoV-2 Pandemic – Broadly Speaking", Gruter Institute Annual Conference, Gruter Institute for Law and Behavioral Research, Pallisades, CA (Invited)(November 3, 2021).

"RNA World", Gruter Institute Annual Conference, Gruter Institute for Law and Behavioral Research, Pallisades, CA (Invited)(November 3, 2021).

### May

"Intellectual Property", "Open Innovation", and "The Right to Innovate", MIT 15.356: Product and Service Innovation in the Internet Age, MIT Sloan School of Management (Filmed for MITx) (Invited by Prof. Eric von Hippel)(May 3 2021).

#### March

"Patent Importance Data", Data Day, 4th Annual IP Data & Research Conference, Canadian Intellectual Property Office (co-sponsored by the Centre for International Governance Innovation), Hull, Quebec, Canada (Invited) (March 11, 2021)

"The Importance of Patents (And How to Calculate Them)", Research Day, 4th Annual IP Data & Research Conference, Canadian Intellectual Property Office (co-sponsored by the Centre for International Governance Innovation), Hull, Quebec, Canada (Invited) (March 10, 2021)

### **February**

"Patent Eligibility and Technology Management - Should You Look Outside Your U.S. Comfort Zone for Patenting Diagnostics Inventions?" (co-presented with Dr. Kevin Noonan, Dr. Charlie Shaw, and Dr. John Sears), AUTM (formerly "Association of University Technology Managers"), Chicago, Illinois (Virtual) (Invited) (February 9, 2021).

### 2020

### November

"Experimental Use Defense to Patent Infringement: Scope, Limitations, and Implementation by Common Law vs. Statute" (co-presented with Dr. Kevin Noonan), Strafford Seminar, Atlanta, Georgia (Virtual) (Invited) (November 24, 2020).

### October

"Patent Analytics", Emory Law School, Patent Law Class (Professor Liza Vertinsky), Atlanta, Georgia (Invited) (October 22, 2020).

"Hamilton's Law", Gruter Institute Annual Conference, Gruter Institute for Law and Behavioral Research, Chicago, Illinois (Virtual) (Invited) (October 15, 2020).

### September

Public Health: Regulation, Innovation, and Preparation Roundtable, Center for the Study of the Administrative State, George Mason University's Antonin Scalia Law School, Arlington, Virginia (Invited commentator)(September 17-18, 2020)

"Legal Analytics", 2020 Colorado Judicial Conference, Vail, Colorado (September 14, 2020)(Postponed)

"Patently Broad: Intellectual Property for Advancing Biology", Broad Institute of MIT and Harvard, Cambridge, MA (Invited)(September 10, 2020)

### **April**

"Free Innovation and the Law", MIT Class 15.356 (Invited)(April 22, 2020)

### **February**

"Patent Analytics", Texas A & M Qatar, Qatar (Invited)(February 9, 2020).

"The Future of Regulation", George Washington University School of Policy, Washington, D.C. (Invited)(February 4, 2020)

### **January**

"Innovation Hypercycles: The Birth and Death of Technology Hotspots", *TED Talk (TEDxQueensU)*, "Innovation Hypercycles: The Birth and Death of Technology Hotspots" (<a href="https://www.youtube.com/watch?v=g8GTg\_632qY">https://www.youtube.com/watch?v=g8GTg\_632qY</a>), Queen's University, Kingston, Ontario, Canada (Invited) (January 26, 2020).

### 2019

### December

"Regulation of Genome Editing", Petrie-Flom Center, Harvard Law School, Cambridge, MA (Invited)(December 6, 2019).

# November

"Empirical Analysis of Patent Owner Type and Patent Importance for all Patent Litigations from 2000-Current Day", Stanford Law School, Palo Alto, CA (Invited)(November 14, 2019).

"FDA Law and Patient Innovation", MIT Innovation Lab, Washington, DC (Invited)(November 6, 2019).

#### <u>October</u>

"Expert Witnesses and Legal Analytics", American College of Business Judges, Pittsburgh, PA (Invited)(October 31, 2019).

"Legal Analytics" (11 lectures), LEC Judges Conference, Santa Fe, NM (Invited)(October 16-19).

### <u>September</u>

"Breaking Hamilton's Law", Gruter Institute for Law and Behavioral Research Conference ("Does Hamilton Still Rule? – His Continuing Influence in Science and Society 50 Years Back and Beyond"), New College, Oxford University, Oxford, United Kingdom (Invited Coorganizer and Cohost) (September 6, 2019).

### <u>July</u>

MIT Innovation Lab, Ford Motor Company, Dearborn, MI (Invited participant).

"Global Patterns of Technical Knowledge Flow", 17<sup>th</sup> Annual Open and User Innovation Society Meeting, Utrecht University, Utrecht, Netherlands, (Competitively selected)(July 9, 2019).

Village Elders Meeting, 17<sup>th</sup> Annual Open and User Innovation Society Meeting, Utrecht University, Utrecht, Netherlands (Invited participant and Village Elder) (August 7, 2019).

<u>May</u>

"Gene Editing – The Elements of Regulatory Style", Gruter Institute Annual Conference, Gruter Institute for Law and Behavioral Research, Squaw Valley, CA (Invited)(May 21, 2019).

#### April

"Legal Analytics", Foulston Siefkin LLC (Invited)(April 11, 2019).

"Global Patterns in Technological Knowledge Flow", PatCon9, University of Kansas School of Law (April 5, 2019).

### March

"WTO-TRIPs and Pharmaceutical Knowledge Flow", Biolaw Lapalooza 3.0, Stanford Law School, (Competitively selected)(March 30, 3019).

MIT Innovation Lab Meeting, MIT Sloan School of Management, Cambridge, MA (Invited participant) (March 28, 2019).

# **February**

The Ditchley Foundation Conference, "The Intersection of Machine Learning and Genetic Engineering: What Should be Our Checklist for Society and State as We Blast Off?", Ditchley Park, Enstone, Chipping Norton, United Kingdom (February 7-9, 2019).

#### <u>January</u>

"The Law of Ideas", Self Fellowship Lecture, Self Fellowship Program, University of Kansas, Lawrence, KS (January 14, 2019)

### 2018

#### **December**

MIT Innovation Lab Meeting, MIT Sloan School of Management, Cambridge, MA (Invited participant)(December 2-3, 2018).

#### <u>November</u>

"Patent Analytics", School of Innovation, Texas A & M University, College Station, TX (October 30).

# <u>October</u>

"Synthetic Biology Governance", BioSummit 2018, MIT Media Lab, Massachusetts Institute of Technology, Cambridge, MA (October 26, 2018)

"Global Ebbs and Flows in Knowledge – A Big Data Network Analysis of Technical Information Exchange within the Worldwide Patent System", Intellectual Property Statistics for Decision Makers Conference, European Union Intellectual Property Office, Alicante, Spain (October 24, 2018)

"Scientific Leadership", Gruter Conference on Leadership, George Washington University, Washington, D.C. (October 20, 2018)

"Most Important Biotechnology Patent Cases of 2017", Akron Law School Intellectual Property Scholars Conference, University of Akron School of Law, Akron, OH (October 5, 2018)

### <u>September</u>

"Uncertain Diagnosis", BIO IP & Diagnostics Symposium, Biotechnology Innovation Organization, Washington, D.C. (September 28, 2018)

"Global Ebbs and Flows in Knowledge – A Big Data Network Analysis of Technical Information Exchange within the Worldwide Patent System", Canadian Law and Economics Association annual conference, University of Toronto Faculty of Law, Toronto, Ontario, Canada (September 22, 2018).

"Gene Editing – The Elements of Regulatory Style", Future of Regulation Conference, Regulatory Studies Center, The George Washington University, Washington, D.C. (Invited)(September 12, 2018).

Commentator, Wiet Life Science Law Scholars Conference, Loyola University Chicago School of Law, Chicago, IL (Invited)(September 7, 2018).

### August

"GINA and Gene Editing: Genetic Discrimination in the Age of Modified Genomes", 16<sup>th</sup> Annual Open and User Innovation Society Meeting, New York University, New York, NY, (Competitively selected)(August 6, 2018).

Village Elders Meeting, 16<sup>th</sup> Annual Open and User Innovation Conference, New York University, New York, NY (Invited participant and Village Elder) (August 5, 2017).

### <u>July</u>

MIT Innovation Lab Meeting, MIT Sloan School of Management, Cambridge, MA (Invited participant)(July 17-18, 2018).

# June

"Global Ebbs and Flows in Knowledge: Technical Information Exchange within the Worldwide Patent System", World Intellectual Property Organization (WIPO) International Summer Patent Institute (Invited)(June 18, 2018).

### May

"The Worldwide Technology Web: A Global Patent Citation Network", Gruter Institute Annual Conference, Gruter Institute for Law and Behavioral Research, Squaw Valley, CA (Invited)(May 23, 2018)

### <u>April</u>

"Legal Impatients", Innovation Lab Meeting, Harvard Business School, Allston, MA (Invited speaker)(April 4, 2018).

### March

"GINA and Gene Editing: Genetic Discrimination in the Age of Modified Genomes", Biolaw Lapalooza 2.0, Stanford Law School, Palo Alto, CA (Accepted speaker)(March 23, 2018).

"World Technology Knowledge Flow: A Big Data Network Approach Using the Worldwide Patent System", World Trade Organization, Geneva, Switzerland (Invited speaker)(March 16, 2018).

"A Worldwide Patent Citation Network", PatCon8, University of San Diego School of Law, San Diego, CA (March 2, 2018).

### 2017

### November

MIT Innovation Lab Meeting, Harvard Business School, Allston, MA (Invited participant)(November 28-29, 2017).

"All Patents Great and Small: A Big Data Network Approach to Valuation", Intellectual Property Statistics for Decision Makers ("IPSDM"), Organization of Economic Cooperation and Development ("OECD"), Mexico City, Mexico (Competitively selected)(November 14, 2017)

# September

"Innovation Hypercycles: The Birth and Death of Technology Hotspots", IT, Innovation, Value & Productivity, School of Information Management, Victoria University of Wellington, Wellington, New Zealand (Invited)(September 28, 2017).

"A First Comprehensive Worldwide Patent Citation Network", Canadian Law and Economics Association Annual Conference, University of Toronto, Toronto, Ontario, Canada (September 16, 2017).

### <u>July</u>

MIT Innovation Lab Meeting, MIT Sloan School of Management, Cambridge, MA (Invited participant)(July 9-10, 2017).

"The Patent Trollbooth: A Participatory Simulation Game Approach to NPE Behavior", 15th Annual Open and User Innovation Society Meeting, University of Innsbruck, Innsbruck, Austria (Competitively selected)(July 11, 2017).

Village Elders Meeting, 15<sup>th</sup> Annual Open and User Innovation Conference, Harvard Business School, Allston, MA (Invited participant and Village Elder) (July 9, 2017).

### June

Biotechnology Industry Organization Annual Conference, San Diego, CA (Competitively selected participant)(June 19-22, 2017).

### May

"Trolls are Good (at Choosing Valuable Patents)", Gruter Institute Annual Conference, Gruter Institute for Law and Behavioral Research, Squaw Valley, CA (Invited)(May 24, 2017)

"The Patent Trollbooth: A Participatory Simulation Game Approach to NPE Behavior", Roundtable on Empirical Methods in Intellectual Property, United States Patent and Trademark Office/Northwestern Law School/Cardozo Law School, New York, NY (Competitively selected)(May 20, 2017)

"All Patents Great and Small – Innovation Analytics in the Data Gold Rush", ZEW Conference on Innovation and Patenting, Zentrum für Europäische Wirtschaftsforschung, Mannheim, Germany (Invited Keynote) (May 15, 2017)

### **April**

Biolaw Career Panel, Bio LawLapalooza (The Biolaw Conference), Stanford Law School, Palo Alto, CA (April 21, 2017) (Invited)

"Aukward Law", Bio LawLapalooza (The Biolaw Conference), Stanford Law School, Palo Alto, CA (April 20, 2017)

"Trolls Are Good (At Choosing Valuable Patents)", The Patent Conference (PatCon7), Northwestern Law School, Chicago, IL (April 7, 2017)

### March

"Free Innovation", Third Roundtable: Thinking through Intellectual Property Rights: Charting a Path Forward, Ministry of Research, Innovation and Science/Ministry of Economic Development and Growth - Centre for International Governance Innovation, Ontario Investment and Trade Centre, Toronto, Canada (Invited)(March 30, 2017)

"Patent Analytics", 2017 SYMPOSIUM on the EFFECTIVENESS of the CANADIAN PATENT SYSTEM/SYMPOSIUM de 2017 sur l'EFFICACITÉ du SYSTÈME CANADIEN DES BREVETS, Innovation, Science and Economic Development Canada, International Development Research Centre, Ottawa, Canada (Invited "expert") (March 24, 2017)

MIT Innovation Lab, MIT Sloan School of Management, Cambridge, MA (Invited participant) (March 21-22, 2017)

The Future of Patent Analytics: A foresight study of breakthrough enabling technologies, Centre for Technology Management, Institute for Manufacturing, Department of Engineering, University of Cambridge, Cambridge, United Kingdom (Invited participant) (March 3, 2017)

# **February**

"Trolls Are Good (At Choosing Valuable Patents)", Boston University School of Law, Boston, MA (Competitively selected)(February 11, 2017)

"Law of the Genome", BioGenomics2017 - Global Biodiversity Genomics Conference, Smithsonian National Museum of Natural History, Washington, D.C. (Invited)(February 22, 2017).

January

"The Rule of Patent Law – Innovation in Stormy Seas", LEC Rule of Law Workshop, Captiva Island, FL (Competitively selected for workshop)(January 22, 2017)

"Aukward Law – Legal Considerations for Great Auk Deextinction", University of the Virgin Islands, Saint Thomas, United States Virgin Islands (Invited)(January 14, 2017) 2016

### November

"All Patents Great and Small: A Big Data Network Approach to Valuation", Intellectual Property Statistics for Decision Makers ("IPSDM"), Organization of Economic Cooperation and Development ("OECD"), Sydney, Australia (Competitively selected)(November 16, 2016)

"Impatient Innovation", MIT Innovation Lab, MIT Sloan School of Management, Cambridge, MA (Invited) (November 13-14, 2014)

### October

Bridges II Conference, Northwestern University, Chicago, IL (Invited participant)(October 27-29, 2016)

"All Patents Great and Small: A Big Data Network Approach to Valuation", King's College, University of London, London, U.K. (Invited speaker)(October 21, 2016)

Meeting about Legal Informatics, Wilberforce Society, University of Cambridge, Cambridge, U.K. (Invited speaker)(October 19, 2016)

"All Patents Great and Small: A Big Data Network Approach to Valuation", University of Toronto Faculty of Law (Invited)(October 13, 2016)

#### September

"Patent Trolls are Good (at Choosing Valuable Patents)", Canadian Law and Economics Conference, University of Toronto Faculty of Law (September 2016)

"Psychological and Sociological Perspectives on Open, User, and Collaborative Innovation", Psychology and Sociology of Creativity and Invention Conference, Stanford Law School (September 2016) (Invited

### August

"Are Engineered Sequences Copyrightable?: The U.S. Copyright Office Addresses a Matter of First Impression" (Holman, C., Torrance, A.W., & Gustaffson, C.; presented by C. Holman), Intellectual Property Scholars Conference, Stanford Law School, CA (August 12, 2015)

"Trolls and Top Patents", Intellectual Property Scholars Conference, Stanford Law School, CA (August 11, 2015)

"Are Litigated Patents More Valuable?", 14th Annual Open and User Innovation Society Meeting, Harvard Business School, Allston, MA (August 2, 2016)

### <u>July</u>

Village Elders Meeting, 14th Annual Open and User Innovation Conference, Harvard Business School, Allston, MA (Invited participant and Village Elder) (July 31, 2016)

MIT Innovation Lab, MIT Sloan School of Management, Cambridge, MA (Invited participant) (July 25-26, 2016)

### <u>June</u>

"Aukward: Extinction is Fornever", NeueHouse Speakers Series, NeueHouse LA, Los Angeles, CA (Invited)(June 29, 2016).

### May

"Genetic Modification Editing – The Elements of CRISPR Style", Gruter Institute Annual Conference, Gruter Institute for Law and Behavioral Research, Squaw Valley, CA (Invited)(May 26, 2016).

"Are Litigated Patents More Valuable", Gruter Institute Annual Conference, Gruter Institute for Law and Behavioral Research, Squaw Valley, CA (Invited)(May 24, 2016).

### **April**

"Patient Innovation – FDA Should Pave, Not Block, the Way", MIT Innovation Laboratory Meeting, La Jolla, CA (hosted by Dexcom)(Invited)(April 22, 2016)

"Design Patent Developments", USPTO Design Day 2016, United States Patent & Trademark Office, Detroit, MI (Invited)(April 19, 2016)

#### March

"Free Innovation", Intellectual Property Rights and Innovation in the Fourth Industrial Revolution, Centre for International Governance Innovation, Toronto, Canada (Invited)(March 23, 2016)

### **February**

"Are Litigated Patents More Important?", 13th Annual Works in Progress in Intellectual Property Conference, University of Washington School of Law (February 20, 2016)

"Are Litigated Patents More Important?", Technology Law and Policy Colloquium: Intellectual Property and Cyberlaw Focus, Georgetown University Law Center (Invited)(February 8, 2016)

#### 2015

### **December**

"The History and Lessons Learned from Regulating GMOs," National Academies (ILAR) Workshop on "Gene Editing to Modify Animal Genomes for Research – Scientific and Ethical Considerations", a Workshop of the Roundtable on Science and Welfare in Laboratory Animal Use, National Academies, Washington, D.C. (Invited) (December 8, 2015)

### **November**

"Started from the Bottom Now We're Here – A Comparative Approach to the 'Promise of the Patent'", Fourth Annual U of T Patent Colloquium, University of Toronto Faculty of Law, Toronto, Ontario, Canada (Invited) (November 20, 2015)

"Are Litigated Patents More Important", CodeX Annual Conference, Stanford Law School, Palo Alto, CA (Invited) (November 18, 2015)

### October

MIT Innovation Lab, MIT Sloan School of Management, Cambridge, MA (Invited participant) (October 16, 2015)

"Are Litigated Patents More Important?", Intellectual Property Law Scholars Roundtable, Texas A&M Law School, Fort Worth, Dallas, TX (October 9, 2015)

"The Right to Innovate", MIT 15.356 - Product and Service Development in the Internet Age, MIT Sloan School of Management, Cambridge, MA (October 6, 2015)

### September

"Are Litigated Patents More Important?", Canadian Law and Economics Annual Conference, University of Toronto Faculty of Law, Toronto, Canada (September 25, 2015)

### August

"Are Litigated Patents More Important?", Intellectual Property Scholars Conference, DePaul College of Law, Chicago, IL (August 7, 2015)

### <u>July</u>

"Innovating not Waiting – NightScout inside the Innovation Wetlands", 13th Annual Open and User Innovation Society Meeting, Fundção Calouste Gulbenkian and Católica Lisbon School of Business & Economics, Lisbon, Portugal (July 13, 2015)

#### June

"Aukward Law – Laws Governing Deextinction", Great Auk Deextinction Meeting, The Center for Life, Newcastle-upon-Tyne, United Kingdom (Invited)(June 25, 2015)

"Values in Impact Assessment" (Commentary), Hastings Center Meeting on "Values in Impact Assessment" (NSF-funded report on synthetic biology), Hastings Center, Garrison, NY (Invited)(June 18-19, 2015)

"An Introduction to Patent Pledges: Beyond ICT", Patent Pledges Symposium 2015, American University Washington College of Law, Washington, D.C. (Invited)(June 12, 2015)

### May

"Are Litigated Patents More Important?", Understanding Innovation and Growth: Cross-Disciplinary Analysis, Gruter Institute for Law and Behavioral Research, Squaw Valley, CA (May 28, 2015)

"Innovation by Means of Unnatural Selection", Understanding Innovation and Growth: Cross-Disciplinary Analysis, Gruter Institute for Law and Behavioral Research, Squaw Valley, CA (May 27, 2015)

"New Frontiers on Perennial Questions: Game Theory, Biology and Neuroscience: Tell Us What's New and Innovation Theory and Practice" (Chair), Understanding Innovation and Growth: Cross-Disciplinary Analysis, Gruter Institute for Law and Behavioral Research, Squaw Valley, CA (May 27, 2015)

### **April**

MIT Innovation Lab, MIT Sloan School of Management, Cambridge, MA (Invited participant) (April 15-16, 2015)

"Are Litigated Patents More Important?", The 5<sup>th</sup> Annual Patent Conference (PatConV), University of Kansas School of Law, Lawrence, KS (Competitively-selected; note: I chaired the selection committee) (April 10, 2015)

"The Patent Conference at Five", The 5th Annual Patent Conference (PatConV), University of Kansas School of Law, Lawrence, KS (Remarks given as host and co-founder) (April 10, 2015)

### March

"Users, Regulation, and the Innovation Wetlands", Workshop on Understanding the Effect of Regulation on Innovation, Gruter Institute for Law and Behavioral Research and The George Washington University Regulatory Studies Center, The George Washington University, Washington, D.C., (Invited) (March 27, 2015)

"User Innovation", Workshop on Understanding the Effect of Regulation on Innovation, Gruter Institute for Law and Behavioral Research and The George Washington University Regulatory Studies Center, The George Washington University, Washington, D.C., (Invited) (March 27, 2015)

"Design Patents by the Numbers", Collision Course – Design Patents and the Convergence of Existing IP Regimes, University of Pennsylvania Law School, Philadelphia, PA (Invited)(March 19, 2015)

### **February**

"Users, Patents, Experiments, and the Innovation Wetlands", Government of Canada (Industry Canada), Ottawa, Ontario, Canada (Invited) (February 26, 2015)

"User Innovation", Dexcom, Inc., La Jolla, CA (Invited) (February 11, 2015)

### **January**

"The Law and Biology of Ebola", Biolaw Section, Association of American Law Schools Annual Meeting, Washington, D.C. (Invited) (January 5, 2015).

### 2014

### <u>December</u>

George Mason Law & Economics Center: 2014 LEC-PERC Workshop on Environmental Economics Institute for Law Professors, Duck Cay, FL (Competitively-selected) (December 6-10, 2014)

### November

"Users, Patents, and the Innovation Wetlands", Third Annual U of T Patent Colloquium, University of Toronto Faculty of Law, Toronto, Ontario, Canada (Invited) (November 21, 2014)

MIT Innovation Lab, MIT Sloan School of Management, Cambridge, MA (Invited participant) (November 13-14, 2014)

"Collaborative Research Inside and Outside the Innovation Wetlands", Driving Regenerative Medicine to the Market and Clinic – An Exploration of Enables, Impediments and Ethical-Legal Challenges, Toronto, Ontario, Canada (Invited)(November 7, 2014)

### October

"Software Patents: Code in the Eye of a Legal Storm", Kansas City Google Development Group, Google (Kansas City) (Invited) (October 23, 2014)

"DNA Copyright", University of Missouri-Kansas City School of Law, Kansas City, MO (Invited) (October 15, 2014)

"Innovation Rights," Michigan State University College of Law Fall 2014 Law Review Symposium, Michigan State University College of Law, East Lansing, MI (Invited) (October 3, 2014)

### September

"One of these Patents is not like the Others – Accuracy in PTO and IPC Patent Classifications," 2014 Roundtable on Empirical Studies in IP (hosted by the Center for Empirical Studies of IP and the United States Patent and Trademark Office), Chicago-Kent College of Law, Chicago, IL (Competitively selected) (September 19, 2014)

Commentary on "Experiments in Sequential Innovation," 2014 Roundtable on Empirical Studies in IP (hosted by the Center for Empirical Studies of IP and the United States Patent and Trademark Office), Chicago-Kent College of Law, Chicago, IL (Invited) (September 19, 2014)

"Charter Technologies – Will Innovation Thrive without Patents?," David & Ann Brennan IP Scholars Forum, University of Akron School of Law, Hudson, OH (Invited) (September 18, 2014)

"Intellectual Property Protection of Software," EECS 581, Department of Electrical Engineering & Computer Science, University of Kansas School of Engineering, Lawrence, KS (Guest lecture) (September 8, 2014)

### August

"Ideas in Chains: Law in the Eye of the Innovation Storm," 2014 Self Fellows Lecture, University of Kansas, Lawrence, KS (Invited) (August 15, 2014)

"The Three Patent Cultures: A Comparative Analysis of Utility, Design, and Plant Patent Citation Networks," 14<sup>th</sup> Annual Intellectual Property Scholars Conference, University of California Berkeley School of Law, Berkeley, CA (Competitively Selected) (August 7, 2014)

"An Analysis of the Complete Patent Citation Network," Office of the Commissioner of Patents, United States Patent and Trademark Office, Alexandria, VA (Invited) (August 4, 2014)

### <u>July</u>

"Law and Innovation," 12<sup>th</sup> Annual Open and User Innovation Conference, Harvard Business School, Allston, MA (Invited participant) (July 28, 2014)

Village Elders Meeting, 12<sup>th</sup> Annual Open and User Innovation Conference, Harvard Business School, Allston, MA (Invited participant and Village Elder) (July 27, 2014)

"Evolution, Information, Law, and Innovation," House of Lords Symposium on Is Innovation Evolutionary? – Understanding the Processes Underlying Innovation, United Kingdom House of Lords, Millbank House, London, England, United Kingdom (July 9, 2014)

MIT Innovation Lab, MIT Sloan School of Management, Cambridge, MA (Invited) (June 30-July 1, 2014)

### June

Intersection of Big Data and Intellectual Property in the 21st Century, World Economic Forum, Global Agenda Council on the Intellectual Property System, University of Washington School of Law, Seattle, WA (Invited participant) (June 23, 2014)

"Deextinction," GrandArts Retreat, Excelsior Springs, MO (Invited)(June 20, 2014)

"Why Be Good?," GrandArts Retreat, Excelsior Springs, MO (Invited)(June 20, 2014)

Research Symposium on the Law and Economics of Internet Search, Searle Center on Law, Regulation, and Economic Growth, Northwestern Law School, Chicago, IL (Invited Participant) (June 5-6, 2014)

### May

"Innovation – Rider on the Intellectual Property Storm," Conference on Understanding Innovation and Growth, Gruter Institute for Law and Behavioral Research, Squaw Valley, CA (Invited) (May 22, 2014)

- "An Uncommon Commons Democratization of Innovation in Synthetic Biology," Conference on Understanding Innovation and Growth, Gruter Institute for Law and Behavioral Research, Squaw Valley, CA (Invited) (May 21, 2014)
- "Analysis of the United States Patent Citation Network," Conference on Understanding Innovation and Growth, Gruter Institute for Law and Behavioral Research, Squaw Valley, CA (Invited) (May 20, 2014)
- "A Highly Uncommon Commons The Evolution of Synthetic Biology Institutions and Democratized Innovation in Medicine," Workshop on Medical User Innovation and Medical Commons, New York University Law School, New York, NY (Invited) (May 15, 2014)

### April

- "Intellectual Property and Innovation Rights," Managing Innovation and Entrepreneurship, MIT Sloan School of Management, Cambridge, MA (Invited) (April 30, 2014).
- "Biology, Law, and Democratization Seeds of Change for Agricultural Innovation," 2014 Synapsis Symposium on Breeding Innovations & Policy: Considering Diverse Stakeholders, Cornell University College of Agriculture and Life Sciences, School of Integrative Plant Science, Plant Breeding and Genetics Section, Ithaca, NY (Invited) (April 25, 2014)
- "Intellectual Property and Innovation Rights," Product and Service Development in the Internet Age, MIT Sloan School of Management (Invited) (April 11, 2014)
- "Analysis of the Patent Citation Network," The Patent Conference/PatCon 4.0, University of San Diego School of Law, San Diego, CA (Cofounder and cohost) (April 5, 2014)
- "Tempestuous Times in United States Patent Law," Intellectual Property Law, University of Toronto Faculty of Law, Toronto, Ontario, Canada (Invited) (April 1, 2014)

### March

- "Innovation Rights," Workshop on Understanding Innovation (Co-hosted by Stanford Law School Juelsgaard Intellectual Property and Innovation Clinic and Gruter Institute for Law and Behavioral Research), Stanford Law School, Palo Alto, CA (Invited) (March 24, 2014)
- "Innovation Rights," MIT Innovation Lab, MIT Sloan School of Management, Cambridge, MA (Invited) (March 5-6, 2014)

### **January**

"The Loci and Foci of Innovation," Workshop on Innovation (Gruter Institute for Law and Behavioral Research & The Harvard University Berkman Center for Internet & Society), Harvard Law School, Cambridge, MA (Invited) (January 24, 2014)

### 2013

### **December**

"Revolutionary Times for the Patent System," Ford Motor Company, Dearborn, MI (Invited)

### <u>November</u>

"The Unpatentability of Human Beings and the U.S. Supreme Court," Second Annual University of Toronto Faculty of Law Patent Colloquium, Toronto, Canada (Invited)

"Design Patents: Great Idea, or Greatest Idea?" (with Mark Janis), 2013 Evil Twin Debate, Intellectual Property Institute, University of Richmond School of Law, Richmond, VA (Invited)

"De-Extinction Law: GMO, International, and Patent," National Academies, Committee on Science, Technology, and Law, Policy and Global Affairs Division, Washington, D.C. (Invited)

"Synthetic Biology: Standard-Setting and Intellectual Property," University of San Diego School of Law, San Diego, CA (Invited faculty talk)

### October

"The PHOSITA Project" (co-author Lee Petherbridge presented), Workshop on Empirical Methods in Intellectual Property, Center for Empirical Studies of Intellectual Property, Chicago-Kent College of Law, Chicago, IL (Invited)

"Commentary on Experiments on Uncertainty in IP Evaluation (David Schwartz and Christopher Buccafusco)," Workshop on Empirical Methods in Intellectual Property, Center for Empirical Studies of Intellectual Property, Chicago-Kent College of Law, Chicago, IL (Invited)

MIT Innovation Lab, MIT Sloan School of Management, Cambridge, MA (Invited Participant)

### September

"A Natural Experiment in Patents and Innovation," European Policy for Intellectual Property ("EPIP") Annual Conference, Paris, France (Invited keynote address)

### <u>June</u>

"Patent Law's Perfect Storm," Microsoft Research, Seattle, WA (Invited)

Sixth Annual Conference on Entrepreneurship and Innovation, Searle Center, Northwestern Law School, Chicago, IL (Invited Participant)

MIT Innovation Lab, MIT Sloan School of Management, Cambridge, MA (Invited Participant)

### May

"De-Extinction in International and GMO Law," De-Extinction: Ethics, Law & Politics, Stanford Law School, Palo Alto, CA (Invited)

"De-Extinction," Gruter Institute Conference on Economic Growth: Costs, Causes and Effects, Squaw Valley, CA (Invited)

"A Natural Experiment in Patents and Innovation," Gruter Institute Conference on Economic Growth: Costs, Causes and Effects, Squaw Valley, CA (Invited)

"What is Innovation?," Gruter Institute Conference on Innovation, Economic Growth and Human Behavior, Squaw Valley, CA (Invited)

### **April**

"(R)evolution in Design Patentable Subject Matter: the Shifting Meaning of "Article of Manufacture"," Design Patents in the Modern World Conference, Stanford Law School, Palo Alto, CA (Invited; scheduled)

"(R)evolution in Design Patentable Subject Matter: the Shifting Meaning of "Article of Manufacture"," The Patent Conference 3.0, Chicago-Kent College of Law, Chicago, IL (Scheduled)

"(R)evolution in Design Patentable Subject Matter: the Shifting Meaning of "Article of Manufacture"," Loyola University Chicago Law Journal Conference, Loyola University Chicago School of Law, Chicago, IL (Invited; scheduled)

### March

"Who Owns Your Genome?," American Medical Informatics Association Annual Symposium, San Francisco, CA (Invited; scheduled)

#### <u>February</u>

"Innovation Wetlands," Massachusetts Institute of Technology, Cambridge, MA (Invited)

"Beauty Fades: An Experimental Study of Federal Court Design Patent Aesthetics," University of Colorado Law School, Boulder, CO (Invited)

### <u>January</u>

"Copyrighting DNA: Protecting Synthetic DNA Sequences as Works of Authorship," Georgia State University College of Law (Invited)

### 2012

### **November**

MIT Innovation Lab, MIT Sloan School of Management, Cambridge, MA (Invited Participant)

"Knowledge Sharing and Intellectual Property," Organization for Economic Cooperation and Development (OECD) Conference on Knowledge Sharing Mechanisms, OECD Headquarters, Paris, France (Invited)

### October

"Nothing Under the Sun that is Made of Man," 2012 Akron Law School Intellectual Property Scholars Roundtable and Center for Intellectual Property Law and Technology Academic Forum on "The Impact of IP on Public Health," Akron Law School, Akron, OH (Invited).

"Synthetic Biology: Standards Setting and Intellectual Property," 2012 Open Science Summit, Mountain View, CA (Invited)

"Nothing Under the Sun that is Made of Man," 2012 Licensing Executives Society Annual Meeting, Toronto, Ontario, Canada (Invited)

"Ideas for Growth," Gruter Institute Conference in Honor of the Scholarship of Gordon J. Getty, Stanford University, Palo Alto, CA (Invited)

"Synthetic Biology Standards and Intellectual Property," Symposium on Management of Intellectual Property in Standard-Setting Processes, The National Academies, Washington, DC (Commissioned report and presentation)

### <u>September</u>

"Patent Notices of Appeal: An Empirical Study of Outcomes," 2012 Canadian Law and Economics Conference, University of Toronto Faculty of Law, Toronto, Ontario, Canada

### August

"An Empirical Study of Patent Prosecution Success after the Filing of a Notice of Appeal," 12th Annual Intellectual Property Scholars Conference, Stanford Law School, Palo Alto, CA

"Innovation Wetlands," (with Eric von Hippel), 10th International Open and User Innovation Workshop, Harvard Business School, Allston, MA

### **July**

Twenty-Eighth Economics Institute for Law Professors, Henry G. Manne Program in Law & Economics Studies, George Mason University School of Law, Estes Park, CO (Competitively-Selected Participant)

MIT Innovation Lab, MIT Sloan School of Management, Cambridge, MA (Invited Participant)

### <u>June</u>

Research Symposium on the Law and Economics of Internet Search, Searle Center on Law, Regulation, and Economic Growth, Northwestern Law School, Chicago, IL (Invited Participant)

Innovation Policy, Intellectual Property, and Entrepreneurship, Research Roundtable, Searle Center, Northwestern Law School, Chicago, IL (Invited Participant)

"Understanding the Prior Commercial Use Defense," as part of "Prior User Rights & Trade Secrets: A New IP Option to Secure Freedom-to-Operate for Internally-Used Technology in Biotechnology," 2012 Biotechnology Industry Organization International Convention, Boston, MA (Invited speaker)

"When Technology Disrupts Law: how Can Intellectual Property, Internet, and Biolaw Adapt?," American Association of Law Schools 2012 Midyear Meeting, Berkeley, CA (Co-planner and co-host)

#### May

"Innovation Signals in Massive Patent Prosecution Data Sets," Gruter Institute Conference on Economic Growth: Costs, Causes and Effects, Squaw Valley, CA (Invited)

"Innovation Wetlands," Gruter Institute Conference on Innovation, Economic Growth and Human Behavior, Squaw Valley, CA (Invited)

"Patterns in Patent Claim Rejections – An Empirical Study Across All USPTO Art Units," The Second Annual Patent Conference, Boston College Law School, Newton, MA (Presenter, Co-Organizer, and Co-Host)

#### **April**

"Biology is Destiny – The Rejection of Biological Patents," Society for the Evolutionary Analysis of Law Annual Conference, Emory University School of Law, Atlanta, GA (Competitively selected)

"Planted Obsolescence – Synagriculture and Law," Idaho Law Review Symposium on "Genetically Modified Organisms -- Law and the Global Market," University of Idaho College of Law, Boise, ID (Invited)

Biotechnology Industry Organization Intellectual Property Corporate Counsels Committee Conference, Austin, TX (Participant)

"Beauty by Design – An Experimental Study of Federal Court Aesthetics," Law & Economics Workshop, University of Notre Dame School of Law, South Bend, IN (Invited)

### March

MIT Innovation Lab, MIT Sloan School of Management, Cambridge, MA (Invited Participant)

"Rejection and the 99%," The Future of Intellectual Property Law Conference, University of Georgia School of Law, Athens, GA (Invited)

### **February**

"Variation in Grounds of Rejection by Patent Office Art Units," Works-In-Progress Intellectual Property (WIPIP) Colloquium, Houston Law Center, Houston, TX (Competitively Selected)

#### **January**

Synthetic Biology Ownership, Sharing & Innovation Symposium (SynBIOSIS), Stanford University, Palo Alto, CA (Invited participant)

### 2011

#### November

"Using Social Media for Customer Co-Creation," The 2011 World Conference on Mass Customization, Personalization, and Co-Creation (MCPC 2011): Bridging Mass Customization & Open Innovation, South San Francisco, CA (Invited Panel Moderator)

"User and Collaborative Innovation – Where is the FDA Regulatory Border MIT Innovation Lab," MIT Sloan School of Management, Cambridge, MA (Invited)

Biotechnology Industry Organization Intellectual Property Corporate Counsels Committee Conference, New York City, NY (Participant)

### October

"Open and Closed Innovation – Experimental Evidence to Support Open Science and Innovation," Open Science Summit 2011, Computer History Museum, Mountain View, CA (Invited)

"Biolaw 5.0 – Law at the Frontiers of Biology," 5<sup>th</sup> Annual Biolaw Conference, University of Kansas School of Law, Lawrence, KS (Organizer, Host, and Speaker)

"Property Rules, Liability Rules, and Innovation – One Experimental View of the Cathedral," Presentation to the Faculty, Emory Law School, Atlanta, GA (Invited)

# September

"Tempest-Tost – Genomics in the Legal Storm," *Optimizing the Impact of Genomics Research*, Genome Canada, Ottawa, Ontario, Canada (Invited Keynote Address)

"Beauty in the Eye of the Judicial Beholder – The Decline of Attractiveness as a Design Patent Requirement," Canadian Law and Economics Association Annual Conference, University of Toronto Faculty of Law, Toronto, Ontario, Canada (Competitively Selected)

"Biotechnology Patent Law," 2011 Law & Bioscience Conference, Overland Park, KS (Invited)

### August

"Beauty in the Eye of the Judicial Beholder – The Decline of Attractiveness as a Design Patent Requirement," Intellectual Property Scholars Conference, DePaul Law School, Chicago, IL (Competitively Selected)

#### June

MIT Innovation Lab, NASA Johnson Space Center, Houston, TX (Invited Participant)

"Experimental Approaches to Intellectual Property," Law and Society Annual Conference, San Francisco, CA (Competitively Selected; Panel Organizer and Moderator, Speaker).

May

"Patents and Progress of Useful Arts," Gruter Institute Annual Conference on Innovation and Economic Growth: Exploring the Origins and Effects of Innovative Behavior, Gruter Institute, Squaw Valley, CA (Invited)

"Beauty in the Eye of the Judicial Beholder," Gruter Institute Annual Conference on Law, Institutions, and Human Behavior, Gruter Institute, Squaw Valley, CA (Invited)

"Lions and Tigers and Brains, MRI!," Gruter Institute Annual Conference on Law, Institutions, and Human Behavior, Gruter Institute, Squaw Valley, CA (Invited)

"Patenting Human Evolution," Guest lecture in *Evolution and Human Affairs* Honors Program class (Prof. Patricia Hawley), University of Kansas, Lawrence, KS (Invited).

Meeting of the Planning Committee, AALS 2012 Midyear Conference, American Association of Law Schools Headquarters, Washington, D.C. (Invited).

### **April**

Participant, Innovation Policy, Intellectual Property, and Entrepreneurship, Research Roundtable, Searle Center, Northwestern Law School, Chicago, IL (Invited).

"Is Beauty in the Eye of the Judicial Beholder?," Science on Tap (co-sponsored by the Biodiversity Institute and Free State Brewery), Lawrence, KS (Invited).

Biotechnology Industry Organization Intellectual Property Corporate Counsels Committee Conference, Seattle, WA. (Invited academic attendee).

"Design Beauty in the Eye of the Judicial Beholder," The Patent Conference, University of Kansas School of Law, Lawrence, KS (Co-host and Co-organizer).

#### March

"Open Biological Innovation – From Patents to Commons to Copyright to Open Source," Law Review Symposium on Bioethics, Law, and Synthetic Biology, Valparaiso University School of Law, Valparaiso, IN (Invited).

"Synthetic Biology – Regulation as Food, Drug, Cosmetic, or Device," PhytoMetaSyn and Synthetic Biology GE3LS Workshop ("Nature Redesigned – PhytoMetaSyn & Synthetic Biology"), Hosted by the University of Calgary Faculty of Law and Funded by Genome Canada, Banff, Alberta, Canada (Invited).

"Innovation and Law – Regulation or Strangulation?," MIT Innovation Lab, Ford Motor Company, Dearborn, MI (Invited).

#### <u>February</u>

"The Rise and Fall and Rise of Gene Patents," Conference on "The Emergence of Personalized Medicine: Legal, Social and Ethical Implications," Cumberland School of Law, Samford University, Birmingham, AL (Invited).

"Beauty is in the Adaptations of the Judicial Beholder," Society for the Evolutionary Analysis of Law (SEAL) Annual Conference, Loyola Law School, Los Angeles, CA (Competitively Selected).

"Nothing Under the Sun that is Made of Man," Law and Biosciences (class), Stanford Law School, Palo Alto, CA (Invited).

# <u>January</u>

"You've Come a Long Way, Baby! - Genomics, Personalized Medicine, and Reproductive Law," American Association of Law Schools Annual Meeting, San Francisco, CA (Invited).

"Synthetic Biology Meets the Law," American Association of Law Schools Annual Meeting, San Francisco, CA (Moderator).

### 2010

#### **December**

"Anything Under The Sun Except Man," Greater KC Society of Healthcare Attorneys, Kansas City, MO (Invited)

### November

Participant, Research Roundtable on Empirical Studies of Patent Litigation, Searle Center on Law, Regulation, and Economic Growth, Northwestern Law School, Chicago, IL (Invited).

"Property Rules, Liability Rules, Patents, and Innovation: One Experimental View of the Cathedral," Conference on Experimental Legal Studies, Yale Law School, New Haven, CT (Competitively selected poster presentation).

Participant, MIT Innovation Lab, MIT Sloan School of Management, Massachusetts Institute of Technology, Cambridge, MA (Invited).

"Biodiversity and Patent Law," NSF Climate Change IGERT Class, University of Kansas, Lawrence, KS (Invited).

### October

"The Evolution and Development of Biolaw" and "DNA Copyright", Biolaw 4.0: Law at the Frontiers of Biology, Lawrence, KS. (Host and speaker)

"Open Access and Closed Law", Open Access Week, University of Kansas Libraries, Lawrence, KS. (Invited)

Biotechnology Industry Organization Intellectual Property Corporate Counsels Committee Conference, Boston, MA. (Invited academic attendee)

"Property Rules, Liability Rules, Patents, and Innovation: One Experimental View of the Cathedral," DePaul University School of Law, Chicago, IL. (Invited as a 2010 Edward D. Manzo Scholar in Patent Law)

"The Patent Game", University of Missouri Kansas City School of Law, Kansas City, MO. (Invited)

# <u>September</u>

"Property Rules, Liability Rules, Patents, and Innovation: One Experimental View of the Cathedral," Canadian Law and Economics Association Annual Conference, University of Toronto Faculty of Law, Toronto, Ontario, Canada. (Competitively selected)

"Open Biological Innovation – From Patents to Commons to Copyright to Open Source", Berkeley Open Innovation Forum, Berkeley Law School, Berkeley, CA. (Invited)

"Anything Under the Sun Except for Man", Patenting in the Biotechnology Industry: 30 Years After *Diamond v. Chakrabarty*, University of Illinois at Urbana-Champaign College of Law, Urbana-Champaign, IL. (Invited)

#### August

"The Patent Game: Experiments in the Cathedral of Law," Google Tech Talk, Google, Inc., Mountain View, CA. (Invited).

"Property Rules, Liability Rules, Patents, and Innovation: One Experimental View of the Cathedral," Intellectual Property Scholars Conference, Berkeley Law School, Berkeley, CA. (Competitively selected)

"Property Rules, Liability Rules, Patents, and Innovation: One Experimental View of the Cathedral," User and Open Innovation Conference, MIT Sloan School of Management, Cambridge, MA. (Competitively Selected)

#### **July**

"Double Description", SEALS Annual Conference, Palm Beach, FL. (Invited)

#### <u>June</u>

Participant, Research Symposium on the Law and Economics of Internet Search, Searle Center on Law, Regulation, and Economic Growth, Northwestern Law School, Chicago, IL (Invited)

"Myriad Reproductive Options," When Worlds Collide: Tensions in Family Law, The Midwest Family Law Consortium & North American Regional Meeting of the International Society of Family Law, UMKC School of Law, Kansas City, MO. (Invited)

### May

"Opening Innovation in Intellectual Property Law," User and Open Innovation and Intellectual Property Workshop, co-sponsored by Berkeley Law School and the New York University Law School, Saint Helena, Calif. (co-organizer and speaker)

"The Evolution of Biolaw," Gruter Institute Annual Conference on Law, Mind, and Brain, Gruter Institute, Squaw Valley, Calif. (Invited)

Participant, MIT Innovation Lab, MIT Sloan School of Management, Massachusetts Institute of Technology, Google Inc., Mountain View, Calif. (Invited)

### <u>April</u>

"Patent Pools: Navigating a Course for Access to Biotechnology Innovations," Biotechnology Industry Organization Intellectual Property Corporate Counsels Committee Conference, New Orleans, LA. (Invited panelist)

"Having Your Cake and Eating It, Too—Conflicts Between Inherency and Infringement Analyses for Drug Metabolites," (panel discussion focusing on Torrance, Andrew W., 2009, "Physiological Steps Doctrine," *Berkeley* 

*Technology Law Journal*, Fall 2008, Vol. 23, Issue 4, pp. 1471-1505), Biotechnology Industry Organization Intellectual Property Corporate Counsels Committee Conference, New Orleans, LA. (Invited panelist)

"Patent Law, HIPPO, and the Biodiversity Crisis," Review of Intellectual Property Law "Green Issue" Symposium, John Marshall School of Law, Chicago, IL. (Invited keynote speaker)

"Neurobiology and Patenting Thought," 11th Annual SEAL Conference, Williamsburg, VA. (Competitively selected)

### March

Participant, MIT Innovation Lab, MIT Sloan School of Management, Massachusetts Institute of Technology, Cambridge, MA. (Invited)

Searle-Kauffman Fellows Meeting, Searle-Kauffman Institute on Law, Innovation, and Growth, Chapman University School of Law, Orange, CA. (Competitively selected).

### **February**

Chairman, First Annual Patent Olympics, University of Kansas School of Law, Lawrence, KS.

### <u>January</u>

Searle-Kauffman Fellows Meeting, Searle-Kauffman Institute on Law, Innovation, and Growth, Captiva Island, FL. (Competitively selected).

"Intellectual Property and Entrepreneurship," Kauffman Global Scholars Program & Kauffman Global Faculty Program, Kauffman Foundation, Kansas City, MO. (Invited)

"An Extinction Bar to Patentability," Biodiversity Institute, Biodiversity Science Seminar Series, University of Kansas, Lawrence, KS. (Invited)

Moderator and Speaker, "Biology Invading and Transforming Law," American Association of Law Schools (AALS) annual meeting, New Orleans, LA.

#### 2009

### November

"Biology as the Future of Law", Biolaw 3.0: Law at the Frontiers of Biology Conference, University of Kansas School of Law, Lawrence, KS. (Host and presenter)

Participant, Research Roundtable on Empirical Studies of Patent Litigation, Searle Center on Law, Regulation, and Economic Growth, Northwestern Law School, Chicago, IL (Invited)

"The Legal Possibilities of Synthetic Biology", MIT Innovation Lab, MIT Sloan School of Management, Massachusetts Institute of Technology, Cambridge, MA. (Invited)

### October

"Patents and the Regress of Useful Arts", University of Iowa College of Law, Iowa City, IA. (Invited)

"Patenting People - Human Embryos, Genes, Thought, and Physiology as Intellectual Property", Seventh Annual Intellectual Property Law Scholars Conference, Seton Hall School of Law, Newark, NJ.

Searle-Kauffman Fellows Meeting, Searle-Kauffman Institute on Law, Innovation, and Growth, Searle Center, Northwestern Law School, Chicago, IL. (Competitively selected).

### <u>September</u>

"The Patent Game - An Online Interactive Simulation of the Patent System," UMKC School of Law, Kansas City, MO. (Invited guest lecture)

"Patenting People and other Biotechnology Law Conundra," Tennessee Biotechnology Association, Annual Conference, Nashville, TN. (Invited)

### August

"Patenting People - Human Embryos, Genes, Thought, and Physiology as Intellectual Property", Second Annual Innovation and Communication Law Conference, Louisville, KY. (Invited)

"Patenting People - Human Embryos, Genes, Thought, and Physiology as Intellectual Property", Intellectual Property Scholars Conference, Cardozo Law School, New York City, NY. (Competitively selected)

"Patenting People - Human Embryos, Genes, Thought, and Physiology as Intellectual Property", SEALS Annual Conference, Palm Beach, FL. (Invited)

#### June

"Commonalities between Intellectual Property and User, Collaborative, and Open Innovation", 7th Annual International Open and User Innovation Workshop, Hamburg University of Technology (TUHH) and Kühne School of Logistics, Hamburg, Germany. (Invited commentary)

"Economics of Infant Commons" (with Prof. Eric von Hippel, MIT Sloan School of Management), 7th Annual International Open and User Innovation Workshop, Hamburg University of Technology (TUHH) and Kühne School of Logistics, Hamburg, Germany. (Invited)

"Synthesizing Law for Synthetic Biology", Biotech Summer Institute at Drake University and Pioneer Hi-Bred, Des Moines, IA. (Invited)

### May

"Neurobiology and Patenting Thought", Gruter Institute Annual Conference on Law, Mind, and Brain, Gruter Institute, Squaw Valley, CA. (Invited)

"Foundations of Intellectual Property" (Introductory lecture to all participants, with Prof. Katherine Strandburg, NYU Law School) and "Patents and the Regress of Useful Arts", Workshop on Impacts of Open and User Innovation on Intellectual Property Law, Sponsored by The MIT Innovation Lab, MIT Sloan School of Management, Massachusetts Institute of Technology, and The Berkman Center for Internet and Society, Harvard Law School, Cambridge, MA. (Invited cohost and presenter)

"Synthesizing Law for Synthetic Biology", OECD (Organisation for Economic Cooperation and Development) Collaborative Mechanisms for Intellectual Property Management Workshop, OECD Headquarters, Paris, France. (Invited)

April

"Patenting People – Human Embryos, Genes, Thought, and Physiology as Intellectual Property", Baby Markets Roundtable, George Washington University Law School, Washington, DC. (Invited)

"Metaphysics and Patenting Life", 2009 SEAL (The Society for Evolutionary Analysis in Law) Conference, Vanderbilt University Law School, Nashville, TN. (Competitively selected).

"Protecting and Promoting Biotechnology Innovation", Life Science Business, University of Kansas School of Business, Overland Park, KS. (Invited guest lecture).

### March

"Patents and the Regress of Useful Arts", Governance of New Technologies: The Transformation of Medicine, Information Technology and Intellectual Property, University of Edinburgh, Edinburgh, Scotland, United Kingdom. (Competitively selected)

"Climate Change and the Changing Legal Climate", Spencer Museum of Art, Lawrence, KS. (Invited)

"Synthetic Biology – Law and the Next Open Source Hardware", MIT Innovation Lab, MIT Sloan School of Management, Massachusetts Institute of Technology, Cambridge, MA. (Invited)

"The Patent Game", Fish & Richardson P.C., Firm-wide Thursday Forum, Boston, MA. (Invited)

### **February**

"Patent Expertise and the Regress of Useful Arts", Intellectual Property Scholars Roundtable, Drake Law School, Des Moines, IA. (Invited)

"Biotechnology Patents and the Regress of Useful Arts", Stanford Law School, BioLaw and Health Policy Society, Palo Alto, CA. (Invited)

"Patents and the Regress of Useful Arts", Washington University School of Law Junior Faculty Regional Workshop, Saint Louis, MO. (Invited)

#### <u>January</u>

"Intellectual Property and Entrepreneurship", Kauffman Global Scholars Program, Kauffman Foundation, Kansas City, MO. (Invited)

Introduction to "The Two Halves of Biolaw" panel, Association of American Law Schools Annual Meeting, San Diego, CA.

### 2008

### December

"The Patent Game", Polsinelli Shughart PC, Kansas City, MO. (Invited)

### November

"Synthesizing Law for Synthetic Biology", Biolaw 2.0: Law at the Frontiers of Biology Conference, University of Kansas School of Law, Lawrence, KS. (Host and presenter)

"The Law of Biodiversity and Climate Change," NSF Climate Change IGERT Class, University of Kansas, Lawrence, KS (Invited).

# October

"Patents and Regress in the Useful Arts", Central States Law Schools Association, University of Southern Illinois School of Law, Carbondale, Ill.

"Patents and Regress in the Useful Arts", University of Ottawa Faculty of Law, Ottawa, Ontario, Canada. (Invited)

"Patents and Regress in the Useful Arts", University of Louisville School of Law, Louisville, KY. (Invited)

"Patents and Regress in the Useful Arts", Works In Progress In Intellectual Property 2008 Conference, Tulane University School of Law, New Orleans, LA. (Invited)

"Patents and Regress in the Useful Arts", Midwest Law and Economics Association Annual Conference, Northwestern University School of Law, Chicago, IL. (Competitively selected)

### September

"Patents and Regress in the Useful Arts", University of Oregon School of Law, Eugene, OR. (Invited)

"Patents and Regress in the Useful Arts", Midwest Law & Society Conference, University of Wisconsin, Madison, WI.

#### August

"Patents and Regress in the Useful Arts", Harvard Business School-MIT User and Open Innovation Conference, Harvard Business School, Allston, MA. (Invited)

### <u>July</u>

"Patents and Regress in the Useful Arts", Conference on Innovation and Communications Law, Turku University School of Law, Turku, Finland. (Invited)

#### June

"PatentSim<sup>TM</sup> for Chemical Engineers", American Institute of Chemical Engineers 2008 Process Development Symposium, The Berkshires, Hancock, MA. (Invited)

### May

"Patents and Disasters", 2008 Joint Annual Meetings of Law and Society Association and Canadian Law and Society Association, Montreal, Canada. (Invited)

"The Third Face of GM Regulation", Biotech Summer Institute at Drake University and Pioneer Hi-Bred, Des Moines, IA. (Invited)

"Gene Patents and Gene Concepts", STS and IP Law, Cosponsored by Stanford Law School and Berkeley Law School, Saint Helena, CA. (Invited)

### <u>April</u>

"Climate Change and the Changing Legal Climate", University Lecture Series at the Commons, Hall Center, University of Kansas, Lawrence, KS. (Invited)

"Mental Steps and Physiological Steps", Junior Scholars Workshop on Neuroscience and Law, Stanford Law School, Palo Alto, CA. (Invited)

"Open Source Biology as an Antidote to Proprietary Human Evolution", Conference on Open-Source and Proprietary Models of Innovation, Washington University School of Law, Saint Louis, MO. (Invited)

### March

"Protecting and Promoting Biotechnology Innovation" (guest lecture), Life Science Business, University of Kansas School of Business, Lawrence, KS. (Invited guest lecture)

"An Extinction Bar to Patentability", Boston College School of Law, Boston, MA. (Invited)

### **February**

"Metaphysics and Patenting Life", Intellectual Property Scholars Roundtable, Drake University School of Law, Des Moines, IA. (Invited)

"Physiological Steps Doctrine", 2007 MSU IP & Communication Law Scholars Workshop, Michigan State University School of Law, East Lansing, MI. (Competitively-selected)

"Tribal Sovereign Immunity from Patent and Copyright Infringement", 12th Annual Tribal Law and Government Conference, Tribal Law Center, University of Kansas School of Law, Lawrence, KS. (Invited)

#### <u>January</u>

"PatentSim™ and Entrepreneurship", Kauffman Global Scholars Program, Kauffman Foundation, Kansas City, MO. (Invited)

"Intellectual Property and Biodiversity Conservation", 2008 American Association of Law Schools Annual Meeting, New York, NY. (Moderator and presenter)

#### 2007

# November

"Patent Our Future", Biolaw – Law at the Frontiers of Biology, University of Kansas School of Law, Lawrence, KS. (Host and presenter)

"Intellectual Property in Taiwan", Intercollegiate Taiwanese American Students Association (ITASA) 2007 East Coast Conference, Harvard University, Cambridge, MA. (Invited)

### October

"Patenting Human Evolution", Law, Ethics, and the Life Sciences, Louisville University School of Law, Louisville, KY. (Invited)

"Patent Law Reform" (panelist with Profs. Mark Lemley and Christopher Holman), Hot Topics in Intellectual Property Law, UMKC School of Law. (Invited)

"Endangered Species and Climate Change – Aiming the Law at Moving Targets", Facts, Ideas, and U.S. Climate Change Policy: A Conference on Climate Change, Center for Progressive Reform and University of Kansas School of Law, Lawrence, KS. (Invited)

"Protecting and Promoting Biotechnology Innovation", Life Science Business, University of Kansas School of Business, Overland Park, KS. (Invited guest lecture)

<u>September</u>

"An Interactive Patent System Simulation (PatentSim™): Initial Empirical Results", 2007 Works In Progress In Intellectual Property 2007, American University School of Law, Washington, D.C..

### August

"An Interactive Patent System Simulation (PatentSim<sup>TM</sup>)", 2007 Intellectual Property Scholars Conference, DePaul University College of Law, Chicago, IL. (Competitively-selected plenary presentation)

### <u>April</u>

"Patent Law Update 2007", 2007 Intellectual Property CLE, Kansas Bar Association, Overland Park, KS. (Invited)

### March

Conference Fellow, 2007 What If? In Intellectual Property Conference, Michigan State University School of Law, East Lansing, MI. (Invited)

#### <u>February</u>

"Intellectual Property, Conservation, and Sustainability", American Association for the Advancement of Science (AAAS) 2007 Annual Meeting, San Francisco, CA. (Moderator and presenter)

"Patent and Copyright Law" University of Kansas Libraries Intellectual Property Symposium, University of Kansas, Lawrence, KS. (Invited)

### <u>January</u>

"Tribal Sovereign Immunity from Patent Infringement", 2007 Intellectual Property Scholars Roundtable, Michigan State University School of Law, East Lansing, MI.

#### 2006

#### October

"Enabling Biodiversity Conservation", 2006 Midwest Law and Economics Conference, University of Kansas School of Law, Lawrence, KS.

"Intellectual Property and Bioterrorism", Greater Kansas City Hospitals Association, Kansas City, MO. (Invited)

"Engineering Human Life", 26th Annual Meeting of the Association for Politics and the Life Sciences, Indiana University, Bloomington, IN.

"An Extinction Bar to Patentability", 2006 Works In Progress in Intellectual Property Conference, University of Pittsburgh School of Law, Pittsburgh, PA.

### <u>September</u>

"Intellectual Property and Biotechnology", School of Veterinary Medicine, Kansas State University, Manhattan, KS. (Invited)

"A Whirlwind Tour of the Patent System", Rotary Club, Lawrence, KS. (Invited)

### August

"Protecting and Promoting Scientific Innovation", Inaugural Self Lecture, University of Kansas Self Fellowship Program, Lawrence, KS. (Invited)

"Physiological Steps Doctrine", 2006 Intellectual Property Scholars Conference, Berkeley Law School, Berkeley, CA.

#### <u>June</u>

"An Extinction Bar to Patentability", Jurisgenesis Conference, Washington University School of Law, Saint Louis, MO (Invited)

### **April**

"United States Patent Reform", 2006 Intellectual Property CLE, Kansas Bar Association, Overland Park, KS. (Invited)

#### March

"Patents to the Rescue – Disasters and Patent Law", Shaping a New Direction for Law and Medicine: An International Debate on Culture, Disaster, Biotechnology & Public Health, DePaul University College of Law, Chicago, IL. (Invited)

"Consistency is the Hobgoblin of Small Countries - Comparative Legal Regulation of Genetically Modified Organisms at the Domestic and International Levels by Canada and the United States", 2006 American Society of International Law Annual Meeting, Washington, D.C.. (Invited)

#### **February**

"Environmental Law and Ethics", Hall Center for the Humanities, University of Kansas, Lawrence, KS. (Invited guest lecture)

### <u>2005</u>

### October

"An Extinction Bar to Patentability", informal presentation at Green College, Oxford University, UK (Invited)

"Introduction to Intellectual Property Protection", Stirling Medical Innovations, Stirling, Scotland, United Kingdom (Invited).

### 2003

## October

"Conservation Science, Conservation Law", Conservation Biology Symposium, Harvard University, Cambridge, MA. (Invited)

### <u>July</u>

"The Upside Down World of Mammals Down Under", Stone Zoo, Zoo New England, Stoneham, MA. (Invited)

## <u>2002</u>

#### May

"The Ethics of Biotechnology", Harvard Business School Conference On Leadership, Values, and Spirituality in Business, Harvard Business School, Allston, MA. (Invited)

## 2001

## <u>July</u>

"The Natural History and Conservation of Australian Mammals", Franklin Park Zoo, Zoo New England, Boston, MA. (Invited)

#### **MEDIA**

#### 2022

ShareAmerica (United States State Department), "The high value of U.S. patents", Holly Rosenkrantz (April 1, 2022) (published in English, Spanish, French, Portuguese, and Mandarin).

Investor's Business Daily, "Meet The Guy Who's Got More Patents Than Thomas Edison", Bruce Horovitz (March 24, 2022).

Wired, "You're (Maybe) Gonna Need a Patent for That Wooly Mammoth – Scientists are racing to bring extinct species back from the dead. But does a resurrected mammoth belong to nature, or us?", Matt Reynolds (February 9, 2022).

#### 2021

*The Economist*, "Valuing Patents – Billion-dollar blueprints – A new way of understanding the high but elusive worth of intellectual property", page 69 (December 4, 2021)

*Kansas City PBS, Flatland*, "Free (Steamboat) Willie: How Walt Disney's Original Mouse Could be Entering the Public Domain Pondering The Fate Of KC-Inspired Intellectual Property", Jacob Douglas (January 14, 2021)

### 2020

TED Talk (TEDxQueensU), "Innovation Hypercycles: The Birth and Death of Technology Hotspots" (<a href="https://www.youtube.com/watch?v=g8GTg">https://www.youtube.com/watch?v=g8GTg</a> 632qY), Queen's University, Kingston, Ontario, Canada (Invited) (January 26, 2020)

## <u>2019</u>

Legaltech News, "Reactive or Proactive? The Ambivalent Nature of Today's Legal Tech Education – Law schools are launching legal tech classes in response to the growing availability of tech tools and the demand fro more cost effective services. But in the process, they are also defining the future of legal practice", Rhys Dipshan (May 6, 2019)

LegalTech

#### 2018

*This Week in Health Law*, "Another BioBrick in the Wall", Interview by Prof. Nicholas Terry and Prof. Frank Pasquale (April 9, 2018)

### 2017

*New York Times Upfront Magazine*, "Natural Resources and Rights for Rivers", Interview by Carl Stoffers (October 6, 2017)

*Bloomberg Radio*, "Farmers Harvest Settlement in Syngenta Corn Lawsuit", June Grasso and Michael Best (Producer: David Sucherman)(September 27, 2017)

The Times of London, "Britain can lead the world in gene editing", Matt Ridley (August 7, 2017)

*Bloomberg Radio*, "First Syngenta Lawsuit Reaches the Courtroom", June Grasso and Michael Best (Producer: David Sucherman)(April 24, 2017)

#### 2016

WOW! 6 News, "Discovery of preserved dinosaur tail advanced paleontology knowledge", Dan Garrett(December 13, 2016)

KU Today, "Discovery of preserved dinosaur tail shows law, bioethics must keep up with scientific advancements, professor says", Mike Krings (December 12, 2016)

KU Today, "Professor analyzing decades of data to determine patent value", Mike Krings (August 30, 2016)

### 2015

KU Today, "Citizens have right to improve technologies without fear of legal action, professor says", Mike Krings (October 13, 2015)

Lawrence Journal-World, "KU Today: Biology and law collide in award winner's work - Professor deals with

'cutting-edge science and the legal issues it raises'", McKenna Harford (August 23, 2015)

The University Daily Kansan, "De-extinction science poses benefits and risks", Brianna Childers (June 15, 2015)

KMBZ 98.1 FM Radio, "Technology advances scientists toward de-extinction", Will Sterrett (June 12, 2015)

Lawrence Journal-World, "Jurassic World not all fiction, says KU professor", Rochelle Valverde (June 11, 2015)

WIBW Radio, "Unknown: About Jurassic World and Deextinction", (June 10, 2015)

Kurzweil Accelerating Intelligence, "Real Jurassic World not far from reality?", Ray Kurzweil (June 9, 2015)

WOW! 6 NEWS, "Scientists suggests the themes of 'Jurassic World' aren't too far off from reality with the use of de-extinction science, KU official explains", Amina Smith (June 8, 2015)

KU Today, "Real 'Jurassic World' not far from reality, professor says", Mike Krings (June 3, 2015)

BBC Radio 4, Interview for "Synthetic Biology" documentary, Sam Francis (to be broadcast in September 2015)

*McClatchy News Service*, Interview for "Patent Reform" article, Dian Zhang (to be published in spring/summer 2015)

*Penn Law*, "Penn Law alum and ITC Commissioner gives keynote at PIPG symposium on design patents", Emily Offit (March 23, 2015)

*KU Today*, "Professor argues standards for cutting-edge science need to consider intellectual property", Mike Krings (January 12, 2015)

## 2014

*Feed Navigator*, "Syngenta case shows U.S. market is not impervious to foreign rule: legal expert", Jane Byrne (October 10, 2014)

*Reuters*, "Cargill case highlights foreign regulatory influence in U.S.: experts," Andrew Chung (September 16, 2014)

### 2013

The Star Online, "The promise and peril of reviving extinct species," Lisa M. Krieger (June 17, 2013)

Lawrence Journal-World, "Trademark protection a constant concern for KU," by Matt Erikson (June 17, 2013)

Patently-O, "Twenty Thoughts on the Importance of Myriad," by Dennis Crouch (June 14, 2013)

Kansas Public Radio and KCUR, "U.S. Supreme Court: Can't Patent Human Genes," by Bryan Thompson (June 14, 2013)

The Voice of Russia Radio, "Supreme Court decision AMP v. Myriad SCOTUS rules that human DNA cannot be patented," by Carmen Russell-Sluchansky (June 13, 2013)

Kansas City Star, "Supreme Court bars patents on unaltered human DNA," by Diane Stafford (June 13, 2013)

Whittier Daily News, "Extinct species revival raises hopes, fears," by Lisa M. Krieger (June 13, 2013)

KQED, "De-Extinction Debate: Should Extinct Species Be Revived?," by Liza Gross (June 5, 2013)

USA Today, "Should we bring back the passenger pigeon and the woolly mammoth?" by Elizabeth Weise (June 2, 2013)

The Australian, "Extinct species revival raises hopes," by AAP (June 1, 2013)

San Jose Mercury, "Extinct species revival raises hopes, fears," by Lisa M. Krieger (May 31, 2013)

*CQ Researcher*, "Patenting Human Genes: Should the Supreme Court uphold patents on human genes?," by Kenneth Jost (May 31, 2013)

Financial Times, "Supreme Court: US genes patent decision may depend on strands in Myriad argument" (May 28, 2013)

The Voice of Russia Radio, "Can human genes be patented," by Carmen Russell-Sluchansky (April 16, 2013)

Kansas Public Radio, "Who Owns Your Genes?," by Bryan Thompson (April 15, 2013)

Daily Herald, "Biotech industry at stake as court weighs human gene patent," by Greg Stohr & Susan Decker (April 12, 2013)

Bloomberg, "Biotech Industry at Stake in Human Gene Patent Decision," by Greg Stohr & Susan Decker (April 11, 2013)

Stanford Center for Law and the Biosciences Podcast, "Interview with Andrew Torrance," by Hank Greely (April 5, 2013)

### 2012

Chronicle of Higher Education, "Undergraduate Synthetic-Biology Contest Mixes Fun with Serious Warrnings," by Paul Basken (November 11, 2012)

Associated Press, "Kansas Board of Regents Considering 'Post-Tenure' Reviews" (November 6, 2013)

KCUR, "Kansas Board of Regents Considering 'Post-Tenure' Reviews" (November 5, 2013)

Wichita Eagle, "Kansas Board of Regents considers 'post-tenure' reviews," Associated Press (November 5, 2013)

Kansas City Star, "Kansas Regents Consider Performance Reviews for Tenured Faculty," (November 5, 2012)

Lawrence Journal-World, "Reviews of tenured professors proposed," by Matt Erickson (November 5, 2012)

Forbes, "Will Overregulation in Europe Stymie Synthetic Biology?," Op/Ed by Henry I. Miller and Drew Kershen (August 29, 2012)

NPR, Morning Edition, "Pfizer Settles Suit Involving Celebrex," reported by Wendy Kauffman (May 2, 2012)

Los Angeles Daily Journal and San Francisco Daily Journal, "Supreme court rejects patents for diagnostic medical tests: The unanimous Supreme Court decision is likely to rattle California's biotech sector," by Robert Iafolla (Supreme Court Correspondent) (March 21, 2012)

6 News Lawrence, "KU Professor Hopes to Impact Patent Laws" (January 26, 2012)

### 2011

Seattle Times, "Patents emerge as significant tech strategy" (October 22, 2011)

### 2010

NPR (interview on "KC Currents," KCUR 89.3 FM), "Legal Roadblocks to Copyrighting Natural Remedies"

Chicago Lawyer, "Bringing Predictability to the Patent World" (May)

San Francisco Chronicle, "Patents' growing role in battle of mobile" (March)

Kansas City Star (February 8, 2010), Kansas City, MO, "Patent lawyers give your big idea an edge" (February)

#### 2009

Salina Journal (May 22, 2009), Salina, KS, "K-State: Farmers' seed use is illegal" (May)

#### 2008

NPR (KPR), The New Frontier of Biolaw (with Prof. Lee M. Silver) (November)

WREK, Inside the Black Box, "The Patent Game" (August)

#### 2007

ABC Television News (Topeka, KS), Topic: Defenses to copyright infringement (May)

Kansas City Star, Topic: Legal blogging (March)

## 2004

*Radio One*, United States Virgin Islands, Topic: Biodiversity conservation priorities in the United States Virgin Islands (January)

#### 2003

Harvard Political Review, December 2003. By Luke Appling for Under the Boardwalk: U.S. cities are significantly contributing to the destruction of tropical rainforests (December)

## HONOURS, GRANTS, AND PEER REVIEW

2022

Elected to membership in the American Law Institute ("ALI") (July 2022)

2019

Appointed Paul E. Wilson Distinguished Professor of Law, University of Kansas

2018

Recipient of Dean Frederick T. Moreau Teaching and Mentoring Award

2017

Top 10% of Authors on SSRN by downloads (March 2017 to present)

Invited peer reviewer for Yale Law Journal

Invited peer reviewer for Journal of Statistical Physics

Invited peer reviewer for International Food and Agribusiness Management Review

Invited peer review for the Journal of Law and the Biosciences

Invited peer reviewer for Centre for International Governance Innovation

Invited peer reviewer for *Journal of Law and the Biosciences* (Oxford Academic)

### 2016

Sampsa Hyysalo, Torben Elgaard Jensen, and Nelly Oudshoorn (Eds.), THE NEW PRODUCTION OF USERS: CHANGING INNOVATION COLLECTIVES AND INVOLVEMENT STRATEGIES, in which Eric von Hippel and I wrote "Protecting the Right to Innovate – Our Innovation Wetlands", pages 45-74, won the 2016 Freeman Prize, which is awarded "for a publication which is a significant collective contribution to the interaction of science and technology studies with the study of innovation" by the European Association for the Study of Science and Technology ("EASST")).

Named Senior Fellow at the Centre for International Governance Innovation

Named Co-Director of Gruter Institute Annual Squaw Valley Conference

2015

Co-named Earl B. Shurtz Research Professor of Law

Recipient of a 2015 University Scholarly Achievement Award

The Patent Conference (which I cofounded in 2011) named one of the three "big annual IP-focused academic conferences in the US" by leading patent blog Written Description

### 2014

Invited to present 2014 Self Fellows Lecture, University of Kansas, Lawrence, KS (August 15, 2014)

Invited to present "An Analysis of the Complete Patent Citation Network" to the Commissioner of Patents and her staff at the United States Patent and Trademark Office in Alexandria, VA

Invited to be a founding Fellow of the Innovation Society at the Open and User Innovation Conference "Village Elders" meeting

Invited to attend the World Economic Forum meeting on empirical patent data at University of Washington School of Law, Seattle, WA

Appointed Visiting Distinguished Professor, University of Toronto Faculty of Law, Toronto, Ontario, Canada

#### 2013

Invited to present "De-Extinction Law: GMO, International, and Patent" at the National Academies, Committee on Science, Technology, and Law, Policy and Global Affairs Division, Washington, D.C.

Invited to deliver a keynote address ("A Natural Experiment in Patents and Innovation") at the European Policy for Intellectual Property ("EPIP") Annual Conference, Paris, France

Invited to visit the Max Planck Institute for Intellectual Property and Competition Law, Munich, Germany

Invited reviewer for the National Academies

Invited by the United States Patent & Trademark Office ("USPTO") to speak on "Beauty Fades: An Experimental Study of Federal Court Design Patent Aesthetics," at the USPTO headquarters in Arlington, VA

#### 2012

Invited by the Organization for Economic Cooperation and Development to speak on "Knowledge Sharing and Intellectual Property," at OECD headquarters in Paris, France

Commissioned by the National Academies to author report on "Synthetic Biology Standards" "Synthetic Biology Standards and Intellectual Property," and to present the report at the Symposium on Management of Intellectual Property in Standard-Setting Processes at The National Academies, Washington, DC.

Invited peer reviewer for the University of Ottawa Law Review

Awarded competitive fellowship to George Mason 28th Law and Economics Summer Institute

Appointed Visiting Scientist at the Massachusetts Institute of Technology

### 2011

Elected President of the University of Kansas Faculty Senate

Appointed Gruter Fellow at the Gruter Institute, Portola Valley, CA

Invited by Genome Canada to deliver the keynote address at the *Optimizing the Impact of Genomics Research* Conference in Ottawa, Ontario, Canada

Appointed member of the American Association of Law Schools ("AALS") Planning Committee for the 2012 AALS Midyear Conference

Appointed Visiting Professor at the University of Washington School of Law

### 2010

Edward D. Manzo Scholar in Patent Law, DePaul University College of Law

Selected to participate in the "Rising Stars" symposium sponsored by the University of Minnesota School of Law's *Minnesota Journal of Law, Science, & Technology* 

Invited peer reviewer for Stanford Law Review

Invited keynote speaker for Review of Intellectual Property Law "Green Issue" Symposium, John Marshall School of Law, Chicago, IL.

#### 2009

Invited to serve as a peer reviewer for University of Chicago Press

Docking Faculty Scholar (university-wide program established with a gift from the late Mrs. Meredith Docking to honor University of Kansas faculty members who have distinguished themselves in their early careers)

Invited to become an editor of MAKARA, the national journal of the Universitas Indonesia (University of Indonesia)

Named 2009/2010 Searle-Kauffman Fellow on Law, Innovation, and Growth

Invited faculty referee for Empirical Studies of Patent Litigation research roundtable, Searle Center on Law, Regulation, and Economic Growth, Northwestern University Law School

Invited by the Organisation for Economic Co-operation and Development ("OECD"), the economic policy organization of industrialized countries, to brief them on intellectual property and synthetic biology at their headquarters in Paris, France

Law School Marshall, University of Kansas School of Law December Commencement Ceremony (elected by KU Law School Fall graduating class)

### 2008

Invited member of Technology, Media, and Telecommunications ("TMT") Committee of the Barack Obama Presidential Campaign

Invited to serve as a peer reviewer for the University of Illinois Journal of Law, Technology & Policy

#### Other

2003-05	Awarded Harvard University Center for the Environment Grants for Field Trips to the U.S. Virgin Islands
2003	Placed first in national faculty search for Assistant Professor of Environmental Policy and Law at University of Alaska (Declined Offer)
2002-05	Awarded Harvard University Course Improvement Grants for Field Trip to the U.S. Virgin Islands

1998	Alan and Arlene Grimes Heimert Outstanding Tutor Award, Eliot House, Harvard University
1991-97	Graduate Student Fellowship, Harvard University
1993-97	Graduate Student Research Grant, Harvard University
1994	Putnam Expeditionary Fund Grant, Department of Organismic and Evolutionary Biology, Harvard
1993-95	National Science and Engineering Research Council of Canada Doctoral Fellowship
1991-96 University)	Certificates of Distinction in Teaching (all courses taught as Teaching Fellow, Harvard
1990-91	Glendenning Scholarship for top student in Biology, Queen's University
1990-91, 88-89	Colonel Rattray Scholarship in Science, Queen's University
1989-90, 87-88	Dean's Honours List, Queen's University
SERVICE	
2020-Present	Member of Earth Biogenome Project, Ethics, Legal, and Social Issues Sub-Committee (invited)
2021-Present	Member of University Committee on Promotion and Tenure (UCPT)
2021/2022	Member of Research Rising Grant Selection Committee
2021-Present	Member of KU Law Admissions Committee
2018/2019	Chair, Sabbatical Committee (appointed by Dean Stephen Mazza)
2017-2018	Chair, Promotion and Tenure Committee (appointed by Dean Stephen Mazza)
2016-Present	Chair of University Scholarly Achievement Award Selection Committee (appointed by Chancellor Bernadette Gray-Little; reappointed by Chancellor Douglas Girod)
2016-	Cofounder of The Biolaw Conference/Biolawlapalooza (along with Profs. Henry Greely (Stanford Law School), Nita Farahany (Duke Law School), and I. Glenn Cohen (Harvard Law School)) to be held first on April 20-21, 2017 at Stanford Law School
2016-2017	Member, Promotion and Tenure Committee
2015-	Chair of University of Kansas School of Law Bar Exam Data Subcommittee
2015-	Member of University of Kansas School of Law Diversity and Inclusive Committee
2015-	Elected (by the faculty) and appointed (by the Provost) to the University of Kansas School of Law Dean Review Committee
2015-	Appointed to the Board of Directors of Fathomers (a Los Angeles-based avant garde art institute)
2015-	Named member of University of Kansas Faculty Intellectual Property Committee
2015-2016	Chair of University of Kansas School of Law Post-Tenure Review Committee

2015	Represented University of Kansas Committee on Intellectual Property and Sponsored Research (and its report) to Office of the General Counsel, Provost, KUMC Faculty Senate, KU Faculty Senate Executive Committee, and KU Faculty Senate
2015	Hosted and organized the 5 <sup>th</sup> Annual Patent Conference (the leading annual conference of patent scholarship)
2014-2015	Chair of University of Kansas School of Law Post-Tenure Review Committee
2013-2014	Member of University of Kansas Provost's ad hoc advisory group on First Amendment issues
2013-2014	Chair of University of Kansas Committee on Intellectual Property and Sponsored Research
2013-2014	Co-Chair of University of Kansas School of Law Committee on Post-Tenure Review
2013-2014	Member of University of Kansas School of Law Tenure and Promotions Committee
2013-2014	Member of University of Kansas School of Law Career Services Committee
2012-2013	President of the University of Kansas Faculty Senate
2012-2013	Member of University of Kansas School of Law Library Committee
2012	Retained by Grand Arts to provide counsel regarding a major upcoming bioart installation
2011	Nominated and elected President of the University of Kansas Faculty Senate
2010	Cofounder of <i>The Patent Conference/PatCon</i> with David Schwartz, Ted Sichelman, and David Olson
2010	Appointed to Provost's Working Group on Engaging Scholarship for Public Impact
2010	Appointed to University of Kansas School of Law Faculty Hiring Committee
2010-	Nominated and elected to University of Kansas Student Appeals Board
2010-2012	Nominated and elected to, and served on, University of Kansas University Senate and University Senate Executive Committee
2010-2013	Nominated and elected to, and served on, University of Kansas Faculty Senate and Faculty Senate Executive Committee
2010	Elected Chairperson of American Association of Law Schools (AALS) Biolaw Section
2009-	Member, University of Kansas Open Access Implementation Taskforce
2009	OECD (Organisation for Economic Cooperation and Development); invited briefing on "Synthesizing Law for Synthetic Biology" at OECD Headquarters, Paris, France
2009	University of Kansas Taskforce on Open Access
2009-present	Eastern Wind Power; member, board of directors
2009	"The Patent Game", Fish & Richardson P.C., firm-wide Thursday Forum, Boston, MA

2008	Barack Obama Campaign for President; member of Technology, Media, and Telecommunications ("TMT") committee
2008-present	Co-organizer and co-founder of American Association of Law Schools Section on Biolaw with Profs. June Carbone and Chris Holman
2008	Invited Speaker, "The Patent Game", Polsinelli Shughart PC, Kansas City, MO.
2007-present	Invited Speaker on "Patent Law Update 2007" at the Kansas Bar Association Continuing Legal Education Meeting
2007- present	Founder, "Biolaw – Law and the Frontiers of Biology", an annual academic conference featuring scholars who present the best national and international biolaw scholarship, University of Kansas School of Law
2006-07	Member, Bioethics Faculty Position Search Committee, Philosophy Department, University of Kansas
2006	Environmental policy advisor to Senator Adlah "Foncie" Donastorg in his campaign to become Governor of the United States Virgin Islands in the summer and autumn of 2006
2006	Invited Speaker on "Coming Reforms to the United States Patent System" at the Kansas Bar Association Continuing Legal Education Meeting
2006	Invited Speaker on "Intellectual Property and Bioterrorism", Greater Kansas City Hospitals Association, (CLE credit)
2005-06	Member, Classified Research Policy Review Committee, University of Kansas
2005-06	Member, Bioethics Faculty Position Search Committee, Philosophy Department, University of Kansas
2003-present	Chairman, Scientific Advisory Board, The Darwin Project, Boston
2004-2005	Member, board of directors, Garden Under Glass (Organization charged by Massachusetts Turnpike Authority with building major new botanical gardens and conservation center in downtown Boston)
2002-2003	Pro Bono Legal Counsel, Environmental Association of Saint Thomas and Saint John, USVI
1996-2000	Founder and Organizer, "Rite of Spring", annual biodiversity charity concert, Harvard University
1992-1996	Co-founder and Chair, Biodiversity Seminar Series, Department of Organismic and Evolutionary Biology, Harvard University
1993-2000	Resident Tutor, Eliot House, Harvard University
1993-1994	Graduate Student Representative, Department of Organismic and Evolutionary Biology, Harvard University

# **BAR ADMISSIONS**

Commonwealth of Massachusetts

Registered to practice before the United States Patent and Trademark Office

### **PATENTS**

Carl Bergstrom, Martin Rosvall, Daril Vilhena, Jevin D. West, and Andrew Torrance, "Systems and methods for data analysis", U.S. Patent No. US 9589051 B2

Torrance, Andrew W., and Bill Tomlinson, "Collecting User Responses Over a Network," U.S. 2002/0107726 A1

Torrance, Andrew W., and Bill Tomlinson, "Polling Systems, Methods, and Computer Programs," U.S. Provisional Patent Application No. 60/259,848

Torrance, Andrew W., and Bill Tomlinson, "Interactive Simulation," U.S. Patent Application No. 12/189,770

Sheard, P., M. Reay, and A.W. Torrance, "Monitoring Method and Apparatus," European Patent No. 1,698,058

## **LANGUAGES**

Native English speaker

Good knowledge of spoken and written French (including formal training in Sancerre, France, June 2016, May/June 2017, May/June 2018, and May/June 2019) and German (including informal exchange visit to Stuttgart, Germany, in December 1990/January 1991)

Good written knowledge of Latin and Classical Greek