W. NICHOLSON PRICE II

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ACADEMIC APPOINTMENTS

University of Michigan Law School, Professor of Law, 2019–
Assistant Professor of Law, 2016–2019
University of Michigan Medical School, Professor of Learning Health Sciences (by courtesy), 2024–
Faculty Affiliate, Institute for Healthcare Policy and Innovation, 2017–
Faculty Affiliate, Science and Technology Policy Program, 2017–

University of Copenhagen Faculty of Law, Permanent Visiting Scholar, 2017–
Senior Fellow, Center for Advanced Studies in Bioscience Innovation Law, 2023–
Core Partner, Center for Advanced Studies in Biomedical Innovation Law, 2018–2023

Harvard Law School, Petrie-Flom Center for Health Law Policy, Biotechnology and Bioethics, Faculty Affiliate, 2018–
Co-PI, Project on Precision Medicine, Artificial Intelligence, & Law, 2018–
Academic Fellow, 2012–2014

University of New Hampshire School of Law, Assistant Professor of Law, 2014–2016

U.C. Hastings College of the Law, U.C.S.F./U.C. Hastings Consortium on Law, Science and Health Policy, Visiting Scholar, 2011–2012

EDUCATION

Columbia Law School, J.D., James Kent Scholar, 2011

Columbia University Dept. of Biological Sciences, Ph.D., 2010; M.Phil., 2008; M.A., 2007

Harvard College, A.B. in Biological Sciences, cum laude, 2004

CLERKSHIP

Hon. Carlos T. Bea, U.S. Court of Appeals for the Ninth Circuit, law clerk, 2011–2012

LAW REVIEW ARTICLES

Data as Policy, Boston College Law Review (forthcoming 2026) (with Janet Freilich)

Uncorrected, Boston University Law Review (forthcoming 2025) (with Janet Freilich)

An Incidental Standard for Medical AI, Journal of Law and Innovation (forthcoming 2025)

Medical AI, Standards, and Clinicians in the Loop, 74 Emory Law Journal 1265 (2025)

Rethinking Innovation at FDA, 104 Boston University Law Review 513 (2024) (with Rachel Sachs & Patricia Zettler)

Locating Liability for Medical AI, 73 DePaul Law Review 339 (2024) (with Glenn Cohen)

Cryptic Patent Reform Through the Inflation Reduction Act, 37 Harvard Journal of Law and Technology 57 (2023) (with Arti Rai & Rachel Sachs)

Humans in the Loop, 76 Vanderbilt Law Review 429 (2023) (with Rebecca Crootof & Margot Kaminski) (Outstanding Paper Award, Legal Scholars Roundtable on Artificial Intelligence)

Hierarchy, Race & Gender in Legal Scholarly Networks, 75 Stanford Law Review 71 (2023) (with Keerthana Nunna & Jonathan Tietz)

Distributed Governance of Medical AI, 25 SMU Science & Technology Law Review 3 (2022)

New Innovation Models in Medical AI, 99 Washington University Law Review 1121 (2022) (with Rebecca Eisenberg & Rachel Sachs)

Clearing Opacity through Machine Learning, 106 Iowa Law Review 775 (2021) (with Arti Rai)

Problematic Interactions Between AI and Health Privacy, 2021 Utah Law Review 925

Acknowledgements as a Window into Legal Academia, 98 Washington University Law Review 307 (2020) (with Jonathan Tietz)

The Cost of Novelty, 119 Columbia Law Review 769 (2020)

Medical AI and Contextual Bias, 33 Harvard Journal of Law & Technology 65 (2020)

Artificial Intelligence in Medicine: Four Roles for Potential Transformation, 18 Yale Journal of Health Policy, Law, & Ethics & 21 Yale Journal of Law & Technology Special Issue 122 (2019)

Grants, 34 Berkeley Technology Law Journal 1 (2019)

Drug Approval in a Learning Health System, 102 Minnesota Law Review 2413 (2018)

Regulating Black-Box Medicine, 116 Michigan Law Review 421 (2017)

Expired Patents, Trade Secrets, and Stymied Competition, 92 Notre Dame Law Review 1611 (2017)

Promoting Healthcare Innovation on the Demand Side, 4 Journal of Law & the Biosciences 3 (2017) (with Rebecca Eisenberg)

Risk and Resilience in Health Data Infrastructure, 16 Colorado Technology Law Journal 65 (2017)

Privacy and Accountability in Black-Box Medicine, 23 Michigan Telecommunications & Technology Law Review 1 (2016) (with Roger Ford)

Regulating Secrecy, 91 Washington Law Review 1769 (2016)

Big Data, Patents, and the Future of Medicine, 37 Cardozo Law Review 1401 (2016)

Manufacturing Barriers to Biologics Competition and Innovation, 101 Iowa Law Review 1023 (2016) (with Arti Rai)

Describing Black-Box Medicine, 21 BU Journal of Science & Technology Law 347 (2015)

Black-Box Medicine, 28 Harvard Journal of Law & Technology 419 (2015)

Patent Trolling—Why Bio & Pharmaceuticals Are at Risk, 17 Stanford Technology Law Review 773 (2014) (with Robin Feldman)

Making Do in Making Drugs: Innovation Policy and Pharmaceutical Manufacturing, 55 Boston College Law Review 491 (2014)

Unblocked Future: Why Gene Patents Won't Hinder Whole-Genome Sequencing and Personalized Medicine, 33 Cardozo Law Review 1601 (2012)

Am I My Son? Clones and the Modern Family, Note, 11 Columbia Science & Technology Law Review 118 (2010)

Patenting Race: The Problems of Ethnic Genetic Testing Patents, Note, 8 Columbia Science & Technology Law Review 119 (2007)

BOOK

THE FUTURE OF MEDICAL DEVICE REGULATION: INNOVATION AND PROTECTION, Cambridge University Press (2022) (co-editor with I. Glenn Cohen et al.)

SCIENTIFIC AND MEDICAL JOURNALS

The Data-Augmented, Technology-Assisted Medical Decision Making (DATA-MD) Curriculum: A Machine Learning and Artificial Intelligence Curriculum for Clinical Trainees, Academic Medicine (2025) (with Andrew Wong et al.)

The puzzle of biologics manufacturing platform patents, Nature Biotechnology (2025) (with Osmat Azzam Jefferson et al.)

Disappearing Data at the U.S. Federal Government, New England Journal of Medicine (2025) (with Janet Freilich & Aaron Kesselheim)

Environment scan of generative AI infrastructure for clinical and translational science, 2 npj Health Systems, art. no. 4 (2025) (with Betina Idnay et al.)

Artificial Intelligence in Health and Health Care: Priorities for Action, 44 Health Affairs 163 (2025) (with Michael Matheny et al.)

Summary of Keynote Speeches from the 2024 Voice AI Symposium, presented by the Bridge2AI-Voice Consortium, 6 Frontiers in Digital Health 1484503 (2024) (with Rupal Patel et al.)

Synthetic Health Data: Real Ethical Promise and Peril, 54 Hastings Center Report 8 (2024) (with Daniel Susser et al.)

The sufficiency of disclosure of medical artificial intelligence patents, 42 Nature Biotechnology 839 (2024) (with Mateo Aboy, Seth Raker, and Kathy Liddell)

Use of Artificial Intelligence in Drug Development, 7 JAMA Network Open e2414139 (2024) (with Louise Dreudahl, Timo Minssen, & Ameet Sarpatwari)

Systematic enhancement of protein crystallization efficiency by bulk lysine-to-arginine (KR) substitution, 33 Protein Science e4898 (2024) (with Nooriel Banayan et al.)

Translating Commercial Health Data Privacy Ethics into Change, 23(10) American Journal of Bioethics 7 (2023) (with Kayte Spector-Bagdady)

Enabling Collaborative Governance of Medical AI, 5 Nature Machine Intelligence 821 (2023) (with Mark Sendak, Suresh Balu, & Karandeep Singh)

Digital Simulacra, Bias, and Self-Reinforcing Exclusion Cycles, 23(9) American Journal of Bioethics 60 (2023) (with Ana Bracic)

Principles for Health Information Collection, Sharing, and Use: A Policy Statement From the American Heart Association, 148 Circulation 1061 (2023) (with Kayte Spector-Bagdady et al.)

Mapping the Patent Landscape of Medical Machine Learning, 41 Nature Biotechnology 461 (2023) (with Mateo Aboy and Seth Raker)

Exclusion Cycles: Reinforcing Disparities in Medicine, 377 Science 1158 (2022) (with Ana Bracic & Shawneequa Callier)

Will mRNA Technology Companies Spawn Innovation Ecosystems?, Harvard Business Review (April 18, 2022) (with Christoph Grimpe, Timo Minssen, & Ariel Stern) (translated into German as *Ein Booster für die Pharmabranche*, 7 Harvard Business Manager 10 (2022))

AI Insurance: How Liability Insurance Can Drive the Responsible Adoption of Artificial Intelligence in Health Care, 3 NEJM Catalyst Innovations in Care Delivery (2022) (with Ariel Stern, Avi Goldfarb, & Timo Minssen)

Open-Source Clinical Machine Learning Models: A Critical Appraisal of Feasibility, Advantages, and Challenges, 6 JMIR Formative Research e33970 (2022) (with Keerthi Harish & Yindalon Aphinyanaphongs)

Respecting Autonomy and Enabling Diversity: The Effect of Eligibility and Enrollment on Research Data Demographics, 40 Health Affairs 1892 (2021) (with Kayte Spector-Bagdady et al.)

Collaboration in Times of Crisis: A Study on COVID-19 Vaccine R&D Partnerships, 39 Vaccine 6291 (2021) (with Louise Druedahl & Timo Minssen)

Negative Innovation: When Patents Are Bad for Patients, 39 Nature Biotechnology 914 (2021) (with Robin Feldman, David Hyman, & Mark Ratain)

How Much Can Potential Jurors Tell Us about Liability for Medical Artificial Intelligence?, 62 Journal of Nuclear Medicine 15 (2021) (with Sara Gerke & I. Glenn Cohen)

An administrative fix for manufacturing process patent thickets, 39 Nature Biotechnology 20 (2021) (with Arti Rai)

Knowledge transfer for large-scale vaccine manufacturing, 369 Science 912 (2020) (with Arti Rai & Timo Minssen)

Covid-19, Single-Sourced Diagnostic Tests, and Innovation Policy, 7 Journal of Law & the Biosciences lsaa053 (2020) (with Chaarushena Deb & Osman Moneer)

Regulatory responses to medical machine learning, 6 Journal of Law & the Biosciences lsaa002 (2020) (with Timo Minssen et al.)

Diagnosing bias in data-driven algorithms for healthcare, 26 Nature Medicine 25 (2020) (with Jenna Wiens & Michael Sjoding)

Privacy Gaps for Digital Cardiology: Big Problems with Big Data, 141 Circulation 613 (2020) (with Jessica Golbus & Brahmajee Nallomothu)

Regulatory Oversight, Causal Inference, and Safe and Effective Health Care Machine Learning, Biostatistics kxz044, doi:10.1093/biostatistics/kxz044 (2019) (with Ariel Dora Stern)

Potential Liability for Physicians Using Artificial Intelligence, 322 JAMA 1765 (2019) (with Glenn Cohen & Sara Gerke)

How Logically Impossible Patents Block Biosimilars, 37 Nature Biotechnology 862 (2019) (with Arti Rai)

Shadow Health Records, Health Innovation, and New Privacy Laws, 363 Science 448 (2019) (with Margot Kaminski, Kayte Spector-Bagdady, & Timo Minssen)

Privacy in the Era of Medical Big Data, 35 Nature Medicine 37 (2019) (with Glenn Cohen)

Big Data and Black-Box Medical Algorithms, 10 Science Translational Medicine eaao5333 (2018)

The Need for the Privacy Standard for Medical Devices That Transmit Protected Health Information Used in the Precision Medicine Initiative for Diabetes and Other Diseases, 11 Journal of Diabetes Science & Technology 220 (2017) (with David Klonoff)

Codon influence on protein expression in E. coli correlates with mRNA levels, 529 Nature 358 (2016) (with Greg Boel et al.)

Are trade secrets delaying biosimilars?, 348 Science 188 (2015) (with Arti Rai)

Will clinical trial data disclosure reduce incentives to develop new uses of drugs?, 33 Nature Biotechnology 685 (2015) (with Timo Minssen)

Generic Entry Jujitsu: Innovation and Quality in Drug Manufacturing, 4 IP Theory 1 (2014)

Models of Consent to Return of Incidental Findings in Genomic Research, 44 Hastings Center Report 22 (2014) (with Paul Appelbaum et al.)

Chemotherapy Drug Shortages in Pediatric Oncology: A Consensus Statement, 133 Pediatrics e716 (2014) (working-group member)

Problems of Innovation-Deficient Pharmaceutical Manufacturing, Harvard Business Review/New England Journal of Medicine Insight Center on High-Value Health Care (2013), available at http://www.nejm.org/page/leading-health-care-innovation

Informed Consent for Return of Incidental Findings in Genomic Research, 16 Genetics in Medicine 367 (2013) (with Paul S. Appelbaum et al.)

Legal Implications of an Ethical Duty to Search for Genetic Incidental Findings, 13 American Journal of Bioethics 48 (2013)

Large-Scale Experimental Studies Show Unexpected Amino Acid Effects on Protein Expression and Solubility in vivo in E. coli, 1 Microbial Informatics and Experimentation 6 (2011) (with Samuel Handelman et al.)

Understanding the Physical Properties that Control Protein Crystallization by Analysis of Large-Scale Experimental Data, 27 Nature Biotechnology 51 (2009) (with Yang Chen et al.)

MxA Gene Expression Analysis as an Interferon-beta Bioactivity Measurement in Patients with Multiple Sclerosis and the Identification of Antibody-Mediated Decreased Bioactivity, 7 Molecular Diagnosis 17 (2003) (with Andrew Pachner et al.)

BOOK CHAPTERS

Legal Processes Required to Implement AI in Healthcare, in ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING IN HEALTHCARE (Arman Kilic, ed.) (Elsevier Press, forthcoming 2025) (with Maydha Vinson)

Liability for Use of Artificial Intelligence in Medicine, in RESEARCH HANDBOOK ON HEALTH, AI AND THE LAW (Barry Solaiman & I. Glenn Cohen, eds.) (Edward Elgar Publishing, 2024) (with Sara Gerke & I. Glenn Cohen)

Health AI, System Performance, and Physicians in the Loop, in THE ECONOMICS OF ARTIFICIAL INTELLIGENCE: HEALTH CARE CHALLENGES (Ajay Agrawal et al., eds.) (University of Chicago Press, 2024)

Legal Aspects of Artificial Intelligence in Healthcare, in ARTIFICIAL INTELLIGENCE IN CLINICAL PRACTICE (Chayakrit Krittanawong, ed.) (Elsevier Press, 2023) (with Sarah M.L. Bender)

Innovation Law and COVID-19: Promoting Incentives and Access for New Healthcare Technologies, in COVID-19 AND THE LAW: DISRUPTION, IMPACT AND LEGACY (I. Glenn Cohen et al., eds.) (Cambridge University Press, 2023) (with Lisa Larrimore Ouellette, Rachel Sachs, & Jacob Sherkow)

Health Care Artificial Intelligence: Law, Regulation, and Policy, in ARTIFICIAL INTELLIGENCE IN HEALTH CARE: THE HOPE, THE HYPE, THE PROMISE, THE PERIL (Michael Matheny et al., eds.) (National Academies Press (2019) (with Douglas McNair)

Biobanks as Innovation Infrastructure for Translational Medicine (chapter) in GLOBAL GENES, LOCAL CONCERNS (Timo Minssen et al., eds.) (Edward Elgar Publishing, 2019)

Medical Malpractice and Black-Box Medicine (chapter) in BIG DATA, HEALTH LAW, AND BIOETHICS (Glenn Cohen et al., eds.) (Cambridge University Press, 2018)

Innovation Policy Failures in the Manufacturing of Drugs (chapter) and *Timing is Everything: Balancing Access and Uncertainty* (section introduction) in FDA IN THE 21ST CENTURY: THE CHALLENGES OF REGULATING DRUGS AND NEW TECHNOLOGIES (Glenn Cohen & Holly Lynch, eds.) (Columbia University Press, 2015)

OTHER PUBLICATIONS

Can Informed Consent Solve AI Bias?, JOTWELL (May 7, 2024) (reviewing Khiara M. Bridges, *Race in the Machine: Racial Disparities in Health and Medical AI*)

AI assurance labs intended to test health care technology have an equity problem, STAT (Feb. 7, 2024) (with Mark Sendak & Suresh Balu)

Trust, Trustworthiness, and Misinformation Shared by the Government, JOTWELL (April 19, 2023) (reviewing Janet Freilich, *Government Misinformation Platforms*)

A market failure is preventing efficient diffusion of health care AI software, STAT (Mar. 24, 2022) (with Mark Sendak & Suresh Balu)

Congressional Myopia in Biomedical Innovation Policy, JOTWELL (June 13, 2022) (reviewing Rachel Sachs, *The Accidental Innovation Policymakers*)

Illegal Sex Toy Patents, JOTWELL (Feb. 25, 2021) (reviewing Sarah Wasserman Rajec & Andrew Gilden, *Patenting Pleasure*)

Multiple contributions at:

- *Written Description*, https://writtendescription.blogspot.com/p/covid-19.html (with Lisa Larrimore Ouellette, Rachel Sachs, & Jacob Sherkow)

- *Bill of Health*, https://blog.petrieflom.law.harvard.edu/author/wprice/

Risks and Remedies for Artificial Intelligence in Health Care, Brookings Institution's Artificial Intelligence and Emerging Technology report (Nov. 14, 2019)

We Have to be Smart about Artificial Intelligence in Medicine, Slate (Aug. 15, 2018)

Nudging the FDA, 10 American Interest 35 (2014) (with Glenn Cohen)

Does Whole-Genome Sequencing Circumvent Gene Patents?, Bio-IT World (Dec. 10, 2012)

The Deepwater Horizon Oil Spill: Potential Insurance Coverage Implications, Insurance Law Coverage Bulletin (September 2010) (with Lynn Neuner)

TEACHING

University of Michigan Law School: Artificial Intelligence & the Law (Fall 2024, Fall 2023, Winter 2022); Health Law (Fall 2024, Winter 2024, Fall 2021, Fall 2019, Winter 2019, Winter 2017); Patent Law (Fall 2023, Fall 2020, Winter 2018, Fall 2016); Torts (Fall 2022); Innovation in the Life Sciences (Fall 2022, Fall 2020, Winter 2020, Winter 2018); Intellectual Property Survey (Winter 2022, Winter 2020); Pandemics and Law in Science Fiction (Fall 2020); Artificial Intelligence & the Law: Science Fact and Science Fiction (Fall 2019); Science Fiction & the Law (Winter 2018)

Hebrew University: Innovation in the Life Sciences (Spring 2022)

University of New Hampshire School of Law: Patent Law (Fall 2015, Fall 2014); Health Law (Fall 2015, Fall 2014)

Harvard Law School: Genetics & the Law (Spring 2014)

Columbia Law School: Property (TA Spring 2009)

Columbia Graduate School of Arts & Sciences: Protein Biochemistry Lab (TA Fall 2008)

GRANTS

Novo Nordisk Foundation NNF23SA0087056: International Collaborative Bioscience Innovation & Law Programme (Inter-CeBIL): Senior Fellow (Principal Investigator: Timo Minssen) (2023–2028: $6,115,200)

National Research Foundation of Korea 2022R1A5A7083908: Modular Standards in AI: Health AI Stack Lead (2024–2028)

Novo Nordisk Foundation NNF17SA0027784: Collaborative Research Program in Biomedical Innovation Law (CeBIL): Core Partner & Co-Principal Investigator (Principal Investigator: Timo Minssen) (2018–2023: $5,543,175)

1 R01 CA214829-01A1: The Lifecycle of Health Data: Policies and Practices: Co-Investigator (Principal Investigator: Sharon Reilly Kardia) (2018–2022: $2,446,187)

SELECTED CONFERENCE AND INVITED PRESENTATIONS

Four Roles for Transformation and the Limits of Human Governance for Medical AI
- SMU Law Workshop on Comparing U.S. and Brazilian Approaches to Regulating Medical AI, May 2025

Governance Mechanisms to Enhance Patient Trust and Acceptance of Medical Artificial Intelligence
- Seasoned RIBS Midcareer Scholars Workshop, April 2025

Data as Policy
- Stanford Center for the Law and the Biosciences Colloquium, April 2025
- Wake Forest Law Faculty Workshop, March 2024
- Tulane Law School Center on Law and Economy, November 2023
- Willamette Law Faculty Workshop, October 2023

Ethical and Legal Perspectives in the Use of AI Applications
- National Academy of Medicine 2025 Richard and Hinda Rosenthal Emerging Leaders Forum, May 2025

The IP of Biomedical AI
- Hofstra Center for Intellectual Property Law 10th Anniversary Celebration, April 2025

How (Not) to Govern AI
- Hasso-Plattner Institute Digital Health Innovation Forum, March 2025

Enhancing Community and Stakeholder Engagement (moderator)
- UZIMA-Data Science Annual Meeting, March 2025

An Incidental Standard for Medical AI
- Penn Law Journal of Law and Innovation Symposium: Innovative Approaches to AI Governance, January 2025

Uncorrected
- Texas A&M Law Faculty Workshop, November 2024
- Michigan Law Governance Workshop, October 2024
- Duke Law Faculty Workshop, August 2024
- BioLawLapalooza 6.0, May 2024
- Seasoned RIBS Workshop, April 2024

AI Standards in Healthcare (moderator)
- Seoul National University Symposium on Frontiers in AI Governance, August 2024

Medical AI, Governance, and Clinicians in the Loop
- Hong Kong University Symposium on AI, Law, and Philosophy, July 2024
- Lifesciencelaw.dk/CeBIL Symposium on AI in Medicine: Legal and Ethical Issues, June 2024
- Health Law Professors Conference, June 2024
- Villanova Law Review Norman J. Shachoy Symposium: Artificial Intelligence and Emerging Technology: Navigating the Legal Landscape, March 2024
- Emory Law Thrower Symposium: The Promise and Challenge of Artificial Intelligence in the Information Age, February 2024

Governance for Clinical Voice AI (invited keynote)
- Bridge2AI Voice Symposium, May 2024

Regulation and Policy Roundtable (moderator)
- Johns Hopkins Shaping the Future of AI Medical Devices Symposium, April 2024

Data as Policy
- Wake Forest Law Faculty Workshop, March 2024
- Tulane Law School Center on Law and Economy, November 2023
- Willamette Law Faculty Workshop, October 2023

Locating Liability for Medical AI
- UCLA Health Law Colloquium, January 2024
- DePaul Law Clifford Symposium, June 2023
- Emory AI & Law Roundtable, March 2023
- Michigan Law Fawley Workshop, January 2023

Governance of Artificial Intelligence in Healthcare (panelist)
- Michigan Internal Medicine Grand Rounds, January 2024

Toward Collaborative Local Governance of Medical AI
- Pennsylvania State Symposium: Toward Responsible Medical AI, October 2023

Empirical Studies of Medical AI Patenting
- Intellectual Property Scholars Conference, August 2023

Panelist, AI Applications and Innovation
- German Federal Ministry of Health Data for Health Conference, June 2023

Medical AI: Contextual Bias, Liability, and Governance
- NordicPerMed Law/Lifesciencelaw.dk/CeBIL Symposium on AI in Medicine: Legal and Ethical Issues, June 2023

The CeBIL Biologics Manufacturing Study
- CeBIL Symposium: Sustainable Health Innovation, Grand Challenges and the Law, June 2023

Government Data as Infrastructure and Regulation
- BioLawLapalooza 5.0, May 2023

Identifying and Responding to the Challenges of Manufacturing Biologics: The Role of Legal Architecture
- Cambridge University CeBIL Symposium, May 2023

Governance and Liability Issues in Medical AI
- David E. Nelson Memorial Lecture, Berkeley Law, April 2023

Policy Implications of Knowledge Sharing for Access and Cumulative Innovation
- Northwestern Law JTIP Symposium on Pandemic Preparation After COVID-19, March 2023

Cryptic Drug Patent Reform through the Inflation Reduction Act
- University of Illinois Law School IP Program Speaker Series, February 2023
- Works in Progress in Intellectual Property, February 2023

Reconsidering the Role of Innovation at FDA
- Michigan Law Governance Workshop, January 2023
- Intellectual Property Scholars Conference, August 2022
- Health Law Professors Conference, June 2022
- NYU Innovation Policy Colloquium, March 2022

Infrastructure for Transfers of Manufacturing Information and Know-How for Vaccines and Other Products
- Inter-Pandemic and Vaccine Regulation: Justice and Global Equity, October 2022

Humans in the Loop
- We Robot, September 2022
- Privacy Law Scholars Conference, June 2022
- Bonn Max Planck Institute Seminar Series, March 2022
- Northern Kentucky University Conference on AI & Law, March 2022
- University of Miami Faculty Workshop, January 2022
- ETH Zurich/University of St. Gallen/University of Zurich Law & Innovation Seminar, October 2021

Medical AI in Cardiovascular MR: US Regulatory Considerations
- EACVI/SCMR Joint Summit on Cardiovascular MR, May 2022

Stakeholder Roles in Promoting Quality and Trust in Medical AI
- EPFL Lausanne Applied Machine Learning Days: Trustworthy AI in Healthcare: Legal and Ethical Aspects, March 2022

Vaccine Manufacturing, Know-How, and IP Policy
- Georgetown Law/Hong Kong University Law Conference on Intellectual Property, COVID-19, and the Next Pandemic: Diagnosing Problems, Developing Cures, November 2021

New Innovation Models in Medical AI
- The Extraordinary Romance of Big Tech, Patient Data and Artificial Intelligence, Bander Center for Medical Business Ethics at Saint Louis University, November 2021
- ETH Zurich/University of St. Gallen/University of Zurich Law & Innovation Seminar, October 2021

Panelist, Comparative Health Data Governance: Background and Consequences
- Yale Law/Institute of Law of the Chinese Academy of Social Sciences U.S.-China Data Governance Workshop, September 2021

How the Law Shapes Artificial Intelligence in Medicine
- Anand College of Legal Studies, August 2021

Hierarchy, Race & Gender in Legal Scholarly Networks
- Works in Progress in Intellectual Property, Saint Louis University, February 2022
- Junior IP Scholars Association Gnocchi Workshop, July 2021

Panelist, Leveraging Innovation, AI and the Digital Revolution in the Health Products Industry
- WHO Local Production Forum, June 2021

Panelist, Data Regulation and Policies in Health AI
- Académie Nationale de Médecine/MIT CSAIL Conference on AI and Medicine: Promises and Limits, May 2021

Panelist, Coded Bias
- U-M Dissonance Series, April 2021

Panelist, Sharing Medical Research Data: Privacy and Confidentiality
- University of Utah Law Review Symposium, November 2020

Knowledge Transfer for Vaccine Manufacturing
- Ewha Institute for Biomedical Law & Ethics: Expanding Access to COVID-19 Vaccines, November 2020

Panelist, Health, AI, and the Internet of Things
- Gonzaga Law School Conference on Health & Technology Policy, October 2020

Panelist, Intellectual Property: Incentives and Access to Vaccines and Treatments
- Seton Hall Law Conference: Privacy and Intellectual Property in the Age of Coronavirus, September 2020

Legal Regimes and the Spectrum of Medical AI/ML
- Machine Learning in Health Care, August 2020

Public Funding and COVID-19
- Iowa Law School Business Law Speaker Series, July 2020

Acknowledgements as a Window into Legal Academia
- SMU Law Faculty Workshop, February 2020

How the Pharmaceutical Industry Breaks Patent Law's Value-Reward Link
- Junior IP Scholars Association Gnocchi Workshop, Saint Louis University, January 2020

Humans in the Loop in Medical AI
- AALS Annual Meeting, January 2020

Medical AI and Contextual Bias
- University of Michigan MiCHAMP Seminar Series, December 2019
- University of Copenhagen Symposium: On the Cutting Edge, June 2019
- DePaul Jaharis Symposium on Health Law & Intellectual Property, March 2019
- University of Houston Faculty Workshop, February 2019
- Yale Roundtable on AI, Robotics, & Telemedicine, November 2018
- Duke Law and Health Policy Colloquium, October 2018
- University of Wisconsin Faculty Workshop, October 2018
- Boston University Faculty Workshop, October 2018
- Stanford/Penn/Northwestern Law/STEM Workshop, September 2018
- Florida State University Faculty Workshop, September 2018
- The Ohio State University Faculty Workshop, August 2018
- University of Copenhagen CeBIL Workshop, June 2018
- Health Law Professors Conference, June 2018
- Michigan Law School Fawley Faculty Workshop, June 2018

Protecting Patient Privacy in Big Data (panelist)

- Michigan Dissonance/MiCHAMP Panel, November 2019

Health Care Artificial Intelligence: Law, Regulation, and Policy (presenter and moderator)
- Stanford/National Academy of Medicine Conference on Artificial Intelligence in Healthcare: The Hope, the Hype, The Promise, The Peril, November 2019

Data, Context, and Bias in Health-Care Artificial Intelligence
- Bander Center at St. Louis University Conference on the Perils and Promises of Artificial Intelligence in Healthcare and Business, November 2019

Data Sharing and the Individual: The Tension between Privacy and Open Source Data in Science (panelist)
- National Academy of Medicine Annual Meeting, October 2019

Clearing Opacity
- Michigan Law IP Workshop, October 2019
- UNH IP Roundtable, October 2019
- RIBS Junior Scholars Workshop, June 2019

Legal/Ethical Perspectives on AI Bias
- Duke Forge Conference on Algorithmic Bias in Machine Learning, September 2019

Data Fungibility
- Health Law Professors Conference, June 2019
- BioLawLapalooza 3.0, March 2019

Data Infrastructure, Law, & Artificial Intelligence
- Michigan Health Information Network Legal Summit, June 2019

What Problem is AI Explainability Supposed to Solve? (moderator)
- University of Colorado/Silicon Flatirons Conference on Explainable Artificial Intelligence, May 2019

Emerging Issues in AI and Healthcare (panelist)
- Stanford STLR/SLPR Symposium, April 2019

Risks of Emerging Health Technologies (plenary panelist)
- Northeastern University School of Law Conference on the Promises & Perils of Emerging Health Innovations, April 2019

Policy Directions for University Patenting (discussion leader)
- Stanford University Patenting Roundtable, February 2019

Impossible Patent Thickets and Biosimilar Entry
- UC Irvine Biologics Innovation Symposium, February 2019

(Foot)noteworthiness
- Junior IP Scholars Association Workshop, January 2019

Grants
- NYU IP Colloquium, January 2019
- Works in Progress in Intellectual Property, February 2018
- Junior IP Scholars Association Workshop, January 2018
- Wiet Life Sciences Conference, October 2017
- UNH IP Scholars Roundtable, October 2017
- Health Law Professors Conference, June 2017

Decisionmaking Algorithms, Trade Secrecy, and Incentives (panelist)
- NYU Conference on Trade Secrets and Algorithmic Systems, November 2018

Black-Box Medicine: Regulation and Contextual Bias
- Geisinger Health Bioethics Seminar, November 2018

FDA Regulation of Medical AI
- American University Conference on FDA: Past, Present, & Future, October 2018
- Cambridge University/CeBIL Symposium, September 2018

Medical Malpractice and Black-Box Medicine
- Cambridge University/PHG Colloquium, September 2018

The Cost of Novelty
- Intellectual Property Scholars Conference, August 2018
- Junior Scholars in IP Workshop, May 2018
- bioip Workshop, May 2018
- Regulation and Innovation in the Biosciences Workshop, April 2018

Legal and Ethical Issues with Biomedical Artificial Intelligence
- National Academy of Sciences, Engineering, and Medicine Working Group on AI, Health, and Society, May 2018

AI and Biomedical Resource Creation, Biopharmaceuticals and Digital Health (panelist)
- Duke Conference on AI in the Administrative State, May 2018

Artificial Intelligence and Tort Law (panelist)
- Seton Hall Conference on AI & Law, April 2018

Black-Box Medicine: Innovation and Regulation
- Yale Information Society Project, March 2018
- University of Amsterdam Institute for Information Law, March 2018

Innovation in Biopharmaceutical Manufacturing
- University of Copenhagen Collaborative Research Program in Biomedical Innovation Law Opening Conference, March 2018

Legal and Policy Issues Associated with Cutting-Edge Cancer Treatments (panelist)
- Yale Conference on the Politics, Policy, and Law of Cancer, February 2018

The Failure of Trickle-Down Innovation

- South NeBrooklyn, February 2018

Drug Approval in a Learning Health System
- University of Utah Law & Biosciences Colloquium, February 2018
- Minnesota Law Review Symposium, October 2017
- UC Hastings Faculty Colloquium, September 2017

Privacy in Diabetes Technology
- Diabetes Technology Association Annual Meeting, November 2017

Black-Box Medicine: Regulation and Transparency
- University of Copenhagen Center for Regulatory Science Conference on Regulatory Transparency, October 2017

Black-Box Medicine: Regulation, Liability, and Implementation
- University of Michigan Bioethics Grand Rounds, September 2017

Complicating the Mix of Incentives for Biomedical Innovation
- Regulation & Innovation in the Biosciences, April 2017
- BioLawLapalooza, April 2017
- Patent Con VII, April 2017
- UNH IP Scholars Roundtable, October 2016

Ethical, Legal, and Social Issues Across the Life Cycle of Data: Implications for Learning Health Systems (panelist)
- LHS Collaboratory, University of Michigan, April 2017

Biobanks as Innovation Infrastructure
- University of Copenhagen Conference on Global Genes, Local Concerns, March 2017

Risk and Resilience in Health Data Infrastructure
- Silicon Flatirons Conference on Digital Broadband Migration, February 2017

Patent Failures on Life Science Frontiers
- Gnocchi Workshop, January 2017
- Intellectual Property Scholars Conference, August 2016
- Works in Progress in Intellectual Property, February 2016
- Junior IP Scholars Association Workshop, January 2016
- UNH IP Scholars Roundtable, November 2015

Expired Patents, Trade Secrecy, and Stymied Competition
- Notre Dame Fall Symposium on Overlapping IP Rights, November 2016
- University of Michigan Law School Fawley Lunch, October 2016
- Big Ten Juniors Conference, August 2016
- Junior IP Scholars Association Workshop, June 2016

Intellectual Property for Diagnostics: *Prometheus, Myriad, Alice, & Ariosa*
- Gordon Research Conference on Circulating Rare Cells, August 2016

Promoting Health-care Innovation on the Demand Side
- Health Law Professors Conference, June 2016
- University of Michigan Law School Legal Theory Workshop, March 2016 (with Rebecca Eisenberg)

Data Infrastructure for Medical Algorithms
- University of Copenhagen, May 2016

Regulating Black-Box Medicine
- Harvard Law Petrie-Flom Center Conference on Big Data in Medicine, May 2016
- University of Texas at Austin Center for Politics and Governance Panel: Technology vs. the Rule Makers, April 2016

Regulating Secrecy
- Vanderbilt Intellectual Property Scholars Roundtable, April 2016

Privacy and Accountability in Black-Box Medicine
- Yale Conference on Unlocking the Black Box, April 2016 (with Roger Ford)

Health Innovation Policy and Regulating Novel Technology (panelist)
- Harvard Law Petrie-Flom Center Conference on the Future of Health Law, March 2016

FDA's New Rules Amending Hatch-Waxman (panelist)
- Northwestern Journal of Technology & IP Law Symposium, March 2016

Assessing the Validity of the FDA's Biosimilars Pathway (panelist)
- Harvard Law Petrie-Flom Center, February 2016

Black-Box Medicine
- Stanford Center for Law and the Biosciences Workshop, February 2016

Drugs, Secrecy, and the FDA
- George Washington IP Workshop, January 2016

The ACA and Technology Innovation: What's New in Bio-Tech and Bio-Pharm Innovation
- UNH Conference on Innovations in Health Law and Policy, October 2015 (with Jordan Paradise)

Regulating Complex Medical Algorithms
- Health Law Scholars Workshop, October 2015
- Health Law Professors Conference, June 2015

Demand-Side Innovation in Health Care
- Intellectual Property Scholars Conference, August 2015

Secrecy and Innovation
- Patent Con V, April 2015
- Yale Conference on Innovation Law Beyond IP 2, March 2015
- UNH Scholarly Works in Progress Luncheon, March 2015
- UNH IP Scholars Roundtable, November 2014

Patent Prosecution of Biologics (panelist)
- Indiana University Biopharma/Technology Symposium, March 2015

Incentives, IP, and Black-Box Medicine
- University of Tulsa Faculty Colloquium, March 2015
- Suffolk University IP Roundtable, October 2014
- Michigan State University Junior Scholars in IP Workshop, October 2014
- Boston University Workshop on Personalized Medicine and Incentives, August 2014
- Intellectual Property Scholars Conference, August 2014
- Munich Conference on Innovation and Competition, June 2014
- Health Law Professors Conference, June 2014

Biosimilars and Manufacturing Trade Secrets
- Works in Progress in Intellectual Property, February 2015

Regulation of Black-Box Personalized Medicine
- Food and Drug Law Institute Conference on Emerging Issues and New Frontiers for FDA Regulation, October 2014

Patent Trolling—Why Bio and Pharmaceuticals Are at Risk
- Patent Con IV, April 2014

Patent Trolls and Misuse (panelist)
- Harvard/MIT Broad Institute Innovation & Intellectual Property Symposium, April 2014

Biosimilarity: Manufacturing, Regulation, and Intellectual Property
- Presentation to senior officials of the China Food and Drug Administration, February 2014

Regulatory Exclusivity for Biologics and Manufacturing Methods (panelist)
- Harvard Law Petrie-Flom Center Lunch Panel on Patents without Patents—Regulatory Incentives for Innovation in the Drug Industry, February 2014

Clinical Trial Data Disclosure: Updates from 2013
- New England Journal of Medicine/ Harvard Law Petrie-Flom Center Health Law Year in P/Review, January 2014

Innovation Policy in Pharmaceutical Manufacturing
- UNH IP Scholars Roundtable, November 2013
- Yale Reading Group: Patent Law from the Law-and-Economics Perspective, September 2013
- Intellectual Property Scholars Conference, August 2013
- National Institute for Pharmaceutical Technology Conference on the Future of Pharmaceutical Manufacturing, June 2013
- Health Law Professors Conference, June 2013
- Harvard Law Petrie-Flom Center Conference on FDA in the 21st Century, May 2013
- Harvard Health Law Policy & Bioethics Workshop, April 2013

Intellectual Property Rights in Genetic Research
- Harvard Medical School/Massachusetts General Hospital Course on Responsible Conduct of 'Omics Research, November 2013

Major Issues in Device Regulation (moderator)
- Harvard Law Petrie-Flom Center Conference on FDA in the 21st Century, May 2013

Restricting Conflicts, Restricting Science: How Commercialization Incentives and Conflicts of Interest Clash in the Context of Modern Scientific Research
- U.C.S.F./U.C. Hastings Consortium on Law, Science, and Health Policy Summer Roundtable, June 2011

Elucidating the Chemical and Physical Properties Controlling Protein Expression and Crystallization
- American Crystallographic Society Annual Meeting, July 2009

Data Mining Structure Solution Determination in the NESG Pipeline
- NIH Protein Structure Initiative "Bottlenecks" Workshop, April 2008

Ethnic Genetic Testing Patents
- Genetic Alliance Annual Conference, July 2007

CONFERENCES ORGANIZED

Regulation and Innovation in the Biosciences Midcareer Scholars Workshop (Seasoned RIBS), University of Michigan Law School, April 2024

On the Cutting Edge: New Developments in Biomedical Law, Copenhagen University Faculty of Law, June 2019

Regulation and Innovation in the Biosciences Junior Scholars Workshop (RIBS), Copenhagen University Faculty of Law, June 2019

Regulation and Innovation in the Biosciences Junior Scholars Workshop (RIBS), University of Michigan Law School, April 2017

Junior IP Scholars Association Workshop (JIPSA), Franklin Pierce Center for Intellectual Property, University of New Hampshire School of Law, June 2016

Fifth Annual UNH IP Scholars Roundtable, Franklin Pierce Center for Intellectual Property, University of New Hampshire School of Law, November 2015

Health Law Symposium: Innovations in Health Law and Policy: Regulatory Challenges and Strategies for Change, Health Law and Policy Program, University of New Hampshire School of Law, October 2015

Fourth Annual UNH IP Scholars Roundtable: Intellectual Property on the Ground, Franklin Pierce Center for Intellectual Property, University of New Hampshire School of Law, November 2014

PUBLIC AND UNIVERSITY SERVICE

Michigan Law: Ad-Hoc Committee on AI in the Law School (Chair), 2024-25; Experiential Education Committee, 2019–20, 2021–22, 2023–24; Ad-Hoc Committee to Reform the Essential Points Memo, 2022; Building Committee (Chair), 2019–20; Academic Standards & Practices Committee, 2018–2019; Alumni Academic Placement Committee, 2016––2019; Student Selection, Recruitment, & Recognition Committee, 2017–2018

JOTWELL: Contributing Editor, Technology Law Section, 2021–

Regulation and Innovation in the Biosciences Midcareer Scholars Workshop (Seasoned RIBS): Co-Chair, 2023–

University of Michigan: Faculty Senate Assembly, 2021–24; Launch Committee for Ben Green, School of Information, 2023–23

Reader, Health Law Scholars, American Society for Law, Medicine, & Ethics, 2022

Women Also Know Law: Advisory Board, 2019–2022

AALS Section on BioLaw: President, 2020–21; Executive Board, 2017–2019

Junior IP Scholars Association: Co-Chair, 2018–2021

Regulation and Innovation in the Biosciences Junior Scholars Workshop (RIBS): Co-Chair, 2016–2021

National Academies: National Academies of Medicine: Working Group on Medical Artificial Intelligence (report co-author), 2017–19; National Academies of Science, Engineering, & Medicine: Planning Group on Artificial Intelligence, Health, and Society (member), 2017–2019

UNH Law: Appeals Committee, 2014–2016; Student Intellectual Property Law Association Co-Advisor, 2014–2016

Referee work: Cambridge University Press; Columbia University Press; Yale Law Review; Stanford Law Review; Columbia Law Review; JAMA; JAMA-Internal Medicine; New England Journal of Medicine; Science; Journal of Law & the Biosciences; Stanford Technology Law Review; Yale Journal of Health Policy, Law, & Ethics; Drug Discovery Today; Journal of Diabetes Technology; PLoS Biology; Journal of Evaluation in Clinical Practice; Journal of the American Medical Informatics Association; Journal of Law, Technology, & Policy; npj Digital Medicine; American Journal of Law & Medicine; Journal of Law, Medicine, & Ethics; Milbank Quarterly; British Medical Journal; Canadian Journal of Bioethics; Philosophy & Technology; American Psychologist; Value in Health; American Journal of Public Health; Mayo Clinic Proceedings: Digital Health; New England Journal of Medicine: AI; Technological Forecasting & Social Change; npj Health Systems; Medical Law Review

PROFESSIONAL EXPERIENCE

Simpson Thacher & Bartlett, LLP, summer associate, 2010

Quinn Emanuel Urquhart Oliver & Hedges, LLP, summer associate, 2006 & 2005

PATENTS AND PATENT APPLICATIONS

Engineering surface epitopes to improve protein crystallization, U.S. Patent No. 10,294,266, filed April 19, 2011 (with John Hunt et al.)

Methods for altering polypeptide expression and solubility, Patent Cooperation Treaty App. No. PCT/US2011/024251, filed February 9, 2011 (patent pending) (with John Hunt et al.)