Abridged Biography for Professor Margo A. Bagley

Professor Margo A. Bagley is Associate Dean for Research and Asa Griggs Candler Professor of Law at Emory University School of Law. She rejoined the Emory faculty in 2016 after a decade at the University of Virginia, School of Law, where she was most recently the Hardy Cross Dillard Professor of Law.

Professor Bagley is a well-known and widely cited scholar on a variety of international intellectual property topics and is one of the foremost experts on international patent law issues. At Emory, her courses include domestic and international patent law, trademark law, and international intellectual property. She also co-developed the awardwinning TI:GER program (Technological Innovation Generating Economic Results), an innovative educational venture with the Georgia Institute of Technology, which brings together graduate students in law, business, science, and engineering to work on start-up projects and learn the process of transforming promising research into economically viable projects.

Professor Bagley received her JD in 1996 from Emory, where she was a Robert W. Woodruff Fellow, an editor of the *Emory Law Journal*, and elected to Order of the Coif. She is a member of the Georgia bar and is licensed to practice before the US Patent and Trademark Office. Bagley worked as an associate with Smith, Gambrell & Russell, LLP and Finnegan, Henderson, Farabow, Garrett & Dunner, LLP before becoming an assistant professor of law at Emory University in 1999 and associate professor in 2002. She was a visiting professor of law at Washington & Lee University School of Law in fall 2001 and at the University of Virginia School of Law in fall 2005, after which she joined the University of Virginia faculty in 2006. She is a faculty lecturer with the Munich Intellectual Property Law Center at the Max Planck Institute in Germany, and also has taught International Patent Law and related courses in China, Cuba, Israel, and Singapore. She will be a visiting professor at Harvard Law School in Fall 2022.

Professor Bagley recently served on the National Academies Committee on Advancing Commercialization from the Federal Laboratories, and previously served on the National Academies Committee on University Management of Intellectual Property: Lessons from a Generation of Experience, Research, and Dialogue. She is also an expert technical advisor to the African Union Commission in several World Intellectual Property Organization (WIPO) matters, is the Friend of the Chair in the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, and is a collaborator with the Harvard University Global Access in Action Program.

Professor Bagley has served as a consultant to the UN Convention on Biological Diversity (CBD), the UN Food and Agriculture Organization Secretariat for the International Treaty on Plant Genetic Resources for Food and Agriculture, and as a US Department of Commerce Commercial Law Development Program advisor. In addition, she served as a member of the Ad Hoc Technical Expert Group on Digital Sequence Information on Genetic Resources for the CBD and Nagoya Protocol and has been an expert witness in several patent law disputes. Her scholarship focuses on comparative issues relating to patents and biotechnology, pharmaceuticals and access to medicines, traditional knowledge protection for indigenous peoples and local communities, technology transfer, and IP and social justice. In 2018, Professor Bagley was awarded and managed a \$50,000 Emory Global Health Institute grant for a drug quality assurance program in Mozambique/Malawi, which involved a successful collaboration with the Harvard Global Access in Action (GAiA) program and the Emory-Rollins School of Public Health.

Professor Bagley has published numerous articles and book chapters, as well as two books with co-authors: Bagley, Okediji and Erstling, *International Patent Law & Policy* (West Publishing 2013) and *Patent Law in Global Perspective* (Okediji and Bagley eds., Oxford University Press 2014). A new book on International Patent Law is forthcoming with Professor Rochelle Dreyfuss (2022). A chemical engineer with a B.S.Ch.E. degree from the University of Wisconsin-Madison, Professor Bagley worked in industry (with the Procter & Gamble Company and the Coca Cola Company) for several years before attending law school and is a co-inventor on a patent for reduced fat peanut butter. Professor Bagley also completed research internships at Oak Ridge National Laboratory, Lawrence Livermore National Laboratory, AT& T Bell Laboratories, and the NASA Marshall Space Flight Center.

MARGO A. BAGLEY

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ACADEMIC EXPERIENCE

 EMORY UNIVERSITY SCHOOL OF LAW, Atlanta, GA Associate Dean for Research (2022-present) Asa Griggs Candler Professor of Law (2016-present) Associate Professor (2002- 2006) Assistant Professor (1999-2002) Visiting Professor (Spring 2012, Spring 2013, Spring 2014) Courses: Patent Law, International and Comparative Patent Law, Intellectual Proper Intellectual Property Law, Trademark Law (Fundamentals of Innovation I & II (co-instructor, TI:GER program), Special Topics in Technology Commercialization (co-instructor, TI:GER Program), Contract 		
 UNIVERSITY OF VIRGINIA SCHOOL OF LAW, Charlottesville, VA Hardy Cross Dillard Professor of Law (2014-2018) Joseph C. Carter, Jr. Research Professor (2015-2016) Class of 1963 Research Professor (2006-2009) Professor of Law (2006-2016) Visiting Professor (Fall 2005) Courses: Patent Law, International Patent Law and Policy, Intellectual Property, Property, International Intellectual Property, Current Issues in Patent Law, Trademark Law, Patent Claim Construction Workshop. 		
 HARVARD LAW SCHOOL, Cambridge, MA Visiting Professor of Law Courses: Patent Law, International Intellectual Property Law 	Fall 2022	
 WASHINGTON AND LEE UNIVERSITY SCHOOL OF LAW, Lexington, VA Visiting Professor Courses: Patent Law, International Patent Law and Policy 	Fall 2001	
 BAR ILAN UNIVERSITY, Tel Aviv, Israel Visiting Professor Course: International Patent Law & Policy 	December 2013	
 NATIONAL UNIVERSITY OF SINGAPORE, Singapore, Republic of Singapore Visiting Professor (January 2007, July 2009, January 2011) Course: International Patent Law & Policy 	2007, 2009, 2011	
 SINGAPORE MANAGEMENT UNIVERSITY, Singapore, Republic of Singapore Visiting Professor (June 2010, May 2012) Course: International Patent Law & Policy 	Summers 2010 & 2012	
 MAX PLANCK INSTITUTE, Munich, Germany Munich Intellectual Property Law Center Lecturer Courses: Protection of Biotechnological Inventions, Pharmaceuticals and IP 	Summers 2012-present	

GEORGE WASHINGTON UNIVERSITY SUMMER INTELLECTUAL PROPERTY LAW PROGRAM,

Max Planck Institute, Munich, Germany,

• Adjunct Professor (Summers 2005, 2006, 2007, 2008, 2009, 2010) Course: International Patent Law and Policy.

WHITTIER LAW SCHOOL SUMMER ABROAD PROGRAM, Sun Yat Sen University, Zhuhai, China

• Adjunct Professor (Summer 2004) Course: International Patent Law

PUBLICATIONS

BOOKS

Margo. A. Bagley & Rochelle C. Dreyfuss, ADVANCED INTRODUCTION TO INTERNATIONAL PATENT LAW, (Edward Elgar, forthcoming 2022).

Ruth L. Okediji & Margo A. Bagley (eds.), PATENT LAW IN GLOBAL PERSPECTIVE, (Oxford University Press 2014).

Margo A. Bagley, Ruth L. Okediji & Jay A. Erstling, INTERNATIONAL PATENT LAW AND POLICY (West Publishing 2013).

BOOK CHAPTERS

Exploring Intellectual Property through the Lens of Religious Thought, in Irene Calboli & Maria Lilla Montagnani eds., HANDBOOK ON INTELLECTUAL PROPERTY RESEARCH, Oxford University Press (2021).

"Intellectual Property, Access to Medicines, and Christian Tradition, in Daniel Crane ed. CHRISTIAN TRADITION AND ECONOMIC REGULATION, Cambridge University Press (2021).

'Thou Shalt Not Steal': The Morality of Limits on Pharmaceutical Patents, in Thomas C. Berg, Roman Cholij, Simon Ravenscroft, eds., PATENTS ON LIFE: RELIGIOUS, MORAL, AND SOCIAL JUSTICE ASPECTS OF BIOTECHNOLOGY AND INTELLECTUAL PROPERTY, Cambridge University Press (2019).

Designing Disclosure: Disclosure of Cultural and Genetic Resource Utilisation in Design Protection Regimes, in THE OBJECT AND PURPOSE OF INTELLECTUAL PROPERTY (Susy Frankel ed., Edward Elgar 2019).

Towering Wave or Tempest in a Teapot? Synthetic Biology, Access & Benefit Sharing, and Economic Development, in INTELLECTUAL PROPERTY ON THE INTERNET AND THE CONNECTION WITH HUMAN AND ECONOMIC DEVELOPMENT (Susy Frankel and Daniel Gervais eds., Victoria University Press 2017).

The De-Materialization of Genetic Resources: Synthetic Biology, Intellectual Property, and the ABS Bypass, in ROUTLEDGE HANDBOOK OF BIODIVERSITY AND THE LAW, (Charles McManis and Burton Ong Eds., 2017).

Of Disclosure "Straws" and Patent System "Camels": Patents, Innovation, and the Disclosure of Origin Requirement, in PROTECTING TRADITIONAL KNOWLEDGE: THE WIPO INTERGOVERNMENTAL COMMITTEE ON INTELLECTUAL PROPERTY AND GENETIC RESOURCES, TRADITIONAL KNOWLEDGE AND FOLKLORE (Daniel Robinson, Ahmed Abdel-Latif, Pedro Roffe eds., Routledge Press 2017).

"Grant Me Justice Against My Adversary": What Parables Can Teach Us About Organic Seed Growers & Trade Assoc. v. Monsanto, in DIVERSITY IN INTELLECTUAL PROPERTY: IDENTITIES, INTERESTS, AND INTERSECTIONS (Irene Calboli and Srividyha Ragavan eds., Cambridge University Press 2015).

Patent Barbarians at the Gate: The Who, What, When, Where, Why & How of U.S. Patent Subject Matter Eligibility Challenges, in PATENT LAW IN GLOBAL PERSPECTIVE, (Ruth L. Okediji & Margo A. Bagley eds., Oxford University

Press 2014).

Pharmaceutical Data Exclusivity Protection, in PHARMACEUTICAL INNOVATION, COMPETITION AND PATENT LAW: A TRILATERAL PERSPECTIVE, (Josef Drexl and Nari Lee eds., Edward Elgar Publishing 2013).

Patents and Technology Commercialization: Issues and Opportunities, in vol. 18, ADVANCES IN THE STUDY OF ENTREPRENEURSHIP, INNOVATION AND ECONOMIC GROWTH (Gary Libecap, ed., Elsevier Science and Technology Books 2007).

A Global Controversy: Biotechnology Patents and Morality, in INTELLECTUAL PROPERTY AND INFORMATION WEALTH (Peter Yu, ed., Praeger 2007).

ARTICLES

"Just" Sharing: The Virtues of Digital Sequence Information Benefit-Sharing for the Common Good, 63 HARVARD INT'L L.J. 101 (forthcoming 2022).

What's Yours in Mine and What's Mine is Mine: Benefit-sharing Obligations and the De-Materialization of Genetic Resources, 63 HARVARD INT'L L.J. ONLINE ____ (forthcoming 2022).

The Fallacy of Defensive Protection for Traditional Knowledge, 58 WASHBURN L.J. 323 (2019, symposium issue).

The Morality of Compulsory Licensing as an Access to Medicines Tool, 102 MINN. L. REV. 2463 (2018).

"Ask Me No Questions": The Struggle for Disclosure of Cultural and Genetic Resource Utilization in Design Applications, 20 VAND. J. ENT. & TECH. L. 975 (2018).

The Wheat and the (GM) Tares: Lessons for Plant Patent Litigation from the Parables of Christ, 10 ST. THOMAS L. J. 683 (2013, symposium issue, 2014 publication).

The New Invention Creation Boundary in Patent Law, 51 WILLIAM & MARY L. REV. 577 (2009).

The Need for Speed (and Grace): Issues in a First-Inventor-To-File World, 23 BERKELEY TECH. L.J. 1035 (2008) (symposium issue)

Academic Discourse and Proprietary Rights: Putting Patents in Their Proper Place, 47 B.C.L. REV. 217 (2006).

Stem Cells, Cloning and Patents: What's Morality Got to Do With It? 39 NEW ENG. L. REV. 501 (2005, symposium issue).

Patent First, Ask Questions Later: Morality and Biotechnology in Patent Law, 45 WILLIAM & MARY L. REV. 469 (2003).

Legal Movements in IP: TRIPS, Bilateral Agreements, and Access to Essential Medicines, 17 EMORY INT'L L. REV. 781 (2003, symposium Issue).

Still Patently Unconstitutional: A Reply to Professor Nard, 88 MINN. L. REV. 239 (2003).

Patently Unconstitutional: Geographical Limitations on Prior Art in a Small World, 87 MINN. L. REV. 679 (2003).

Internet Business Model Patents: Obvious by Analogy, 7 MICHIGAN TELECOMM. & TECH. L. REV. 253 (2001) (Symposium issue).

Comment, Using Section 337 of the Tariff Act of 1930 to Block Materially Different Gray Market Goods in the

Common Control Context: Are Reports of Its Death Greatly Exaggerated? 44 EMORY L.J. 1541 (1995).

COMMISSIONED WORKS

Margo A. Bagley, *Genome Editing in Latin America: CRISPR Patent and Licensing Policy*, NCSU Genetic Engineering and Society Center (July 2021).

Margo A. Bagley and Frederick Perron-Welch, *Study to Identify Specific Cases of Genetic Resources and Traditional Knowledge Associated with Genetic Resources that Occur in Transboundary Situations or for Which it is not Possible to Grant or Obtain Prior Informed Consent*, as requested by decision 3/13 (paragraph 5(a)) from the Third Meeting of the Conference of the Parties to the Convention on Biological Diversity serving as the Meeting of the Parties to the Nagoya Protocol, CBD Secretariat (August 2020).

Margo Bagley, Elizabeth Karger, Frederick Perron-Welch & Siva Thambisetty, *Fact-finding Study on How Domestic Measures Address Benefit-sharing Arising from Commercial and Non-commercial Use of Digital Sequence Information on Genetic Resources and Address the Use of Digital Sequence Information on Genetic Resources for Research and Development*, as requested by decision 14/20 (paragraph 11(e)) from the Fourteenth Conference of the Parties to the Convention on Biological Diversity (CBD), CBD Secretariat (February 2020).

Margo A. Bagley, *Toward an Effective Indigenous Knowledge Protection Regime: Case Study of South Africa* (Policy Paper, Centre for International Governance Innovation, Paper No. 207, December 2018).

Margo A. Bagley, *Illegal Designs? The Draft Design Law Treaty and Disclosure of Origin Requirements* (Policy Paper, Centre for International Governance Innovation, Paper No. 155, December 2017).

Eric W. Welch, Margo A. Bagley, Todd Kuiken, Selim Louafi, *Potential Implications of New Synthetic Biology and Genomic Research Trajectories on the International Treaty for Plant Genetic Resources for Food and Agriculture*, (for the Secretariat of the UN FAO ITPGRFA) (2017).

Margo A. Bagley (for the High-Level Panel Secretariat at UNDP in collaboration with UNAIDS), Background Paper: *A Primer on Features of the Intellectual Property System of Relevance to Issues of Access to Medicines* (2016) (UN Secretary General's High-Level Panel on Access to Medicines).

Margo A. Bagley, *Digital DNA: Synthetic Biology, Intellectual Property Treaties, and the Nagoya Protocol* (2015) (Woodrow Wilson International Center for Scholars).

Margo A. Bagley & Arti K. Rai, *The Nagoya Protocol and Synthetic Biology: A Look at the Potential Impacts* (2013) (Woodrow Wilson International Center for Scholars).

Shorter Works

Margo Bagley, *Dirty Hands, Dead Patent?*, JOTWELL (July 2, 2021) (reviewing Sean Seymore, *Unclean Patents*, 102 B.U. L. REV. ____ (forthcoming, 2022), available at SSRN), <u>https://ip.jotwell.com/dirty-hands-dead-patent/</u>.

"On Being Human," Review of *Fire in the Blood*, Directed by Dylan Mohan Gray, Journal of Intellectual Property Law & Practice (2016).

"On Shaky Ground?" Review of Rajshree Chandra, *Knowledge as Property: Issues in the Moral Grounding of Intellectual Property Rights*, Journal of Intellectual Property Law & Practice (2013).

Review of *The Global Governance of Knowledge: Patent Offices and Their Clients*, by Peter Drahos, 2 IP LAW BOOK REVIEW 15 (2011).

Patents and Morality: A Role for Congress, THE NATIONAL LAW JOURNAL, May 3, 2004.

With Les Bessinger, Intent and the Powerful Defense of Inequitable Conduct in U.S. Patent Litigation, published in the December 1998 Intellectual Property Supplement to the Fulton County Daily Report.

With Joyce B. Klemmer, *Judicial Intolerance of Discovery Abuse*, 2 Managing Litigation Costs (Corporate Legal Times, Chicago, Illinois) 1, October 1995.

WORKS IN PROGRESS

DRIVE-ing Innovations for Neglected Diseases: Bayh-Dole's Unexpected Benefit, (forthcoming 2023). "Like a Red-Headed Stepchild": Traditional Knowledge Protection in an IP World (forthcoming 2022 Michigan State University L.J. (invited)).

Making Room at the (Access to Medicines) Table: Is There a Place for Holistic and Traditional Medicine? (forthcoming 2023).

EDUCATION

EMORY UNIVERSITY SCHOOL OF LAW, Atlanta, GA

Juris Doctor, with Distinction, 1996; Final Class Rank: #3 of 228

Honors & Activities:

Robert W. Woodruff Fellow (full tuition scholarship and stipend), Order of the Coif, Thrower Symposium Editor, *Emory Law Journal*, American Jurisprudence Awards for highest grades in Torts and Research, Writing, and Appellate Advocacy (RWA), also highest grades in Regulation of Non-Profit Organizations, Constitutional Law: Church & State, and Civil Rights Legislation, Henry Quillian Prize in Contracts, Lexis "Best Brief" Award, Dean's List - all semesters, Dean's Fellow, Honorable Mention in the first year RWA oral argument competition, Black Law Students Association, Legal Association of Women Students

UNIVERSITY OF WISCONSIN, Madison, WI

Bachelor of Science in Chemical Engineering, 1986

Honors & Activities: Dean's List 1986 Society of Women Engineers "Outstanding Member" Award, American Institute of Chemical Engineers, National Society of Black Engineers, Volunteer, Elvehjem Museum

OAKWOOD UNIVERSITY (COLLEGE), Huntsville, AL 1981-1983

Honors & Activities: National Achievement Scholar Dean's List 1981, 1982, 1983

SELECTED PRESENTATIONS (since 2012)

"Just" Sharing: The Virtues of Digital Sequence Information Benefit-Sharing for the Common Good, University of Cambridge (UK) Speaker Series (Zoom, February 2022)

"Custodians' and the present knowledge 'protection' system at WIPO", Royal Society of Edinburgh Saltire Research Awards Programme on Scientific knowledge across jurisdictions (Zoom January 2022)

Served as one of three expert panelists in the GIZ (Germany) ABS Capacity Development Initiative Global Webinar on the report of the UN Convention on Biological Diversity's Informal Co-Chairs' Advisory Group on Digital Sequence Information on Genetic Resources (December 2021)

"Genome Editing in Latin America: CRISPR Patent and Licensing Policy", Inter-American Development Bank/NCSU Genetic Engineering and Society Center webinar, (December 2021)

Keynote Address: 'Just' Sharing: The Virtues of Digital Sequence Information Benefit-Sharing for the Common Good, Suffolk University Law School Third Annual Intellectual Property & Innovation Conference (October 2021)

"What do Indigenous Peoples and Local Communities Need to Know About the Patent System?" World Intellectual Property Organization Webinar, "How to Protect and Promote Your Culture" (September 2021)

"Lessons Learned from International Negotiations of Legal Instruments to Protect Traditional Cultural Expressions," at the WIPO-INDAUTOR Virtual Regional Seminar on Copyright and Traditional Cultural Expressions, (September 2021)

"Just' Sharing", Page-Barbour Lecture, University of Virginia, Charlottesville, VA (April 2021) (via Zoom).

Expert Panelist, UNESCO event on "Open Science and Intellectual Property Rights" Paris, France (April 2021) (videoconference)

Moderator, "Intellectual Property and Genetic Resources: New and Emerging Technologies," World Intellectual Property Organization IGC Seminar, Geneva, Switzerland (January 2021) (videoconference).

Fact-finding Study on How Domestic Measures Address Benefit-sharing Arising from Commercial and Noncommercial Use of Digital Sequence Information on Genetic Resources UN Convention on Biological Diversity Secretariat webinar on "Process and recent outcomes related to digital sequence information on genetic resources under the CBD", Montreal Quebec, Canada, December 2020 (videoconference).

"What is DSI and What is it Not? (Options and Views)", UN Convention on Biological Diversity Secretariat/ABS Capacity Development Initiative (GIZ) webinar on "Understanding DSI: a technical overview of its production, distribution and use" December 2020 (videoconference).

"What's Yours is Mine and What's Mine is Mine': Digital Sequence Information, Patents, and Benefit-sharing Obligations", Harvard Law School International Economic Law workshop, Cambridge, MA, November 2020 (videoconference).

"Regulating Digital Innovation and Creativity in Africa: IP, The Nagoya Protocol, DSI, and AI", African Union Webinar on Unlocking the Potential of Intellectual Property in Africa, Addis Ababa, Ethiopia (October 2020) (videoconference).

"Utility Patents on Plants", Rocky Mountain Seed Alliance (October 2020) (videoconference).

"Ask Me No Questions: The Struggle for Disclosure of Cultural and Genetic Resource Utilization in Design", Notre Dame University Law School IP Lecture Series, South Bend, IN, September 2020 (videoconference).

"What's Yours is Mine and What's Mine is Mine': Digital Sequence Information, Patents, and Benefit-sharing Obligations", Genetic Engineering and Society Colloquium, NCSU, Raleigh, NC, March 2020 (videoconference).

"Study 4: Domestic Measures on DSI", UN Convention on Biological Diversity Ad Hoc Technical Expert Group on Digital Sequence Information, Montreal, Quebec, Canada, March 2020 (videoconference).

"Protection of Copyright in the Digital Environment: Copyright Exceptions and Limitations," African Group workshop on the Protection of Copyright in the Digital Environment, Permanent Mission of the African Union, Geneva, Switzerland, December 2019.

"Connecting the Dots: Genetic Resources, ABS, and Access to Medicines," Global Forum on Intellectual Property

and Access to Medicines, Max Planck Institute on Innovation and Competition Law, Munich, Germany, December 2019.

"Biopiracy and the Global Use of Biological Data", 4th Arizona Biosecurity Workshop, Arizona State University, Tempe, AZ, November 2019.

"Patents, DSI, and the Treaty: Trends in the U.S. and Beyond," Eighth Session of the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture, Rome, Italy, November 2019.

"Digital Database 'Protection' for Traditional Knowledge: Fact or Fallacy?", Harvard Law School, workshop on Development in the Data Economy, Cambridge, MA, September 2019.

"The Nagoya Protocol and Digital Sequence Information (DSI) on Genetic Resources: Emerging Issues," webinar presentation to National Academy of Sciences, Engineering and Medicine Committee on Biological Collections: Their Past, Present, and Future Contributions and Options for Sustaining Them, Washington, D.C., July 2019.

"What's Yours is Mine and What's Mine is Mine?': Digital Sequence Information and Benefit-sharing Obligations under the Nagoya Protocol," 23rd International Consortium on Applied Bioeconomy Research Conference, Ravello, Italy, June 2019.

Panelist, "*Alice* at Five: Developments, Trends, and Insights," State Bar of Georgia IP Section Seminar, Atlanta, GA, June 2019.

"'Thou Shalt Not Steal': The Morality of Compulsory Licensing as an Access to Medicines Tool," Symposium on Intellectual Property and Access to Medicines in the Global South, Harvard Law School, Cambridge, MA, April 2019.

"What's Yours is Mine and What's Mine is Mine?": Digital Sequence Information and Benefit-sharing Obligations under the Nagoya Protocol," International Intellectual Property Scholars Conference, Florida State University School of Law, Tallahassee FL March 2019; University of the Pacific-McGeorge School of Law Symposium, Sacramento, CA April 2019.

"Like a Red Headed Stepchild": Traditional Knowledge and the Multilateral IP Protection System, Texas A&M University School of Law, Ft. Worth, TX, March 2019.

"What's Yours is Mine and What's Mine is Mine?": Digital Sequence Information and Benefit-sharing Obligations under the Nagoya Protocol," The Social, Legal, and Regulatory Challenges of Synthetic Biology Workshop, University of Queensland, Brisbane, Australia February 2019.

"Approaches to Resolving Benefit Sharing in Shared Traditional Knowledge: Experiences from South Africa," Side event during the 38th Session of the WIPO Intergovernmental Committee, Geneva Switzerland, December 2018.

"Approaches to Resolving Benefit Sharing in Shared Traditional Knowledge: Experiences from South Africa," Side event during the 14th Conference of the Parties to the CBD, Sharm El-Sheikh, Egypt, November 2018.

"DSI and the Global Benefit Sharing Mechanism Debates," Side event during the 14th Conference of the Parties to the CBD, Sharm El-Sheikh, Egypt, November 2018.

"Disclosure of Origin and the Draft WIPO Design Law Treaty," African Group Workshop on WIPO Issues, Permanent Delegation of the African Union, Geneva, Switzerland, November 2018.

"The Nagoya Protocol, ABS, and "DSI": Legal Issues," 11th Pan African Workshop on ABS, African Union Commission, Addis Ababa, Ethiopia, October 2018.

"Extension of the Nagoya Protocol to DSI – State of Play and Consequences," Symposium: The Use and Circulation of Genetic Resources under Measures Implementing the Nagoya Protocol, London School of Economics, London, UK September 2018.

"The Fallacy of Defensive Protection for Traditional Knowledge," 5th Global Congress on IP and the Public Interest, American University, Washington, D.C., September 2018.

"Illegal Designs? Enhancing Cultural and Genetic Resource Protection Through Design Law," Fourth Annual Intellectual Property Lecture, Hofstra University, Hempstead, New York, March 2018.

Panelist, "The Growth Engine for Biotech Start-Ups," SANBio Annual Conference, Pretoria, South Africa, February 2018.

"Square Peg in a Round Hole or the Perfect Fit? Cultural and Genetic Resource Protection Issues at the World Intellectual Property Organization," Whitney R. Harris World Law Institute of Washington University, St. Louis, Missouri, February 2018.

"Drug Innovation Ventures at Emory," 1st World Conference on Access to Medical Products and International Laws for Trade and Health, in the Context of the 2030 Agenda for Sustainable Development, New Delhi, India, November 2017.

"Case Law in Review," Ninth Annual Georgetown Law-Berkeley Law Conference on the Role of the Courts in Patent Law & Policy, Georgetown University National Law Center, Washington, D.C., November 2017.

"Global Perspectives in Patent Law & Access to Medicines," Universities Allied for Essential Medicines North American Fall Conference, Emory University School of Medicine, Atlanta, GA, October 2017.

"Scoping Report on Potential Implications of New Synthetic Biology and Genomic Research Trajectories on the ITPGRFA: Legal Dimensions," Meeting of the Governing Body of the UN FAO ITPGRFA, Kigali, Rwanda (via video recording), October 2017.

"Making Room at the (Access to Medicines) Table: Is There a Place for Traditional and Holistic Medicine?" University of Minnesota School of Law Symposium, Minneapolis, MN, October 2017.

"Illegal Designs? The Draft Design Law Treaty and Disclosure of Origin Requirements," ATRIP Congress, Wellington, New Zealand, October 2017.

Panelist, "Supreme Court IP Review: Patent Panel I", IIT Chicago-Kent College of Law, Chicago, IL September 2017.

"IP and ABS Issues For Researchers and Entrepreneurs in the Seychelles," NEPAD/SANbio/NISTI Workshop, Mahe, Seychelles, August 2017.

"IP Issues in Africa," Emory-African Network for Drug and Diagnostic Innovations (ANDI) Workshop, Johannesburg, South Africa, July 2017.

"Filing and Examination of a U.S. Patent Application," WIPO IP Negotiators Workshop, Geneva, Switzerland, June 2017.

"Dematerializing Genetic Material: Intellectual Property, Synthetic Biology, and the ABS Bypass," An Open Digital Global South: Risks and Rewards Conference, UC Davis Law School, Davis, CA, May 2017.

"Illegal by Design? The Draft Design Law Treaty and Disclosure of Origin Requirements," International IP Law Scholars Workshop, New York University School of Law, New York, NY, April 2017.

"Intellectual Property Regimes and Genetic Resources: The Push for Transparency, Policy Space, and Fairness," Patents, Social Justice, and Public Responsibility Symposium, University of Michigan Ford School of Public Policy, Ann Arbor, MI, March 2017.

Presentations on "Intellectual Property and Access and Benefit-Sharing"; "Disclosure of Origin: Reality and Perspectives"; and "Digital DNA: IP and Synthetic Biology," World Intellectual Property Organization (WIPO)/Ministry of Foreign Affairs of Colombia, National Workshop on Intellectual Property, Traditional Knowledge, Traditional Cultural Expressions and Genetic Resources, Bogota, Columbia, March 2017.

"Legal and Policy Issues in Access and Benefit Sharing," Sixth Meeting of the Ad-Hoc Open-Ended Working Group To Enhance the Functioning of the Multilateral System, U.N. FAO, Rome, Italy, March 2017.

"Disruptive Technologies: Synthetic Biology, Fairness, and Patents," Vanderbilt University School of Law, Nashville, TN, February 2017.

"The Draft Design Law Treaty and Disclosure of Origin Concerns," Case Western Reserve University School of Law, Cleveland, OH, October 2016.

"Thou Shalt Not Steal': The Morality of Limits on Pharmaceutical Patents," Texas A&M University School of Law, Ft Worth, TX, April 2016.

"Digital DNA: Synthetic Biology, Intellectual Property Treaties, and The Nagoya Protocol," Loyola Law School Los Angeles, Los Angeles, CA, March 2016.

"Thou Shalt Not Steal': The Morality of Limits on Pharmaceutical Patents," Hardy Cross Dillard Chair Lecture, University of Virginia School of Law, Charlottesville, VA, February 2016.

"Digital DNA: Synthetic Biology, Intellectual Property Treaties, and The Nagoya Protocol," Woodrow Wilson International Center for Scholars, Washington, D.C., December 2015.

"New Technologies, Fairness, and Cross-Border Issues," National Academies of Sciences, Engineering and Medicine, Workshop on National and International Intellectual Property Practices and Policies: Assessing the Impact of Political, Economic, and Technological Pressures, Washington, D.C., December 2015

"Show AND Tell: Genetic Resource Disclosure of Origin Requirements and The TRIPS Agreement," symposium on Patent Sovereignty and International Law, University of California-Irvine, Irvine, CA, October 2015.

"Towering Wave or Tempest in a Teapot? Synthetic Biology, Access & Benefit Sharing, and Economic Development," Emory University School of Law, Atlanta, GA, September 2015, and the University of Richmond School of Law, Richmond, VA, October 2015.

"Thou Shalt Not Steal': Morality and Misappropriation in Life Sciences Patenting," symposium, Patents on Life: Through the Lenses of Law, Religious Faith, and Social Justice, the Von Hugel Institute, St. Edmund's College, the Murphy Institute for Catholic Thought, Law, and Public Policy, University of St. Thomas (Minnesota, USA), Cambridge University, Cambridge, UK, September 2015.

"Digital Biopiracy," European Policy on Intellectual Property (EPIP) Conference, Glasgow, Scotland, September 2015.

"Cross-Border Protection of Intellectual Property: Issues and Opportunities for Genetic Resources, Traditional Knowledge, and Traditional Cultural Expressions," World Intellectual Property Organization Seminar on IP and GRs/TK/TCEs: Regional and International Dimensions, Geneva, Switzerland, June 2015.

"Towering Wave or Tempest in a Teapot? Synthetic Biology, Access & Benefit Sharing, and Economic Development, International IP Scholars Workshop," Duke Law School, Durham, NC, May 2015.

"Is an International Law of Intellectual Property a Good Thing?," Symposium, The Promise and Perils of an International Law of Property, McGeorge University School of Law, Sacramento, CA, March 2015.

"Of Indigenous People Straws and Developed Country Camels: Patents, Innovation, and the Disclosure of Origin Requirement," WIPIP Workshop, U.S. Patent & Trademark Office, Arlington, VA, February 2015.

"Towering Wave or Tempest in a Teapot? Synthetic Biology, Access & Benefit Sharing, and Economic Development," New Zealand Centre of International Economic Law Workshop, Wellington, New Zealand, February 2015.

"The Nagoya Protocol and Synthetic Biology: A Look at the Potential Impacts," First Meeting of the Conference of the Parties to the Nagoya Protocol to the Convention on Biological Diversity, Woodrow Wilson Center Side Event, Pyeongchang, South Korea, October 2014.

Panelist, "Synthetic Biology Night," University of Virginia International Genetically Engineered Machines (iGEM) event, Charlottesville, VA, September 2014.

"Intellectual Property: Plurality, Culture, National Interest, and International Harmonization," European Science Foundation Workshop, University of Hamburg, Hamburg, Germany, September 2014.

"Of Indigenous People Straws and Developed Country Camels: Intellectual Property Protection for Genetic Resources and Associated Traditional Knowledge," European Policy on Intellectual Property (EPIP) Conference, European Parliament, Brussels, Belgium, September 2014.

"The Namibia IP Act: Issues and Opportunities for the Court," presentation to Namibian High Court Judges, Windhoek, Namibia, August 2014.

"The Nagoya Protocol and Synthetic Biology: A Look at the Potential Impacts," Convention on Biological Diversity Subsidiary Body on Scientific, Technical & Technological Advice, Woodrow Wilson Center Side Event, Montreal, Quebec, June 2014.

"Of Indigenous People Straws and Developed Country Camels: Intellectual Property Protection for Genetic Resources and Associated Traditional Knowledge," International Intellectual Property Scholars Roundtable, Chicago, IL, May 2014.

"Issues in Patenting Genetic Resource-based Inventions," American Chemical Society National Meeting, Dallas, TX, March 2014.

"Improving Search and Examination in Developing Country Patent Offices," South Centre/Third World Network WIPO ICG Side Event, Geneva, Switzerland, February 2014.

"The Who, What, When, Where, Why & How of U.S. Patent Subject Matter Eligibility Disputes," Vanderbilt University School of Law Symposium, Nashville, TN, January 2014.

With Arti Rai, "The Nagoya Protocol and Synthetic Biology: A Look at the Potential Impacts," Woodrow Wilson International Center for Scholars, Washington, D.C., November 2013.

"Apple v. Samsung and Multinational Patent Litigation," J.B. Moore International Law Society, UVA Law School, Charlottesville, VA, Fall 2013.

Member of the Scientific Committee, panel moderator and paper discussant, European Policy on Intellectual Property

Conference, Paris, France, September 2013.

Panelist, "Quality Standards in IP Publishing," ATRIP Annual Meeting, University of Oxford, UK, June 26, 2013.

"The Wheat and the (GMO) Tares: Lessons for Plant Patent Litigation from the Parables of Christ," University of St. Thomas Symposium on Intellectual Property and Religious Thought, Minneapolis, MN, April 2013.

"Patent Subject Matter Eligibility," University of Minnesota School of Law "Patent Strategy After the America Invents Act", Minneapolis, MN, April 12, 2013.

Speaker and Moderator, "Agricultural Innovation in Africa," "Facilitating Innovation Through Technology Transfer," and "IP and Development in Africa," U.S. Department of Commerce CLDP/Africa IP Group Workshop on IP Utilization and Protection in Africa, Dar es Salaam, Tanzania, March 19-21, 2013.

Panelist, "Patents and the Supreme Court," Georgetown University Law Center Conference: The Changing Patent Landscape," Washington, D.C. March 11, 2013.

"The Who, What, When, Where, Why & How of Patent Subject Matter Eligibility Disputes," Manzo Scholarly Symposium, DePaul University School of Law, Chicago, IL, February 20, 2013.

"Biotech Patent-Eligible Subject Matter in the U.S. and Abroad: A Moving Target?" University of Dayton Scholarly Symposium, Dayton, OH, October 2012.

"The Wheat and the (GMO) Tares: Lessons for Plant Patent Litigation from the Parables of Christ," University of Virginia School of Law, Law Christian Fellowship, October 2012.

"Biotech Patent-Eligible Subject Matter in the U.S. and Abroad: A Moving Target?," European Policy for Intellectual Property Conference, University of Leuven, Belgium, September 2012.

Moderator, Gene Patent Debate, American Association of Law Schools Mid-Year Workshop on IP, San Francisco, CA, June 2012.

"Changing Tides or a Drop in the Bucket? Issues in Plant Patent Litigation in the U.S. and Abroad," Seyfarth Shaw -Emory Law School IP CLE Program, Atlanta, GA, March 2012

"Issues in Plant Patent Litigation in the U.S. and Abroad," Drake University School of Law, IP Center 5th Anniversary Gala, Des Moines, IA, February 2012.

"Changing Tides or a Drop in the Bucket? Issues in Plant Patent Litigation in the U.S. and Abroad," Iowa State University Bioethics Symposium, "Who Owns Life?" Ames, IA, February 2012.

Moderator, "The Role of Institutions in Fostering and Disseminating Technological Innovation," Randolph Thrower Symposium, Emory University School of Law, Atlanta, GA, February 2012

"The Wheat and the (GMO) Tares: Lessons for Plant Patent Litigation from the Parables of Christ," University of Minnesota MacLaurin Center Annual Faith and Law Lecture, Univ. of Minn. School of Law, Minneapolis, MN, February 2012.

"America Invents Act: Prior Art," University of Minnesota School of Law "Patent Strategy After The America Invents Act", Minneapolis, MN, November 2011.

"The International Patent System," State Intellectual Property Office of China (SIPO) Intensive Training Program, Cardozo Law School, Yeshiva University, New York, NY, November 2008, 2009, 2010, 2011, 2012, October 2013.

ACADEMIC, PROFESSIONAL & CIVIC ACTIVITIES/ASSOCIATIONS

Professional Service & Organizations

Member, National Academies of Science, Medicine and Engineering Committee for Advancing Commercialization from the Federal Laboratories (2019 to 2021).

Lead Facilitator and Friend of the Chair, World Intellectual Property Organization Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge, and Folklore (2016-present).

Technical Expert for the African Union, in World Intellectual Property Organization matters and Convention on Biological Diversity matters (2019- present).

Member, National Order of the Coif Society Nominating Committee for the Executive Committee (2021).

Consultant, UN Convention on Biological Diversity Secretariat (2020).

Technical Expert for the African Union Preparations for the Fourteenth Conference of the Parties to the Convention on Biological Diversity, Third Meeting of the Parties to the Nagoya Protocol, Addis Ababa, Ethiopia and Sharm el-Sheikh, Egypt (2018).

Expert Advisor to the Government of Mozambique, World Intellectual Property Organization Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, and Standing Committee on Trademarks, Industrial Designs and Geographical Indications (2014-2018).

Facilitator, World Intellectual Property Organization Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge, and Folklore (2014-2016).

Project Consultant, UN Food and Agriculture Organization International Treaty on Plant Genetic Resources for Food and Agriculture Secretariat (2017).

Instructor, CIALE (Center for Inter-American Legal Education) program, Institute Superior de Relaciones Internationales, Havana Cuba (2016-2017).

Senior Fellow, Center for International Governance Innovation (2016-2021)

Consultant, Government of Namibia, Ministry of Trade and Industry, regarding Patent and Utility Model Regulations to implement the 2012 Industrial Property Act (2014).

Member, National Academy of Sciences Committee on University Management of Intellectual Property: Lessons from a Generation of Experience, Research, and Dialogue (2008-2010).

Member, Atlanta IP Inn of Court (2016-present).

American Association of Law Schools Planning Committee, Mid-Year meeting on Intellectual Property (2011-2012).

U.S. Department of Commerce CLDP Advisor, Workshop on Practical Approaches to IP Utilization and Protection in Africa (2013).

Lecturer, Practising Law Institute (PLI) Patent Bar Review (2005-present).

Lecturer, BARBRI Patent Bar Review (2001-2004).

Provided advice on new Patent Act to Government of Zambia (2009).

Provided advice on proposed Patent Act revisions to Government of Nigeria (2011).

Prepared New Technology Patentability Assessment Report for Japanese Patent Office (2003).

Retained as patent legal expert and consultant in several patent cases and prosecution matters.

Member, International Association for the Advancement of Teaching and Research in Intellectual Property (ATRIP).

Member, American Intellectual Property Law Association

Member, American Bar Association

Board Memberships

Member, Board of Directors, Society of Christian Legal Scholars (2021-2022)

Member, Board of Directors of the Public Patent Foundation (2009-2015)

Member, Board of Directors, Atlanta Adventist Academy (2012-2015)

Bar Memberships

United States Patent & Trademark Office

State Bar of Georgia

GRANTS

\$50,000 Emory Global Health Institute grant for drug quality assurance program in Mozambique/Malawi with Harvard Global Access in Action (GAiA) program and Emory-Rollins School of Public Health (2018-2020).

\$25,000 UN Convention on Biological Diversity as lead for 12 member team conducting study on domestic measures relating to digital sequence information and benefit sharing (2019-2020).

VIDEOS

"Beautiful Things Make Money" https://www.cigionline.org/multimedia/beautiful-things-make-money; https://www.youtube.com/watch?time_continue=62&v=Yc_dGYMw8Ug (Dec. 2017).

"What is Traditional Knowledge?" <u>https://www.youtube.com/watch?v=14YInJGNwZc</u> (June 2017).

ACADEMIC SERVICE (selected activities)

Emory University

Associate Dean for Research (2022-present)

Member, Emory Global Health Institute Faculty Fellow (2017-present).

Member, Law School Tenure and Promotion Committee (2018-2020).

Member, Law School Dean Search Committee (2018-2019).

Experiential Learning Committee (2017-2018).

Speaker, recruiting and admissions events, London, UK (2018).

Black Law Students Association 1L success program (2016-2018).

Faculty Advisor Emory Adventist Christian Fellowship (2016-present)

Member, Law School Dean Search Committee (2005-06).

Principal Emory Law School Director, "Technological Innovation: Generating Economic Results" ("TI:GER") Program: Significant involvement in numerous aspects of program including creating legal component of program and requirements for Certificate in IP, recruiting and selecting JD students, designing and teaching portions of Fundamentals of Innovation courses, and procuring guest lecturers. TI:GER is a collaboration between the Emory University School of Law, the Emory University Department of Economics, and the Georgia Institute of Technology ("Georgia Tech"), in which Emory J.D. students are teamed with Georgia Tech MBA and PhD science/engineering students to learn the process of commercializing innovation (2002 - 06).
President, Emory University School of Law Chapter, Order of the Coif (2005-06).
Advisor, *Emory Law Journal* (2002 - 04).
Member, Emory University Library Policy Committee (2000 - 02).
Member, Emory University School of Law Appointments Committee (2003- 04).
Member, Emory University School of Law Information Technology Committee (2002 - 03).
Member, Emory University School of Law Admissions & Scholarship Committee (2000 - 01).
Vice-President, Emory University School of Law Chapter, Order of the Coif (2000 - 02).

University of Virginia School of Law

UVA Law School Student Conduct Committee (2014-2016) UVA Law School International Relations Committee (2014-2016) UVA Adventist Christian Fellowship Faculty Sponsor (2006-2016) University of Virginia Faculty Senate (2010-2014) UVA Law School International Relations/Graduate Program Committees (2007 – 2014) UVA Law School Lecturers Committee (2011-2014) UVA Student Scholarly Lunch Committee (2008-2009) Faculty Advisor, UVA Law School Street Law Society (2008-2010) Member, Law School Dean Search Committee, University of Virginia School of Law (2006-07). UVA BLSA Mentor (2007-2008).

LEGAL EXPERIENCE

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP, Atlanta, GA

1998 - 1999 (Consultant, 1999-2004)

1994, 1995, 1996 - 1998

Associate Attorney: Intellectual property practice including design and utility patent prosecution, design and utility patent interferences, patent reexaminations, patent due diligence projects involving U.S., European, and other foreign patents, trade secret counseling, litigation research and brief writing, infringement opinions/infringement clearance analyses, intellectual property assignments and license agreements, U.S. and European client counseling.

SMITH, GAMBRELL & RUSSELL, LLP, Atlanta, GA

Associate Attorney (October 1996 – May 1998): Intellectual property practice including drafting patent and trademark applications, responding to PTO office actions, litigation research and brief writing, drafting patent infringement and trademark opinion letters, patent, trademark and copyright assignments and license agreements, counseling clients on patent, trademark, copyright and trade secret issues.

Summer/Student Associate (1994, 1995, 1994-95 school year): Researched and drafted legal memoranda in a variety of practice areas including intellectual property, environmental, real estate, and litigation.

KING & SPALDING, LLP, Atlanta, GA

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pricing with suppliers. Presented research proposals and results to clients such as W Successfully implemented studies simulating consumer purchase decisions and soft drink promot	endy's International.
 THE PROCTER & GAMBLE COMPANY, Cincinnati, OH; Mt. Dora, FL Products Research Group Leader: On-Loan to Sundor Brands, Mt. Dora, FL (1991 - 1993) Broad product and consumer research responsibilities for four beverage brands. Key achievement Identified a way to improve apple juice consumer acceptance while reducing flavor costs by S Managed Product Development support of 16 oz. Hawaiian Punch Colors convenience including product manufacture, packaging, distribution, and data collection and analysis. 	nts: \$200K/year.
 Products Research/Process Development Engineer: Jif Peanut Butter, Cincinnati, O Responsibilities included managing support personnel and guiding product development. Key at Co-inventor on a United States patent for improved peanut butters (U.S. Pat. #5,230,919). Designed experiments and produced model prototypes that beat regular Jif 2:1 in consumer ta Contributed insight on how to talk to consumers about new product; increased purchase interpreters. 	chievements: ste tests.
Research Intern, Jif Peanut Butter Cincinnati, OH Defined peanut wet-roasting parameters, which generated a cost savings potential of \$1M.	Summer 1986
Research Intern, Duncan Hines Cake Mixes Cincinnati, OH Developed a proprietary cocoa treatment process that increased cake chocolate flavor by 20%.	Summer 1985
LAWRENCE LIVERMORE NATIONAL LABORATORY, Livermore, CA Research Intern, Hazards Control Conducted flammable vapor diffusion studies; assisted in polymer combustion tests.	Summer 1984
AT&T BELL LABORATORIES, Murray Hill, NJ Research Intern, Polymer Science and Technology Synthesized photosensitive polyimides for use in integrated circuitry.	Summer 1983
OAK RIDGE NATIONAL LABORATORY, Oak Ridge, TN Research Intern, Cryogenic Physics Assisted in flux line lattice studies of superconducting materials at cryogenic temperatures.	Summer 1982

Summer Associate: Researched and drafted legal memoranda for intellectual property, environmental, and real estate attorneys and clients.

Spring Semester 1995

1993

THE COCA-COLA COMPANY, Atlanta, GA

Legal Extern: The Coca-Cola Company, Legal Department Analyzed Clean Air Act regulations for several states and summarized the potential impact on Coca-Cola facilities.

OTHER EXPERIENCE

THE COCA-COLA COMPANY, Atlanta, GA

Senior Research Analyst: Coca-Cola USA Fountain Marketing Research

Responsibilities included defining client needs and creating targeted studies. Solicited bids and negotiated study ational. NASA - MARSHALL SPACE FLIGHT CENTER, Huntsville, AL Research Apprentice, Cryogenics Lab Investigated effects of oxidation on Nb films for superconductor applications.