

Christopher M. Holman

Present Employment

University of Missouri-Kansas City School of Law
Professor

August 2005-present

Have taught the following courses:

- Intellectual Property Law
- Patent Law
- Copyright Law
- Trademark and Unfair Competition (taught at Drake University Law School)
- Intellectual Property Licensing
- Intellectual Property Litigation
- Seminar in Law, Science & Technology
- Property
- Environmental Law
- Preservation of Land and Natural Resources
- Land Trusts and Conservation Easements
- Drug and Medical Technology Torts
- Food, Drug & Biotechnology Law
- Antitrust and Competition Law
- Entrepreneurial Innovation Mining (taught IP component of course)

Education

Berkeley Law, University of California, Berkeley
J.D., 1998

Honors Jurisprudence Award – Proprietary Rights in the Biotech Industry
 Prosser Prize – Criminal Law

Activities Associate Editor – Berkeley Technology Law Journal
 Judicial extern in federal district court – Including substantive involvement in a major biotechnology patent interference trial

University of California, Davis
Ph.D., 1993 – Biochemistry and Molecular Biology

Research Investigated enzymatic reaction catalyzed by Δ^5 -3-Ketosteroid Isomerase (KSI), focusing particularly on characterization of active site environment and the nature of the reaction transition state. The research entailed molecular cloning and site-directed mutagenesis, protein engineering, protein purification and kinetic characterization, organic synthesis of steroidal substrates and inhibitors of the enzyme, and structural studies using NMR and X-ray crystallography.

Honors NIH Molecular and Cellular Biology Training Grant Fellow

California State University, East Bay (formerly Hayward)

B.A., 1987 - Chemistry

Honors Dean's List (1985-87)

Highest ranking biochemistry and organic chemistry student in graduating class

Employment History

Drake University Law School

Visiting Professor of Law and Interim Director of IP Center

Taught IP survey, patent law, trademark & unfair competition, and copyright law courses; organized and hosted IP Center speaker series, events, and a conference on gene editing and agriculture.

2018 – 2019 Academic Year

Des Moines, IA

University of Kansas School of Law

Visiting Associate Professor

Taught intellectual property survey course.

2011, 2013, 2019 and 2020

DePaul School of Law

Visiting Professor

Taught courses in patent and intellectual property law.

Fall Semester 2008

Chicago, IL

PhyNexus, Inc.

Vice-President, Intellectual Property

Management of all aspects of company's intellectual property program, including patent preparation, domestic and international patent filing strategy and implementation, freedom-to-operate analysis, product clearance, trademark and copyright filing and strategy, contracts, agreements and technology licensing.

2003 - 2005

San Jose, CA

Maxygen, Inc.

Patent Counsel

Prepared and prosecuted patent applications in US and PCT relating to various biotechnology inventions, including novel genes and proteins, methods of directed molecular evolution and genetic engineering; managed international patent prosecution docket and directed intellectual property strategy for Verdia, Inc., a wholly-owned subsidiary of Maxygen; performed freedom-

2001 – 2002

Redwood City, CA

to-operate, patent infringement and validity analysis; managed outside counsel in patent prosecution and procurement of validity/infringement opinions; responsible for IP aspects of several collaborative research programs; prepared contracts and counseled client with respect to complex licensing agreements.

Transgenomic, Inc.

2000 – 2001

Associate Patent Counsel

San Jose, CA

Prepared and prosecuted patent applications in US and PCT relating to various biotechnology and chemistry inventions, including methods, reagents and apparatuses for the preparation and analysis of polynucleotides, diagnostic methods, and bioinformatic software; performed freedom-to-operate, patent infringement and validity analyses; performed due diligence analysis in connection with the successful acquisition of a small chemical company; performed patent and prior art searches, including chemical structure searches; prepared and evaluated contracts and participated in patent licensing negotiations.

California State University, Hayward

1999-2000 Academic Year

Assistant Professor, Dept. of Chemistry

Developed and taught classes in chemistry and biochemistry at undergraduate and graduate level, including advanced courses in instrumental analysis and bioinformatics. Supervised graduate student in independent research project studying catalytic mechanism of bacterial protease subtilisin, which resulted in publication in peer-reviewed journal. Served on University-wide committee.

Pennie & Edmonds, LLP

Summer 1997 and 1998-1999

Summer Associate and Associate

Palo Alto, CA

Prepared and prosecuted patent applications in US and PCT relating to various biotechnology and chemistry inventions, including gene therapy, drug delivery, novel genes and proteins, immunology, and hybridization arrays; prepared validity/infringement opinions; some contract work, patent litigation and interference support.

Federal District Court, Northern District of California

1997

Full-time Judicial Extern to Judge Claudia Wilken

Oakland, CA

Flehr Hohbach, LLP

1996-1997

Patent Agent

San Francisco, CA

Prosecuted patent applications, primarily involving biotechnology and pharmaceutical inventions, and conducted legal research to support litigation.

Somatix Therapy Corporation

1996

Assistant to Director of Intellectual Property and Licensing

Alameda, CA

Syntex Research/Roche Bioscience

1993- 1995

NIH Post-doctoral Fellow

Palo Alto, CA

Worked as part of group developing novel matrix metalloproteinase (MMP) inhibitors as potential therapeutics, particularly for the treatment of arthritis and cancer. Conceived and

implemented an independent research project aimed at elucidating the structure and mechanism of human stromelysin-1, which included protein engineering to alter the enzymes substrate specificity, inhibition profile and pH dependence. Designed and synthesized novel fluorogenic peptide substrates, including one that became standard for measuring activity of stromelysin.

Regnier Institute for Entrepreneurship and Innovation 2020-2021
Kansas City Region Bio-Med and Health Care Technology
Other Teaching Experience

Entrepreneurship Certificate Program

Instructor

Taught module on patents and licensing

United States Association for Small Business and Entrepreneurship (USASBE) 2016-2018
Kansas City Region Bio-Med and Health Care Technology
Entrepreneurship Certificate Program

Instructor

Taught module on patents and licensing

University of Missouri Kansas City Bloch Business School 2010

Instructor

Taught intellectual property component of the school's executive MBA program

University of California, Santa Cruz Extension Program 2002-2009

Instructor

Taught on an ongoing basis a course I developed for scientists and other non-patent professionals entitled "Intellectual Property Rights in the Biotechnology and Pharmaceutical Industries."

University of California, Davis 1987-1991

Teaching Assistant

Taught a variety of undergraduate biochemistry course for a total of six quarters.

Awards

Marvin Lewis Rich Faculty Scholar Award (2016-17). The Marvin Lewis Rich Faculty Scholar Award recognizes excellence demonstrated by a body of work, integrating scholarly achievement and teaching, which focuses on a coherent theme. The contribution may be original basic research in any law-related area or reflect interdisciplinary mastery. The attainment for which the honor is given must occur during the three years preceding the award.

Daniel L. Brenner Faculty Publishing Award (2014-2015). This award honors the year's outstanding scholarly article by a UMKC law school faculty member. It was awarded for an article entitled *Bowman v. Monsanto Co.: A Bellwether for the Emerging Issue of Patentable Self-Replicating Technologies and Inadvertent Infringement*, 80 Missouri Law Review 665 (2015).

Leonardo Da Vinci and Edison Fellowships (2013-2015). Sponsored by the Center for Intellectual Property at George Mason University School of Law.

Daniel L. Brenner Faculty Publishing Award (2007-2008). This award honors the year's outstanding scholarly article by a UMKC law school faculty member. It was awarded for the article entitled "The Impact of Human Gene Patents on Innovation and Access: A Survey of Human Gene Patent Litigation," 76 UMKC L. Rev. 295 (2007).

Activities, Certifications and Affiliations

California State Bar (No. 197517) (1998)

Ninth Circuit Court of Appeals (1998)

Federal Circuit Court of Appeals (2008)

U.S. Patent and Trademark Office (No. 40,021) (1996)

American Intellectual Property Law Association – Former Chair of the Biotechnology in the Courts Subcommittee

American Bar Association, Section of Intellectual Property

Senator, UMKC Faculty Senate (2014-2018)

UMKC Research Advisory Council (2013-present)

UMKC Academic Grievance Resolution Panel (2014-present)

Chair, UMKC Technology Transfer Advisory Council (2011-2013)

UMKC Conflicts of Interest Committee (2007-2010)

UMKC Life and Health Sciences Advisory Council

Vice-Chair, ABA Committee 158 – Special Committee on Bioinformatics (2009)

Chair, Subcommittee on Recent Case Law Developments for ABA Committee 160: Special Committee on Biotechnology, Chemistry, Medicine, and Pharmacology (2010)

Chair and Co-Founder, BioLaw Section of the American Association of Law Schools (2011-2012)

Faculty Advisor, UMKC National Patent Application Drafting Competition (NPDAC) Team

Faculty Advisor, UMKC Giles Sutherland Rich Moot Court Team

Faculty Advisor, UMKC Student Intellectual Property Law Society

Faculty Advisor, UMKC IP LawMeet

Mentor, Southeastern Association of Law Schools mentorship program for new law professors

Executive Editor, Biotechnology Law Report (2012- Present)

Senior Fellow, Center for the Protection of Intellectual Property, Antonin Scalia Law School, George Mason University (2020-21)

Senior Scholar, Center for Intellectual Property x Innovation Policy (C-IP2) , George Mason University, Antonin Scalia Law School (2014-2020, 2021-present)

Senior Commentator, C-IP2 Thomas Edison Innovation Law & Policy Fellowship Program (2021-2024)

Leonardo da Vinci Fellow, Center for the Protection of Intellectual Property (2013-2014)

Edison Innovation Fellow, Center for the Protection of Intellectual Property (2014-2015)

Expert Commentator, Wiet Life Science Law Scholars Workshop, Loyola University Chicago School of Law (September 6, 2019).

Board of Directors, Kansas Land Trust (2016-2018)

President, Heart of America Fly Fishers (2016-2018)

Scholar-in-Residence, Hovey Williams, LLP (2015-2017)

Lone Mountain Fellow, Property and Environment Research Center (2017)

Publications

Christopher M. Holman, *GlaxoSmithKline II and Other Recent Developments in Induced and Contributory Patent Infringement*, 43 BIOTECHNOLOGY LAW REPORT 3 (2024).

Christopher M. Holman, *Recent Developments at the Intersection of Pharma, Patents, and Antitrust Law*, 42 BIOTECHNOLOGY LAW REPORT 282 (2023).

Christopher M. Holman, *Federal Circuit Reiterates That Drug Safety and Efficacy Are Issues for the FDA, Not the Patent Laws*, 42 BIOTECHNOLOGY LAW REPORT 230 (2023).

S. Sean Tu and Christopher M. Holman, *Antibody Patents: Use of the Written Description and Enablement Requirements at the Patent & Trademark Office*, 38 BERKELEY TECH. L.J. 1 (2023).

Christopher M. Holman, *Recent Developments in the Listing of Patents in FDA's Orange Book*, 42 BIOTECHNOLOGY LAW REPORT 168 (2023).

Christopher M. Holman, *Recent Developments in FDA Regulatory Exclusivities*, 42 BIOTECHNOLOGY LAW REPORT 118 (2023).

Christopher M. Holman, *A 2023 Review of Legislation Aimed at Increasing Generic and Biosimilar Competition*, 42 BIOTECHNOLOGY LAW REPORT 68 (2023).

S. Sean Tu and Christopher M. Holman, *Antibody Claims and the Evolution of the Written Description / Enablement Requirement*, 63 IDEA 84 (2023).

Christopher M. Holman, *To What Extent Does Mayo v. Prometheus Allow for the Patenting of Diagnostic Methods?*, 42 BIOTECHNOLOGY LAW REPORT 3 (2023).

Christopher M. Holman, *Amgen v. Sanofi: The Supreme Court Takes up the Enablement Requirement in the Context of Therapeutic Monoclonal Antibodies*, 41 BIOTECHNOLOGY LAW REPORT 269 (2022).

Christopher M. Holman, *The Enablement and Written Description Requirements Through the Lens of the Federal Circuit's Actions (As Opposed to Its Words)*, 41 BIOTECHNOLOGY LAW REPORT 219 (2022).

Christopher M. Holman, *A Look at the Current Status of the CRISPR Patent Interferences Involving Broad Institute, University of California and University of Vienna, ToolGen, and Sigma-Aldrich*, 41 BIOTECHNOLOGY LAW REPORT 169 (2022).

Christopher M. Holman, *The Broad Institute Scores Another Victory in Its Battle with the University of California over the Patenting of CRISPR*, 41 BIOTECHNOLOGY LAW REPORT 122 (2022).

Christopher M. Holman, *Is the Chemical Genus Claim Really "Dead" at the Federal Circuit?: Part II*, 41 BIOTECHNOLOGY LAW REPORT 58 (2022).

Christopher M. Holman, *Is the Chemical Genus Claim Really "Dead" at the Federal Circuit?: Part I*, 41 BIOTECHNOLOGY LAW REPORT 4 (2022).

Christopher M. Holman, *In Juno v. Kite the Federal Circuit Strikes Down Patent Directed Towards Pioneering Innovation in CAR T-Cell Therapy*, 40 BIOTECHNOLOGY LAW REPORT 372 (2021).

Christopher M. Holman, *In Minerva v. Hologic, the U.S. Supreme Court Reins in the Equitable Doctrine of Assignor Estoppel*, 40 BIOTECHNOLOGY LAW REPORT 294 (2021).

Christopher M. Holman, *In re Huping Hu: Quantum Entanglement, Medical Innovation, and Patentability on the Scientific “Fringe,”* 40 BIOTECHNOLOGY LAW REPORT 222 (2021).

Christopher M. Holman, *The Federal Circuit Continues to Grapple with the Question of Patent Eligibility for Diagnostic Methods*, 40 BIOTECHNOLOGY LAW REPORT 151 (2021).

Christopher M. Holman, *Branded Drug Companies Are Successfully Asserting the Doctrine of Equivalents in Hatch-Waxman Litigation*, 40 BIOTECHNOLOGY LAW REPORT 72 (2021).

Christopher M. Holman, *Government Involvement in Pharmaceutical Development Can Come Back to Haunt a Drug Company*, 40 BIOTECHNOLOGY LAW REPORT 4 (2021).

Christopher M. Holman, *GlaxoSmithKline v. Teva: Holding a Generic Liable for an Artificial Act of Inducement*, 39 BIOTECHNOLOGY LAW REPORT 425 (2020).

Christopher M. Holman, *State Universities Push the Limits of Eleventh Amendment Sovereign Immunity at the Federal Circuit*, 39 BIOTECHNOLOGY LAW REPORT 347 (2020).

Christopher M. Holman, *Patent Term Adjustment: Recent Developments at the Federal Circuit and PTO*, 39 BIOTECHNOLOGY LAW REPORT 266 (2020).

Christopher M. Holman, *Willowood v. Syngenta Petition for Certiorari Asks Supreme Court to Weigh in on Copyright Protection for Generic Pesticide Labeling*, 39 BIOTECHNOLOGY LAW REPORT 165 (2020).

Christopher Holman, *Congress Should Decline Ill-Advised Legislative Proposals Aimed at Evergreening of Pharmaceutical Patent Protection*, 51 U. Pac. L. Rev. 493 (2020).

Christopher M. Holman, *Inherency in the Patenting of Biotechnology and Pharmaceutical Innovation*, 39 BIOTECHNOLOGY LAW REPORT 79 (2020).

Christopher M. Holman, *Ajinomoto v. ITC, the Doctrine of Equivalents, and Biomolecule Claim Limitations at the Federal Circuit*, 39 BIOTECHNOLOGY LAW REPORT 3 (2020).

Christopher M. Holman, *Recent PTO Guidance Charts a New Course Through the Patent Eligibility Quagmire*, 38 BIOTECHNOLOGY LAW REPORT 341 (2019).

Christopher M. Holman, *Gilead Sciences Sued for Failing to Bring a Follow-On Version of Truvada to Market Sooner*, 38 BIOTECHNOLOGY LAW REPORT 267 (2019).

Christopher M. Holman, *Nuvo v. Dr. Reddy and the Patentability of Prophetic Pharmaceutical Inventions Based on Unexplained Inventive Insight*, 38 BIOTECHNOLOGY LAW REPORT 207 (2019).

Christopher M. Holman, *Congress Considering Legislation Aimed at Increasing Competition in Pharmaceuticals*, 38 BIOTECHNOLOGY LAW REPORT 144 (2019).

Christopher M. Holman, *The Lilly Written Description Requirement: A Doctrinal Wildcard of Uncertain Effect*, book chapter in RESEARCH HANDBOOK ON PATENT LAW & THEORY (2ND EDITION), edited by Toshiko Takenaka, Edward Elgar Publishing (2019).

Christopher M. Holman, *Helsinn v. Teva: Lingering Ambiguity After the U.S. Supreme Court Holds the AIA Did Not Alter the On-Sale Bar to Patentability*, 38 BIOTECHNOLOGY LAW REPORT 77 (2019).

Christopher M. Holman, *A Fractured International Response to CRISPR-Enabled Gene Editing of Agricultural Products*, 38 BIOTECHNOLOGY LAW REPORT 3 (2019).

Christopher M. Holman, *Acorda Therapeutics and the Role of Blocking Patents in Assessing Objective Indicia of Nonobviousness in the Pharmaceutical Arts*, 37 BIOTECHNOLOGY LAW REPORT 305 (2018).

Christopher M. Holman, *Congress Considering Legislation Intended to Reverse the Recent Trend toward Devaluation of the U.S. Patent Right*, 37 BIOTECHNOLOGY LAW REPORT 243 (2018).

Christopher M. Holman, *Inside Views: Why Follow-On Pharmaceutical Innovations Should Be Eligible For Patent Protection*, INTELLECTUAL PROPERTY WATCH (Sept. 21, 2018).

Christopher M. Holman, *Praxair v. Mallinckrodt: An Expanded Interpretation of the Printed Matter Doctrine with Important Implications for Biotechnology*, 37 BIOTECHNOLOGY LAW REPORT 188 (2018).

Christopher M. Holman, *The Renewable Fuel Standard Reimagined: Clearing a Path for Truly Advanced Biofuels*, 86 UMKC L. Rev. 805 (2018).

Christopher M. Holman, Timo Minssen, and Eric Solovy, *Patentability Standards for Follow-on Pharmaceutical Innovation*, 37 BIOTECHNOLOGY LAW REPORT 131 (2018).

Christopher M. Holman, *Vanda v. West-Ward Pharmaceuticals: Good News for the Patent Eligibility of Diagnostics and Personalized Medicine, with Some Important Caveats*, 37 BIOTECHNOLOGY LAW REPORT 117 (2018).

Christopher M. Holman, *Enablement Invoked as a “Super-Written Description Requirement” to Overturn \$2.5 Billion Jury Verdict*, 37 BIOTECHNOLOGY LAW REPORT 63 (2018).

Christopher M. Holman, *The Role of Objective Indicia in Assessing the Nonobviousness of Pharmaceutical Inventions*, 37 BIOTECHNOLOGY LAW REPORT 4 (2018).

Christopher M. Holman, *For Monoclonal Antibodies, Compliance with the Written Description Requirement Has Become a Moving Target*, 36 BIOTECHNOLOGY LAW REPORT 273 (2017).

Christopher M. Holman, *FDA’s Efforts to Tame the “Wild West” of Regenerative Medicine*, 36 BIOTECHNOLOGY LAW REPORT 217 (2017).

Christopher M. Holman, *The Supreme Court’s Devaluation of U.S. Patents*, 36 BIOTECHNOLOGY LAW REPORT 151 (2017).

Christopher M. Holman, *Charting the Contours of a Copyright Regime Optimized for Engineered Genetic Code*, 69 Oklahoma Law Review 399 (2017).

Christopher M. Holman, *In Defense of Secondary Pharmaceutical Patents: A Response to the UN’s Guidelines for Pharmaceutical Patent Examination*, 50 Indiana Law Review 759 (2017).

Christopher M. Holman, *A Biotechnology-Centric Look at Fee Shifting in Patent Litigation Post-Octane Fitness*, 36 BIOTECHNOLOGY LAW REPORT 81 (2017).

Christopher M. Holman, *In Life Technologies v. Promega the Supreme Court Leaves Unresolved Many Questions Regarding the Potential for Infringement under 35 U.S. 271(f)(1)*, 36 BIOTECHNOLOGY LAW REPORT 43 (2017).

Christopher M. Holman, *Eli Lilly v. Teva: Generic Companies Infringe under Akamai IV in Case of Divided Infringement*, 36 BIOTECHNOLOGY LAW REPORT 31 (2017).

Christopher M. Holman, *AbbVie Hopes to Maintain Humira Exclusivity Through Secondary Patents and Regulatory Barriers to Entry*, 36 BIOTECHNOLOGY LAW REPORT 9 (2017).

Christopher M. Holman, *Setbacks in Implementing the Renewable Fuel Standard Lead to Calls for Reform*, 35 BIOTECHNOLOGY LAW REPORT 249 (2016).

Christopher M. Holman, *Mayo Update: Some Reason for Guarded Optimism*, 35 BIOTECHNOLOGY LAW REPORT 175 (2016).

Christopher M. Holman, *The Medicines Company v. Hospira: When Does Outsourcing Drug Manufacture to a Third-Party Contractor Trigger an On-Sale Bar to Patentability?*, 35 BIOTECHNOLOGY LAW REPORT 129 (2016).

Christopher M. Holman, *The Mayo Framework Is Bad for Your Health*, 23 George Mason Law Review 901 (2016).

Christopher M. Holman, *Are Engineered Genetic Sequences Copyrightable?: The U.S. Copyright Office Addresses a Matter of First Impression*, 35 BIOTECHNOLOGY LAW REPORT 103 (2016).

Christopher M. Holman, *Two Recent U.S. Reports Identify Shortcomings in USDA's Regulation of GE Crops*, 35 BIOTECHNOLOGY LAW REPORT 83 (2016).

Christopher M. Holman, *Trade Secret Law: An Increasingly Important Form of IP for Biotechnology*, 35 BIOTECHNOLOGY LAW REPORT 45 (2016).

Christopher M. Holman, *Cuozzo v. Lee: Supreme Court to Decide Its First Inter Partes Review Case*, 35 BIOTECHNOLOGY LAW REPORT 3 (2016).

Christopher M. Holman, *Status Update: Implementation of the Patent Dispute Resolution Provisions of the Biologics Price Competition and Innovation Act*, 34 BIOTECHNOLOGY LAW REPORT 247 (2015).

Christopher M. Holman, *A Proliferation of Legislation Targeting Genetically Modified Crops*, 34 BIOTECHNOLOGY LAW REPORT 207 (2015).

Christopher M. Holman, *Bowman v. Monsanto Co.: A Bellwether for the Emerging Issue of Patentable Self-Replicating Technologies and Inadvertent Infringement*, 80 Missouri Law Review 665 (2015).

Christopher M. Holman, *The Critical Role of Patents in the Development, Commercialization and Utilization of Innovative Genetic Diagnostic Tests and Personalized Medicine*, 21 B.U. J. Sci. & Tech. L. 297 (2015).

Christopher M. Holman, *Status Update: Implementation of Various Non-patent Aspects of the Biologics Price Competition and Innovation Act of 2009*, 34 BIOTECHNOLOGY LAW REPORT 189 (2015).

Christopher M. Holman, *The Biotechnology Industry Organization (BIO) and Pharmaceutical Research and Manufacturers of America (PhRMA) Seek En Banc Review of Ariosa Diagnostics v. Sequenom*, 34 BIOTECHNOLOGY LAW REPORT 169 (2015).

Christopher M. Holman, *Supreme Court Asked to Consider Role of Post-Filing Evidence in Assessing Obviousness of Pharmaceutical Inventions*, 34 BIOTECHNOLOGY LAW REPORT 49 (2015).

Christopher M. Holman, *Do Biotech Patent Lawsuits Really “Overwhelmingly Lose?”: A Response to Our Divided Patent System*, 34 BIOTECHNOLOGY LAW REPORT 59 (2015).

Christopher M. Holman, *Developments in Synthetic Biology Are Altering the IP Imperatives of Biotechnology*, Vanderbilt 17 J. Ent. & Tech. L. 385 (2015).

Christopher M. Holman, *Patent Eligibility Post-Myriad: A Reinvigorated Judicial Wildcard of Uncertain Effect*, 82 George Washington Law Review 1796 (2014).

Christopher M. Holman, *Patent Eligibility as a Policy Lever to Regulate the Patenting of Personalized Medicine*, book chapter in PERSPECTIVES ON PATENTABLE SUBJECT MATTER, edited by Michael Abramowicz, F. Scott Kieff and James E. Daily, Cambridge University Press (2014).

Christopher M. Holman, *How Real Is the Concern that Seed Patents Will Turn Farmers into Inadvertent Infringers?*, 33 BIOTECHNOLOGY LAW REPORT 165 (2014).

Christopher M. Holman, *Caught Between a Rock and a Hard Place: How Limelight Compounds the Challenges Facing Biotechnology Innovators After Mayo and Myriad*, 33 BIOTECHNOLOGY LAW REPORT 135 (2014).

Christopher M. Holman, *The Federal Circuit’s Ongoing Expansion of Obviousness-Type Double Patenting Creates Patent Prosecution Pitfalls*, 33 BIOTECHNOLOGY LAW REPORT 94 (2014).

Christopher M. Holman, *Mayo, Myriad, and the Future of Innovation in Molecular Diagnostics and Personalized Medicine*, 15 North Carolina Journal of Law and Technology 639 (2014).

Christopher M. Holman, *District Court’s Interpretation of Mayo in Arioso Diagnostics Does Not Bode Well for Patent Eligibility of Diagnostics and Personalized Medicine*, 33 BIOTECHNOLOGY LAW REPORT 46 (2014).

Christopher M. Holman, *In Myriad the Supreme Court Has, Once Again, Increased the Uncertainty of US Patent Law*, 32 BIOTECHNOLOGY LAW REPORT 289 (2013).

Christopher M. Holman, *Advances in DNA sequencing lead to patent disputes*, 30 NATURE BIOTECHNOLOGY 1054 (2012).

Christopher M. Holman, *Preliminary Thoughts on Mayo v. Prometheus: The Implications for Biotechnology*, 31 BIOTECHNOLOGY LAW REPORT 111 (2012).

Christopher M. Holman, *Will Gene Patents Derail the Next-Generation of Genetic Technologies?: A Reassessment of the Evidence Suggests Not*, 80 UMKC L. REV. 563 (2012).

Christopher M. Holman, *Intellectual Property in the Age of Personal Genomics and Synthetic Biology*, 31 BIOTECHNOLOGY LAW REPORT 1 (2012).

Christopher M. Holman, *Debunking the Myth That Whole Genome Sequencing Infringes Thousands of Gene Patents*, 30 NATURE BIOTECHNOLOGY 240 (2012).

Christopher M. Holman, *Unpredictability in Patent Law and Its Effect on Pharmaceutical Innovation*, 76 MO. L. REV. 645 (2011).

Christopher M. Holman, *Will Gene Patents Impede Whole Genome Sequencing?: Deconstructing the Myth That 20% of the Human Genome Is Patented*, 2 IP THEORY 1 (2011).

Christopher M. Holman, *Gene Patents under Fire: Weighing the Costs and Benefits*, book chapter in BIOTECHNOLOGY AND SOFTWARE PATENT LAW: A COMPARATIVE REVIEW ON NEW DEVELOPMENTS, edited by Emanuela Arezzo and Gustavo Ghidini, Edward Elgar Publishing (2011).

Christopher M. Holman, *The Role of Patent Eligibility in Policing Claim Scope*, 1 IP THEORY 56 (2011).

Christopher M. Holman, *Copyright for Engineered DNA: An Idea Whose Time Has Come*, 113 W. VA. L. REV. 699 (2011).

Christopher M. Holman, *The Danger of the Broad Brush*, 23 GENEWATCH 18 (2010).

Christopher M. Holman, *Bilski: Assessing the Impact of a Newly Invigorated Patent-Eligibility Doctrine on the Pharmaceutical Industry and the Future of Personalized Medicine*, 10 CURRENT TOPICS IN MEDICINAL CHEMISTRY 1937 (2010).

Christopher M. Holman, *Analysis: Discerning the Myriad Claims*, MANAGING IP (November 4, 2010), available at <http://www.managingip.com/Article/2710898/Managing-Patents/Analysis-Discerning-the-Myriad-claims.html?ArticleId=2710898&single=true>.

Christopher M. Holman, Book Review of PATENT ETHICS: PROSECUTION by David Hricik and Mercedes Meyer, 1 THE IP LAW BOOK REVIEW 40 (2010), available at http://gguipcl.com/yahoo_site_admin/assets/docs/6_HOLMANmaster.180125933.pdf with him.

Christopher M. Holman, *Maintaining Incentives for Healthcare Innovation: A Response to the FTC's Report on Follow-On Biologics*, 11 MINN. J.L. SCI. & TECH. 755 (2010).

David E. Adelman & Christopher M. Holman, *Misplaced Fears in the Battle over Affordable Biotech Drugs*, 50 IDEA 565 (2010).

Christopher M. Holman, Book Review of WHO OWNS YOU? THE CORPORATE GOLD RUSH TO PATENT YOUR GENES by David Koepsell, NOTRE DAME PHILOSOPHICAL REVIEWS (10 Aug 2009), available at <http://ndpr.nd.edu/review.cfm?id=17005>.

Christopher M. Holman, *Learning from Litigation: What Can Lawsuits Teach Us About the Role of Human Gene Patents in Research and Innovation?* 18 KAN. J.L. & PUB. POL'Y 215 (2009).

Christopher Heaney, Julia Carbone, Richard Gold, Tania Bubela, Christopher M. Holman, Alessandra Colaianni, Tracy Lewis & Robert Cook-Deegan, *The Perils of Taking Property Too Far*, 1 STAN. J.L., SCI. & POL'Y 46 (2009).

Joshua D. Sarnoff & Christopher M. Holman, *Recent Developments Affecting the Enforcement, Procurement, and Licensing of Research Tool Patents*, 23 BERKELEY TECH. L.J. 1299 (2008).

Christopher M. Holman, *Trends in Human Gene Patent Litigation*, SCIENCE 322:198-99 (2008).

Christopher M. Holman, *Recent Legislative Proposals Aimed at the Perceived Problem of Gene Patents*, BIOTECH BRIEFING - Newsletter of the Biotechnology Committee of the ABA Section of Science & Technology Law, Vol. 5 – No. 1 (2008).

Christopher M. Holman, *The Impact of Human Gene Patents on Innovation and Access: A Survey of Human Gene Patent Litigation*, 76 UMKC L. REV. 295 (2007).

Christopher M. Holman, *Patent Border Wars: Defining the Boundary Between Scientific Discoveries and Patentable Inventions*, TRENDS IN BIOTECHNOLOGY 25: 539-43 (2007).

Christopher M. Holman, *Is Lilly Written Description a Paper Tiger?: A Comprehensive Assessment of the Impact of Eli Lilly and Its Progeny in the Courts and PTO*, 17 ALB. L.J. SCI. & TECH. 1 (2007).

Christopher M. Holman, *Do Reverse Payment Settlements Violate The Antitrust Laws?*, 23 SANTA CLARA COMPUTER & HIGH TECH. L.J. 489 (2007).

Christopher M. Holman, *Biotechnology's Prescription for Patent Reform*, 5 J. MARSHALL REV. INTELL. PROP. L. 318 (2006).

Chris Holman, *Clearing a Path through the Patent Thicket*, CELL 125: 629-633 (2006).

Christopher M. Holman, *Protein Similarity Score: A Simplified Version of the BLAST Score as a Superior Alternative to Percent Identity for Claiming Genuses of Related Protein Sequences*, 21 SANTA CLARA COMPUTER & HIGH TECH. L.J. 55 (2004).

Christopher M. Holman, Chen-Chen Kan, Michael R. Gehring and Harold E. Van Wart (1999) *Role of His-224 in the Anomalous pH Dependence of Human Stromelysin-1*, BIOCHEMISTRY 38:677-81.

Christopher M. Holman and William F. Benisek (1995) *Insights into the Catalytic Mechanism and Active Site Environment of C. Testosteroni Δ^5 -3-Ketosteroid Isomerase as Revealed by Site-Directed Mutagenesis of the Catalytic Base Aspartate-38*, BIOCHEMISTRY 34:14245-53.

Christopher M. Holman and William F. Benisek (1994) *Extent of Proton Transfer in the Transition States of the Reaction Catalyzed by the Δ^5 -3-Ketosteroid Isomerase of Comamonas (Pseudomonas) Testosteroni: Site-Specific Replacement of the Active Site Base, Aspartate 38, by the Weaker Base Alanine-3-sulfinate*, BIOCHEMISTRY 33:2672-81.

Anthony R. Welch, Christopher M. Holman, Martin Huber, Mitchell C. Brenner, Michelle F. Browner and Harold E. Van Wart (1996) *Understanding the P₁' Specificity of the Matrix Metalloproteinases: Effect of S₁' Pocket Mutations in Matrilysin and Stromelysin-1*, BIOCHEMISTRY 35:10103-109.

Anthony R. Welch, Christopher M. Holman, Michelle F. Browner, Michael R. Gehring, Chen-Chen Kan and Harold E. Van Wart (1995) *Purification of Human Matrilysin Produced in E. Coli and Characterization Using a New Optimized Fluorogenic Peptide Substrate*, ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS 324:59-64.

Casebooks Authored

PATENT LAW: CASES AND MATERIALS (Ver. 2.1, 2021-24)

INTELLECTUAL PROPERTY LAW: CASES AND MATERIALS Ver. (2.1, 2020-23)

COPYRIGHT LAW: CASES AND MATERIALS (Ver. 1.0, 2022)

Amici Curiae Briefs Authored

ARIOSIA DIAGNOSTICS v. SEQUENOM, INC., Federal Circuit Court of Appeals Docket No. 2014-1139, -1141, The Biotechnology Industry Organization (BIO) and Pharmaceutical Research and Manufacturers of America (PhRMA) as Amici Curiae Supporting Appellants and in Favor of En Banc Reconsideration (August 27, 2015) (Counsel of Record).

THE ASSOCIATION FOR MOLECULAR PATHOLOGY v. MYRIAD GENETICS, INC., Supreme Court of the United States Docket No. 12-398, Brief of Amicus Curiae the Biotechnology Industry Organization in Support of Respondents, 2013 WL 1209142 (March 14, 2013) (Of Counsel on brief).

BOWMAN v. MONSANTO COMPANY, Supreme Court of the United States Docket No. 11-796, Brief of Amicus Curiae Law Professor Christopher M. Holman in Support of Respondents, 2013 WL 314459 (January 23, 2013).

THE ASSOCIATION FOR MOLECULAR PATHOLOGY v. U.S. PATENT AND TRADEMARK OFFICE, Federal Circuit Court of Appeals Docket No. 2010-1406, Brief of Amicus Curiae Law Professor Christopher M. Holman in Support of Neither Party, 2012 WL 2884112 (June 13, 2012).

THE ASSOCIATION FOR MOLECULAR PATHOLOGY v. U.S. PATENT AND TRADEMARK OFFICE, Federal Circuit Court of Appeals Docket No. 2010-1406, Brief of Amici Curiae Christopher M. Holman and Robert Cook-Deegan in Support of Neither Party, 2010 WL 4853323 (October 28, 2010).

ELI LILLY AND COMPANY v. SUN PHARMACEUTICAL INDUSTRIES, Supreme Court Docket No. 10-972, Brief of Amici Curiae Biotechnology Industry Organization In Support of Petition for a Writ of Certioari, 2011 WL 742705 (February 28, 2011) (Of Counsel on brief).

SUN PHARMACEUTICAL INDUSTRIES v. ELI LILLY AND COMPANY, Federal Circuit Court of Appeals Docket No. 2010-1105, Brief of Amici Curiae Biotechnology Industry Organization In Support of Defendant-Appellant Eli Lilly, (September 8, 2010) (Of Counsel on brief).

ARIAD PHARMACEUTICALS, INC. v. ELI LILLY & COMPANY, Federal Circuit Court of Appeals Docket No. 2008-1403, Brief of Amicus Curiae Law Professor Christopher M. Holman in Support of Neither Party, 2009 WL 3711551 (October 14, 2009).

PROMETHEUS LABORATORIES, INC. v. MAYO COLLABORATIVE SERVICES and MAYO CLINIC ROCHESTER, Federal Circuit Court of Appeals Docket No. 2008-1403, Brief of Amici Curiae Interested Patent Law Professors in Support of Neither Party, 2009 WL 462602 (January 19, 2009).

Weblogs

Holman's Biotech IP Blog, a weblog providing analysis and commentary on recent developments at the intersection of biotechnology and intellectual property law (<http://holmansbiotechipblog.blogspot.com/>).

Presentations

Speaker, Works in Progress IP Conference (WIPIP) at Santa Clara University, *Considering the Scope of IP Protection Available to Biotechnological Innovations Post-Amgen* (February 3, 2024).

Invited Panelist, *Legal & Regulatory Considerations in Legalizing Psychedelics*, The Psychedelic Missouri Freedom Conference, Kansas City, MO (Oct. 28, 2023)

Invited Panelist, *Amgen v Sanofi: Settling the Law on Enablement or Raising More Questions?*, AIPLA Webinar (June 13, 2023).

Invited Speaker, *Amgen v. Sanofi and the Viability of Chemical Genus Claims*, Institute for Intellectual Property & Information Law (IPIL) Advisory Council Dinner and Intellectual Property Student Organization (IPSO) Lunch Program, University of Houston Law Center, Houston, TX (April 13, 2023).

Speaker, *Evolution of the Antibody Patent*, Works in Progress for Intellectual Property Scholars Colloquium, Saint Louis University School of Law (February 18, 2022).

Invited Panelist, *FDA and Patents? FDA's Letter to the USPTO and Possible Next Steps*, New York State Bar Association Annual Meeting, Food, Drug & Cosmetic Law Section (January 28, 2022).

Invited Panelist, FDA-PTO Roundtable Patents and Pharmaceutical Pricing, The George Washington University Law School (January 21, 2022).

Provided public comments RE: Notice of Proposed Rulemaking "Rights to Federally Funded Inventions and Licensing of Government Owned Inventions," National Institute for Standards & Technology, Docket No. 201207-0327 (April 2, 2021).

Invited Panelist, American Enterprise Institute (AEI), *Pricing and financing of pharmaceutical research: Paying twice, paying too much, or paying differently?*, Web Event (December 15, 2020).

Invited Panelist, "The Role of Patents in Biotech & High-Tech Innovation," WIPO-CPIP Summer School on Intellectual Property, George Mason University Antonin Scalia Law School (June 4, 2019).

Conference Organizer and Speaker, "Introduction to Gene Editing and CRISPR Technology," Gene Editing and Agriculture Symposium, Drake University Law School (April 24, 2019).

Invited Panelist, “Antitrust Issues in Brand-Generic Disputes,” Symposium on the Legal, Economic and Regulatory Environment of the Pharmaceutical Industry, George Mason University Law & Economics Center (April 15, 2019).

Speaker and Conference Co-Organizer, “Recent Legislative Proposals Addressing Drug Cost and Access in the U.S.,” Conference on the Changing Regulation of Pharmaceuticals, McGeorge School of Law (April 6, 2019).

Instructor, United States Association for Small Business and Entrepreneurship (USASBE) Kansas City Region Bio-Med and Health Care Technology Entrepreneurship Certificate Program, October 25, 2018.

Invited Speaker, “Interesting Developments in the Printed Matter Doctrine and Patent Eligibility,” 2018 Iowa Intellectual Property Law Association Annual Meeting, Davenport, IA (September 21, 2018).

Speaker, “*Vanda v. West-Ward Pharmaceuticals* and the Patenting of Molecular Diagnostics,” IP Scholars Conference, Berkeley Law (August 9, 2018).

Invited Panelist, “Patent Agents and the Law in 2018,” University of Missouri Kansas City CLE, Kansas City MO (April 11, 2018).

Speaker, BioLawlapalooza 2.0, “For Monoclonal Antibodies, Compliance with the Written Description Requirement Has Become a Moving Target,” Stanford Law School (March 23, 2018).

Invited Speaker, “My Career Path from Biochemist to Patent Lawyer to Law Professor,” Career Development Day 2018, Stowers Institute for Medical Research, Kansas City, MO (March 8, 2018).

Invited Panelist, “Enforcing Property Rights in Patented Innovation,” Fourth Annual Center for the Protection of Intellectual Property (CPIP) Summer Institute, Beaver Creek, CO (July 13, 2017).

Invited Panelist, “Confronting the Patentable Subject Matter Problem,” Fourth Annual Center for the Protection of Intellectual Property (CPIP) Summer Institute, Beaver Creek, CO (July 11, 2017).

Invited Speaker, “Top Ten Patent Decisions 2016-2017,” Kansas Bar Association IP Institute, Overland Park, KS (May 5, 2017).

Invited Speaker, “Reducing Barriers to the Development of Truly ‘Advanced’ Biofuels,” Drake Law School, Des Moines, IA (April 13, 2017).

Speaker, “Unravelling the Origins of the Lilly Written Description Requirement,” PatCon 7, Northwestern Law, Chicago, IL (April 8, 2017).

Invited Panelist, Patents vs. Trade Secrets, BioBreak for BioKansas, Husch Blackwell, LLP, Kansas City, MO (December 15, 2016).

Speaker, "Are Engineered Genetic Sequences Copyrightable?: The U.S. Copyright Office Addresses a Matter of First Impression," IP Scholars Conference, Stanford Law School (August 12, 2016).

Invited Speaker, Thomas Edison Innovation Fellowship Meeting, Center for the Protection of Intellectual Property, Captiva Florida (January 29, 2016).

Panelist, "Advanced Patent Topics for Entrepreneurs," University of Missouri-Kansas City School of Law (November 12, 2015).

Invited Speaker, "Copyright for Engineered DNA: An Idea Whose Time has Come?," John W. Fisher II Lecture in Law and Medicine, West Virginia University College of Law (October 30, 2015).

Invited Speaker, "Patent Eligibility Update," Center for the Protection of Intellectual Property Annual Conference, George Mason School of Law, Arlington, VA (October 1, 2015).

Panelist and Organizer, "101 Post-Alice: How USPTO & Practitioners are Reacting," U.S. Patent & Trademark Office Legal Lecture and Expert Panel Discussion, University of Missouri-Kansas City School of Law (July 23, 2015).

Invited Participant, "Roundtable Discussion: Patented Innovation in the Pharmaceutical and Biotech Industries," Center for the Protection of Intellectual Property, Hilton Head SC (May 28-29, 2015).

Invited Speaker, "*Mayo*, *Myriad* and *Limelight* put the Squeeze on Personalized Medicine," Boston University Law School (August 25, 2014).

Speaker, "The Emerging Issue of Self-Replicating Technologies and Inadvertent Patent Infringement: *Bowman v. Monsanto* as a Bellwether," IP Scholars Conference, UC Berkeley School of Law (August 8, 2014).

Invited Speaker, "Patent Eligibility Post-*Myriad Genetics*," University of Missouri-Columbia School of Law, (April 23, 2014).

Invited Speaker, "From Lab to Market: How Intellectual Property Secures the Benefits of R&D," Hosted by the Center for the Protection of Intellectual Property and Wisconsin Alumni Research Foundation, George Mason University School of Law (March 21, 2014).

Invited Speaker, "Workshop: Analyzing Policy Impacts on Biotechnology Innovation Using Patent Data," Duke Institute for Genome Sciences and Policy, Washington DC (April 14, 2014).

Invited Participant, "Congressional Briefing: The Future of Gene Patents," Rayburn House Office Building, Washington DC (April 13, 2014).

Invited Speaker, "NC JOLT Symposium: Gene Patents After *Myriad*," University of North Carolina (February 21, 2014).

Invited Speaker, Thomas Edison Innovation Fellowship Meeting, Center for the Protection of Intellectual Property, Captiva Florida (February 7, 2014).

Invited Speaker, "Roundtable on Patentable Subject Matter," Center for the Protection of Intellectual Property, Held at the Offices of Fenwick and West, Mountain View, CA (January 31, 2014).

Invited Speaker, "Patents 101: From Computer Code to Genetic Code," Vanderbilt School of Law (January 24, 2014).

Invited Speaker, "Cracking the Code: Ongoing Section 101 Patentability Concerns in Biotechnology and Computer Software," George Washington School of Law (November 15, 2013).

Invited Speaker, "Patent Issues Relevant to Crop Bioengineering," Crop Bioengineering Consortium, Iowa State University (November 5, 2013).

Invited Speaker, "Selected Topics on the Implementation of the America Invents Act," Kansas Bar Association IP Institute, Kansas City, MO (May 3, 2013).

Speaker, "Looking Beyond *Bowman v. Monsanto*: Self-Replicating Technologies Pushing the Boundaries of IP," PatCon 3, Chicago-Kent Law School (April 13, 2013).

Invited Speaker, "*Bowman v. Monsanto*: Patent Exhaustion in the Context of a Self-Replicating Technology," Washington University Law School, Saint Louis, MO (April 8, 2013).

Invited Speaker, "Patents and Biotechnology: An Overview with an Emphasis on Some Hot Topics," Meeting of the American Chemical Society, Kansas City, MO (February 28, 2013).

Invited Speaker, "*Bowman v. Monsanto*: Patent Exhaustion in the Context of a Self-Replicating Technology," Marquette Law School, Milwaukee, WI (February 13, 2013).

Invited Speaker, "Patents and Biotechnology: An Overview with an Emphasis on Some Hot Topics," University of Missouri-Kansas City School of Biological Sciences (February 7, 2013).

Invited Commentator, "Junior Faculty Scholarship Workshop-Intellectual Property Issues in the Pharmaceutical Industry," Indiana University Robert H McKinney School of Law, Indianapolis IN (December 6-7, 2012).

Invited Speaker, “The Impact of Recent Developments in Patent Law on the Patenting of Genes and Genetic Discoveries,” George Washington University Law School, Washington DC (November 8, 2012).

Invited Speaker, “Antibody Patents and Patenting Antibodies – An Academic View,” American Intellectual Property Law Association Annual Meeting, Washington DC (October 26, 2012).

Invited Speaker, “The Written Description Requirement: Are Antibodies Chemicals, Proteins, or Exceptions,” ABA Webinar/Teleconference (August 30, 2012).

Speaker, “Imagining the Contours of Copyright Protection for Engineered DNA,” IP Scholars Conference, Stanford Law School (August 10, 2012).

Invited Speaker, “Imagining the Contours of Copyright Protection for Engineered DNA,” American Association of Law Schools Mid-Year Meeting, Berkeley, CA (June 11, 2012).

Invited Speaker, “Patent-Eligible Subject Matter after *Mayo v. Prometheus*: Exploring the Path Forward,” George Washington Law School (May 16, 2012).

Invited Speaker, “Recent Developments in U.S. Law Limiting the Patentability of Diagnostics and Personalized Medicine,” College of Law, National Chengchi University (April 10, 2012).

Invited Speaker, “Recent Developments in US Patent Law, and Their Impact on Biotechnology, Personalized Medicine and Molecular Diagnostics,” Institutum Jurisprudentiae, Academia Sinica (April 6, 2012).

Scheduled Testifier, United States Patent and Trademark Office Public Hearings on Genetic Diagnostic Testing, University of San Diego School of Law (March 9, 2012).

Invited Speaker, "The Impact of Issued Gene Patents on Access to the Next-Generation of Genetic Technologies," San Diego Intellectual Property Law Association Dinner Meeting (March 8, 2012).

Invited Speaker, “Section 101 Gatekeepers: Finding the Patentable Subject Matter Line in a Judicial Sandstorm,” American Intellectual Property Law Association Online CLE Webinar (March 7, 2012).

Invited Speaker, “Deconstructing the Myth That 20% of the Human Genome is Patented: Gene Patents and the Future of Whole Genome Sequencing,” Georgia State University College of Law, GA (February 23, 2012).

Invited Speaker, “Deconstructing the Myth That 20% of the Human Genome is Patented: Gene Patents and the Future of Whole Genome Sequencing,” Drake University Law School, Des Moines, IA (February 20, 2012).

Invited Roundtable Participant, "Synthetic Biology Ownership, Sharing & Innovation Symposium," Stanford Law School, Palo Alto, CA (January 27, 2012).

Panel Moderator, "Privacy and Innovation in Pharmacogenomics," American Association of Law Schools Annual Meeting, Washington, DC (January 6, 2012).

Invited Speaker, Workshop on "Intellectual Property Challenges for Development of Genomic Diagnostics, "Will Gene Patents Impede Whole Genome Sequencing?: Deconstructing the Myth That 20% of the Human Genome Is Patented," Duke University, NC (November 4, 2011).

Invited Speaker, American Intellectual Property Law Association Annual Meeting, "Will Gene Patents Impede Whole Genome Sequencing?: Deconstructing the Myth That 20% of the Human Genome Is Patented," Washington DC (October 20, 2011).

Invited Speaker, Licensing Executives Society Annual Meeting, "Will Gene Patents Impede Whole Genome Sequencing?: Deconstructing the Myth That 20% of the Human Genome Is Patented," San Diego California (October 19, 2011).

Speaker, Intellectual Property Scholars Conference, DePaul School of Law, "Will Gene Patents Impede Whole Genome Sequencing?: Deconstructing the Myth That 20% of the Human Genome Is Patented," Chicago, IL (August 11, 2011).

Invited Speaker, "Some Important Recent Biopharma Decisions," KCMBA 2011 Top 10 Federal Circuit Decisions, Kansas City, Missouri (April 26, 2011).

Invited Speaker, "Deconstructing the Myth That 20% of the Human Genome Is Patented," Florida State Bar IP Symposium, Fort Lauderdale, Florida (April 15, 2011).

Invited Speaker, "Lilly Written Description: A Wildcard for Invalidating Unworthy Patent Claims," The Patent Conference, University of Kansas School of Law, Lawrence, Kansas (April 8, 2011).

Invited Speaker, "Unpredictability and Uncertainty in Patent Law and Its Effect on Pharmaceutical Innovation," University Of Missouri Law Review Symposium, Columbia, Missouri (February 25, 2011).

Invited Speaker, "Patent-Related Aspects of Recently Enacted Biosimilars Legislation," Utah State Bar IP Summit, Salt Lake City, Utah (February 18, 2011).

Invited Panelist, "Double Patenting: The Legacy of Sun Pharmaceuticals v. Eli Lilly," Intellectual-Property Owners (IPO) IP Chat Channel Webinar (February 3, 2011).

Invited Panelist, "Synthetic Biology Meets the Law," American Association of Law Schools Annual Meeting, San Francisco, California (January 5, 2011).

Invited Speaker, "Impact of Bilski on Biotechnology," CLE presentation for the Washington State Patent Law Association, Seattle, Washington (November 13, 2010).

Invited Panelist, "Follow-On Biologic: Implementation Challenges and Opportunities Roundtable," Seton Hall Law School, Newark, New Jersey (October 29, 2010).

Invited Speaker, "Copyright for Engineered DNA: An Idea Whose Time Has Come?," Biolaw 4.0: Law at the Frontiers of Biology, University of Kansas School of Law (October 22, 2010).

Invited Panelist, "The Effect of Healthcare Reform and Biosimilar Legislation on Licensing," Licensing Executives Society Annual Meeting, Chicago, Illinois (September 27, 2010).

Invited Panelist, "On the Complex Economics of Patent Scope: Claim Scope and Eligibility," Indiana University School of Law (September 24, 2010).

Invited Panelist, "How Will Bilski Impact the Patenting of Personalized Medicine?," University Of Illinois College of Law (September 22, 2010).

Invited Panelist, "The Future of Patenting in Biomedicine," a distance-learning webinar for Technology Transfer Tactics, August 26, 2010, available at <http://www.technologytransfertactics.com/content/audio/pib/>.

Speaker and Panel Organizer, "Lilly Written Description-Imposed Constraints on the Patenting of Biomolecules," Southeastern Association of Law Schools Annual Meeting, Palm Beach, FL (August 1, 2010).

Invited Panelist, "Gene Patents-A New Landscape," webinar for the Licensing Executives Society (LES)(April 15, 2010), available at <https://www323.livemeeting.com/cc/les/view?id=68011867&pw=GenePatent>.

Invited Panelist, The Future of Genetic Disease Diagnosis and Treatment: Do Patents Matter?, University Of Maryland School of Law (April 2, 2010).

Invited Participant, Federalist Society Faculty Mini-Conference: Intellectual Property and the New Media, Austin, TX (March 25 and 26, 2010).

Invited Panelist, "Biosimilars, Competition and Incentives for Innovation," presented at Minnesota State Bar Association CLE event entitled Biosimilars: Current Laws and Trends in Legislation (Feb. 26, 2010).

Invited Panelist, "The Impending Expiration of Patent Protection on the Roundup Ready I Trait, and the Potential for Generic Versions of Recombinant Agricultural Traits," presented at a panel on Innovation: The Role of the University, Industry and Intellectual Property Law, University Of Wisconsin Law School (Feb. 18, 2010).

Invited Panelist, "IP Rights and Health Care: Perspectives on Follow-On Biologics," Indiana University-Bloomington Maurer School of Law (Jan. 21, 2010).

Speaker and Panel Organizer, "Biolaw: Biology Invading and Transforming the Law," American Association of Law Schools Annual Meeting, New Orleans, LA (Jan. 9, 2010).

Podcast, Hans Sauer and Professor Chris Holman: The Role of Patents in a Pathway for the Approval of Biosimilars, BIOTech NOW, available at <http://biotech-now.org/hans-sauer-and-professor-chris-holman-the-role-of-patents-in-a-pathway-for-the-approval-of-biosimilars-111599.html> (November 13, 2009).

Invited Speaker, "Gene Patents," Biotechnology Industry Organization IP Counsel's Committee Meeting, Washington DC (October 26, 2009).

Invited Panelist, "Intellectual Property Developments in China: Global Challenge, Local Voices," Drake University Law School, Des Moines, IA (October 16, 2009).

Speaker, "University Patent Litigation," Intellectual Property Scholars Conference, Cardozo School of Law, New York, NY (August 6, 2009).

Speaker and Panel Organizer, "Patent Eligibility in the Life Sciences," Southeastern Association of Law Schools Annual Meeting, Palm Beach, FL (August 4, 2009).

Invited Speaker, "IP Aspects of the Follow-on Biologic Bills Currently Being Considered by Congress," Summer Institute in Intellectual Property, Biotechnology and Agricultural Sciences, Drake University Law School, Des Moines, IA (June 1, 2009).

Invited Speaker, "Top Ten Federal Circuit Patent Decisions of 2008," Kansas City Metropolitan Bar Association Continuing Legal Education Program (April 23, 2009).

Invited Speaker and Participant, "U.S. Government Interagency Working Group for Developing Federal Guidance on Screening: Workshop on Current and Future Technical Capabilities, Department of Health and Human Services," Washington, DC (April 17, 2009).

Invited Speaker, "Gene Patent Litigation," Workshop on "Diagnostic DNA Patents: What Lies Ahead?," Duke University Law School, Durham, NC (April 4, 2009).

Speaker and Panel Organizer, "Are Personalized Medicine Inventions Patent-Eligible?," Panel on Patent and Personalized Medicine at the American Bar Association-Section of Intellectual Property Law Annual Meeting, Washington DC (April 2, 2009).

Guest Lecturer, Pharmaceutical Intellectual Property Law, Georgetown University Law Center, Washington DC (April 1, 2009).

Invited Speaker, "Time to Rethink Copyright Protection for Genetic Sequences?," 2009 Digital Entrepreneurship Symposium, West Virginia University College of Law, Morgantown WV (March 27, 2009).

Invited Speaker, "University Patent Litigation," 2009 Intellectual Property Scholars Roundtable, Drake University Law School, Des Moines, IA (February 27, 2009).

Invited Speaker, "University Patent Litigation," Santa Clara University's Computer and High Technology Law Journal's (CHTLJ) 2009 Symposium, San Jose, CA (January 30, 2009).

Invited Speaker, "Innovation Impeded? Human Gene Patent Litigation," Biolaw 2.0 Conference, University of Kansas School of Law, Lawrence, KS (November 14, 2008).

Invited Panelist, "The Impact of Bilski on the Life Sciences," Managing IP Web Seminar, available at <http://www.managingip.com/> (November 11, 2008).

Invited Speaker, "Ethical Responsibilities and Liability Risks for the Patent Attorney," Association of Patent Law Firms (APLF) Annual Meeting, George Mason School of Law, Arlington, VA (October 22, 2008).

Speaker, "Limitations of the Scope of Biotechnology Patents," Intellectual Property Scholars Conference, Stanford Law School, Palo Alto, CA (August 7, 2008).

Panel Moderator, "Is There, Or Should There Be, a Law of Cyberspace?," Southeastern Association of Law Schools Annual Meeting, Palm Beach, FL (July 31, 2008).

Invited Participant and Moderator, Federalist Society Faculty Mini-Conference: What is Intellectual Property, The Willows Lodge Wine and Culinary Destination Resort, Woodinville, WA (July 18, 2008).

Invited Speaker, "Intellectual Property Law in the U.S.," Sun-Yet San University, Guangzhou, China (June 5, 2008).

Invited Speaker, "Intellectual Property Law in the U.S." and "Recent Patent Law Developments in the US," Xinan University, Chongqing, China (June 2, 2008).

Invited Speaker, "Biotechnology Patent Law in the U.S.," Peking University, Beijing, China (May 30, 2008).

Invited Speaker, "Fundamentals of Patents and Trade Secrets for the Aspiring Entrepreneur," China University of Political Science and Law, Beijing, China (May 29, 2008).

Invited Speaker, "Intellectual Property Law in the U.S.," Central University of Finance and Economics, Beijing, China (May 28, 2008).

Invited Speaker, "Recent Patent Law Developments in the US," China University of Political Science and Law, Beijing, China (May 27, 2008).

Invited Speaker, "Recent Developments Restricting the Effective Scope of Biotechnological Patents," Summer Institute in Intellectual Property, Biotechnology and Agricultural Sciences, Drake University Law School, Des Moines, IA (May 19, 2008).

Invited Speaker, "Top Ten Federal Circuit Patent Decisions of 2007," Kansas City Metropolitan Bar Association Continuing Legal Education Program (April 22, 2008).

Invited Speaker, "Have Patents Deterred Innovation?: The Impact of Human Gene Patent Litigation on Research and Medicine," Genomes@4 Seminar Series, Institute for Genome Sciences & Policy, Duke University, Durham, NC (April 17, 2008).

Invited Speaker, "Symposium on Bessen & Meurer's *Patent Failure: How Judges, Bureaucrats, and Lawyers Put Innovators at Risk*," University of Georgia, Athens, GA (March 29, 2008).

Invited Speaker, "Human Gene Patent Litigation in the United States: Past, Present and Future," 2008 Intellectual Property Scholars Roundtable, Drake University Law School, Des Moines, IA (February 22, 2008).

Podcast, Commentary on Oral Arguments before the Supreme Court in the Case of *Quanta Computer v. LG Electronics*, Federalist Society SCOTUScast, available at http://www.fed-soc.org/publications/pubID.487/pub_detail.asp (January 23, 2008).

Invited Speaker, Session Title: Biolaw and Socio-Economics: Are Market Incentives a Bane or a Boon to Biodiversity, Presentation Title: The Impact of *Quanta* on Agricultural Biotechnology and Biodiversity, Association of American Law Schools Annual Meeting, New York, NY (January 3, 2008).

Speaker, Moderator and Organizer, Hot Topics in Intellectual Property Law, Continuing Legal Education Program, UMKC School of Law (November 2, 2007).

Speaker, Intellectual Property Scholars Conference, DePaul School of Law, "The Impact of Human Gene Patents on Innovation and Access: A Survey of Human Gene Patent Litigation," Chicago, IL (August 10, 2007).

Invited Speaker, Southeastern Association of Law Schools Annual Meeting, "Do Reverse Payment Settlements Violate the Antitrust Law?," Amelia Island, FL (August 2, 2007).

Invited Speaker, "Reverse Payment Settlements to Generic Drug Patent Challenges," Kansas Bar Association 2006 Intellectual Property Institute (May 4, 2007).

Symposium Organizer, Moderator and Speaker, "Restrictions on Access to Technology That Extend Beyond IP Law," American Association for the Advancement of Science (AAAS) Annual Meeting, San Francisco, CA (February 18, 2007).

Invited Speaker, "Influence of Intellectual Property on Basic Research," American Association of Pharmaceutical Scientist Annual Meeting, San Antonio, TX (November 2, 2006).

Invited Speaker, "Biotechnology Patents: Issues/Exemptions from Infringement," American Association of Pharmaceutical Scientist Annual Meeting, San Antonio, TX (October 29, 2006).

Invited Panelist, "*FTC v. Schering-Plough* and the Controversy Surrounding Reverse Payment Settlements," Conference on Patent Policy in the Supreme Court and Congress, Santa Clara University School of Law (October 27, 2006).

Invited Speaker, "Biotechnology Patents: Issues/Exemptions from Infringement," Association of Politics and the Life Sciences Annual Meeting, Indiana University (October 25, 2006).

Speaker, Works in Progress IP Conference at the University of Pittsburgh, "Making a Case for Eliminating (or at Least Modifying) 180-Day Generic Exclusivity" (October 6, 2006).

Speaker, Intellectual Property Scholars Conference, Boalt Hall School of Law, "Do Exclusionary Settlements of Hatch-Waxman Patent Suits Violate Antitrust Law?" Berkeley, CA (August 10, 2006).

Invited Speaker, "Primer on Intellectual Property," National Research Council, National Academies Workshop on Intellectual Property Concerns for Toxicogenomics, Washington, D.C. (June 29, 2006).

Invited Speaker, "Selected Topics in Patent Law of Relevance to Biotech and Pharma," American Association of Pharmaceutical Scientist National Biotechnology Conference, Boston, MA (June 19, 2006).

Invited Speaker, "Recent Developments in the Inequitable Conduct Defense," Kansas State Bar Association's 2006 Intellectual Property Institute (May 12, 2006).

Symposium Organizer, Moderator and Speaker, "The Dichotomy of Intellectual Property as Both an Incentive and an Impediment to Innovation: Are There Better Alternatives?," American Association for the Advancement of Science (AAAS) Annual Meeting, Saint Louis, MO (February 19, 2006).

Invited Speaker, "Drug Discovery and Development: Using Patented Technology without Infringement," American Association of Pharmaceutical Scientist Annual Meeting, Nashville, TN (November 9, 2005).

Invited Speaker, "Biotechnology's View on Patent Reform Legislation," Markey Symposium on "Innovation and its Discontents: Patents and Innovation Policy in the 21st Century," John Marshall Law School, (October 14, 2005).

Speaker and work-in-progress paper, Works-In-Progress Intellectual Property Colloquium, Washington University in St. Louis., "UC v. Eli Lilly after Eight Years: An Empirical Study of the Impact of the Lilly doctrine on the Patenting of Biotechnology and Chemical Inventions (October 7, 2005).

Speaker and work-in-progress paper, Intellectual Property Scholars Conference, Cardozo School of Law, "UC v. Eli Lilly after Eight Years: An Empirical Study of the Impact of the Lilly doctrine on the Patenting of Biotechnology and Chemical Inventions (August 2005).

Report, Biotechnology in the Courts Subcommittee Report: Summaries of Recent Decisions of Interest to the Biotechnology Community (editor and primary contributor), Presented at AIPLA Spring Meeting, Dallas TX, May 13-15, 2004. (Available to AIPLA members online at www.aipla.org Biotechnology Committee Website).

Report, Biotechnology in the Courts Subcommittee Report: Summaries of Recent Decisions of Interest to the Biotechnology Community (editor and primary contributor), Presented at AIPLA Mid-Winter Meeting, La Quinta, CA (January 2004).

Report, Biotechnology in the Courts Subcommittee Report: Summaries of Recent Decisions of Interest to the Biotechnology Community (editor and primary contributor), Presented at AIPLA Annual Meeting, Washington, DC (October 2003).

Speaker, University of California Goldman School of Public Policy, Science and Public Policy Course, "Public policy issues relating to the patenting of genes and biotechnology" (March 11, 2003).

Speaker, California State University Hayward, Noon Seminar in Biology entitled "Intellectual Property 101 for the Life Scientist" (October 2003).

Christopher M. Holman, Anthony R. Welch, Chen-Chen Kan, Michael R. Gehring and Harold E. Van Wart (1995) "An Attempt to Engineer the S₁' Binding Pocket of Matrilysin into Stromelysin -1" FASEB Journal **9**:A1345.

Christopher M. Holman and William F. Benisek (1993) "Mechanism of Δ^5 -3-Ketosteroid Isomerase: Effects of the Replacement of the Catalytic Base, D38, by Alanine-3-Sulfinic Acid" FASEB Journal **7**:A1173.

Christopher M. Holman and William F. Benisek (1991) "Preparation and Properties of an Oxidized derivative of the Δ^5 -3-Ketosteroid Isomerase mutant, D38C" *FASEB Journal* **5**:A1520.

Selected Interviews

Quoted in "After Patent Ruling, Availability of Gene Tests Could Broaden," *The New York Times*, June 13, 2013.

Kansas City Business Journal, *Patents and genetics: UMKC professor maps out the field*, May 3, 2013, available at: <http://www.bizjournals.com/kansascity/print-edition/2013/05/03/patents-and-genetics-umkc-professor.html>.

Television Interview on KCTV, discussing implications of Supreme Court's grant of certiorari in *Kirtsaeng v. John Wiley & Sons* on October 11, 2012, available at <http://www.kctv5.com/story/19794156/scotus-case-could-affect-ability-to-re-sell-items>.

Radio Interview on "Up to Date", KCUR-FM (NPR affiliate in Kansas City, MO), debating gene patents on October 12, 2011, available at <http://archive.kcur.org/mp3/?id=8619&pid=6&t=The%20Ethics%20and%20Business%20of%20Gene%20Patenting%20/%20Has%20Football%20Become%20Boring?>.

Quoted in "US Court Bolsters Biotech Patent Protection," *Nature Biotechnology* **29** (2011).

Radio interview on NPR All Things Considered, "Monsanto GMO Ignites Big Seed War," January 12, 2010, transcript available at <http://weblogs.npr.org/templates/transcript/transcript.php?storyId=122498255>.

Interview published under the title "What *Bilski* means for you," in the December 2008/January 2009 publication of WWW.MANAGINGIP.COM.

Radio interview with Jim Wirken on KMBZ-AM, April 1, 2007, discussing recall of adulterated pet food and food safety regulation.

Quoted in "Patent Pending: Biotech Awaits Answers on New Trends" by John J Otrompke in *Biotechnology Healthcare* **4**(4): 57-60 (August 2007).

Radio interview on KQED-FM (NPR affiliate in San Francisco, CA), *The California Report*, February 5, 2008, discussing the California Supreme Court case of *Genentech v. The City of Hope*.