

Professor Bernard Chao
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University of Denver Sturm College of Law

Professor (2018-Present), Associate Professor (2015-2018), Assistant Professor (2010-2015)

- Co-Director Intellectual Property & Technology Program (2021-present)
- Director Intellectual Property certificate program (2015-2021)
- Chair Hughes Committee (2019-present) (the committee manages an endowed fund to support empirical research at Denver University Law School)

Courses: Patent Law, Contracts, Privacy Law, Intellectual Property Survey, Intellectual Property Strategy Seminar, American Patent Law (Summer 2013, Zhejiang University Law School, Hangzhou, China)

Academic Articles

USPTO's Lax Policy Leads to Biologic Formulation Thicket, (forthcoming).

Biological Patent Thickets and Delayed Access to Biosimilars, An American Problem, Vol. 9 Issue 2, *Journal of Law and the Biosciences* (2022) (co-authored with Rachel Goode) (peer reviewed).

Does Conjoint Analysis Reliably Value Patents?, 58 *American Business Law Journal* 225 (2021) (co-authored with Sydney Donovan) (peer reviewed).

Privacy Losses as Wrongful Gains, 106 *Iowa Law Review* 555 (2021).

Saliency, Anchors & Frames: A Multicomponent Damages Experiment, 26 *Michigan Technology Law Review* 1 (2019) (co-authored with Roderick O'Dorisio).

How Evidence of Subsequent Remedial Measures Matters, 84 *Missouri Law Review* 609 (2019) (co-authored with Kylie Santos).

Lost Profits in a Multicomponent World, 59 *Boston College Law Review* 1321 (2018).

Why Courts Fail to Protect Privacy: Race, Age, Bias and Technology, 106 *California Law Review* 263 (2018) (co-authored with Ian Farrell, Catherine Durso and Christopher Robertson).

Testing the White Hat Effect in Patent Litigation, 27 *Federal Circuit Bar Journal* 155 (2017) (co-authored with Roderick O'Dorisio).

Time is Money: An Empirical Assessment of Non-Economic Damages Arguments, 95 *Washington University Law Review* 1 (2017) (co-authored with John Campbell and Christopher Robertson).

Horizontal Innovation and Interface Patents, 2016 *Wisconsin Law Review* 287 (2016).

Countering the Plaintiff's Anchor: Jury Simulations to Evaluate Damages Arguments, 101 *Iowa Law Review* 543 (2016) (co-authored with John Campbell, Christopher Robertson and David Yokum).

The Infringement Continuum, 35 *Cardozo Law Review* 1359 (2014).

A Case Study of Patent Litigation Transparency, 2014 Journal of Dispute Resolution 83 (2014) (solicited and co-authored with Derigan Silver).

Finding the Point of Novelty in Software Patents, 28 Berkeley Technology Law Journal 1218 (2013).

Moderating Mayo, 107 Northwestern University Law Review 423 (2012).

Reconciling Foreign and Domestic Infringement, 80 UMKC Law Review 607 (2012)(solicited).

The Case for Contribution in Patent Law, 80 University of Cincinnati Law Review 113 (2011) (awarded a Samsung/Stanford Patent Prize).

Breaking Aro's Commandment: Recognizing that Inventions Have Heart, 20 Fordham Intellectual Property, Media & Entertainment Law Journal 1185 (2010).

Rethinking Enablement in the Predictable Arts - Fully Scoping the New Rule, 2009 Stanford Technology Law Review 3 (2009) (reprinted in the ICFAL Journal of IPR, Vol. VIII No.3 & 4 (August & November 2009) and Intellectual Property Law Review, Thomson West 2010 ed.)

After eBay v. MercExchange: The Changing Landscape for Patent Remedies, 9 Minnesota Journal of Law, Science and Technology 543 (2008) (reprinted in Patent Law Review, Thomson West 2009 ed.)

Shorter Academic Works

Unjust Enrichment: Standing Up for Privacy Rights, 108 Iowa Law Review Online 49 (2023).

Why Patent Monopsonies Increase Consumer Welfare, 30 Texas Intellectual Property Law Journal 1 (2021) (co-authored with Tod Duncan).

Book Review, *Patent Remedies and Complex Products: Toward a Global Consensus*, 10 The IP Law Book Review 6 (2020) (solicited).

Implementing Apportionment, 2019 Patently-O Patent L.J. 20 (2019) (solicited).

Focusing Patent Litigation, 18 Chi. Kent J. Intell. Prop. 497 (2019) (solicited).

Crowdsourcing and Data Analytics: The New Settlement Tools, 102 Judicature 62 (Fall 2018) (co-authored with Christopher Robertson & David Yokum) (peer reviewed).

Causation and Harm in a Multicomponent World, 164 University of Pennsylvania Law Review Online 61 (2016).

An Early Look at Mayo's Impact on Personalized Medicine, 2016 Patently-O Patent L.J. 10 (co-authored with Amy Mapes).

Patent Law's Domestic Sales Trap, 93 Denver University Law Review Online 87 (2016).

Patent Imperialism, 109 Northwestern University Law Review Online 77 (2014).

Providing ME Students Opportunities to Enroll in Law School Courses, 2015 ASEE Annual Conference and Exposition (June 14-17, 2015) (co-authored with several).

A \$1 Billion Parable, 90 Denver University Law Review Online 185 (2013) (co-authored with

Jonathan Gray).

Not So Confidential: A Call for Restraint in Sealing Court Records, 2011 Patently-O Patent L.J. 6.

Other Publications

Seeking Transparency in Waco, Patently-O Blog (March 19, 2021) (signed by 21 additional IP professors).

Op-Ed, Police Shouldn't Access Your Phone's Data Without a Court Order, Arizona Republic, November 24, 2017 (with Ian Farrell and Christopher Robertson).

Opening the Prosecution History's Black Box, Berkeley Technology Law Journal Commentaries (March 6, 2016).

USPTO Is Rejecting Potentially Life-Saving Inventions, IP Law 360 (Dec. 18, 2014) (co-authored with Lane Womack).

Lessons from Teaching Overseas, The Law Teacher, Vol. XX, No. 1 (Fall 2013).

Damages: The Courts Beat Congress to Patent Reform (Again), IP Law 360 (Aug. 31, 2009) (reprinted in Innovation e-Review (Sept. 2009)).

The Shifting Battleground: Focusing on Enablement, Vol. 34, No. 2 New Matter (2009).

Obtaining Advice of Counsel After Seagate, Vol. 32, No. 4, New Matter (2007).

Blending Law and Facts: A Recipe for Persuasive Briefs, Vol. 81 Illinois Bar Journal at p. 103 (Feb. 1993).

Amicus Briefs

Brief of Electronic Frontier Foundation and R Street Institute as *Amicus Curiae* in Support of Respondent, *WesternGeCo, L.L.C., v. Ion Geophysical Corp.*, 138 S. Ct. 2129 (2018) (co-authored).

Brief *Amicus Curiae* of Eighteen Intellectual Property Professors in Support of Petition for Certiorari in *EVE-USA v. Mentor Graphics* (filed January 2, 2018, S. Ct. Docket No. 17-804) (working with the Harvard Cyberlaw Clinic)

Brief *Amicus Curiae* of Intellectual Property Professors in Support of Petition for Certiorari in *Samsung v. Apple* (filed April 10, 2017, S. Ct. Docket No. 16-1102).

Grants

Principal Investigator, Punitive Damages and the Decoy Effect, \$3,900 Hughes Pilot Project Grant Program (2018-19).

Principal Investigator, Saliency, Anchoring & Frames: A Multicomponent Damages Experiment, \$10,000 Intel Corporation Grant (2017-18).

Co-Principal Investigator, Decision Making in the Law, \$20,000, Hughes Professorship Grant (2016-18).

Co-Principal Investigator, Empirical Jury Behavior Research, \$19,800, Hughes Professorship Grant (2014-16).

Co-Principal Investigator, Should Defendants Argue Damages? A Mock Jury Experiment, Hughes Pilot Project Grant Program, \$4,000 (2013).

Conferences, Lectures etc.

SSOs, Essential Patents, and Patent Pools, Oh My!, Symposium on Emerging Intellectual Property Issues, SMU Dedman School of Law (Feb 24, 2023) (panel).

Remedies – Daubert Challenges, Emerging Issues in Technology and the Law Conference, Stanford Law School (September 30, 2022) (panel).

A Root Cause Analysis of American Biological Patent Thickets, Intellectual Property Scholars Conference, Stanford Law School (August 12, 2022).

Unjust Enrichment: Standing Up for Privacy Rights, Privacy Law Scholars Conference, Northeastern University Law School (June 3, 2022).

Biologic Patent Thickets and Access to Biosimilars, An America Problem

- Munich Summer Institute, Munich Germany, Poster (June 10, 2022)
- M³ IP Scholars Workshop December 3, (2021) (sponsored by Florida State, Miami and Oklahoma Law Schools).

Privacy Losses as Wrongful Gains, Faculty Forum, SMU Dedman School of Law (November 10, 2021).

Why Patent Monopsonies Increase Consumer Welfare, Intellectual Property Scholars Conference, Cardozo Law School (August 11, 2021).

Does Conjoint Analysis Reliably Value Patents?

- Intellectual Property Scholars Conference, Stanford Law School (July 22, 2020).
- Works in Progress Intellectual Property Conference, Santa Clara Law School (February 7, 2020).

How Evidence of Subsequent Remedial Measures Matters

- [Excited Utterance podcast](#), October 21, 2019.
- Civil Jury Academic Roundtable, NYU School of Law, April 24, 2019.
- American Psychology and Law Society Conference, Portland, Oregon, March 15, 2019 (lecture).

Patent Damages Roundtable, Stanford Law School, October 4, 2019.

Do Patent Juries Punish?, Intellectual Property Law Scholars Conference, DePaul Law School, August 7, 2019.

Damages' Punishment Divide, Notre Dame Law School's Remedies Roundtable, June 20, 2019.

Saliency, Anchors and Frames: A Multicomponent Damages Experiment

- PatCon9, University of Kansas Law School, April 6, 2019.
- American Psychology and Law Society Conference, Portland, Oregon, March 15, 2019 (poster).
- IP Speaker Series, George Washington Law School, October 10, 2018.
- Intellectual Property Scholars Conference, University California Berkeley Law School, (August 9, 2018).

Driven by Data: Empirical Studies in Civil Litigation and Health Law, The methodology of studying jury decision-making, University of Denver Law School, February 8, 2019 (panel)

moderator).

Supreme Court Review: *WesternGeco v. ION Geophysical*, IIT Chicago-Kent College of Law, September 21, 2018 (panel).

[Big Data Meets Little Law Firms, The LAWsome Podcast](#), March 13, 2018.

Lost Profits in a Multicomponent World, PatCon 8, San Diego Law School, March 2, 2018.

Ninth Annual Conference on the Role of the Courts in Patent Law and Policy, Remedies Panel, Georgetown Law School, November 3, 2017.

[WashingTECH Policy Podcast, How Much Privacy Should You Expect in a Digital Age?](#), June 13, 2017.

Expert Testimony: The Roles of Bias, Nonsense and Deference, American College of Trial Lawyers, Spring CLE Program, Phoenix, AZ, April 28, 2017.

Testing the White Hat Effect in Patent Litigation, PatCon 7, Northwestern University Law School, Apr. 7, 2017.

The Disruptive Effects of Virtual Juries, Internet Law Works-in-Progress, Santa Clara University Law School, Mar. 4, 2017.

Guidance and Discretion, Conference on Patent Damages, Feb. 17, 2017, University of Texas Law School (commentator).

Jury Moneyball: How Technology, Experimental Design, Statistics and Big Data Will Revolutionize the Law.

- Colorado Trial Lawyers Association, Blockbuster, Denver, CO, Jan. 19, 2017.
- CodeX, Stanford Law School, Jan. 12, 2017.
- The Inner Circle of Advocates 45th Annual Meeting, Greenbrier, W VA, Aug. 4, 2016.

Patenting Precision Medicine, Frontiers in Precision Medicine II: Cancer, Big Data and the Public, University of Utah, December 2, 2016 (panel).

Dollars for Days: An Empirical Assessment of Per Diem and Anchoring Arguments, Conference on Empirical Legal Studies, Duke Law School, November 18, 2016 (with John Campbell).

Measuring the *Mayo* Effect.

- BIO IP & Diagnostics Symposium, Alexandria, Virginia, September 29, 2016.
- Intellectual Property Scholars Conference, Stanford Law School, August 11, 2016.

Extraterritoriality, Multi-Party Liability, and Insurance, Conference on Patent Damages, University of Texas Law School, June 9, 2016 (moderator).

What Lawyers Need to Know About Big Data Business Models and Predictive Analytics to help their Company's Data Business, E-Commerce Best Practices Conference, Stanford Law School, June 6, 2016 (panel).

Horizontal Innovation and Interface Patents

- PatCon 6, Boston College Law School, April 8, 2016.
- University of San Diego School of Law, 5th Annual Patent Law Conference (academic day), Jan. 17, 2015.

Measuring Juries - Emerging Empirical Techniques for Studying Juries, The Art and Science of Jury Persuasion Measuring Juries Conference, University of Denver, February 25, 2016.

Reasonable Expectations of Privacy in Emerging Technologies, Quantlaw Conference, University of Arizona, February 15, 2016 (with Ian Farrell and Christopher Robertson).

Navigating Patent Thickets, Future World IP: Legal Responses to the Tech Revolution, University of Denver, February, 5, 2016 (moderator).

Using Advanced Analytics to Assess Decision Making, Colorado Bar Communications and Technology Section, Denver, Colorado, December 2, 2015.

Cybercrime for the Trademark Practitioner- Data Security and Privacy Issues, International Trademark Association Roundtable, University of Denver, October 20, 2015 (moderator).

Testing the Frame in Patent Damages, Texas A&M Intellectual Property Scholars Roundtable, October 11, 2015.

After the Troll Wars – How Should Innovators Protect Their IP in Light of the Fallout?, Rocky Mountain Intellectual Property & Technology Institute, Westminster, Colorado, May 28, 2015 (panel).

This Week in Law, Guest on TWiT TV, April 24, 2015 available at <https://twit.tv/shows/this-week-in-law/episodes/300>

Down the Rabbit Hole, NC JOLT Symposium: Software Eligibility after *Alice*, University of North Carolina Law School, February 6, 2015.

Developments in Functional Claiming, University of San Diego School of Law 5th Annual Patent Law Conference, Jan. 16, 2015 (panel).

Patent Imperialism,

- Northwestern University Law Review podcast, Jan. 9, 2015.
- Intellectual Property Scholars Conference, University of California Berkeley, August 7, 2014.

Countering the Plaintiff's Anchor: Jury Simulations to Evaluate Damages Arguments, Conference on Empirical Legal Studies, University of California Berkeley, Nov. 8, 2014.

Experiments in Patent Trials, Roundtable on Empirical Methods in Intellectual Property, Chicago-Kent College of Law, September 20, 2014.

Post-Grant Procedures Under the America Invents Act: Roundtable discussion with PTAB Administrative Law Judges, Denver CO, July 1, 2014 (moderator).

The Great American Story: Protection or Innovation?, Rocky Mountain Intellectual Property & Technology Institute, Denver, CO, May 30, 2014 (panel).

A Case Study in Patent Litigation Transparency, Patent Trolls and Patent Reform Conference Stanford Law School, Palo Alto, CA, March 22, 2014.

Reforms Targeting End-User Suits, Patent Trolls and Patent Reform Conference, Stanford Law School, Palo Alto, CA, March 21, 2014 (panel).

Alice v. CLS Bank, the Supreme Court and Software Patents, Utah IP Summit, Salt Lake

City, UT, February 28, 2014

The Infringement Continuum (formerly titled Better Patenting)

- Hastings Law School Faculty Colloquium, February 11, 2014.
- Chicago Intellectual Property Colloquium, February 26, 2013.
- Rocky Mountain Junior Scholars Conference, S.J. Quinney College of Law, The University of Utah, September 27-28, 2012.
- IP Scholars Conference, Stanford Law School, August 9, 2012.

The Potential and Pitfalls of Calculating Patent Damages Using Conjoint Analysis, WIPIP Conference, Santa Clara University School of Law, February 8, 2014.

Protecting Software, Boulder Patent Symposium sponsored by the Electronic Frontier Foundation and the Foundry Group, December 6, 2013.

Transparency, Symposium on Resolving IP Disputes: Calling for an Alternative Paradigm, University of Missouri School of Law, October 4, 2013 (panel).

Subject Matter Patentability, 57th Annual Intellectual Property Conference, The John Marshall Law School, Chicago IL, February 22, 2013 (panel).

Intellectual Property Practice from Various Perspectives, Colorado Bar Association, Denver, CO, January 17, 2013 (panel moderator).

Quid Pro No? Perspectives on *Apple v. Motorola*, and Judge Posner's Contention that Most Industries Would Prosper Without Patent Protection, Indiana University Indianapolis, November 30, 2012 (panel).

Patent Perspectives from the Inside, University of Denver, conference organizer and moderator of *Views from the Bench* (panel of Federal Circuit Judges) October 4, 2012.

A Conversation About IP Legislation, Colorado Bar Intellectual Property Section, Denver CO, August 21, 2012 (with U.S. Senate's Chief IP Counsel, Aaron Cooper).

The Evolving Patent Landscape, Silicon Flatirons Conference, Patents: Home on the Range or Wild Frontier? University of Colorado Law School, Apr. 24, 2012 (panel).

Genetically Modified Organisms, Monsanto, and the Rights of Organic Farmers, University of Denver, April 18, 2012 (with Professor William Boyd).

Reconciling Foreign and Domestic Infringement,

- Samsung-Stanford Conference on Patent Enforcement, Stanford Law School, Feb. 24, 2012 (panel).
- University of Missouri Kansas City, Symposium: Fueling Innovation, Hot Topics in Patent Law and Policy, October 14, 2011.

Developments in Subject Matter Patentability, United States Patent and Trademark Road Show, University of Denver, Feb. 16, 2012.

Taking Stock of the America Invents Act, 11th Annual Hot Topics in Intellectual Property Symposium, Duke University School of Law, Feb. 3, 2012.

Patent Reform Legislation, University of Denver, April 5, 2011 (moderator).

The Case for Contribution in Patent Law, Samsung-Stanford Conference on Patent Remedies, Stanford Law School, Feb. 18, 2011.

Using Special Masters in Patent Litigation, Berkeley Center of Law and Technology/Federal Judicial Center Advanced Patent Program (for federal judges), Sept. 25, 2010 (panel).

Rethinking Enablement in the Predictable Arts - Fully Scoping the New Rule, Stanford Law Technology Law Review (luncheon speaker), April 21, 2010.

The Recent Emergence of the Enablement Defense, Wilson Sonsini Goodrich and Rosati (IP Group) Guest Speaker, Palo Alto, CA, March 26, 2009.

Where Should I Sue? San Francisco Bay Area, IP Inns of Court, Feb.18, 2009 (panel).

Willfulness and Opinions, 5th Patent Strategies Conf., San Francisco, CA, Mar. 26, 2008.

Testimony on DSL Issues before the Kansas Corp. Comm., Feb. 23, 2000.

Testimony on DSL Issues before the Missouri Public Service Comm., Feb. 15, 2000.

The Evolution of the CLEC Industry, Textaltel's Annual Conf., Austin, TX Apr. 6, 1999 (panel).

Collocation Upgrading for the New Millennium, ALTS Annual Conf., Las Vegas, NV Dec. 4, 1998 (panel).

Employment Experience

Hugo Analytics, LLC

Co-founder and Partner (2017-Present)

HUGO Analytics leverages empirical methods and advanced data analytics to improve litigation outcomes. Merging legal acumen, crowdsourcing and statistical analysis, HUGO enables litigators to evaluate their cases and test any variety of case strategies across thousands of virtual jurors, with speed and efficiency. In 2018, Hugo Analytics was selected as a Duke Law Tech Accelerator company.

Chao Hadidi Stark & Barker LLP

Formerly founding partner and later Of Counsel, Menlo Park, CA (2003-2019)

My practice covers a broad array of patent related areas.

- Counseling clients regarding the scope and validity of patents including the preparation of formal opinions in the telecommunication, radiosurgery, microcontrollers, semiconductor packaging, image processing, networking, software e-commerce and solar energy fields.
- Serving as both lead counsel and co-counsel in patent related lawsuits across the country involving RAID storage systems, microprocessors, consumer electronics, medical device technology and legal malpractice.
- Negotiating and performing due diligence for patent related licenses and acquisitions.

Court Appointed Special Master (D. CO)

(2015-2016)

Potter Voice Technologies v. Google et al., (12-cv-01096-REB-CBS, D. CO) involved voice recognition technology. The patent holder sued numerous smartphone defendants. I issued a report making various recommendations on claim construction and § 112 issues.

Court Appointed Special Master (C.D. CA)

(2007-2014)

Court appointed Special Master in the largest group of patent cases in history, *In Re Katz Interactive Call Processing Patent Litigation* (07-ml-01816, C.D. CA). This multi-district litigation involved approximately fifty different lawsuits, thirty patents and several hundred defendants. I helped the court prepare hundreds of rulings on a broad range of issues including: claim construction, infringement, anticipation, obviousness, enablement, written description, exhaustion, the admissibility of expert testimony, the application of 35 U.S.C. § 287, laches, inequitable conduct, equitable estoppel, prosecution laches, spoliation and

various case management issues including many designed to handle the voluminous numbers of claims and defenses at issue.

Wilson Sonsini Goodrich & Rosati, Palo Alto, CA Special Counsel (2001-2003)
Represented companies in patent disputes involving a wide range of technologies including Java, virtual machine monitors, Flash ROM, integrated software development tools and PC chipsets.

Covad Comm., Santa Clara, CA Director and later VP, Legal Strategy (1998-2000)
Covad was the nation's first Digital Subscriber Line (DSL) provider. During my tenure, Covad grew from a start-up company with less than a hundred employees to a nationwide service provider with several thousand employees. My responsibilities included:

- Working with state public utilities commission to develop new rules and regulations to implement the Telecommunications Act of 1995.
- I was responsible for antitrust, patent, labor and breach of contract litigations. One series of lawsuits resulted in a \$27.2 million judgment and eventually ended in a settlement that included a \$600 million services agreement and a \$150 million investment.
- Responsibility for Covad's patent and trademark program.

Pennie & Edmonds, Palo Alto, CA Associate (1993-1998)
Pennie & Edmonds was a large New York based law firm specializing in intellectual property. As the first litigation associate in its California office, I managed large patent litigations across the country, drafted opinion letters and provided general intellectual property advice concerning licenses, antitrust and copyright issues.

Crosby, Heafey, Roach & May (now Reed Smith LLP), Oakland, CA Associate (1990-1993)
I worked on drug liability, medical malpractice and software copyright litigation.

Education

Duke University School of Law, J.D. 1990

Purdue University, B.S. Electrical Engineering 1987, Tau Beta Pi, Eta Kappa Nu

Affiliations

Academic Advisor NYU Civil Jury Project (2018-Present); Founding Member and Executive Committee of Colorado IP Inn of Court (2010-Present); The Federal Circuit Colorado 2012 Coalition (2012); Advisory Board of Colorado Bar IP Section (2013-2015).

Bar Admissions

State of California, U.S. Patent and Trademark Office, U.S. Supreme Court, U.S. Circuit Court of Appeals for the Ninth and Federal Circuits, U.S. District Courts for the Northern, Central and Southern Districts of California, District of Colorado & Eastern District of Michigan.