

ROBERT L. VIGIL, PH.D., CLP
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Dr. Vigil specializes in the application of economics and finance to complex commercial litigation matters. His work includes the estimation of damages and unjust enrichment in intellectual property (IP), breach of contract, and false advertising cases; the evaluation of patented drug products' commercial success in connection with generic manufacturers' Abbreviated New Drug Application submissions to obtain early market entry; and the analysis of issues related to the granting of permanent injunctions, such as irreparable harm and causal nexus. Dr. Vigil has also analyzed issues related to domestic industry, remedy, and bonding on cases before the International Trade Commission.

Dr. Vigil has served as an expert witness on litigation matters in a variety of industries, including pharmaceuticals, medical devices, consumer products, telecommunications, computer hardware and software, and electronics. In non-litigation matters, he has assisted clients in valuing IP for sale or license; identifying and evaluating potential partners for licensing, acquisition, or divestiture of assets; and analyzing the impact of generic entry on prices and market shares of brand name pharmaceutical products.

Dr. Vigil is a member of the American Economic Association, the American Marketing Association, and the Licensing Executives Society, and is a frequent speaker on issues related to IP, valuation, and damages assessment. He has also taught courses in microeconomics and econometrics at the University of Maryland.

EDUCATION

- 1998 Ph.D., economics, University of Maryland
Specialization: applied microeconomics, econometrics
- 1990 B.A., economics (*summa cum laude*), Pepperdine University

CERTIFICATIONS

- 2008 Certified Licensing Professional (CLP), Licensing Executive Society

PROFESSIONAL EXPERIENCE

- 1998–Present Analysis Group, Inc.
- 1998 Penta Advisory Services LLC
- 1997 Hickling Lewis Brod, Inc
- 1995–1997 Department of Economics, University of Maryland
Instructor and Research Assistant

EXPERT TESTIMONY

- ***LH, et al. v. United States***
US District Court, Southern District of Florida (Case No. 2:19-cv-14449-KMM)
Medical Malpractice/Negligence: deposition testimony and expert report regarding the present value of LH's alleged loss of earning capacity and potential future life care expenses.
- ***Uniloc 2017 LLC v. Samsung Electronics America, Inc. and Samsung Electronics Co., Ltd.***
US District Court, Eastern District of Texas (Case No. 2:18-cv-00508-JRG)
Patent Infringement: deposition testimony and expert report regarding reasonable royalty damages related to the alleged infringement of a patent related to anti-theft protection for a radiotelephony device.
- ***Uniloc 2017 LLC v. Samsung Electronics America, Inc. and Samsung Electronics Co., Ltd.***
US District Court, Eastern District of Texas (Case No. 2:18-cv-00506-JRG)
Patent Infringement: deposition testimony and expert report regarding reasonable royalty damages related to the alleged infringement of a patent related to decoding and displaying the important region of video content where there is a discrepancy in the source and display format's aspect ratios.
- ***Adapt Pharma Operations Limited, et al. v. Teva Pharmaceuticals USA, Inc. et al.***
US District Court, District of New Jersey (Case No. 16-7721 (JLL) (JAD)
Patent Infringement: deposition and trial testimony regarding the commercial success of an invention directed to single-use, pre-primed devices adapted for nasal delivery of naloxone; formulations for intranasal administration of naloxone; and methods of treating opioid overdose and symptoms by nasally administering naloxone using those methods and devices to a patient in need thereof a therapeutically effective amount of an opioid antagonist, wherein the therapeutically effective amount is equivalent to about 2 mg to about 12 mg of naloxone hydrochloride.
- ***IQE plc v. Solar Junction Corporation***
London Court of International Arbitration (Arbitration No. 183861)
Trade Secret Misappropriation, Breach of Contract: arbitration testimony and expert report regarding actual harm, unjust enrichment, and reasonable royalty damages relating to trade secret misappropriation and breach of contract involving technology used to manufacture semiconductors for solar cells.
- ***In re: Premera Blue Cross Customer Data Security Breach Litigation***
US District Court, District of Oregon (Case No. 3:15-md-2633-SI)
Class action: declaration regarding the value to the class members of the injunctive relief agreed to in the settlement agreement and the value to the class members of the additional data security practices implemented from 2015 to 2018.
- ***Uniloc USA, Inc., Uniloc Luxembourg, S.A., and Uniloc 2017 LLC v. Samsung Electronics America, Inc. and Samsung Electronics Co., Ltd.***
US District Court, Eastern District of Texas (Case No. 2:18-cv-00044-JRG-RSP)
Patent Infringement: deposition testimony and expert report regarding reasonable royalty damages related to the alleged infringement of a patent related to the HSUPA portion of the HSPA and HSPA+ wireless communication standards.

- ***Uniloc USA, Inc., Uniloc Luxembourg, S.A., and Uniloc 2017 LLC v. Samsung Electronics America, Inc. and Samsung Electronics Co., Ltd.***
US District Court, Eastern District of Texas (Case No. 2:18-cv-00042-JRG-RSP)
Patent Infringement: deposition testimony and expert report regarding reasonable royalty damages related to the alleged infringement of a patent related to the LTE standard.
- ***Ethicon LLC, Ethicon Endo-Surgery, Inc., and Ethicon US LLC v. Intuitive Surgical, Inc., Intuitive Surgical Operations, Inc., and Intuitive Surgical Holdings, LLC***
US District Court, District of Delaware (Case No. 1:17-cv-871-LPS-CJB)
Patent Infringement: expert report regarding lost profits and reasonable royalty damages related to the alleged infringement of patents related to stapling and surgical technologies.
- ***Uniloc USA, Inc., et al. v. Samsung Electronics America, Inc., et al.***
US District Court, Eastern District of Texas (Case No. 2:17-cv-00651-JRG)
Patent Infringement: deposition testimony and expert report regarding reasonable royalty damages related to the alleged infringement of a patent related to a step counter that more accurately calculates the calorie expenditure of someone walking.
- ***ADP, LLC v John Halpin***
US District Court, District of New Jersey (Case No. 2:16-cv-01111)
Breach of Contract, Breach of Duty of Loyalty, Unfair Competition: deposition testimony and expert report regarding revenue and profit projections and present value calculations for certain ADP clients for the specified period beyond that at which these clients terminated business with ADP.
- ***ADP, LLC v Jordan Lynch***
US District Court, District of New Jersey (Case No. 2:16-cv-01053)
Breach of Contract, Breach of Duty of Loyalty, Unfair Competition: deposition testimony and expert report regarding revenue and profit projections and present value calculations for certain ADP clients for the specified period beyond that at which these clients terminated business with ADP.
- ***ADP, LLC v Jessica Trohaugh***
US District Court, District of New Jersey (Case No. 2:17-cv-00284-CCC-JBC)
Breach of Contract, Breach of Duty of Loyalty, Unfair Competition: deposition testimony and expert report regarding revenue and profit projections and present value calculations for certain ADP clients for the specified period beyond that at which these clients terminated business with ADP.
- ***Legal Technology Group, Inc. v. Rajiv Mukerji and HBR Consulting LLC***
US District Court, District of Columbia (Case No. 1:17-CV-631)
Breach of Contract, Tortious Interference: deposition testimony and expert report regarding lost profits damages related to lost contracts and a diminished head start period.
- ***Whitewater West Industries, Ltd. v. Richard Alleshouse, Yong Yeh, and Pacific Surf Designs, Inc.***
US District Court, Southern District of California (Case No. 3:17-CV-00501-DMS-NLS)
Breach of Contract, Intentional Interference with Contract, Violation of Cal. Bus. & Prof. § 17200, *et seq.*: deposition and trial testimony and expert report regarding reasonable royalty damages related to water ride attractions and nozzle systems used in water ride attractions.

- ***Whitewater West Industries, Ltd. v. Pacific Surf Designs, Inc.***
US District Court, Southern District of California (Case No. 3:17-CV-01118-WQH-BGS) Patent Infringement: deposition and trial testimony and expert report regarding reasonable royalty damages related to the alleged infringement of a patent related to a simulated wave water ride attraction having one or more flexible nozzle covers for ensuring the safety of riders and lowering the risk of interference with the ride operation.
- ***Cipla Ltd., v. Sunovion Pharmaceuticals Inc.***
US District Court, District of Delaware (Case No. 1:15-CV-00424-LPS)
Patent Infringement: deposition testimony and expert report regarding reasonable royalty damages involving a patent related to a method of making optically pure (R) and (S) salbutamol.
- ***Sabre GLBL, Inc., v. Melody Shan, aka Shan Melody Xiaoyun***
JAMS Reference # 1310022477
Trade Secret Misappropriation/Confidential Information, Tortious Interference, Raiding, Breach of Contract, Unfair Competition, and Breach of Duty of Loyalty: arbitration testimony and expert report regarding head-start damages related to various causes of action involving companies providing software technology products and solutions to airlines, airports, hoteliers, and other travel suppliers.
- ***EHS Lens Philippines, Inc. v. Essilor International, et al.***
US District Court, Eastern District of Virginia (Case No. 3:16-CV-563-JAG)
Patent Infringement: expert report regarding reasonable royalty damages involving a patent related to backside progressive lenses with correction for eye astigmatism.
- ***Heraeus Medical GmbH v. Esschem, Inc.***
US District Court, Eastern District of Pennsylvania (Case No. 2:14-CV-05169-CMR)
Trade Secret Misappropriation: deposition testimony and expert report regarding damages related to the alleged misappropriation of trade secrets related to aspects of copolymers used in the manufacture of bone cement.
- ***The Medicines Company v. Biogen MA Inc.***
US District Court, District of New Jersey (Case No. 2:15-CV-07031-MCA-LDW)
Breach of Contract: deposition testimony and expert report regarding the alleged failure to pay royalties under a license agreement and the alleged breach of good faith and fair dealing under a license agreement.
- ***Flowrider Surf, Ltd. and Surf Waves, Ltd. v. Pacific Surf Designs, Inc.***
US District Court, Southern District of California (Case No. 3:15-CV-01879-AJB-BLM) Patent Infringement: expert report regarding lost profits damages related to the alleged infringement of a patent related to a simulated wave water ride attraction having one or more flexible nozzle covers for ensuring the safety of riders and lowering the risk of interference with the ride operation.
- ***Casper Sleep, Inc. v. Jack Mitcham and Mattress Nerd LLC***
US District Court, Southern District of New York (Case No. 1:16-CV-03224-JSR)
Lanham Act and Section 349 of the New York General Business Law: expert report regarding the impact of alleged misconduct by Jack Mitcham and Mattress Nerd LLC on consumer behavior and the monetary relief that may be owed to Casper.

- ***Centrak, Inc. v. Sonitor Technologies, Inc.***
US District Court, District of Delaware (Case No. 1:14-CV-00183-RGA)
Patent Infringement: deposition testimony and expert report regarding reasonable royalty damages involving a patent related to real time location systems used in hospitals and other health care environments.
- ***Mobile Telecommunications Technologies, LLC v. Samsung Electronics Co., Ltd., et al.***
US District Court, Eastern District of Texas, Marshall Division (Case No. 2:15-CV-00183-JRG-RSP)
Patent Infringement: deposition testimony and expert report regarding reasonable royalty damages involving patents related to functionalities used in smartphones, tablets, TVs, laptops, washers, dryers, and other consumer electronics products.
- ***DR Distributors, LLC and CB Distributors, Inc. v. 21 Century Smoking, Inc. and Brent Duke US***
District Court, Northern District of Illinois (Case No. 3:12-CV-50324)
Trademark Infringement: deposition testimony and expert report regarding the market penetration of trademarks related to certain brands of electronic cigarettes.
- ***Brian Friedman v. Five Guys Enterprises, LLC***
Circuit Court for Fairfax County Virginia, Civil Division (Case No. 2014-12272)
Tortious Interference: deposition and trial testimony and expert report regarding lost profits damages resulting from tortious interference involving four Five Guys franchises.
- ***Mobile Telecommunications Technologies, LLC v. Amazon.com, Inc.***
US District Court, Eastern District of Texas, Marshall Division (Case No. 2:13-CV-00883-JRG-RSP)
Patent Infringement: deposition testimony and expert report regarding reasonable royalty damages involving patents related to functionalities used in smartphones and tablets.
- ***Mobile Telecommunications Technologies, LLC v. Samsung Telecommunications America, LLC***
US District Court, Eastern District of Texas, Marshall Division (Case No. 2:13-CV-259-JRG-RSP)
Patent Infringement: deposition and trial testimony and expert report regarding reasonable royalty damages involving patents related to functionalities used in smartphones and tablets.
- ***US Ethernet Innovations, LLC v. Acer, Inc., et al.***
US District Court, Northern District of California, Oakland Division (Case Nos. 4:10-CV-03724 (CW)(LB) and 4:10-CV-05254 (CW)(LB))
Patent Infringement: expert report regarding reasonable royalty damages involving patents covering certain Ethernet controller chipsets.
- ***E.J. Brooks Company d/b/a TydenBrooks v. Cambridge Security Seals, et al.***
US District Court, Southern District of New York (Case No. 12-CIV-2937 (KMK))
Trade Secret Misappropriation, False Advertising, Unfair and Deceptive Business Practices, Unfair Competition, and Unjust Enrichment: deposition and trial testimony and expert report regarding lost profits damages and disgorgement of unjust gains from alleged violations of the Lanham Act and New York statutory and common law.
- ***Alpine Armoring Inc. v. Streit Manufacturing, Inc., et al.***
US District Court, Eastern District of Virginia (Case No. 1:14-CV-00197 (AJT/IDD))
Breach of Contract and Tortious Interference: deposition testimony and expert report regarding lost

profits damages resulting from the breach of an exclusive marketing agreement and customer supply agreement, and tortious interference with existing business relationships.

- ***Federal Trade Commission v. I Works, Inc., et al.***
US District Court, District of Nevada (Case No. 2:10-CV-2203-MMD-GWF)
Violations of Federal Trade Commission Act, Electronic Fund Transfer Act, and Regulation E: deposition testimony and expert report regarding economic analysis of factors that may be relevant to liability and equitable relief.
- ***AbbVie Inc. and Wisconsin Alumni Research Foundation v. Hospira, Inc.***
US District Court, District of Delaware (Case No. 11-648-GMS)
Patent Infringement: deposition testimony and expert report regarding the commercial success of an invention that covers the use of paricalcitol to treat patients with renal osteodystrophy while avoiding hyperphosphatemia, and an invention directed to pharmaceutical formulations for vitamin D derivatives, such as paricalcitol, that are soluble and have self-preservative effectiveness against microorganisms.
- ***Rockwell Automation, Inc. and Rockwell Automation Technologies, Inc. v. WAGO Corporation and WAGO Kontakttechnik GmbH & Co. KG***
US District Court, Western District of Wisconsin (Case No. 10-CV-718)
Patent Infringement: trial and deposition testimony and expert report regarding damages-related issues related to industrial controllers.
- ***Newire, Inc. v. Southwire Company***
Chancery Court for the State of Tennessee, 18th Judicial District (Case No. 2011C-21)
Breach of Contract: trial and deposition testimony and expert report regarding lost royalties resulting from failure to use best efforts to commercialize and maximize revenues derived from the use of patented wiring technology.
- ***McLane Foodservice, Inc. v. Ready Pac Produce, Inc. and Tanimura & Antle, Inc.***
US District Court, District of New Jersey (Case No. 10-06076 (RMB) (JS))
Breach of Contract and Breach of Warranties: expert report regarding lost profits damages resulting from the presence of produce contaminated with Escherichia coli 0157:H7 bacteria in the Taco Bell supply chain and in meals served at certain Taco Bell restaurants.
- ***Astellas US LLC and Astellas Pharma Inc. v. Nycomed U.S., Inc.***
US District Court, District of New Jersey (Case No. 10-5599 (WJM/MF))
Patent Infringement: deposition testimony and expert report regarding the commercial success of an invention that covers the use of a product for the treatment of atopic dermatitis.
- ***Model Model Hair Fashion Inc. v. Beauty Plus Trading Co., et al.***
US District Court, District of New Jersey (Case No. 09-4856 (ES))
Trademark Infringement: expert report regarding the market penetration of trademarks related to wigs, hair weaves, and pony tail products, and unjust enrichment and reasonable royalty damages resulting from the infringement of the MODEL MODEL trademark.
- ***Stryker Spine v. Surgical Orthomedics, Inc., et al.***
American Arbitration Association (Case No. 18-193-Y-01337-09 01)
Breach of Contract, Trade Secret Misappropriation, and Unfair Competition: arbitration and

deposition testimony and expert report regarding lost profits damages resulting from the breach of non-compete and confidentiality agreements related to sale of spinal implant products.

- ***Stryker Orthopaedics v. Scott Nizolek***
US District Court, District of New Jersey (Case No. 09-3469 (WJM)(MF))
Breach of Contract: deposition testimony and expert report regarding lost profits damages resulting from breach of non-compete and confidentiality agreements related to the sale of hip and knee implants.
- ***In the Matter of Certain Ground Fault Circuit Interrupters and Products Containing Same***
US International Trade Commission (Investigation No. 337-TA-739)
Patent Infringement: trial and deposition testimony and expert report regarding the scope of an exclusion order and the appropriate amount of bond in section 337 case involving ground fault circuit interrupter technology.
- ***British Telecommunications plc, et al. v. Haier America Trading, L.L.C., et al.***
US District Court, Southern District of New York (Case No. 09-CV 7114 WGY)
Patent Infringement: deposition testimony and expert report on reasonable royalty damages related to digital television sets, digital TV/DVD combination products, DVD players, and Blu-ray disc players using MPEG-2 and ATSC technology.
- ***Oberon Company v. Paulson Manufacturing Corp.***
US District Court, District of Massachusetts (Case No. 06-11210 WGY)
Patent Infringement, False Advertising, and Unfair Competition: expert report on lost profits and reasonable royalty damages related to electric arc face shield products.
- ***BestSweet, Inc. v. NTI Holdings Corp.***
US District Court, Eastern District of Virginia, Alexandria Division (Case No. 1:09-CV-942 (LO/TCB))
Patent Infringement, Trade Secret Misappropriation, and Breach of Contract: expert report on reasonable royalty damages, unjust enrichment, and lost royalties related to soft-chew nutraceuticals.
- ***Herman Minkin and H&M Aeronaut Tool Co., Inc. v. Gibbons P.C.***
US District Court, District of New Jersey (Case No. 2:08-CV-02451-WJM-CCC)
Legal Malpractice: expert report on lost profits related to extended reach pliers.
- ***Pegasus Imaging Corporation v. Allscripts Healthcare Solutions, Inc. and Allscripts, LLC***
US District Court, Middle District of Florida (Case No. 8:08-CV-1770-T-30 EAJ)
Breach of Contract, Copyright Infringement, Trade Secret Misappropriation, Unfair Trade Practices, and Lanham Act Violation: arbitration and deposition testimony and expert report on lost licensing fees and unjust enrichment related to barcoding software.
- ***Asymmetrx, Inc. and President and Fellows of Harvard College v. Dako Denmark A/S and Dako North America, Inc.***
US District Court, District of Massachusetts (Case No. 1:09-CV-10396)
Patent Infringement: expert report on lost profits and reasonable royalty damages involving patents covering prostate cancer diagnostic test.

- ***Ultratech International, Inc. and Aqua-Leisure Industries, Inc. v. Swimways Corporation***
US District Court, Middle District of Florida, Jacksonville Division (Case No. 3:05-CV-00134-HLA-MCR)
Patent Infringement: expert report on reasonable royalty damages involving patents covering pop-up pools.
- ***Taltwell, LLC v. Zonet USA Corp.***
US District Court, Eastern District of Virginia, Alexandria Division (Case No. 3:07-CV-00543-REP)
Patent Infringement: expert report on reasonable royalty damages involving patents covering fax/modems and adapter cards.
- ***Nissim Corp. v. Time Warner Inc. et al.***
US District Court, Southern District of Florida (Case No. 07-20624-CIV-Cooke/Brown)
Patent Infringement: expert report on reasonable royalty damages involving patents covering seamless play and user operation control capabilities contained within DVDs.
- ***Newspring Industrial Corporation v. Empire Industrial Corporation et al.***
US District Court, District of New Jersey (Case No. 04-3435 (FSH)(PS))
Patent Infringement: expert report on reasonable royalty damages involving patents covering the design of plastic containers and the technology related to a sealing device embodied in plastic containers.
- ***Aastra Technologies Limited, et al. v. CD Connect, Inc., et al.***
US District Court, Eastern District of Texas (Case No. 4:03CV343)
Trade Secret Misappropriation: expert report on lost profits and unjust enrichment damages resulting from the use of trade secrets related to customer contacts, contract expiration dates, and pricing information.
- ***Cook Biotech Incorporated, et al. v. Acell, Incorporated, et al.***
US District Court, Northern District of Indiana (Case No. 4:03CV0046(AS))
Breach of Contract: expert report on the underpayment of royalties to inventors of extracellular matrix materials technology from Purdue Research Foundation.
- ***Intelli-Check, Inc. v. Tricom Card Technologies, Inc., et al.***
US District Court, Eastern District of New York (Case No. 03-3706 LDW ETB)
Patent Infringement: expert report on reasonable royalty damages involving patents covering age verification and document authentication device and software.
- ***High Concrete Structures, Inc. v. New Enterprise Stone & Lime Co., Inc., et al.***
US District Court, Eastern District of Pennsylvania (Case No. 02-CV-86)
Patent Infringement: expert report on reasonable royalty damages involving patent covering tilt frame device for transporting large precast concrete structures.
- ***Medtronic Sofamor Danek, Inc., et al. v. Osteotech***
US District Court, Western Division of Tennessee (Case No. 99-2656-GV)
Patent Infringement: affidavit involving discovery-related issues in case involving patents covering the instruments and method of inserting a spinal inter-body fusion device.

SELECTED CONSULTING EXPERIENCE (LITIGATION)

- Patent Infringement: reasonable royalty damages in a case involving patents directed to light-emitting diodes.
- Patent Infringement: analysis of patent pool compliance with fair, reasonable, and non-discriminatory (FRAND) commitments and determination of FRAND-compliant royalties involving patents directed to the transmission and storage of digital audio files.
- Patent Infringement: reasonable royalty damages in a case involving patents related to a process for producing semiconductor epitaxial films.
- Patent Infringement: reasonable royalty damages in a case involving patents related to components of hard disk drives.
- False Advertising: lost profits resulting from false advertising of products in the cosmetics industry.
- Patent Infringement: reasonable royalty damages in a case involving patents related to electrochemoluminescent detection technology used in immunoassay test equipment and assays.
- Patent Infringement: regression analysis related to the value of increased processor speed in smartphones and tablet devices.
- Patent Infringement: analysis of conjoint and usage surveys related to the market value of certain smartphone and tablet features contained in Google Play Books, Google Play Music, and Google Play Movies functionalities.
- Patent Infringement: reasonable royalty damages in a case involving patents related to perfluorelastomeric seals used in semiconductor fabrication applications.
- Trademark Infringement/False Advertising: lost profits and disgorgement related to trademark infringement and false advertising involving products in the sports apparel industry.
- Patent Infringement: analysis of a conjoint survey related to the market value of certain smartphone and tablet features contained in Google's cloud messaging service.
- Patent Infringement: analysis of a conjoint survey related to the market value of certain smartphone and tablet features.
- Patent Infringement: reasonable royalty damages in a case involving telecommunications network technology.
- Patent Infringement: commercial success involving patents directed to the treatment of menorrhagia.
- Patent Infringement: preliminary injunctive relief involving patents directed to dietary calcium supplements.
- Trademark Infringement/False Advertising: lost profits from trademark infringement and false advertising in the health supplement industry.
- Patent Infringement: reasonable royalty and prejudgment interest involving patents directed to automotive engines.
- Patent Infringement: reasonable royalty and prejudgment interest involving patents directed

to automotive navigation systems.

- Patent Infringement: lost profits, reasonable royalty, and prejudgment interest involving patents directed to DNA amplification and sequencing technology.
- Patent Infringement: reasonable royalty and prejudgment interest involving patents directed to power management, bus configuration, and card slot technology in laptops and desktops.
- Patent Infringement and Breach of Contract: lost profits, lost royalties, reasonable royalty, and commercial success involving a patent and contract directed to software and hardware products, and technologies that provide connectivity and centralized management of IT infrastructure through KVM switches.
- Patent Infringement: commercial success involving a patent directed to the treatment of dermatological disorders.
- Trade Secret Misappropriation: unjust enrichment involving the misappropriation of trade secrets directed to aramid fiber production.
- Patent Infringement: reasonable royalty and prejudgment interest involving a patent directed to rental matching systems over the internet.
- Patent Infringement: reasonable royalty and prejudgment interest involving a patent directed to hard disk drive technology.
- Patent Infringement: commercial success covering a patent directed to the treatment of spasticity.
- Patent Infringement: commercial success covering patents directed to the treatment of HDL cholesterol and hypertriglyceridemia.
- Patent Infringement: reasonable royalty and prejudgment interest involving a patent directed to hemophilia treatment.
- Patent Infringement: reasonable royalty and prejudgment interest involving a patent directed to a type of debit card program.
- Patent Infringement: reasonable royalty and prejudgment interest involving a patent directed to genetically modified corn.
- Patent Infringement: commercial success covering a patent directed to the treatment of depression, anxiety, and pain.
- Patent Infringement: reasonable royalty involving a patent directed to a method for a health care provider and a patient to communicate automatically and electronically with each other over the internet.
- Misappropriation of Trade Secrets: unjust enrichment involving the misappropriation of trade secrets directed to loss prevention systems.
- Patent Infringement: reasonable royalty and prejudgment interest involving a patent directed to automotive entertainment systems.
- Patent Infringement: lost profits, reasonable royalty, and prejudgment interest involving a patent directed to hip implant technology.

- Trade Secret Misappropriation: reasonable royalty involving misappropriation of trade secrets directed to fingerprint identification technology.
- Patent Infringement: commercial success of valacyclovir hydrochloride.
- Patent Infringement: reasonable royalty and prejudgment interest involving a patent directed to implantable tissue expanders.
- Patent Infringement: reasonable royalty and prejudgment interest involving a patent directed to a process for aging aluminum lithium alloys used for space shuttle external tanks.
- Patent Infringement: reasonable royalty and prejudgment interest involving patents directed to cores, intermediate layers, and covers of golf balls.
- Patent Infringement: domestic industry, scope of exclusion order, and appropriate amount of bond to be set for products covered by an exclusion order during the Presidential review period in a Section 337 case involving NAND and NOR flash memory products.
- Patent Infringement: commercial success covering a patent directed to the active ingredient of an anti-infective drug.
- Patent Infringement: lost profits and prejudgment interest involving a patent directed to AC to DC power converter circuits used for backlights.
- Breach of Contract: analysis of damages arising from claims of fraud and breach of contract in a case involving a pharmaceutical product.
- Patent Infringement: reasonable royalty involving patents directed to genetically modified corn seed.
- Patent Infringement: lost profits, reasonable royalty, and prejudgment interest involving patents directed to a system and method for distributing lottery tickets.
- Patent Infringement: commercial success covering a patent directed to the active ingredient of an anti-infective drug (levofloxacin).
- Trade Secret Misappropriation: damages and profits associated with trade secrets directed to a luxury hotel and automotive partnership.
- Patent Infringement: commercial success involving a patent directed to the treatment of ulcerative colitis.
- Patent Infringement: reasonable royalty and prejudgment interest involving a patent directed to audio playback for portable electronic devices.
- Patent Infringement: lost profits, reasonable royalty, and prejudgment interest involving a patent directed to snap-fit external fixation systems.
- Breach of Contract: damages and profits associated with alleged contractual breaches, tortious interference, and intentional negligent representations involving spinal implants.
- Breach of Contract: lost profits associated with alleged contractual breach and tortious interference, as well as irreparable harm inquiry, involving a strategic alliance to provide electronic chemicals, gases, and services to the semiconductor industry.

- Patent Infringement: lost profits, price erosion, reasonable royalty, and prejudgment interest involving a patent directed to mass spectrometer ionization sources.
- Patent Infringement: lost profits, reasonable royalty, price erosion, and prejudgment interest involving a patent directed to porcine vaccine (PRRS) products.
- Patent Infringement: reasonable royalty involving patents covering computer video and audio software.
- Breach of Contract: damages and profits associated with alleged breach of contract and various tort claims involving electrochemoluminescent detection technology used in immunoassay and DNA probe assay kits.
- Patent Infringement: lost profits, reasonable royalty, and prejudgment interest involving patents covering the instruments and method of inserting a spinal inter-body fusion device.
- Patent Infringement: lost profits, reasonable royalty, and prejudgment interest involving a patent directed to a device and method for optically detecting particles in fluid.
- Patent Infringement: measure and amount of prejudgment interest in a patent infringement, fraud, and unjust enrichment case covering prenatal vitamin formulations.
- Patent Infringement: reasonable royalty and prejudgment interest covering patents directed to telecommunications technology (ATM over SONET networks).
- Patent Infringement: lost profits, reasonable royalty, and prejudgment interest involving a patent directed to zipper closure mechanisms for home storage bags.
- Patent Infringement: lost profits, reasonable royalty, and prejudgment interest covering a patent directed to digital time stamping.
- Patent Infringement: reasonable royalty covering a patent directed to semi-synthetic processes for manufacturing an anti-cancer drug.
- Patent Infringement: lost profits and prejudgment interest involving patents directed to spinal implant devices.
- Patent Infringement: reasonable royalty and prejudgment interest involving a patent directed to data sorting software.

SELECTED CONSULTING EXPERIENCE (NON-LITIGATION)

- Valuation of a patent related to semiconductor technology.
- Valuation of a patent related to telecommunications technology.
- Valuation of a patent related to smartphone and tablet feature.
- Valuation of patent related to a pharmaceutical drug to treat cardiac disease.
- Valuation of patent related to a pharmaceutical drug to treat mental illness.
- Valuation of patent related to ophthalmic digital surfacing machines.
- Valuation of a patent related to a drug delivery system used in topical non-steroidal anti-

inflammatory drugs (NSAIDs).

- Valuation of clinical trial data and patent applications related to pain management pharmaceutical therapy.
- Valuation and licensing patents of high-index optical lens technology.
- Valuation and licensing of remote patient-monitoring technology.
- Valuation and licensing of consumer product technology (portable heat-generating device).
- Valuation and licensing of entertainment services technology (internet gaming).
- Valuation and licensing of consumer electronics technology (home networking device).
- Econometric demand analysis and demand and cost forecasts of ADA and SRP paratransit services in a five-county region in Pennsylvania.
- Economic impact study to evaluate direct, indirect, and induced effects of aviation activity.
- Economic model and simulation software used to forecast trip demand and cost conditions for demand response service in New York under a variety of policy scenarios.
- Economic impact study to evaluate direct, indirect, and induced effects of transit operations on the regional economy.

ARTICLES AND PUBLICATIONS

“Apportioning Value In Patent Portfolio License and Sale Agreements,” with Xiao Zhang, *les Nouvelles*, Vol. LV No. 4 (December 2020)

“Patent Damages in US Courts: Overview of Current State of Play,” with John Jarosz, Justin McLean, and Carla Mulhern, *IAM Yearbook 2019: Building IP Value in the 21st Century* (2018)

“Introduction to Lost Profits,” with John Jarosz and Michael Chapman, chapter in *Lost Profits Damages: Principles, Methods, and Applications* (2017)

“Assessing Commercial Success at the U.S. Patent Trial and Appeal Board,” with John Jarosz, *International In-house Counsel Journal*, Vol. 8, No. 32 (2015)

“Intellectual Property/Software,” chapter in *Litigation Support Report Writing* (2003)

“Demographic Trends in US Cities,” with Harry Kelejian and Dennis Robinson, chapter in *Contemporary Issues in Urban and Regional Economics* (2005)

“Patent Damages,” *IP Litigator*, Vol. 7, No. 1 (January 2001)

PRESENTATIONS AND SPEAKING ENGAGEMENTS

“Calculating Intellectual Property Damages: Guidelines, Trends and Analysis,” The Knowledge Group webinar (July 2018)

“Intellectual Property Valuation: What’s In and Out in 2018,” The Knowledge Group webinar (February 2018)

“Advanced Topics and Current Issues in Patent Damages,” 2017 Patent Damages Symposium, Licensing

Executives Society (February 2017)

“Licensing IP and Technology: Advancing the Concepts in 2016,” The Knowledge Group webinar (March 2016)

“Changes in the Patent Landscape,” International Intellectual Property Law Association Annual Congress, Dubai, UAE (January 2015)

“Patent Damages, the New ‘Economic Realism’ and Early Case Assessments,” Hamilton, Brook, Smith & Reynolds seminar (January 2014) “Recent Federal Circuit Decisions and their Impact on IP Damages,” Government Intellectual Property Law Association (April 2011)

“Overview of IP Damages in Cases Involving the U.S. Government,” Government Intellectual Property Law Association (February 2011)

“False Patent Marking in the Wake of the *Forrest Group* Decision,” Law Seminars International (May 2010)

“IP Damages & Injunctions,” Houston Intellectual Property Law Association (August 2009)

“An Overview of IP Damages & Injunctions,” San Diego Intellectual Property Law Association (April 2008)

“IP Damages, Injunctions & Recent Damages Decisions,” Wisconsin Intellectual Property Law Association (February 2008)

“An Overview of IP Damages & Injunctions,” Silicon Valley Intellectual Property Law Association (January 2008)

“An Overview of IP Damages & Injunctions,” Rochester Intellectual Property Law Association (January 2008)

“An Overview of IP Damages & Injunctions,” Pittsburgh Intellectual Property Law Association (January 2008)

“An Overview of IP Damages & Injunctions,” New Jersey Intellectual Property Law Association (November 2007)

“Advanced Intellectual Property Valuation,” Professional Development Series, Licensing Executives Society (June 2007)

“Risks, Rewards & Resources: Evaluating the Forces of Change in Licensing Transactions,” Licensing Executives Society Winter Meeting (February 2007)

“Advanced Valuation Skills,” Professional Development Series, Licensing Executives Society (November 2006)

“Implementing Valuation Methods: Discounted Cash Flow, Monte Carlo Simulation and Real Options,” Licensing Executives Society Annual Meeting (September 2006)

“Intellectual Property Valuation,” Intermediate Intellectual Asset Management, Professional Development Series, Licensing Executives Society (July 2006)

“Implementing Valuation Methods: Discounted Cash Flow, Monte Carlo Simulation and Real Options,” Licensing Executives Society Annual Meeting (October 2005)

“Factors Affecting Royalties,” with Carla Mulhern, Licensing Executives Society Annual Meeting (October 2005)

“Implementing Valuation Methods: Discounted Cash Flow, Monte Carlo Simulation and Real Options,” Licensing Executives Society Annual Meeting (October 2004)

“Valuing Intellectual Property: Determining the Appropriate Royalty Rate,” American Intellectual Property Law Association Spring Meeting (April 2002)

“Monte Carlo Simulation: Advantages over Traditional DCF,” Licensing Executives Society Winter Meeting (February 2002)

“Industry Royalty Rates and Profitability: An Empirical Test of the 25% Rule,” with Carla Mulhern and John Jarosz, Licensing Executives Society Annual Meeting (October 2001)

“Spatial Econometric Analysis of Budget Spillovers and Fiscal Policy Interdependence,” University of Maryland Public Finance Seminar (1998)

PROFESSIONAL AFFILIATIONS

American Economic Association (AEA)

American Marketing Association (AMA)

Licensing Executives Society (LES)