

MIHRAN YENIKOMSHIAN
Managing Principal

Direct: 617 425 8158
Fax: 617 425 8001
mihran.yenikomshian@analysisgroup.com

111 Huntington Avenue
14th Floor
Boston, MA 02199

Mr. Yenikomshian specializes in technology, data analysis, and economic modeling, and has consulted on technical, economic, and strategic issues to companies in a variety of industries, including computer software and technology, cybersecurity, blockchain and cryptocurrency, pharmaceuticals, and medical insurance. He has extensive experience analyzing technical issues, such as those relating to software and internet technologies, and translating them to a lay audience. Mr. Yenikomshian has analyzed the flows of data from user devices to third-party service providers such as analytics and advertising companies. He testified on behalf of the US Department of Justice in its criminal indictment of Jitesh Thakkar, who allegedly designed and sold a software program that assisted a commodities trader who was engaged in spoofing. In this matter, Mr. Yenikomshian's role was to determine whether the software program that Thakkar produced operated the way that the trader's requirements document had specified. He provided a detailed demonstration of how the requirements for the order types were translated into a software program by walking the court through the actual lines of code that implemented the requirements. Mr. Yenikomshian has also conducted numerous other software code reviews in a range of matters. In addition, he has developed interactive software tools to help clients make strategic decisions. Mr. Yenikomshian is a member of the American Bar Association and serves as co-chair of its Biotechnology, Healthcare Technology, and Medical Devices Committee. Previously, he served as co-chair of its Big Data Committee and Data Science Working Group, as well as vice chair of its Artificial Intelligence and Robotics Committee. Prior to joining Analysis Group, Mr. Yenikomshian was a partner in a software development and staffing technology firm.

EDUCATION

2006 M.B.A., F.W. Olin Graduate School of Business, Babson College
2003 B.A., quantitative economics and computer science, Tufts University

PROFESSIONAL EXPERIENCE

2006–Present Analysis Group, Inc.
 Managing Principal (2021–Present)
 Vice President (2015–2021)
 Manager (2011–2014)
 Associate (2006–2010)
2003–2006 Crossfire Consulting
 Senior Consultant and Partner

SELECTED CONSULTING EXPERIENCE

- **Confidential privacy class actions involving collection of browsing data**
Supported technical experts in several privacy class actions alleging that the defendants collected user data through third-party services installed on websites. The scope of work involved explaining the flows of data on the internet and conducting experiments on how flows of data change depending on user settings.
- **Confidential theft of trade secret matter**
Conducted a source code review of the defendant's product for indicia of trade secret information. Case settled before deposition. Submitted expert report.
- ***Thomson Reuters v. Ross Intelligence***
Rebuttal expert for Thomson/Westlaw, evaluating damages if an alleged tie between Westlaw's products was proven true. Submitted expert rebuttal report and deposition.
- ***County of Suffolk v. Purdue Pharma L.P., et al., County of Nassau v. Purdue Pharma L.P., et al., The State of New York v. Purdue Pharma L.P., et al.***
Submitted an affidavit on behalf of Teva USA regarding direct and indirect transactional sales data produced in the litigation. Replicated an analysis presented by counsel for the State of New York during closing arguments that was purportedly based on these data and corrected the calculations, showing that the figures presented by counsel to the jury during closing arguments were vastly overstated (by 80 to over 500 times).
- ***Apple Inc. v. Corellium, LLC***
US District Court, Southern District of Florida
Supported a cybersecurity expert in a copyright infringement case involving the replication of Apple's OS and applications on virtual machines for alleged security research and testing. Assisted in the development of reports on industry norms for good-faith security research and fair use.
- ***US ex rel. Bawduniak v. Biogen Idec Inc.***
Submitted a declaration on behalf of Biogen in a civil matter to determine whether information responsive to specific interrogatories could be ascertained from the data produced during discovery.
- ***US v. Jitesh Thakkar***
Provided expert testimony on behalf of the US Department of Justice (DOJ) in a criminal matter involving a software developer who allegedly designed and sold a software program that assisted a commodities trader engaged in spoofing. Analyzed the code to determine whether the software program operated in a manner consistent with the trader's requirements document.
- **Government investigations concerning prescription drug and medical device marketing practices, including:**
 - Atrovent, Combivent, Aggrenox/Boehringer Ingelheim (District of Maryland)
 - Bextra, Lyrica, Zyvox/Pfizer (District of Massachusetts)
 - Depakote/Abbott Laboratories (Western District of Virginia)
 - Lovaza/GlaxoSmithKline (Office of the Inspector General)
 - Protonix/Pfizer (District of Massachusetts)
 - Rituxan/Genentech (Eastern District of Pennsylvania)

- Tarceva/Genentech (Northern District of California)
- Zyprexa/ Eli Lilly (Eastern District of Pennsylvania)

Used economic, biostatistical, and epidemiologic approaches to evaluate the alleged conduct, quantify the relevant sales, and assess the causal connection, if any, between the allegations in each case and the sales at issue.

- ***Ischemia Research and Education Foundation v. Pfizer Inc.***
Superior Court of the State of California, County of Santa Clara
Supported statistical, economic, and clinical experts in various analyses resulting from an alleged misappropriation of trade secrets. Assessed function of source code.
- ***US, et al. ex rel. Brown v. Celgene Corp.***
US District Court, Central District of California
Provided consulting support to counsel for Celgene in connection with allegations of improper marketing practices with respect to Thalomid and Revlimid.
- ***US v. State of Florida***
US District Court, Southern District of Florida
Provided consulting support to counsel for the state of Florida in a dispute over whether the state has caused some medically complex or fragile children to be unnecessarily segregated in nursing facilities, and placed others at risk of being unnecessarily segregated in such facilities.
- **Confidential analysis of technology evolution**
Supported a technology evolution expert on behalf of a software company, including evaluation of source code and software developer practices.
- **Confidential cryptocurrency issue**
Supported an expert in analyzing an assessment of cryptocurrency markets.
- **Cryptocurrency intellectual property (IP) issue**
Supported an analysis of the value of an alleged cryptocurrency trademark violation.
- ***Multiple State Attorneys General v. GlaxoSmithKline***
Provided economic, statistical, and epidemiological consulting support to counsel for GlaxoSmithKline in connection with allegations of improper marketing practices with respect to Avandia.
- ***US ex rel. Strom v. Scios, Inc. and Johnson & Johnson***
US District Court, Northern District of California
Supported an economic expert in analyzing the impact of alleged off-label promotion and payment of kickbacks with respect to Natrecor.
- ***US ex. rel. John Underwood v. Genentech, Inc.***
US District Court, Eastern District of Pennsylvania
Supported an economic expert in analyzing the impact of alleged off-label promotion and payment of kickbacks with respect to Rituxan.
- ***In re: Zyprexa Products Liability Litigation***
US District Court, Eastern District of New York
Supported multiple economic and statistics experts in assessments of causation and damages, as well as the cost effectiveness of Zyprexa.

- **Grider v. Keystone Health Plan Central, et al.**
US District Court, Eastern District of Pennsylvania
Supported the defendant's liability expert concerning allegations of improper payment for physician services.

ARTICLES AND PUBLICATIONS

"HSR24-133: Real-World (RW) Effectiveness of Erythropoiesis-Stimulating Agents (ESAs) After Luspatercept in Patients (pts) With Myelodysplastic Syndromes (MDS): A Retrospective Analysis of a Large Healthcare Claims Database in the United States," Hanna, K. S.; Song, R.; Slaff, S.; Zanardo, E.; Huynh, L.; Mohan, M.; Pinaire, M.; Tang, D.; Yenikomshian, M.; Barghout, V.; and Makinde, A. Y., *Journal of the National Comprehensive Cancer Network*, 22(2.5) (2024)

"Dosing Patterns of Patients with Paroxysmal Nocturnal Hemoglobinuria Treated with Ravulizumab in the United States: A Retrospective Claims-Based Analysis," Cheng, W. Y.; Fishman, J.; Yenikomshian, M.; Mahendran, M.; Kunzweiler, C.; Vu, J. D.; and Duh, M. S., *Advances in Therapy*, 41(1) (2024)

"Real-World Impact of Luspatercept on Patients with Myelodysplastic Syndromes Requiring Red Blood Cell Transfusions and with Prior Exposure to Erythropoietin-Stimulating Agents: A United States Healthcare Claims Database Study," Patel, K.; Hanna, K. S.; Zanardo, E.; McBride, A.; Barghout, V.; Song, R.; Huynh, L.; Tang, D.; Yenikomshian, M.; and Andritsos, L. A., *Blood*, 142(Supplement 1) (2023)

"Real-World Retrospective Study of Non-Transfusion Dependent Patients with Myelodysplastic Syndromes Treated with Luspatercept: A Healthcare Claims Database Study," Andritsos, L. A.; Hanna, K. S.; Zanardo, E.; McBride, A.; Barghout, V.; Song, R.; Huynh, L.; Tang, D.; Yenikomshian, M.; and Patel, K., *Blood*, 142(Supplement 2) (2023)

"Real-world treatment patterns of OTX-101 ophthalmic solution, cyclosporine ophthalmic emulsion, and lifitegrast ophthalmic solution in patients with dry eye disease: a retrospective analysis," Karpecki, P.; Barghout, V.; Schenkel, B.; Huynh, L.; Khanal, A.; Mitchell, B.; Yenikomshian, M.; Zanardo, E.; and Matossian, C., *BMC Ophthalmology*, 23(1) (2023)

"Patient-centric assessment of rheumatoid arthritis using a smartwatch and bespoke mobile app in a clinical setting," Hamy, V.; Llop, C.; Yee, C. W.; Garcia-Gancedo, L.; Maxwell, A.; Chen, W. H.; Tomlinson, R.; Bobbili, P.; Bendelac, J.; Landry, J.; DerSarkissian, M.; Yenikomshian, M.; Mody, E. A.; Duh, M. S.; and Williams, R., *Scientific Reports*, 13(1) (2023)

"PCR136: A Retrospective Analysis of Real-World Treatment Patterns in Patients over Age 64 with Dry Eye Disease Receiving OTX-101 Ophthalmic Solution 0.09%, Cyclosporine Ophthalmic Emulsion 0.05%, or Lifitegrast Ophthalmic Solution 5%," Karpecki, P.; Barghout, V.; Schenkel, B.; Huynh, L.; Khanal, A.; Mitchell, B.; Yenikomshian, M.; Zanardo, E.; and Matossian, C., *Value in Health*, 26(6) (2023)

"Novel Digital Technologies for the Assessment of Objective Measures and PROs in Patients with Rheumatoid Arthritis: A Pilot Study Using Smart Devices and a Bespoke Mobile App," Hamy, V.; Llop, C.; Yee, C. W.; Garcia-Gancedo, L.; Maxwell, A.; Chen, W. H.; Tomlinson, R.; Bobbili, P.; Bendelac, J.; Landry, J.; DerSarkissian, M.; Yenikomshian, M.; Mody, E. A.; Duh, M. S.; and Williams, R., *Arthritis & Rheumatology*, 74 (2022)

“HSD77 Real-World Dosing Patterns of Eculizumab-Naive and Eculizumab-Experienced Patients with Paroxysmal Nocturnal Hemoglobinuria Receiving Ravulizumab in the US,” Cheng, W. Y.; Fishman, J.; Yenikomshian, M.; Mahendran, M.; Kunzweiler, C.; Vu, J. D.; and Duh, M. S., *Value in Health*, 25(7_suppl) (2022)

“Real-World Eculizumab Dosing Patterns Among Patients with Paroxysmal Nocturnal Hemoglobinuria in a US Population,” Cheng, W.; Sarda, S.; Mody-Patel, N.; Krishnan, S.; Yenikomshian, M.; Kunzweiler, C.; Vu, J.; Cheung, H. C.; and Duh, M. S., *ClinicoEconomics and Outcomes Research*, 14 (2022)

“Mitigating Antitrust Concerns when Competitors Share Data Using Blockchain Technology,” Arcelus, A.; Nocera, N.; and Yenikomshian, M., *Harvard Journal of Law & Technology*, 34 (2021)

“Health Cos. Can Reduce FCA Risk by Leveraging Data,” Jenny, B.; Yenikomshian, M.; Greenberg, P. E., *Law360* (2021)

“Trifluridine/Tipiracil (FTD/TPI) and Regorafenib in Patients with Metastatic Colorectal Cancer (mCRC): A Retrospective Study at a Tertiary Oncology Center,” Patel, A. K.; Abhyankar, R.; Brais, L. K.; Duh, M. S.; Barghout, V. E.; Huynh, L.; Yenikomshian, M. A.; Ng, K.; and Fuchs, C. S., *Oncologist*, 26(12) (2021)

“Real-World Healthcare Resource Utilization (HRU) and Costs of Patients with Paroxysmal Nocturnal Hemoglobinuria (PNH) Receiving Eculizumab in a US Population,” Cheng, W. Y.; Sarda, S. P.; Mody-Patel, N.; Krishnan, S.; Yenikomshian, M.; Mahendran, M.; Lejeune, D.; Yu, L. H.; and Duh, M. S., *Advances in Therapy*, 38(8) (2021)

“Real-World Treatment Patterns and Healthcare Resource Utilization (HRU) of Patients (Pts) with Paroxysmal Nocturnal Hemoglobinuria (PNH) Receiving Eculizumab in a US Population,” Cheng, W. Y.; Sarda, S. P.; Mody-Patel, N.; Krishnan, S.; Yenikomshian, M.; Scoble, P. J.; Mahendran, M.; Lejeune, D.; Yu, L.; and Duh, M. S., *Blood*, 136(Supplement 1) (2020)

“Real-World Adherence in Patients with Metastatic Colorectal Cancer Treated with Trifluridine plus Tipiracil or Regorafenib,” Patel, A. K.; Barghout, V.; Yenikomshian, M. A.; Germain, G.; Jacques, P.; Laliberté, F.; and Duh, M. S., *Oncologist*, 25(1) (2020)

“Modeling the potential impact of abuse-deterrent opioids on medical resource utilization,” Yenikomshian, M. A.; White, A. G.; Carson, M. E.; Jia, Z. B.; Mendoza, M. R.; and Roland, C. L., *Journal of Medical Economics*, 22(10) (2019)

“Cardiac arrhythmia detection outcomes among patients monitored with the Zio patch system: a systematic literature review,” Yenikomshian, M.; Jarvis, J.; Patton, C.; Yee, C.; Mortimer, R.; Birnbaum, H.; and Topash M., *Current Medical Research and Opinion*, 35(10) (2019)

“Real-world Treatment Patterns Among Patients With Colorectal Cancer Treated With Trifluridine/Tipiracil and Regorafenib,” Patel, A. K.; Duh, M. S.; Barghout, V.; Yenikomshian, M. A.; Xiao, Y.; Wynant, W.; Tabesh, M.; and Fuchs, C. S., *Clinical Colorectal Cancer*, 17(3) (2018)

“Projecting the cost, utilization, and patient care impact of prescribing extended release non-abuse-deterrent opioids to chronic pain patients,” Yenikomshian, M. A.; White, A. G.; Carson, M. E.; Garrison, L. P.; Oderda, G. M.; Biskupiak, J. E.; Hlavacek, P.R.; and Roland, C. L., *Journal of Opioid Management*, 13(5) (2017)

“Practical Uses for Machine Learning in Health Care Cases,” Yenikomshian, M., Pinheiro L., Royer, J., and Greenberg, P., *Law360* (2016)

“Cost-analysis model of colonoscopy preparation using split-dose reduced-volume oral sulfate solution (OSS) and polyethylene glycol with electrolytes solution (PEG-ELS),” Huynh, L.; Yermakov, S.; Davis, M.; Campbell, R.; Cleveland, M.; Farraye, F. A.; and Yenikomshian, M. *Journal of Medical Economics*, 19(4) (2016)

“The economic impact of implementing a multiple inflammatory biomarker-based approach to identify, treat, and reduce cardiovascular risk,” Penn, M. S.; Yenikomshian, M. A.; Cummings, A. K.; Klemes, A.; Damron, J. M.; Purvis, S.; Beidelschies, M.; and Birnbaum, H. G., *Journal of Medical Economics*, 18(7) (2015)

“The epidemiology of herpes zoster and its complications in Medicare cancer patients.” Yenikomshian, M. A.; Guignard, A. P.; Haguinet, F.; LaCasce, A. S.; Skarin, A. T.; Trahey, A.; Kerner, P.; and Duh, M. S., *BMC Infectious Diseases*, 15(1) (2015)

PRESENTATIONS AND SPEAKING ENGAGEMENTS

Panel on technical litigation (participant), USC Gould / Analysis Group Global Competition Law Thought Leadership Conference, Los Angeles (June 2024)

“Real-World Impact of Luspatercept on Patients with Myelodysplastic Syndromes Requiring Red Blood Cell Transfusions and with Prior Exposure to Erythropoietin-Stimulating Agents: A United States Healthcare Claims Database Study,” American Society of Hematology (ASH) Annual Meeting & Exposition, San Diego (December 2023)

“The Intersection of Blockchain and Antitrust,” *Antitrust Matters* podcast (May 2022)

“Promises and Pitfalls of A.I.” (moderator), MIT Sloan Healthcare BioInnovations Conference Security Meeting (April 2022)

“COVID-19 Contact Tracing in a Democracy: Balancing Public Health and Privacy,” American Bar Association Science & Technology Law Section – SciTech Summer Series (July 2020)

“Data Breach Class Action – Litigation on the Rise: Winning Strategies,” The Knowledge Group Webinar (July 2020)

“Trifluridine/tipiracil (FTD/TPI) and regorafenib (REG) in patients with metastatic colorectal cancer (mCRC): A single institution retrospective study,” American Society of Clinical Oncology (ASCO) Annual Meeting, Chicago (June 2019)

Panel on digital ethics concerning big data (moderator and participant), American Bar Association Pre-RSA Conference Information Security Meeting (March 2019)

“Statistical Sampling and Extrapolation in FCA litigation: Leveraging Opportunities,” The Knowledge Group Webinar (June 2018)

“Real-world adherence in patients with metastatic colorectal cancer (mCRC) treated with trifluridine/tipiracil (FTD/TPI) or regorafenib (REG),” ASCO Annual Meeting, Chicago (June 2018)

“Comparison of the real-world adherence and compliance patterns with trifluridine/tipiracil (FTD/TPI) and regorafenib (REG) for the treatment of metastatic colorectal cancer (mCRC),” Gastrointestinal Cancers Symposium, San Francisco (January 2018)

“Real-world adherence and treatment discontinuation with trifluridine/tipiracil (FTD-TPI) compared with regorafenib (REG) for the treatment of metastatic colorectal cancer (mCRC),” ASCO Annual Meeting, Chicago (June 2017)

“Everything You Wanted to Know About the Use of Statistical Sampling to Establish FCA Liability (But Were Afraid to Ask),” Sidley Austin Webinar, Chicago (March 2017)

“A Model to Quantify Potential Medical Events Avoided and Cost Savings from Abuse Deterrent Opioids,” American Pain Society 35th Annual Scientific Meeting, Austin (May 2016)

“Projecting the cost, utilization, and patient care impact of prescribing extended-release non-abuse-deterrent opioids to chronic pain patients.,” International Society for Pharmacoeconomics and Outcomes Research (ISPOR) 21st Annual International Meeting, Washington, DC (May 2016)

“A Cost Comparison of Split-Dose Reduced-Volume oral Sulfate Solution (OSS) And Polyethylene Glycol with Electrolytes Solution (Peg-Els),” ISPOR 20th Annual Meeting, Philadelphia (May 2015)

“The Economic Impact of Implementing a Multiple Inflammatory Biomarker-Based Approach to Identify, Treat, and Reduce Cardiovascular Risk,” ISPOR 19th Annual Meeting, Montreal (June 2014)

“The Epidemiology of Herpes Zoster and Its Complications in Medicare Patients,” 29th International Conference of Pharmacoepidemiology & Therapeutic Risk Management, Montreal (August 2013)

“Health Care Resource Utilization and Costs of Medicare Patients with Non-small Cell Lung Cancer (NSCLC),” ISPOR 18th Annual Meeting, New Orleans (May 2013)