

ALMUDENA ARCELUS
Principal

Phone: (617) 425 8105
Fax: (617) 425 8001
aarcelus@analysisgroup.com

111 Huntington Avenue
Tenth Floor
Boston, MA 02199

Almudena Arcelus specializes in the application of economics, finance, and information technology to problems in business litigation. Her litigation experience includes management of all aspects of pretrial discovery, development of economic and financial computer models to analyze damages, critique of opposing experts, report preparation, and deposition and trial support.

In her twenty years at Analysis Group, Ms. Arcelus has managed many high-profile litigation projects in various technology-intensive industries, such as biotechnology and computer hardware and software. She has analyzed economic markets and competition in antitrust cases involving market power, monopolization, tying arrangements, class certification, price fixing, and damages. She managed the firm's efforts on behalf of Microsoft in its multiple class action overcharge cases, on behalf of Ortho Biotech in its Amgen antitrust litigation, and on behalf of a computer manufacturer in some of its antitrust cases. She has also played a key role in a number of intellectual property disputes, quantifying lost profits and calculating appropriate royalty rates and prejudgment interest, including *The Regents of the University of California v. Genentech*. Most recently, she has participated in securities class action cases, involving institution responsibility, investor knowledge, and numerosity issues. Ms. Arcelus frequently works with an extensive network of expert witnesses from leading universities, including Harvard, Yale, Stanford, and the Massachusetts Institute of Technology. She combines her broad range of technical and managerial experience to lead teams of experts in the solution of complex cases.

In addition to her litigation work, Ms. Arcelus has also directed numerous health care economics projects. She has developed economic and statistical models to simulate clinical outcomes, applied traditional and newly emerging tools to pharmacoeconomic analyses, and performed financial analyses to help corporate clients achieve strategic goals.

Prior to joining Analysis Group, Ms. Arcelus held several positions with finance and information technology firms. She is a member of the American Bar Association, Boston Bar Association, and Boston Patent Law Association.

EDUCATION

1990	S.M., Management, Sloan School of Management, Massachusetts Institute of Technology, Cambridge, MA
1981	B.S., Electrical Engineering, Universidad Iberoamericana, México City

PROFESSIONAL EXPERIENCE

1991 - present	Analysis Group, Boston, MA
1990 - 1991	Hewlett Packard Corporation, Andover, MA
1985 - 1989	Cambridge Technology Group, Cambridge, MA

1983 - 1985 Bancomer, S.N.C., México City

SELECTED LITIGATION ASSIGNMENTS

- **Computer Component Manufacturers Antitrust Litigations on Various Forums**
Damages estimation, price/cost analyses, industry and strategy analyses, rebuttal of multiple opposing experts, and general support to counsel involving exclusionary and monopolization allegations.
- **NewRiver Inc. v. Newkirk Products, Inc..**
United States District Court for the State of Massachusetts
Estimation of lost profits and reasonable damages involving an alleged infringement of patented technology used in financial software programs.
- **Ortho Biotech Products L.P. v. Amgen Inc. and Amgen USA Inc.**
United States District Court for the State of New Jersey
Assessment of the relative cost of two leading erythropoietic agents.
- **Microsoft Litigation**

I. Microsoft Class Action Antitrust Overcharge Cases

Industry and strategy analyses, damages estimations, rebuttal of multiple opposing expert witnesses, and general support to Counsel, during trial and settlements, on allegations that purchasers of Microsoft's operating systems, word processors, and spreadsheets were overcharged.

- **Microsoft I-V Cases, J.C.C.P. No 4106**
United States Superior Court of the State of California for the City and County of San Francisco
- **Daniel Gordon, et al. v. Microsoft Corporation**
United States District Court of the State of Minnesota
- **Charles I. Friedman, P.C., et al. v. Microsoft Corporation**
United States Superior Court of the State of Arizona
- **Joe Comes, et al. v. Microsoft Corporation**
United State Superior Court of the State of Iowa
- **Pro-Sys Consultants Ltd. and Neil Godfrey v. Microsoft Corporation and Microsoft Canada Co./Microsoft Canada CIE**
Supreme Court of British Columbia

II. Microsoft Class Certification Antitrust Cases

Economic and statistical analyses to assess an alleged common damages methodology and measurement of pass-through.

- **Charles Cox and Old Factories v. Microsoft Corporation**
United States Supreme Court of the State of New York

- **Candace R. Bettendorf, et al. v. Microsoft Corporation**
United States Circuit Court of the State of Wisconsin
- **Joe Comes, et al. v. Microsoft Corporation**
United State District Court of the State of Iowa

III. Microsoft Antitrust Private Litigation Cases

- **Burst.Com v. Microsoft Corporation**
United States District Court of the State of Maryland
Analysis of both patent and trade secrets damages and antitrust damages in case involving software used for streaming media. Preparation of rebuttal to plaintiff's claim of lost profits damages and unjust enrichment arising from the misappropriation of trade secrets.
- **Netscape Communications Corporation v. Microsoft Corporation**
United States District Court of the State of Maryland
Damages estimation, economic, industry and strategy analyses, and general support to Counsel, in connection with the allegations of attempted monopolization and leveraging claims.
- **Sun Microsystems v. Microsoft Corporation**
United States District Court of the State of Maryland
Damages estimation, economic, industry and strategy analyses, and general support to Counsel, in connection with the allegations of attempted monopolization and leveraging claims.
- **Chiron Corporation v. Genentech, Inc.**
United States District Court of the State of California, Eastern District
Analysis of a reasonable royalty rate and damages estimates due to alleged patent infringements used in the production of a commercially successful therapeutic antibody.
- **Summit Technology, Inc. v. ICON Laser Eye Centers, Inc.**
United States District of the State of Delaware
Analysis of a reasonable royalty rate and damages estimates due to alleged infringement of patents used in laser vision correction equipment.
- **Shire Laboratories v. Rhône-Poulenc, et al.**
Damages estimation and rebuttal of opposing expert in alleged breach of an agreement involving the worldwide exclusive license for the patent for the drug Butyrylcholinesterase and related production technology.
- **Glaxo Wellcome, Inc. v. Genentech, Inc.**
United States District of the State of Delaware
Assessment of reasonable royalty rate and damages related to alleged patent infringement of the drugs Rituxan and Herceptin.

- **Compaq Computer Corp. v. e-Machines, Inc., et al.**
United States District Court, Southern District of Texas, Houston Division
Lost profit analysis resulting from price erosion in the retail computer market as a result of patent infringement.
- **Multilink, Inc. and PictureTel Corp. v. Octave Communications, Inc., et al.**
Superior Court of the State of Massachusetts, Middlesex County
Valuation of damages sustained by audio conferencing manufacturer resulting from a breach of duties and obligation of former executives, including misappropriation of trade secrets.
- **The Regents of the University of California v. Genentech, Inc.**
United States District Court of the State of California, Northern District
Analysis of reasonable royalty rate on alleged patent infringement used to produce recombinant HGH.
- **Adelson, et al. v. Adelson**
Superior Court of the State of Massachusetts, Middlesex County
Assisted in the valuation of a family business involving COMDEX; assisted expert and counsel in deposition and trial testimony.
- **US Airways Group, Inc., and US Airways, Inc. v. British Airways PLC**
United States District Court of the State of New York, Southern District
Development of an event study analysis of USAir stock price to value expectations from BA/USAir alliance, a rebuttal report of lost contract benefits and a valuation of confidential pricing information.
- **Brand Name Prescription Drug Litigation**
United States District Court of the State of Illinois, Northern District
Rebuttal of damages assessments in an antitrust case involving the Robinson-Patman and Sherman Acts in the pharmaceutical industry.
- **CDC Technologies, Inc. v. IDEXX Laboratories, Inc.**
United States District Court of the State of Connecticut
Economic analysis of the veterinarian device market, including exclusive sales arrangements.
- **Laboratorios A.F. Aplicaciones Farmacéuticas, S.A. de C.V. v. Rhône Poulenc Rorer, Inc., et al.**
United States District Court of the State of Pennsylvania, Eastern District
Rebuttal of damages estimate in a patent infringement case between a Mexican and an American pharmaceutical manufacturer which resulted in an injunction against the Mexican firm.
- **Addamax Corporation v. Open Software Foundation, Inc., et al.**
United States District Court of the State of Massachusetts
Analysis of the computer operating systems market, the competitive environment, and substitution opportunities for consumers and software programmers.
- **Fonar Corporation v. Magnetic Resonance Plus, Inc.**
United States District Court of the State of New York, Southern District
Assisted expert in a tying evaluation of the imaging market to assess the competitive nature of service contracts.

- **In the Matter of Vita Zahnfabrik H. Rauter GmbH v. Massachusetts Institute of Technology**
Development of a lost profits and lost royalties model to estimate damages suffered by the failure to file patent in the ceramic dental industry.
- **Victoria Orthopedic Associates, P.A. v. Eastman Kodak Company; E.I. DuPont de Nemours & Co.; Miles, Inc.; and Fuji Medical Systems U.S.A., Inc.**
United States District Court of the State of New York, Eastern District
Analysis of medical X-ray film market to assess price-fixing allegation.
- **Cordis Corporation v. Scimed Life Systems, Inc.**
United States District Court of the State of Minnesota
Development of lost profits model, including reasonable royalty calculation to estimate damages due to alleged patent infringement in the catheter market.

OTHER ECONOMIC AND FINANCIAL ASSIGNMENTS

- Retrospective and prospective pharmacoeconomic studies in various clinical settings using economic and statistical methodologies.
- Application of economic outcome models to clinical trials in order to more closely align drug research with actual patient needs.
- Development of computer-based simulation models to study the relationship between economic and medical outcomes in clinical practice, including the analysis of pharmaceutical products and medical devices.
- Application of price index methodologies to measure price growth in the pharmaceutical industry, improving upon the official price index currently calculated by the Bureau of Labor Statistics.
- Cross functional financial analysis in the medical industry to accelerate the introduction of new products into the market, including the development of computer programs to better integrate R&D, manufacturing, marketing, and finance functions.
- Econometric study to analyze the difference in cost, demand, and reliability between the U.S. and Mexican electric utility market.
- Development of decision analysis model to describe and analyze natural history of Alzheimer's disease.
- Development of econometric model to evaluate how product characteristics, such as efficacy and side effects, marketing, profiles, order of entry, and price may affect opportunity to enter into the antidepressant market.

PUBLICATIONS AND PRESENTATIONS

“Digital Media Patents for Profit,” *Streaming Media Magazine Sourcebook 2007*, (with Rayburn and Kirk).

“An Analysis of the Diffusion of New Antidepressants: Variety, Quality, and Marketing Efforts,” *Journal of Mental Health Policy and Economics*, Vol. 3, No. 19; May 2002 (with Berndt, Bhattacharjya, Mishol, Lasky; recipient of Excellence in Mental Health Policy and Economics Research Award, Venice, Italy, March 2003).

“Measuring Alzheimer’s Disease Progression with Transition Probabilities: Estimate from CERAD,” *Neurology*, Vol. 15, No. 6; September 25, 2001 (with Neumann, Araki, Longo, Papadopolous, Kosik, Kunz, Bhattacharjya).

“The Impact of Antidepressant Use on Social Functioning: Reboxetine versus Fluoxetine,” *International Clinical Psychopharmacology*, Vol. 15, No. 5, September 2000.

“The Impact of Antidepressant Use on Social Functioning: Reboxetine versus Fluoxetine,” poster presented at Fourth Annual ISPOR Conference, International Society for Pharmacoeconomics and Outcomes Research, May 1999.

“Natural History of Alzheimer’s Disease: Path-Dependant Evaluation of Clinical and Economic Outcomes Using Decision Database Methodology,” lecturer at *ISPOR Inaugural European Conference*, International Society for Pharmacoeconomics and Outcomes Research, December 1998.

“New Developments in Pharmacoeconomics and Outcomes Research,” invited speaker at *Conference on Management for Physicians, Scientists and Engineers in the Pharmaceutical and Biotechnology Industry*, Massachusetts Institute of Technology, June 1995.

“Name Management Strategy for Database Integration,” Sloan School of Management, Massachusetts Institute of Technology - WP #CI5-90-15, May 1990.