

Patent Prosecution Strategies in a Changing Legal Environment

Joseph B. Milstein

Milstein Zhang & Wu LLC

www.mzwiplaw.com

Joseph.Milstein@mzwiplaw.com

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Outline

- Understanding your possible IP rights
- Understanding the business environment
- How will the technology be monetized?
- Where will the IP rights be used?
- What kinds of claims are available?
- The Need to Educate an Examiner
- USPTO rules based on recent court cases
- Patent Reform (S. 515)

Understanding your possible IP rights

- Understand how the technology will operate in the real world
- Is technology “evolutionary” or “disruptive”?
- Identify who likely will be the competitor technologies and competitor organizations
- What time scale will be required to introduce the technology?

Understanding the business environment

- Existing or “legacy” technology, if any
- Hurdles that must be overcome to implement the technology (e.g., industry standards, government regulations, etc.)
- Potential market size
- Likely competitors
- Size of investment required to bring the technology to market

How will the technology be monetized?

- Used in existing organization (e.g., a producer of the goods or services)
- Licensed to a third party
- Used to extract revenue from existing operating organizations (e.g., manufacturer, vendor, end-user)
- Licensed to a startup (possibly with equity taken back) (applies to University clients)

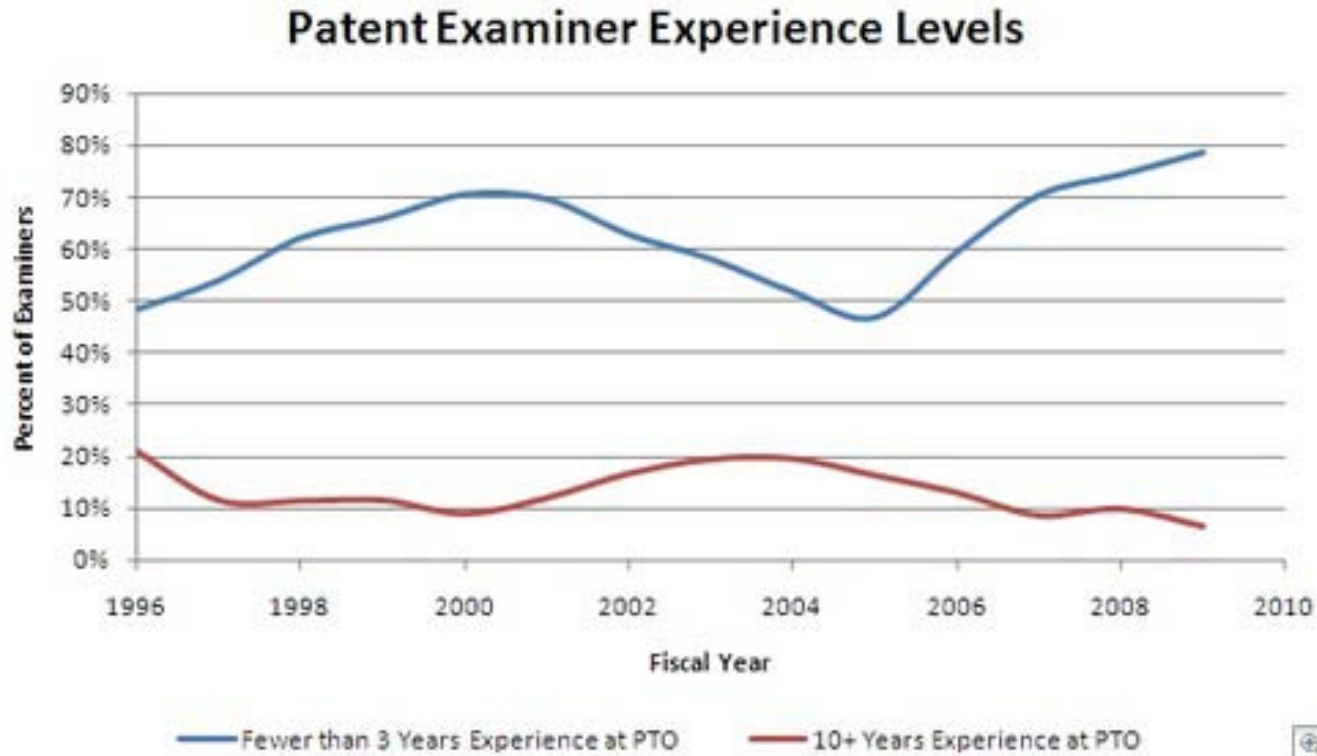
Where will the IP rights be used?

- Where should you file applications?
- Geographical considerations (US vs world)
 - Market considerations (e.g., population, ability to purchase, likely demand)
- Where are the competitors situated?
- Where are specific resources needed for implementing the technology situated?
- What are the costs to obtain rights in various jurisdictions?

What kinds of claims are available?

- By jurisdiction, determine what claims are available (e.g., in US, process, machine, manufacture, composition of matter)
 - Software?
 - Signals?
 - Business methods?
- Consider issues relating to claim enforcement
 - Draft claims so that a single actor infringes

The Need to Educate an Examiner



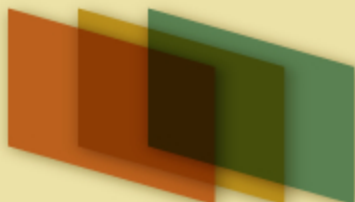
From Dennis Crouch's Patently-O blog (www.patentlyo.com)
February 5, 2010

Recent USPTO Rules Changes

- Rules relating to obviousness after KSR Int'l Co. v. Teleflex, Inc., 550 U.S. 398 (2007)
- Rules relating to patentability after In re Bilski, 545 F.3d 943 (Fed. Cir. 2008)

Patent Reform

- Senate Bill S.515 (Patent Reform Act of 2010)
 - “First to File” gets priority; interference becomes derivation proceeding; inventor 1 year grace period
 - Damages likely to be limited
 - The court shall identify the methodologies and factors that are relevant to the determination of damages, and the court or jury, shall consider only those methodologies and factors relevant to making such determination.
 - Limitations on willfulness damages
 - Adds Post Grant Review Procedures within nine months of issuance, submission of references by third parties
 - Best Mode requirement eliminated as basis for patent invalidity
 - Interlocutory appeals may be available in litigation



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Milstein Zhang & Wu LLC provides a wide range of specialized intellectual property services including patent prosecution and counseling, development of IP strategies and IP portfolio management, freedom to operate analyses, IP due diligence in connection with corporate transactions, patent validity and infringement reviews and analyses, and trademark registration services, both in the US and internationally.

Our experienced and dedicated professionals serve clients including large public companies, emerging startups, and world renowned research institutions.

We serve clients in these industries and beyond

- Biotech/biology
- Chemistry
- Clean technologies
- Electrical engineering
- Electro-optics/photonics
- Fuel cells
- Genetic engineering
- Life sciences
- Materials
- Medical devices
- Organic chemistry
- Pharmaceuticals
- Physics
- Polymers
- Solar/PV technologies

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OUR SERVICES

We provide superior legal services at a reasonable price.

Our Practice Areas

- IP strategies and counseling
- Patent prosecution and portfolio development
- International patent procurement
- IP due diligence
- Freedom to operate/product clearance
- Infringement analysis
- Patent validity opinions
- Trademark applications
- Trademark clearance

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- Life sciences
- Materials

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JOSEPH B. MILSTEIN, PH.D., PE

Dr. Milstein is a co-founder, Chairman and co-Managing Principal at Milstein Zhang & Wu LLC.

Dr. Milstein focuses his practice on the preparation and prosecution of patent and trademark applications, both nationally and internationally. He counsels clients in patent prosecution strategy, assessing intellectual property for business transactions and/or litigation, and technology licensing. Dr. Milstein also provides advice on the treatment of patent royalties under Internal Revenue Code section 1235. Dr. Milstein brings with him an impressive following of clients including a number of institutions of higher education.



Education

- **California Institute of Technology, B.S. Chemistry**
- **Polytechnic Institute of Brooklyn, Ph.D., Chemistry**
- **University of Maryland, College Park, M.B.A., Finance**
- **New England School of Law, J.D., cum laude**

Prior Legal Experience

- Hiscock & Barclay, LLP, Partner and Chair of IP & Technology Practice Area
- Wall Marjama & Bilinski, LLP, Partner and Massachusetts Office Manager
- Testa, Hurwitz & Thibeault, LLP, Patent Attorney

Contact information

Tel. (617) 699-9909

Email joseph.milstein@mzwiplaw.com

Professional Experience

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Y. PHILIP ZHANG, PH.D.

Dr. Zhang is a co-founder and co-Managing Principal at Milstein Zhang & Wu LLC.

Dr. Zhang has extensive experience representing pharmaceutical, biotechnology, clean technology, advanced materials, medical devices, and scientific instruments companies, including advising clients on IP strategies, freedom-to-operate, licensing and patent preparation and prosecution. Dr. Zhang also helps clients with IP issues in R&D collaborations, venture funding, M&A and other transactions. Dr. Zhang regularly advises Asia-based clients with regard to various legal issues.



Education

- ***Vanderbilt University Law School, JD, 1999***
- ***Dartmouth College, PhD, Organic Chemistry, 1995***
- ***University of Science and Technology of China, BS, Chemistry, 1986***

Prior Legal Experience

- Cooley Godward Kronish LLP, Special Counsel
- Ensemble Discovery Corp., Chief IP Counsel
- Genzyme Corporation, Patent Counsel
- Testa Hurwitz & Thibault LLP, Patent attorney

Contact Information

Tel. (617) 529-8369

Email philip.zhang@mzwiplaw.com

Representative Publications

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Stettenheim*

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DUAN WU

Mr. Wu is a co-founder and Principal at Milsein Zhang & Wu LLC.

Mr. Wu focuses on the preparation and prosecution of patent and trademark applications, and provision of legal opinions (e.g., freedom-to-operate, validity and patentability) and strategic advice for corporate transactions and litigation. Mr. Wu is also experienced in evaluating intellectual properties under the U.S. federal taxation system. He has been licensed to practice law in Massachusetts and in front of the U.S. Patent and Trademark Office since 1999 and 2000, respectively. His clients include well-established companies and start-ups both in United States and China.



Education

- **Georgetown University Law Center, J.D., 1999, Honors in Legal Research and Writing**
- **Harvard University, B.A., Biology, 1996, magna cum laude**

Contact Information

Tel. (617) 501-6083

Email duan.wu@mzwiplaw.com

Prior Legal Experience

- Hiscock & Barclay, LLP, Of Counsel
- Wall Marjama & Bilinski, LLP, Of Counsel
- Testa, Hurwitz & Thibeault, LLP, Patent attorney

Representative Publications

- “Should Equivalency Determination Under §112 ¶ 6 Be a Question of Law or Fact? –A solution to Footnote Eight of *Markman I* in Light of Recent Cases,” *Federal Circuit Bar Journal*, 9 No. 3,

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JOSEPH M. GELLER

Mr. Geller is Of Counsel at Milstein Zhang & Wu LLC.

Mr. Geller focuses his practice on prosecuting patent applications. He spends a considerable amount of time counseling clients on patent prosecution strategy, infringement and validity studies, as well as the assessment of intellectual property. Mr. Geller has practiced as a patent attorney with New York and New Jersey law firms for the past eight years. Prior to that he was an electrical engineer at Brookhaven National Laboratory for 13 years, where he designed and developed electronic measurement and control systems used in applications ranging from very sensitive instruments to Mega Watt power supplies for particle accelerators.



Education

- **Columbia University**, School of Engineering, BSEE, 1977
- **U.S. Navy Flight School**, 1981
- **Touro College**, Jacob D. Fuchsberg Law Center, J.D., 2001

Contact Information

Tel. (315) 768-7284

Email joseph.geller@mzwiplaw.com

Prior Experience

- Hiscock & Barclay, LLP, Of Counsel
- Wall Marjama & Bilinski, LLP, Of Counsel
- Lowenstein Sandler, P.C., Patent Attorney
- Brookhaven National Laboratory, Electrical Engineer
- U.S. Coast Guard Aviator flying HU-25A Falcon jets

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JOEL STETTENHEIM

Mr. Stettenheim is Of Counsel at Milstein Zhang & Wu . He has broad experience in prosecuting patent and trademark applications, in counseling clients on patent prosecution strategy, and in drafting and negotiating technology licenses.



Prior Legal Experience

- Hiscock & Barclay, LLP, Of Counsel
- Wall Marjama & Bilinski, LLP, Of Counsel
- Testa, Hurwitz & Thibeault, LLP, Patent Attorney

Publications / Speaking

- “Coupling of Mechanical Modes and Shot Noise in a Radio Frequency Quantum Point Contact,” American Physical Society March Meeting Submitted Talk in Semiconductor Qubit Approaches II Session, Pittsburg, PA (2009)
- “3D Acoustic Modes, Shot Noise and Strain Displacements in a Radio Frequency Quantum Point Contact,” American Physical Society March Meeting Submitted Talk in Semiconducting Qubit Approaches Session, New Orleans, LA (2008)
- W. W. Xue, Z. Ji, Feng Pan, Joel Stettenheim, A. J. Rimberg, “Quantum Noise, Effective Temperature, and Damping in a Superconducting Single Electron

Education

- **Stanford Law School**, JD 1999
- **Dartmouth College**, Physics PhD Candidate
- **Haverford College**, BA 1988

Contact Information

Tel. (802) 384-1333

Email

joel.stettenheim@mzwiplaw.com

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Joseph Milstein

Philip Zhang

Duan Wu

Joseph Geller

*Joel
Stettenheim*

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CHRISTOPHER D. SOUTHGATE, PH.D.

Dr. Southgate is a patent agent specializing in biotechnology and life sciences.

- Experienced in drafting and prosecuting a wide variety of patent applications in the field of biotechnology, including applications relating to novel signal transduction pathways, cell-based assays, diagnostic assays, small molecule drug discovery, animal disease models and medical devices
- Assisted with due diligence and freedom-to-operate analyses
- Over 12 years of discovery research experience in molecular and cellular biology
- Investigated complex biological problems including eukaryotic transcription regulation, retrovirus activation, stem cell differentiation, angiogenesis and mouse development



Education

- *J.D. Candidate (Class of 2012), Suffolk University Law School*
- *University of Massachusetts Medical Center, Program in Molecular Medicine, Postdoctoral Fellow, 1990-1993*
- *Harvard University, Department of Biochemistry and Molecular Biology, Postdoctoral Fellow, 1989-1990*
- *University of Zurich, Institute for Molecular Biology II, Switzerland, Ph.D. Molecular Biology, 1989*
- *University of Lausanne, Switzerland, B.S. Biology, 1981*

Contact Information

Tel. (857) 366-2755

Email

chris.southgate@mzwiplaw.com

Prior Experience

- Hiscock & Barclay LLP, Registered Patent Agent
- Edwards Angell Palmer & Dodge, LLP (formerly Palmer & Dodge, LLP), Technology Specialist & Registered Patent Agent
- Brigham and Women's Hospital (Harvard Medical School)