

Snell & Wilmer



Jonathan B. Fitzgerald, Ph.D.

Counsel | Phoenix | Tucson | San Diego

Tel. 602.382.6383

jbfitzgerald@swlaw.com

Main Bio

JB is a registered patent attorney and has a Ph.D. in Molecular Physiology. His primary practice area involves preparing and prosecuting patent applications in the biotechnology and the life sciences fields. He has prosecuted patents that cover a wide range of molecular biology and biochemical technologies including plasmid/vector technology, immunotherapy, small RNA technology, protein/protein interactions, DNA/protein interactions, drug delivery systems, HIV treatments, biologic and small molecule therapeutics, viral technology, cancer treatments, and antibody technology, among others. As part of his practice, JB helps manage worldwide patent portfolios, which requires prosecuting patents in a variety of different countries and jurisdictions throughout the world. JB's practice also includes performing freedom to operate analysis and prosecuting trademark applications.

Prior to entering the field of patent law, JB spent about 10 years in biomedical research. He has published much of his work in a variety of peer-reviewed technical publications. His research included investigating biochemical pathways and molecular mechanisms in a wide range of physiological and pathological systems. As part of his research, JB worked with a number of different biochemical and molecular biological techniques including, ELISA, in-situ hybridization, immunohistochemistry, immunocytochemistry, immunoblotting, qPCR, luciferase assays, transfection and transduction assays, vector/plasmid technology, and nanoparticle technology, amongst others.

Education

- University of Kansas School of Law (J.D.)
 - CALI Awards: Patent Practice, Higher Education and the Law
- University of Kansas Medical Center (Ph.D., Molecular and Integrative Physiology)
 - Dissertation: "Novel Direct Targets and Functional Roles for MicroRNA-21 in Granulosa Cells and Human Uterine Leiomyomas"
- Emory University/Candler School of Theology (M.T.S.)
- Southern Nazarene University (B.S./B.A., Biology/Chemistry and English, *magna cum laude*)

Professional Memberships & Activities

- Biocom California
 - Cell and Gene Therapy Committee, Member
- American Intellectual Property Law Association

Representative Presentations & Publications

- "[Baxalta v. Genentech: The Latest Case In Patenting Functionally Claimed Antibodies](#)," Author, Outsourced Pharma (November 10, 2023)
- "[Patenting Functionally Claimed Biological Compounds After Amgen v. Sanofi](#)," Co-Author, Drug Discovery Online (July 10, 2023)
- "IP Basics for Entrepreneurs," Co-Presenter, Aquillius Incubator (June 26, 2023)
- "[Intellectual Property Considerations in M&A Transactions](#)," Co-Presenter, AZ Bio Peers (March 21, 2023)
- "[Navigating Claim Scope For Functionally Claimed Biological Compounds After Amgen v. Sanofi](#)," Author, Drug Discovery Online (March 14, 2023)
- "[Reexamining Negative Limitations After Novartis Patent Ruling](#)," Co-Author, Law360 (Sept. 26, 2022)
- "[Heightened Standards For Satisfying Written Description In Pharma Patents](#)," Author, Outsourced Pharma (Jul 27, 2022)
- "[What the PTAB's CRISPR-Cas9 Decision for Broad Institute Means for Gene Editing Patent Landscape](#)," Co-Author, IPWatchdog (May 20, 2022)
- "[Pharma Patents: New Insights To Satisfy Written Description For Claimed Ranges](#)," Co-Author, Outsourced Pharma (April 11, 2022)
- "Defending your Patent: Best Practices for Preparing your Patent for Litigation and Enforcing your Patent Against Infringers," Co-Presenter, University of Arizona Center for Innovation (February 25, 2022)
- "[Juno v. Kite Case Implications For Functionally Claimed Biological Compositions](#)," Co-Author, BioProcess Online (November 12, 2021)
- "[Presenting Working & Prophetic Examples in Patent Applications](#)," Co-Author, Bloomberg Law (September 8, 2021)
- "[USPTO Update: Distinguishing Between Prophetic and Working Examples](#)," Co-Author, Snell & Wilmer Legal Alert (July 2, 2021)
- "[Challenges of 'Enabling' Antibody Claims with Functional Limitations](#)," Co-Author, Bloomberg Law (April 20, 2021)
- "[Patenting Across Three Jurisdictions](#)," Co-Author, Intellectual Property Magazine (April 2020)
- "[Maximizing Patent Term on Drug Patents By Avoiding Applicant Delays](#)," Co-Author, Life Science Leader (May 1, 2019)
- "[Approaching Antibody Patents After Amgen V. Sanofi](#)," Co-Author, Law360 (January 30, 2019)
- "[Time after Time](#)," Co-Author, Intellectual Property Magazine (September 25, 2018)
- "Non-coding RNA in ovarian development and function," Book Chapter Co-Author, Non-coding and the Reproductive System (2016)
- "Roles of microRNA-21 and programmed cell death 4 in the pathogenesis of human uterine leiomyomas," Co-Author, Fertility and Sterility, 98:726-34 (2012)
- "Molecular Pathogenesis of Achromatopsia in the Cone Cyclic Nucleotide-Gated Channel CNGA3 Subunit," Book Chapter Co-Author, Adv Exp Med Biol., 64:245-53 (2010)
- "The disease-causing mutations in the carboxyl terminus of the cone-cyclic nucleotide-gated channel CNGA3 subunit alter the local secondary structure and interfere with the channel active conformational

change," Co-Author, *Biochemistry*, 49(8):1628-39 (2010)

- "Ocular delivery of compacted DNA-nanoparticles does not elicit toxicity in the mouse retina," Co-Author, *PLoS One*, 4(10):e7410 (2009)
- "Functional Expression of Cone Cyclic Nucleotide-Gated Channel in Cone Photoreceptor Derived 661W cells," Book Chapter Co-Author, *Adv Exp Med Biol.*, 613:327-34 (2008)
- "Functional activity of Photoreceptor Cyclic Nucleotide-Gated channels is dependent on the integrity of Membrane Lipid Rafts," Co-Author, *Biochemistry*, 47(12):3677-87 (2008)
- "Native Cone Photoreceptor Cyclic Nucleotide-Gated Channel is a heterotetrameric complex comprising CNGA3 and CNGB3: A study using cone-dominant retina of *Nrl*^{-/-} Mice," Co-Author, *J. Neurochem.*, 106(5):204-55 (2007)

Community Involvement

- The Phoenix Conservatory of Music
 - Board Member (2019-Present)
- Arts at Nativity
 - Advisory Council Member (2019-Present)

Previous Professional Experience

- Knobbe, Martens, Olson & Bear, LLP, Associate (2016-2017), Summer Associate (2015)
- University of Kansas School of Law, Extern for University of Kansas Innovation and Collaboration (2015-2016)
- Birch, Stewart, Kolasch & Birch, LLP, Summer Associate (2014)
- University of Kansas Medical Center, Research Associate (2013-2014)
- Oklahoma University Health Sciences Center, Research Assistant (2005-2008)

Bar Admissions

- Arizona
- California
- United States Patent and Trademark Office

Court Admissions

- Supreme Court of Arizona
- Supreme Court of California