
# Bin Wang, Ph.D.

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HAMILTON BROOK SMITH REYNOLDS
Intellectual Property Law

## PRACTICE AREAS

- Patents
- Trademarks

## TECHNOLOGIES

- Biotechnology and Life Sciences
- Biologics and Immunotherapies
- Pharmaceuticals
- Bioinformatics
- Medical Devices

## EDUCATION

- Baylor University Law School, J.D., cum laude
- University of Texas, Ph.D. in Molecular Biology
- Fudan University, Shanghai, China, B.S. in Genetics, *People's Scholarship for Excellence*

Bin Wang is a patent attorney specializing in the areas of biotechnology, life sciences, and pharmaceuticals. Bin has prepared and prosecuted patent applications for small molecule therapeutics, therapeutic polypeptides and antibodies, therapeutic applications of adult stem cells, nanoparticle drug delivery compositions, and cancer diagnostics. Bin also has experience with U.S. and foreign trademark prosecution.

Bin's representative areas of technical focus include:

- Treatment or prevention for neurodegenerative diseases, cancers, ischemic stroke, autoimmune diseases, inflammatory diseases, bone marrow failure, viral infections, preterm labor, mitochondrial neurogastrointestinal encephalomyopathy, uterine contractility disorder, systemic endotoxemia using adult stem cells, steroid hormones, small molecule therapeutics, kinase inhibitors, modulator of cytokine, anti-aging agent, fungal etiologic agents, splice variants, cell-free DNA, RNAi silencing molecules, antibodies, erythrocytes, and dual targeting anti-cancer strategy.
- Diagnostics and prognostics for traumatic brain injury, adrenocortical carcinoma, neurodegenerative diseases, and liver diseases, using whole genome sequencing, bioinformatics, microRNA markers, and breath test.
- Methods of detecting genomic rearrangements, detecting heteroresistant pathogens, and distinguishing somatic versus germline variants in impure tumors.
- Methods of nanoparticle formulation, stem-cell production, processing biological liquid tissue allografts, small RNA purification, bacterium subtyping, antigen retrieval, post-harvest protection of agricultural produce, biomarker creation, indexing next-generation amplicon sequences, and biological waste-water treatment.

Prior to joining the firm Bin served as a judicial extern at Law Clerk to The Eastern District of Texas, United States District Court Judge K. Nicole Mitchell. After completing her Ph.D., Bin was a Postdoctoral Fellow at Stanford University, a Postdoctoral Fellow and an Assistant Professor of Research at The University of Texas Health Science Center at San Antonio. Bin has been the recipient of many awards and honors, including the Dean's Postdoctoral Fellowship from Stanford University, the Dean's

## PROFESSIONAL ASSOCIATIONS

- American Bar Association, Member of Intellectual Property Law, Science & Technology Law, and Litigation Sections
- Asian American Lawyers Association of Massachusetts
- Member of the Biophysical Society; the American Heart Association
- Reviewer, Proceedings of the National Academy of Sciences of the USA, 2014; PLOS ONE, 2013

## BAR ADMISSIONS

- U.S. Patent and Trademark Office
- Texas
- Massachusetts

Academic Excellence Full Scholarship, Jim Barlow Memorial Award, Loy M. Simpkins Memorial Award, and Thomas M. Featherston, Jr. Estate Planning Award from Baylor Law School, and NIH Individual National Research Service Award.

Bin is the author of over twenty scientific articles and book contributions including: Development, Nature Immunology, Cell, Nature, Journal of General Physiology, Methods in Molecular Biology, American Journal of Physiology-Lung Cellular and Molecular Physiology, Molecular Psychiatry, Human Molecular Genetics, Invertebrate Neuroscience, Experimental Biology, Neuroscience, European Journal of Neuroscience, and Frontiers in Physiology. Bin wrote two book chapters, one for Encyclopedia of Basic Epilepsy Research and the other for Ion Channels, Methods and Protocols.

## ARTICLES

- Cataract-associated connexin 46 mutation alters its interaction with calmodulin and function of hemichannels., Journal of Biological Chemistry, February 16, 2018
- Adiponectin regulates contextual fear extinction and intrinsic excitability of dentate gyrus granule neurons through AdipoR2 receptors, Molecular Psychiatry, May 3, 2016
- Combined single and macroscopic recording techniques to analyze gating mechanisms of the large conductance Ca2+ and voltage activated (BK) potassium channel., Methods in Molecular Biology, February 22, 2013
- An extracellular domain of the accessory β1 subunit is required for modulating BK channel voltage sensor and gate, Journal of General Physiology, December 12, 2011
- BK channel β1 subunits regulate airway contraction secondary to M2 muscarinic acetylcholine receptor mediated depolarization, The Journal of Physiology, March 30, 2011
- Proepileptic Effects of BK Channel Gene Mutations, Encyclopedia of Basic Epilepsy Research, December 1, 2009
- Mechanism of Increased BK Channel Activation from a Channel Mutation that Causes Epilepsy, Journal of General Physiology, February 9, 2009

## ARTICLES (CONTINUED)

- Hox Repertoires for Motor Neuron Diversity and Connectivity Gated by a Single Accessory Factor, FoxP1, Cell, July 25, 2008
- Oligomerization of STIM1 couples ER calcium depletion to CRAC channel activation, Nature, July 24, 2008
- An S6 Mutation in BK Channels Reveals β1 Subunit Effects on Intrinsic and Voltage-dependent Gating, Journal of General Physiology, November 27, 2006
- BK channel β1-subunit regulation of calcium handling and constriction in tracheal smooth muscle, American Journal of Physiology, October 1, 2006
- Foxp1 is an essential transcriptional regulator of B cell development, Nature Immunology, July 2, 2006
- Mechanism of β4 Subunit Modulation of BK Channels, Journal of General Physiology, March 27, 2006
- Foxp1 regulates cardiac outflow tract, endocardial cushion morphogenesis and myocyte proliferation and maturation, Development, May 27, 2004