

Margo Monroe, PhD

Senior Associate



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Practice Areas

Intellectual Property
Life Sciences & Technology Companies

Education

Boston University School of Law
JD (2020)

Harvard Medical School
Postdoctoral Associate (2014) Gene Editing
Technologies

Boston University
PhD (2013) Biomedical Engineering

University of Florida
BS (2008) *summa cum laude*,
Materials Science and Engineering, Biomaterials
Specialization
BA (2008) Music Performance

Admissions

Massachusetts
U.S. Patent & Trademark Office

Dr. Margo Monroe counsels start-ups, private and public companies, venture capitals, and world-class academic research institutions in a wide range of technologies at the intersection of life sciences and engineering, with an emphasis on engineered cell or gene-editing based therapies, diagnostics, and targeted delivery technologies.

Margo helps clients quickly understand, evaluate, and respond to patent issues that arise in the context of business deals and/or during R&D of new products and technologies, while also securing strong worldwide patent protection for assets, including those whose major uses provide unique business opportunities. She has advised clients through various phases of due diligence, including mergers and acquisitions, partnerships, fundraising, and IPOs, many of which have required strategic navigation of complex technical landscapes and emerging legal issues. Margo also counsels clients with respect to third party risks, IP landscape issues, and freedom-to-operate analyses to assist with R&D and/or business decisions. Her clients appreciate her ability to distill complex data into understandable and actionable formats.

Industry Experience

Prior to joining Choate, Margo was a postdoctoral fellow in the Genetics Department of Harvard Medical School, where she developed programmable genome engineering technologies to improve health span and drafted provisional patents.

While working on her PhD in Biomedical Engineering from Boston University (BU), Margo focused her research on the development of highly sensitive and multiplexed platforms for allergy diagnostics. She engineered layered substrate designs to calibrate and enhance fluorescence signals in microarrays, developed protein-based optical biosensors to operate in complex biological fluids, led and wrote successful grant applications, and worked closely with the BU Office of Technology Development. Margo also holds bachelor degrees in Materials Science and Engineering and Music Performance. During college, Margo worked on improving surface biocompatibility of medical devices.

Representative Engagements

Strategic Patent Counseling: IP Due Diligence, Landscape Analysis, and Prosecution

- Represents venture capital groups in assessing IP landscape relating to novel strategies for CAR-T and nanoparticle delivery platforms, including negotiating option and license agreements, and partnerships with research laboratories and companies world-wide.

- Represents gene editing company in CRISPR technology from start-up through IPO through restructuring of assets, including various freedom-to-operate, IP due diligences, landscape analyses, and SEC filings.
- Represents gene therapy company in the hearing disorders space from start-up through IPO through acquisition of assets, including various freedom-to-operate, IP due diligences, landscape analyses, and SEC filings.
- Represents a start-up viral delivery company to navigate a complex gene therapy patent landscape and develop an exclusivity proposition attractive to large pharmaceutical partners.
- Represents a world-class academic research institution from building global, layered protection of foundational and life-cycle management patent assets through out-licensing of patent assets to start-up, including various freedom-to-operate and IP due diligences in the nanotheranostics space.
- Represents a bioinformatics and multi-omics company through multiple freedom-to-operate, diligences, and non-infringement analyses to advice on patent strategies related to computational biology tools combined with a novel next generation sequencing (NGS) assay platform.
- Represents start-up gene editing company with respect to performing landscape analyses to help inform strategic building of patent assets in complex technology space.
- Has represented nucleic acid lipid nanoparticle delivery company from start-up through acquisition, crafting an IP portfolio with layered protection of both platform technologies and key product candidates, including in support of major collaborations. Continues to represent acquiring gene editing company to maximize acquired patent assets.
- Develops life-cycle management strategies for clients to protect assets whose base composition of matter protection may be expiring before products can be commercialized.

Post Grant Proceedings

- Life sciences company in *ex parte* re-examination of patent directed to CRISPR technology.

Publications and Presentations

- “Intellectual Property 101,” speaker, Innovate@BU, April 2024
- Guest speaker at the Boston University College of Engineering Order of the Engineer 2024 Ceremony, February 2024
- “Integrated Imaging Instrument for Self-Calibrated Fluorescence Protein Microarrays,” co-author, *Review of Scientific Instruments*
- “Single Nanoparticle Detection for Multiplexed Protein Diagnostics with Attomolar Sensitivity in Serum and Unprocessed Whole Blood,” first author, *Analytical Chemistry*
- “A Precisely Controlled Smart Polymer Scaffold for Nanoscale Manipulation of Biomolecules,” co-author, *Analytical Chemistry*
- “Interferometric Silicon Biochips for Label and Label-Free DNA and Protein Microarrays,” co-author, *Proteomics*
- “Silicon Biochips for Dual Label-Free and Fluorescence Detection: Application to Protein Microarray Development,” co-author, *Biosensors and Bioelectronics*

- “Multiplexed Method to Calibrate and Quantitate Fluorescence Signal for Allergen-Specific IgE,” first author, *Analytical Chemistry*
- “Biomolecular Detection Employing the Interferometric Reflectance Imaging Sensor (IRIS),” co-author, *Journal of Visualized Experiments*
- “Directed Collagen Patterning on Gold-Coated Silicon Substrates Via Micro-Contact Printing,” first author, *Materials Science and Engineering*
- “pH Effects on Collagen Fibrillogenesis In Vitro: Electrostatic Interactions and Phosphate Binding,” co-author, *Materials Science and Engineering C*
- “Study of Interactions Between Anionic Surfactants and Collagen,” co-author, *Polymeric Materials: Science and Engineering*

Professional and Community Involvement

- Member, Boston Patent Law Association
- Member, Boston Bar Association
- Advocate for PhDs looking for careers outside of academia