

Why Biospark?

The answer is simple.

Superior results are obtained from a close relationship with top flight attorneys who become members of your extended team.

We guide clients strategically for the long term, provide input on experimental design in support of patent strategy, offer candid advice (and tough love) when necessary, and deliver a return commensurate with the investment.

Our Values.

Excellence. Innovation. Stewardship.

EXCELLENCE. Biospark aims to deliver high caliber work at every step of the client journey. Whether proactively identifying issues, tenaciously seeking solutions, or efficiently executing strategies, we are dedicated to delivering comprehensive intellectual property (IP) services that align with your specific research and business goals. We drive value creation through a working relationship that is excellent in all respects.

INNOVATION. The biotechnology, pharmaceutical, and research-intensive industries we support are innovative—and Biospark is too. We aim to be flexible and creative when discussing business objectives, project goals, and work product. We are continually improving and growing our processes and systems to better serve you.

STEWARDSHIP. Biospark is a good steward of its clients and its team. The ecosystem we create not only provides the expertise and efficiency clients desire, but also supports the professional and personal goals of all of our team members.

Representative Technologies, Services, and Experience.

TECHNOLOGIES. Biospark's team has extensive experience in IP matters, with a particular focus on patent drafting, prosecution, and counseling, across a broad array of technologies, including:

- Antibody technologies
- Therapeutic peptides
- Small molecule therapeutics
- Immunocytokines
- HDL mimetics
- Nucleic-acid based therapeutics
- Enzyme therapeutics
- Gene therapy technologies
- Gene editing technologies
- Vaccines and related methods of use
- Recombinant expression systems
- Renewable energy

- Xenotransplantation technology
- Synthetic biology
- Stem cell and organoid technologies
- Viral vector technologies
- Drug delivery technologies
- Bioinformatics
- Discovery platforms
- Industrial enzymes
- Nutritional supplements
- Diagnostic tools and assays
- Biologics manufacturing processes
- Chemical manufacturing processes
- Climate change mitigation

SERVICES. Biospark's services include:

Worldwide Patent Strategy and Patent Portfolio Management

- Preparation and prosecution of US patent applications
- Management and oversight of global patent prosecution
- Analysis of inventorship claims
- Coordination of patent and research strategies to maximize patent scope
- Review of client publications to align with patent strategy
- Provision of advice on strategic patent lifecycle management and IP strategies, including coordination of regulatory and patent exclusivities
- Management of patent office administrative proceedings, including reexaminations, inter partes reviews, and interferences
- Ongoing analysis of IP portfolios to ensure protection for newly developed technology

Competitive Patent Analyses

- Freedom-to-operate and patentability analyses
- Patent searches to identify competitive third party patents
- Identification of potentially valuable opportunities to license or acquire patent assets
- Opinions concerning validity and infringement of third party patents
- Analysis of the patentability and likely scope of claims that will grant from third party applications

Transactional Support

- IP due diligence or preparation in connection with corporate transactions and investments
- Presentations regarding IP portfolio scope and strength to prospective investors and partners
- Negotiation, drafting, and review of IP-related provisions in deal documents, including representations, warranties, and indemnities
- Negotiation, drafting, and review of IP-related agreements, including material transfer agreements, consulting agreements, services agreements, sponsored research agreements, and collaboration agreements

Litigation Support

- Competitor patent portfolio review and pre-suit investigations
- Patent litigation strategy and support efforts

EXPERIENCE. A sampling of Biospark's collective experience (which may have occurred at Biospark or at a prior law firm):

- Patent strategy and prosecution for a startup company creating antibody-drug conjugates (ADCs) that target the immune system as well as third party agreements with virtual team and CROs
- Patent strategy and prosecution for a startup company developing monoclonal antibodies and
 T-cell engagers against tumor antigens
- Freedom-to-operate and patentability analyses for an established biopharma company with respect to bispecific antibody targets for new development projects
- Preparation and prosecution of foundational patents relating to an approved ADC
- Patent strategy for an established biotechnology company relating to its novel multispecific antibody and immunocytokine formats and related preparation and prosecution
- Global management of a patent portfolio surrounding an antibody approved for a hematologic malignancy, including restructuring the claims to maximize patent term adjustment in the US and to take advantage of supplemental protection certificate opportunities in Europe, and preparation of the portfolio for downstream partnering deals and the contemplated product life cycle
- Global management of a patent portfolio surrounding an antibody approved for treatment of multiple sclerosis, including working with medical experts on declarations that resulted in patent issuances in key jurisdictions
- Patent strategy for a platform technology for biobetter antibodies and the resulting antibody molecules, including identifying a unique angle of patentability for each successive product
- Successful challenge to an examiner's rejection of claims covering an approved pharmaceutical formulation at the pre-appeal stage where the foundational patent on the active pharmaceutical ingredient (API) would expire shortly following approval
- Freedom-to-operate and patentability analyses for multiple glucagon-like peptide (GLP) receptor agonist peptides

Meet Our IP Professionals.



Muna Abu-Shaar

Managing Partner

Muna was born in Jordan and as a young woman was fortunate to attend boarding school in the UK. She continued her studies at Cambridge University, where she was awarded a B.A. in Natural Sciences (with honors) in 1992.

After completing her undergraduate degree, Muna moved to New York City, where she pursued a scientific career and earned a Ph.D. in Cellular, Molecular, and Biophysical Studies (with distinction) from Columbia University in 1999.

Towards the end of her graduate studies, Muna made the decision to use her scientific knowledge in patent law, seeking exposure to a greater variety of technologies and intellectual challenges. Muna attended law school while working full-time as a law clerk at the firm of Pennie & Edmonds LLP. By the time she earned her J.D. at Fordham Law School in 2003 (*cum laude*, Law Review, and Order of the Coif), Muna already had broad experience in patent law, including patent prosecution, litigation, interferences, and opinion work. After Pennie & Edmonds, Muna had a successful career at two AmLaw 50 firms, Jones Day and Dechert LLP, the last few years as a partner, and was recognized with a Super Lawyers "Rising Star "Award in New York (2011, 2013).

With the backing of her clients, and based on her extensive research into alternative approaches for providing legal services, Muna moved to one of the main hubs of the biotechnology industry—Cambridge, Massachusetts—and launched Biospark Intellectual Property Law in 2014.

Muna is admitted in Massachusetts and New York and before the USPTO.



Adam Krol

Partner

As a young child, Adam's favorite subject in school was always science. Adam's interest in biology and chemistry in particular grew during his high school years, which led him to major in Medicinal Chemistry at the State University of New York at Buffalo, where he received a B.S. degree (*summa cum laude*) in 2004. Adam continued his education at SUNY at Buffalo as a graduate student, where he focused his studies on chemical and biological engineering and received an M.E. degree in Chemical Engineering in 2006. Adam became interested in patent law during graduate school and subsequently enrolled in SUNY at Buffalo's law school. Adam received a J.D. (*magna cum laude*) from SUNY at Buffalo in 2009.

Following law school, Adam joined Cooper & Dunham LLP, a New York IP boutique, as an associate. Adam subsequently joined Dechert LLP, an AmLaw50 firm where he and Muna first worked together, and later returned to Cooper & Dunham LLP. Adam joined Biospark in 2015, where he counsels biotechnology, pharmaceutical, and chemical industry clients in the areas of biologics, small molecules, pharmaceutical and chemical formulations, and manufacturing processes. Adam was recognized with a Super Lawyers "Rising Star" Award in Massachusetts (2017-2020).

Adam is admitted in Massachusetts, New Jersey, and New York, and before the USPTO.



Tom Owens

Counsel

Tom is an intellectual property attorney focusing on strategic IP counseling for clients in the life sciences. Tom helps companies devise and implement strategies to obtain valuable patents to protect their technologies on a worldwide basis. Tom also advises clients on IP issues as they make strategic partnerships, obtain funding, and enter into various transactions. Tom helps companies prepare for incoming IP diligence and advises them through the diligence process. Tom also advises companies and investors as they perform IP diligence for investments, acquisitions, and partnerships.

Tom's technology focus is in the biological sciences. His Ph.D. research focused on cell cycle control and cell division mechanisms. As a patent attorney, he has experience with a wide array of technologies, including immunotherapy, antibody constructs, cell-based therapies, cytokines, gene therapy, RNA trans-splicing, exosomes, agricultural biostimulants, and food technologies.

Before joining Biospark, Tom worked at Norton Rose Fulbright and Wilson Sonsini and gained experience in various aspects of IP law, including patent strategy counseling, patent preparation and prosecution, IP transactions, and IP disputes, including inter partes reviews.

Tom is admitted in Texas and before the USPTO.



Mei Benni

Special Counsel

Mei grew up in China and was trained as a clinical doctor. Her interest in molecular biology led her to the US after graduating from medical school. Mei obtained her Ph.D. in molecular genetics and microbiology from Rutgers University. Later, she decided to switch to patent law, and obtained her J.D. from the University of Connecticut School of Law.

Mei brings over twenty years of experience in counseling clients on many aspects of IP. She started her legal career as a patent attorney at the firm of Pennie & Edmonds LLP (later merged into Jones Day), then went inhouse at a biotech company in Connecticut. She moved to Cambridge, MA in 2008, and joined a large international pharmaceutical company. Mei has extensive experience in patent prosecution, freedom-to-operate (FTO) analysis, due diligence, and transactional matters, including licensing deals and other agreement work. She also managed US post-grant procedures and European oppositions. Mei loves to work with her clients to strategically position their IP, maximize exclusivity (taking into consideration both patent and regulatory exclusivities), and minimize FTO risk.

Mei is admitted in New York, Connecticut, and before the USPTO.



Shirley Wang

Special Counsel

Growing up and as an undergraduate, Shirley was interested in both science (particularly biology) and the humanities (particularly literature). Continuing this dual interest path, she received her B.S. degree in Biomedical Engineering from Yale University (with honors) in 2003 and her J.D. from University of Chicago Law School in 2007.

Following law school, Shirley joined the IP Transactions group at Shearman & Sterling LLP, a large international law firm, in its New York office. She then went in-house at a California biotechnology startup that went public with its enzyme technology during her tenure. Seeking wider exposure to life sciences and biotechnology licensing deal work, she joined Dechert LLP, where she met Muna and Adam. Following one more in-house role at Deloitte LLP providing support for their life sciences and healthcare practice in both the consulting and advisory spaces, she joined Biospark in 2021.

Shirley brings over fifteen years of experience in counseling clients on IP aspects in corporate transactions, such as mergers, acquisitions, IPOs, and financing rounds, as well as complex licensing deals, with a focus on collaboration and license agreements for pharmaceutical and biotechnology clients, ranging from platform technologies to pharmaceutical compounds. She also has extensive experience in daily contract work that both startups and more established companies encounter, such as confidentiality agreements, material transfer agreements, early-stage research, development, and evaluation agreements, services agreements, consulting agreements, and software licenses. Her pragmatic approach is a result of her prior in-house experience, which also included oversight of certain corporate and contract compliance matters.

Shirley is admitted in California and New York.



Kyle Bruner

Senior Patent Agent

Kyle was always the math and science nerd of the family, and grew up with an eye for the "why" behind the "what". Torn between various career paths over the years, all it took was a lecture on IP law during graduate school to solidify the path to patent law.

Kyle earned his B.S. in Biochemistry from the University of Texas at Dallas and his Ph.D. in Cellular and Molecular Medicine from Johns Hopkins University. After dipping his toes into the IP waters during graduate school through various technology transfer internships, he dove in headfirst as soon as possible after graduation by joining an international law firm as a patent agent. Kyle worked for over five years as a patent agent in large law firm environments prior to joining Biospark.

Kyle is a senior US patent agent with experience in patent preparation, prosecution, and strategic counseling in a wide variety of technical areas, including small and large molecule therapeutics, gene therapy, molecular diagnostics, and cellular engineering. Having worked with biotechnology, pharmaceutical, and academic clients of various sizes at different patent lifecycle stages, he understands that there is no "one-size-fits-all" approach to patent strategy. Kyle also has experience in project management, believes in the power of process to maximize both quality and efficiency in client services, and continually looks for opportunities to implement best practices.

Kyle is admitted before the USPTO.



Bryte V. Gordon

Senior Patent Agent

As a young girl, Bryte was fascinated by the natural world around her. Spending summers with her father, a physicist, and her stepmother, a biologist/geologist, high school teacher, and park ranger, she developed a deep curiosity for science through hands-on experience. This early immersion in nature and inquiry set her on the path to chemistry, where the analytical and creative aspects of synthesis ignited her passion for understanding the fundamental nature of the material world.

With nearly two decades of experience, Bryte focuses on patent counseling and prosecution for the life sciences sector. She has managed global patent portfolios and developed IP strategies for biotech startups, pharmaceutical companies, and academic institutions. Her expertise spans small molecule and biologic therapeutics, antibody platforms, gene therapy, bioconjugation strategies, radiopharmacology, and synthetic biology.

Bryte earned her Ph.D. in Synthetic Organometallic Chemistry from Columbia University. Upon completing her doctorate, she joined a premier IP boutique and has been practicing in the field ever since. Prior to joining Biospark, Bryte most recently practiced at Fenwick & West and Haynes and Boone.

Bryte is admitted before the USPTO.



Sarah Bernard

Patent Agent & Project Manager

Sarah has always been interested in innovation and science. During her childhood many of her teachers commented on her "inquisitive mind" and several family legends exist regarding Sarah's relentless need to ask "why" to get to the heart of an issue!

Sarah is a European patent attorney and a US patent agent with over a decade of experience in patent counseling for biotechnology, pharmaceutical, and academic clients in the areas of small molecules, pharmaceutical and chemical formulations, and manufacturing processes. Sarah also has experience in Business Development and Strategic Alliances for early drug discovery research as well as decades of experience in client relationship management and project management.

Sarah completed her training for the European Qualifying Patent Exams in Dublin, Ireland. She has a Ph.D. in Biochemistry from the University of Manchester and a B.Sc. (Hons) in Biochemistry from the University of Leeds. Sarah is based in Massachusetts and supports Biospark part-time as a patent agent and project manager. Prior to relocating to Massachusetts, she was a senior associate at a Dublin-based IP law firm.

Sarah is admitted before the USPTO.



Alexis Blake

Patent Agent

Alexis grew up in Fredericksburg, Virginia, where she was endlessly curious and loved asking questions. She enjoyed all her classes but was especially drawn to science from an early age. Her family still jokes that her favorite phrases were "well, actually..." and "technically."

Alexis earned her Bachelor of Science in Chemistry with honors from the University of Richmond in 2019. After graduating, Alexis stayed on as a post-baccalaureate fellow, continuing her research and building a strong foundation in molecular dynamics. In 2020, she moved to Atlanta to pursue graduate studies at Emory University, where she earned a Master of Science in Chemistry in 2022 and a Ph.D. in Biomolecular Chemistry in 2024. Her research focused on peptide and protein synthesis, artificial biomaterials, and bioconjugation techniques.

While in graduate school, Alexis explored career paths in both academia and industry but ultimately found her passion in patent law. She was drawn to the intersection of science, law, and innovation, where she could apply her technical background in a new and impactful way. After completing her Ph.D., she moved to Washington, D.C. and joined a large multinational law firm as a patent agent. She now works with clients to protect their inventions and navigate the patent process with confidence and clarity.

Alexis is admitted before the USPTO.



Eser Yilmaz

Patent Agent

Eser spent her early childhood on the Aegean coast of Turkey, where she had the opportunity to observe and interact with the natural world and immerse herself in storybooks and encyclopedias. Over the next decade or so, her love of learning, especially about the biosphere, remained a constant in her life, and she decided to become a biologist.

Eser received her B.S. (*magna cum laude*) from the University of Massachusetts at Amherst, where she double majored in Biology and Biochemistry & Molecular Biology. Next, she completed an M.S. in Neuroscience and a Ph.D. in Neurobiology at the University of Pittsburgh, Center for Neuroscience.

During her postdoctoral studies, Eser decided to combine her love of science, desire to always learn something new, and aptitude for storytelling. Hence, she continued her journey as a science writer and technical expert for the next few years and worked with a broad range of biotechnology and pharmaceutical clients. Moreover, she has also written science-based articles for lay audiences and worked as a scientific manuscript editor. During that period, she became increasingly interested in using her skills in patent writing. Eser joined Biospark in 2022 as a technical specialist and became a US patent agent in 2024.

Eser is admitted before the USPTO.



Emily Van Vlack

Law Clerk

Growing up, Emily always had an interest in the sciences, particularly in genetic diseases. This led her to pursue a major in Molecular Biology at Boston University, where she received a B.A. degree in 2019. Emily became interested in patent law while still completing her undergraduate degree and subsequently began working inhouse as a patent liaison at a gene therapy company following graduation. In-house, Emily gained experience across various aspects of IP law, such as patent preparation, IP oppositions, and IP diligence.

While working as a patent liaison, Emily decided to attend law school to further her interest in patent law. Emily is currently attending Suffolk Law School as an evening student with an anticipated graduation date of December 2025.



Ben Horton

Senior Patent Paralegal

Ben grew up in Colorado, and earned a B.A. in Philosophy, History of Science, History of Mathematics, Music and Linguistics from St. John's College at Santa Fe, New Mexico. During his undergraduate studies he enjoyed volunteering as a GED tutor at the New Mexico State Penitentiary and experiencing Santa Fe's fine art world. Having moved to Chicago and unsure of whether he wanted to go to law school, he accepted a patent-focused legal secretary position at a mid-size boutique IP firm. He enjoyed the subject of patent law immeasurably, and even more so being able to share with others his growing knowledge of the administrative side of patent prosecution.

Ben earned a Master's in Education from Loyola University Chicago, and moved to Austin, Texas to accept a patent-focused docketing position at an international law firm. Over the next ten years he moved from patent docketing to patent paralegal, and eventually senior patent paralegal status. Following his family history of teachers, he excelled at working with and leading administrative staff to ensure comprehensive understanding of national and international rules, and proper work habits necessary for effective patent portfolio management. Using his extensive computer knowledge, he enjoys developing tools and methods designed to maximize workflow efficiency with continued attention to the constantly changing patent rules and guidelines.



Rebecca Jones

Senior Patent Paralegal

Rebecca attended the University of Texas at Austin and earned her B.S. in Secondary Education with an emphasis in government and history. Her intentions to have a career in education or the government sector took a different turn while working as a Legislative Aide at the State Capitol after college, where she met Ross Perot, founder of Electronic Data Systems (EDS). He recruited her to move back to her hometown of Dallas and join EDS where she enjoyed a twenty-year career in Marketing Communications.

Rebecca has always been interested in government and law and in 2009 she went back to school to earn her Paralegal Certificate at Collin College in Plano, Texas. This proved to be a "perfect match" in career choice because of her strong attention to detail and accuracy. Upon completion she started working as an IP paralegal at a boutique IP firm in Dallas, then Austin, and subsequently joined a large, national law firm supporting their IP attorneys. She has over thirteen years of experience and knowledge as an IP paralegal supporting all phases of patent prosecution, with an emphasis on both US and foreign country requirements and processes.



Ilya Malinskiy

Senior Patent Paralegal

Growing up in an immigrant working-class family has taught Ilya the true meaning of hard work and perseverance. Ilya has enjoyed solving problems and helping others since young age. He tutored children in English and math, and helped chess players win competitive tournaments.

After Ilya received his B.A. in Law & Society from American Jewish University, he started working as a patent paralegal, where he developed a strong passion for intellectual property law. Ilya's passion for intellectual property law led him to progress from a junior paralegal specializing in foreign patent prosecution into an IP manager with responsibility for overseeing deadlines, managing workflows and training IP staff in two offices of a multinational IP boutique. Working in and managing different IP departments has allowed Ilya to build great relationships with foreign law firms and acquire the skills necessary to oversee a patent portfolio from filing through post-grant both in the U.S. and abroad.

Evelyn Medero-Medina

Patent Paralegal



Evelyn has over thirty years of law firm experience in a variety of administrative positions. Ten of those years were assisting a patent attorney in an international New York law firm in patent interference proceedings. Prior to entering the intellectual property field, she worked as a word processing operator in various New York law firms. This experience was essential for the preparation and formatting of large briefs and exhibits, as well as creating chemical structures and complex legal documents utilizing different software applications.

Meet Our Operations Team.

Stephanie Necochea

Operations Manager

Stephanie Necochea supports Biospark Intellectual Property Law as the Operations Manager, overseeing the firm's administrative functions. With over twenty years of experience managing law firms in both the private and public sectors, she brings a wealth of knowledge and expertise to the team. Over the past 25 years, Stephanie has supported numerous legal professionals across a wide range of practice areas. Her experience with a variety of practices and professionals has fueled her commitment to providing exceptional support and facilitating the growth of small to mid-sized law firms.



Christina Enriquez

Legal Billing & Accounting Specialist

Christina Enriquez is a highly skilled office management professional with over a decade of experience specializing in law firm billing coordination and accounting. A graduate of George Mason University's School of Management, Christina brings a blend of financial acumen and organizational expertise to her role. Throughout her career, Christina has managed the legal billing and financial processes for a law firm with a broad client portfolio. Her extensive background includes setting-up and maintaining efficient billing systems, preparing financial reports, and overseeing general accounting operations.



Mackenzie Rose

Executive Assistant

Mackenzie has a B.S. in Human Environmental Sciences from the University of Alabama and has since gathered a decade of administrative experience assisting CEOs, Managing Directors, and Founding Partners. Mackenzie is responsible for assisting Biospark's management, as well as providing administrative and operational support to Biospark's internal initiatives.

Contact us.

We are here to help.

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