



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

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.

Muna is an avid consumer of podcasts and audiobooks, always seeking to expand her knowledge on a wide variety of topics, including professional development, productivity, and individual performance. She also mentors and collaborates with other small business owners to implement these learnings to drive business success.

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.

Adam enjoys swimming, homebrewing, and spending time with his wife, two young children, and dog.

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 intellectual property 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.

Shirley enjoys reading, running, artistic pursuits, and spending time with her family.

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.

Kyle enjoys time outdoors with his family, playing (and designing) board games, and just about anything Tolkien.

Raymund Eich

Senior Patent Agent



Born to working-class immigrant parents and growing up in the rural Midwest, Raymund yearned for broad vistas and bright futures. This led him to attend Rice University, where he received his undergraduate degree in 1993, and earned a Ph.D. in 1997, both in Biochemistry.

After his groundbreaking graduate work on nitric oxide-dioxygenation of heme proteins, he began his patent career at a national intellectual property law firm. Raymund has over twenty-five years of law firm experience in patent preparation, prosecution, and strategic counseling for biotechnology, pharmaceutical, and academic clients in a wide variety of technical areas, including small and large molecule therapeutics, medical devices, cancer theranostics, nutraceuticals and nutritional supplements, and renewable energy. Prior to joining Biospark, Raymund was a patent agent at a large, international general practice law firm.

Along with his experience and technical background, Raymund has a broad curiosity that allows him to quickly learn new technologies. He also enjoys harnessing the power of software and automation to render client services more productive and efficient.

Raymund is admitted before the USPTO.

In addition to helping innovators create the future, Raymund also imagines it. He is the author of over a dozen science fiction novels and forty short stories. He also enjoys board games, golf, and spending time with his family.

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.

Sarah enjoys spending time with her family and dog and running half marathons and marathons.

Eser Yilmaz

Technical Specialist



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.

Eser enjoys losing herself in a good book, spending time outdoors, and practicing martial arts.

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.

Ben loves spending time with his children, listening to and playing music, and exploring the great outdoors.

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 twelve 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.

Rebecca enjoys hiking the local trails with her two dogs, spending time with friends and family, and engaging in volunteer work, including for Rodeo Austin's Operation Turkey and the Dell Technologies Match Play Golf Tournament benefitting Dell Children's Hospital.

Raquel Aidun

Patent Paralegal



Raquel has a B.A. in Latin American Studies from George Mason University and over ten years of experience in professional administrative positions with an emphasis in the legal sector. Raquel is responsible for managing Biospark's patent docket, preparing patent prosecution documents, and reporting patent correspondence.

Raquel practices pilates and barre, and enjoys painting and spending time with her children and three dogs.

Meet Our Operations Team.

Glen Farmer Chief Financial Officer



From an early age, Glen has always had an entrepreneurial spirit. He founded and operated two businesses while in high school. This interest led him to receive his B.S. degree in Business (accounting) from the University of Maryland in 1998 and MBA (with Finance concentration) from Mount St. Mary's University in 2004. Glen's first job out of college was with a boutique litigation law firm in Washington, DC. Since then, Glen has held financial leadership positions and advisory roles with numerous startup and development-stage companies. He worked with startup software companies in the 1990s and startup biotech companies since the 2000s. Glen has supported such organizations through rapid organic growth, IPOs, fundraising rounds, mergers, acquisitions, and other exit strategies.

Glen is a huge hockey fan and enjoys reading (biographies and non-fiction), cooking, and spending time with his wife and three teenage boys.

Armando Lopez Legal Billing Manager



Armando was born and raised in New Jersey and is a Bon Jovi fan by default. He received his B.S. in Chemistry from Temple University and has been working in the legal finance industry, focusing on streamlining processes and providing excellent client experiences. Prior to joining Biospark, Armando worked at large AmLaw firms and supported many practice groups, including IP. Intrigued by the IP practice area as an intersection between science and law, Armando became a Patent Agent in 2022. With this detailed understanding of the patent process, Armando is able to enhance administrative support for IP practices.

Armando is admitted before the USPTO.

Armando enjoys cooking and is a self-proclaimed "foodie" that enjoys dining out and trying new restaurants. He is a fan of concerts and artistic performances, including ballet and opera. Armando still loves music and dabbles with playing the piano and flute.

Gena Garafalo

Operations Manager



Gena has an A.A. in Legal Studies and a B.A. in Law and Society (*cum laude*) from The Sage College in Albany, New York. She brings over sixteen years of experience in professional legal office administration and function. Prior to relocating to Florida, she was an executive legal assistant at an international law firm in Washington, DC, where she thrived in her role supporting multiple attorneys and paralegals, including the Managing Partner of the DC office. She has always been interested in the legal field and has extensive knowledge of law firm functions, as well as efficient handling of attorney and staff needs including client inquiries, consultations, and professional development.

Gena enjoys spending time with her family, going to the beach, and exploring new eateries around town.

Mackenzie Rose

Executive Assistant



Mackenzie has a B.S. in Human Environmental Sciences from the University of Alabama and has since gathered over nine years 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.

Mackenzie has a strong passion for history and science and plans to hike Mount Kilimanjaro in Spring 2024. She currently lives in Raleigh, North Carolina, with her dog Oliver, where they enjoy reading, metal working, cooking, and gardening.

Contact us.

We are here to help.

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