Sebastian Kharileh, M.Sc.

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SUMMARY

Versatile and detail-oriented life sciences professional with a Master of Science in Biomedical Engineering with strong academic and laboratory research experience in controlled drug delivery, biomaterials, and cell biology. Possessing dual citizenship in both the US and UK. Strong ability to work in cross-functional teams to support clinical research and preclinical lab operations. Proficient in experimental design, SOP documentation, and maintaining compliance in regulated environments. Seeking an opportunity to further develop as a scientist and professional.

SKILLS

Laboratory Skills: GLP & GCP, Drug Delivery Systems synthesis, Microparticle Synthesis (PLGA), Spectrophotometry, DLS, SEM Imaging, Lyophilization, Mammalian Cell Culture (CRL 1658), MTS Viability Assay, Almar Blue staining, Mechanical Testing (Instron), Sterile Technique, Gel Electrophoresis, ISO 10993, ISO 13485, FDA Sections 351, 361

Research Tools & Software: CAD (SolidWorks), Microsoft Office, Prism, ImageJ, R, LabSuit, Python, MATLAB

CERTIFICATIONS

- Artificial Intelligence in Pharma and Biotech (MIT Sloan School of Business)
- Fundamentals of Good Clinical Practice (Novartis)
- Quality Improvement & Management (Boord Infinity)
- Introduction to Drug Hunting (Novartis)
- Lean Six Sigma Yellow Belt

EXPERIENCE

Operations Consultant, Epinal, Irvine, CA — May 2025 – Present

- Designated internal resource for biomedical engineering, providing expertise on product development, FDA compliance, SOPs for accelerating product development, and troubleshooting
- Research and assist with grant/SBIR funding applications with potential to bring in ~$2million in funding
- Support with locating and acquiring lab space to begin prototype assembly and testing
- Assist with marketing efforts by researching trade shows and podcasts that Epinal would be suited to attend

Project Associate, Silicon Artist, Irvine, CA — Sept 2024 – May 2025

- Supported the development of semiconductor products through technical project tracking and resource planning
- Utilized Microsoft Project and Gantt charts to identify critical path dependencies and manage timelines
- Assisted with circuit layout and IC design using Cadence Virtuoso

Graduate Research Assistant, The Taylor Lab, University of Florida, Gainesville, FL — Oct 2021 – July 2024

- Developed polymer-based two-factor controlled drug delivery system for inflammation and tissue repair
- Developed and optimized factor release to align with temporal therapeutic targets
- Utilized SEM imaging, DLS, and ImageJ analysis to validate particles met quality standards
- Created and optimized SOPs and kept a record of all experiments in electronic lab notebook
- Conducted viability assays (MTS) and validated biofactor release via spectrophotometry
- Designed an electrospinner (using SolidWorks) used for two main projects in the lab which incurred ~90% cost savings
- Managed chemical inventories and trained lab members in proper instrument and reagent use
- Drafted lab safety protocols and liaised with Environmental Health & Safety for regulatory compliance

PRESENTATIONS & PUBLICATIONS

Kharileh, S., Shama, K., Turner, M. et al. Temporally controlling the release of biofactors from polymeric microspheres. MRS Communications (2024). https://doi.org/10.1557/s43579-024-006

"Temporally Controlling the Release of Biofactors from Polymeric Microspheres" Society For Biomaterials 2023 Annual Meeting and Exposition, San Diego, CA, April 2023

EDUCATION

University of Florida, Gainesville, FL *Master of Science* • **Biomedical Engineering**
Certificate: Engineering Innovation
Academic Achievement Award: 2022–2024

Rutgers University *Bachelor of Science* • **Biomedical Engineering**
Dean's List: Spring 2020, Fall 2020, Spring 2021