



Lucy Bowden, PhD

PATENT AGENT

617-248-4975

lbowden@choate.com

Dr. Lucy Bowden assists Choate's life sciences clients by utilizing her background in microbiology, molecular biology, biomaterials, nanotechnology, and biomedical engineering to help with the preparation and prosecution of patent applications, as well as freedom-to-operate and patentability analyses.

As a Research Fellow at Harvard Medical School, Lucy developed clinically relevant models for testing treatments for periprosthetic joint infection, focusing on polymicrobial biofilms. She received her PhD in Microbiology and Molecular Biology from Brigham Young University, where she conducted interdisciplinary research focused on the antibacterial properties of nanostructured surfaces for use in orthopedic implants. Her research resulted in a patent application and involved extensive collaboration with faculty researchers and technology transfer personnel to support the protection and commercialization of scientific innovations.

Prior to pursuing her doctoral studies, Lucy served as a Laboratory Supervisor in the Department of Chemistry and Biochemistry at Brigham Young University, where she designed and implemented virtual laboratory activities and managed logistics supporting more than 1,500 students each semester. Her academic and research experience has provided her with a strong foundation in microbiology, biomaterials, medical device technologies, and the translation of complex scientific concepts into practical intellectual property strategies.

Focus Areas

Intellectual Property
IP Counseling

Publications and Presentations

- "Copper-coated carbon-infiltrated carbon nanotube surfaces effectively inhibit *Staphylococcus aureus* and *Pseudomonas aeruginosa* biofilm formation," first author, *Applied and Environmental Microbiology*, 2025
- "Beyond the double helix: the multifaceted landscape of extracellular DNA in *Staphylococcus aureus* biofilms," first author, *Frontiers in Cellular and Infection Microbiology*, 2024

Education & Credentials

- Brigham Young University, PhD (2025) Microbiology, BS (2021) Microbiology

Admissions

- U.S. Patent & Trademark Office

