Wolf Greenfield
INTELLECTUAL PROPERTY LAW

Emily J. Gardel PhD

Associate

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Emily Gardel focuses her practice on patent prosecution in areas where electronic devices and software overlap with biotechnology. She has worked with technologies related to single molecule detection, imaging systems, medical devices, microfluidics, biosensors, diagnostic devices and software, bioinformatics, and data processing, including technologies implementing machine learning.

Emily works with startups, midsize firms and large multi-national companies, as well as several academic institutions. She has extensive experience handling prosecution matters in the biological-electrical-computational space, advising clients on all aspects of IP strategy and portfolio development both in the United States and abroad. Emily also advises clients on related issues beyond patent prosecution, including due diligence and freedom-to-operate.

Emily's graduate research on microbial extracellular electron transfer at Harvard involved designing bioelectrochemical systems, culturing microorganisms, using optical and electron microscopy in combination with sample preparation and image analysis techniques, analyzing genomic sequence data. Emily has also performed research on force generation in two- and three-dimensional granular flow materials and methods to remove aberrations from optical traps.

Education

Smith College, BA, Physics, *summa cum laude*

Harvard University, AM, Applied Physics

Harvard University, PhD, Applied Physics

Suffolk University Law School, *cum laude*, Intellectual Property Law Concentration, *with distinction*

Practice Groups

Biotechnology

Electrical & Computer Technologies

Experience

- Drafted and prosecuted patent applications related to optical and electronic bioassay devices, including DNA sequencing devices, bioinformatics, medical devices, medical imaging, microfluidics, image processing, and semiconductor devices

- Prosecuted patent applications in the United States and abroad in a wide range of areas, including DNA sequencing devices, sequencing analysis software, medical devices, and light-emitting transistors
- Assisted in developing and managing patent portfolios for multiple start-ups and mid-size companies
- Conducted prior art searches and patentability studies, including for clients working with bioinformatics, machine learning techniques for processing biological data, and semiconductor devices

Recognition

- Department of Energy Office of Science Graduate Research Fellowship
- National Science Foundation Graduate Research Fellowship
- Harold T. White Prize for Excellence in Teaching, Harvard Physics Department
- Jurisprudence Award in Professional Responsibility, Suffolk University Law School

Interests

Emily is interested in increasing diversity in tech and among inventors, and participates in mentoring programs and events through organizations that focus on improving representation of minority groups in STEM fields.