Biopharmaceutical Discovery Faculty Search Candidate Seminar
219 Brown Laboratory
January 29, 10AM

Combatting Diseases Using Synthetic and Biological Machines

Biological systems perform extraordinary tasks and serve as inspiration for building next generation therapies, biosensors, and materials. However, integrating biological function into synthetic materials is challenging. In this presentation, I will talk about my efforts at recapitulating functions of biological machines with the goal of treating diseases. In addition, I will discuss an alternative approach, which is a top-down strategy using synthetic biology to engineer biological systems directly. Specifically, I will talk about engineering therapeutic phage scaffolds to combat antibiotic resistance using protein engineering. Together, these examples illustrate the incredible potential and profound impact on society that bio-based systems can have.

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