



Faculty of Engineering and Applied Science
Chemical Engineering Seminar Series



**The Science and Engineering Behind Bioprocess
Development: The Case Study of Partitioning
Bioreactor Technology**

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Thursday, January 28, 2015, 2:30pm
Dupuis Hall, Room 215



ABSTRACT

Successful Bioprocess Development requires that a large number of steps be undertaken, in series and in parallel, as a technology evolves from concept idealization, to demonstration of concept, scale-up, modeling and optimization, economic evaluation and, finally, commercialization. The Two-Phase Partitioning Bioreactor (TPPB) Technology Platform developed in our Group has undergone such a structured evolution while also bringing to bear numerous scientific and engineering tools such as mass/energy balances, kinetics, reactor design, thermodynamics, transport phenomena, process simulations, and intellectual property efforts, not to mention genetic engineering. In this talk, the progression of TPPB technology development will be described as applied to Bioprocess (biofuels, nutraceuticals, pharmaceuticals) and Environmental (remediation of PCBs, PAHs, BTEX) applications. Intellectual bumps and bruises, along with occasional successes, will be described in full, unadulterated detail.