

Abstract Submitted
for the MAR14 Meeting of
The American Physical Society

Integrated Graduate Program in Physical and Engineering Biology at Yale University DIEGO CABALLERO, DOROTTYA NOBLE, THOMAS POLLARD, SIMON MOCHRIE, COREY O'HERN, LYNNE REGAN, Yale Univ — Quantitative, integrated approaches are necessary to solve biology's grand challenges. Yale's Integrated Graduate Program in Physical and Engineering Biology (IGPPEB) prepares students to excel at applying physics and engineering approaches, whilst also ensuring that they are sufficiently biologically sophisticated that they can readily identify and tackle cutting-edge problems. Students enter the program through a "home" department but also take a set of IGPPEB core courses with students from other departments. The IGPPEB curriculum is co-taught by faculty from a wide array of departments and motivates students to work together and learn from each other. The curriculum complements those of the home departments and includes primer courses to rapidly bring all students to a level where they "speak each others language." The program is a member of the NSF's Physics of Living Systems: Student Research Network, which connects graduate students from different institutions that are engaged in research at the interface of physics and biology. Convergent research thrusts at Yale include Cellular Shape and Motion; Mechanical Force Generation and Sensing; Biomaterials and Bioinspired Design; Systems and Synthetic Biology; Modeling Biological Processes and Methods Development.

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Date submitted: 15 Nov 2013

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