

STEM Education

2017 - 2018 Seminar Series

Bruce and Julie Goldsmith, the Helmsley Charitable Trust, and the Center for Teaching and Learning generously support the STEM Education Seminar Series.

Learn more online: ctl.yale.edu/STEMedseries



Dr. Rob Bellin

*Professor & Chair of Biology,
College of the Holy Cross*

Friday, February 16

11 a.m. - 12 p.m.

Tentative Location:

CTL Rooms 120A & 120B

301 York Street,

New Haven, CT 06511

Purification and characterization of Taq polymerase: The development of a multi-week, skill-development based laboratory project for undergraduate students:

To promote the training of undergraduate students in protein purification and analysis procedures, a 9-week undergraduate laboratory series focused on the purification and characterization of *Thermus aquaticus* DNA polymerase (Taq) was developed. Our aim was to provide undergraduate biochemistry students with a full-semester continuing project simulating a research-like experience, while having each week's procedure focus on a single learning goal. Survey-based assessment of the effectiveness of the laboratory series indicate that it is both effective in teaching students the theory and practice of protein purification and analysis while also demonstrating positive results in more broad areas of scientific skill and knowledge. Amongst the findings, the largest reported increases in knowledge were related to students' understanding of how patent law relates to laboratory science.

For more information, please contact Assistant STEM Education Program Director, Jeremy Bradford:
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Yale *Center for Teaching
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