BioBuilder BioBuilder BioBuilder

Professional Development Workshop @ Purdue

You are invited to apply to the **BioBuilding2012** workshop @ Purdue University. This week long, professional development class will prepare educators to bring biological engineering and synthetic biology into their classrooms and laboratories. The workshop will include

- lectures that connect the engineering/science/math and technology aspects of these fields
- labs and classroom activities taught from the online www.BioBuilder.org resource,
- lunchtime discussions with members of Purdue's synthetic biology community
- activities that address the nuts and bolts of running an iGEM team

This workshop will run from June 4th-June 8th, 2012. Attendees will receive lunch each day and 67.5 PDPs. Attendees must commit to implementing a BioBuilder activity in the 2012-2013 academic year and provide feedback on the effort.

Who should apply?
This workshop is intended for:

- High school Biology teachers, especially those looking for new ways to teach the AP content or for compelling material to teach college-bound students after the AP exam is completed
- College-level instructors looking for classroom and lab curricula to include in a biotechnology-style class
- Science Club leaders, in particular anyone looking for ways to bring cutting-edge content to students with a variety interests from math to biology to electronics.

How to apply?
The application is online: http://www.surveymonkey.com/s/DQ6PGC2
or can be downloaded:
http://openwetware.org/wiki/BioBuilding2012_workshop_@_Purdue

If downloaded, then completed applications can be sent to the following address:

Kari Clase
Purdue University
Knoy 379D
West Lafayette, IN 47907

Applications are **due** March 16th, 2012 and applicants will be notified by **April 2nd, 2012**

Questions? biobuilding2012purdue@gmail.com

What is Synthetic Biology?

Synthetic Biology is an emerging field that applies engineering and mathematical principles to the development of novel biological systems. These principles and technologies extend the teaching of molecular genetic techniques into real world, authentic applications. Examples of synthetic systems include bacteria that smell like bananas, and light-sensitive bacteria that can serve as pixels in a photograph. These teachable systems are included in the curriculum at Biobuilder.org.

Why teach Synthetic Biology?

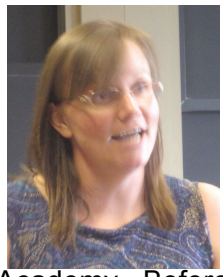
Synthetic biology provides teachers and students an engineering context to learn molecular biology, genetic engineering and microbiology methods. This approach asks students to learn while designing, or testing designs of, engineered biological systems. In addition, this approach provides science teachers with a means of exploring numerous state and national technology standards that are hard to address in most science classes.

Who's teaching BioBuilding2012?

Dr. Kari Clase is an Associate Professor in the College of Technology and holds a courtesy appointment in the Department of Agricultural and Biological Engineering at Purdue University. Prof Clase's lab investigates the mechanisms controlling neural cell proliferation and differentiation within brain tumors through proteomic and metabolic analysis. She is also interested in bringing grand challenge research problems into the classroom to engage students in the process of research and help them learn in an authentic interdisciplinary context.

Dr. Jenna Rickus is an Assoc. Prof. of Agricultural & Biological Engineering and of Biomedical Engineering at Purdue University. She leads an active research program in biomaterials, biosensors, & cellular engineering. She teaches Cell and Molecular Design Principles, and Synthetic Life, which cover the mathematical / engineering design and societal/ethical aspects of synthetic biology. She advises the Purdue iGEM team, is a member of the iGEM advisory board, chaired the 2011 America's Region iGEM organizing committee, and judged the 2011 HS iGEM division.

Sherry Annee has been a teacher for 20 years and currently teaches Honors Biotechnology at Brebeuf Jesuit Preparatory School in Indianapolis. She attended the 2011 BioBuilder Workshop at MIT and implemented the BioBuilder curriculum in her classroom this year.



Rebecca Schinii. Teaching for 5 years at Greenfield Central High School. Currently teaching Integrated Chemistry and Physics and Biomedical Innovation for the PLTW Biomedial Academy. Before being a teacher she worked as a Microbiologist for Eli Lilly in clinical trial drug development. She is currently a Noyce Fellow and is pursuing her doctorate. She also started iGEM HS in 2011 and now is chair for iGEM HS.

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