Express Yourself! Advances in Genetic and Epigenetic Control of Gene Expression

Explored through the Isolation and Characterization of New Natural Products

A Workshop for High School STEM Educators

Monday and Tuesday, June 27-28, 2016
at Oregon State University, Corvallis campus

Michael Freitag, Associate Professor, Department of Biochemistry and Biophysics
Kari van Zee, Program Coordinator, STEPs and Department of Biochemistry-Biophysics

Funding provided by National Science Foundation grant to Michael Freitag
Questions contact Kari van Zee, vanzeek@science.oregonstate.edu, 541-737-1773

How do scientists isolate new natural products such as antibiotics?
What genetic and epigenetic processes control the production of secondary metabolites?
How is the revolution in sequencing technologies and quantitative molecular biology helping researchers in their quest to find new antibiotics?

Join us June 27-28th to explore how OSU researchers are isolating and characterizing novel antibiotics from Oregon soil microbes or engineering fungal strains to express new compounds. Send in a soil sample from your favorite place and join us at the workshop as we screen for novel compounds with interesting antimicrobial properties. Through a series of talks, tours, and hands-on laboratory work, we will introduce you to current research going on at OSU in the Departments of Biochemistry and Biophysics, Chemistry, and Pharmacy.

Michael Freitag: http://biochem.science.oregonstate.edu/content/michael-freitag
Sandra Loesgen: http://chemistry.oregonstate.edu/loesgen
Kerry McPhail: http://pharmacy.oregonstate.edu/users/kerry-mcphail
BJ Philmus: http://pharmacy.oregonstate.edu/users/benjamin-philmus
Joseph Spatafora: http://bpp.oregonstate.edu/spatafora

There will be opportunities for roundtable discussions with scientists, graduate students, and advisors to ask questions, brainstorm ideas for collaborative projects to involve high school students in research projects, and explore career pathways for students. Participants will have access to the STEPs molecular biology equipment library to use in their classrooms.

Cost: Free. Breakfast and lunch included. Limited funds are available to assist participants from out of the area (greater than 1-hour drive) with lodging in Corvallis for one night.
Registration: Email Kari van Zee at vanzeek@science.oregonstate.edu to reserve a spot. Provide your name, school, subjects taught, and contact information. Limited to 18 participants.
Deadline to register: June 15, 2016.