Systems Education Experiences
Baliga Lab at Institute for Systems Biology

Institute for Systems Biology
Revolutionizing Science. Enhancing Life.

Paid Position for High School Science Teacher to Work on Biofuel Project

The **Baliga Lab** at the Institute for Systems Biology (ISB) is currently hiring a high school teacher to work full time for **6 to 8 weeks during the summer of 2018**. Since 2004, the Baliga Lab has joined teachers with researchers, engineers, programmers, and students to develop standards-, research- and inquiry-based education modules for science classrooms that bring exciting new scientific concepts and techniques to high school students. Pay rate will be $30 per hour.

When: 6-8 weeks between June 4 and August 24, 2018. Dates are flexible based on your academic calendar.

Where: The Institute for Systems Biology, Seattle, WA

Who: We encourage any enthusiastic High School Teachers with science related backgrounds (Chemistry, Biology, Integrated Sciences, Biotechnology, Environmental Science, etc.) to apply.

What: Our mission at ISB is to use innovative research approaches in an effort to predict and prevent disease, and enable a sustainable environment. Algal biofuel is a potential source of sustainable energy to mitigate fossil fuel dependency and reduce CO2 emissions. Microalgae are small photosynthetic organisms that produce bio-oil when starved for nutrients. This carbon neutral "bio-oil" can be harvested and converted into a clean and renewable biofuel. This research project will focus on how a single organism (i.e. Genotype) interacts with different environmental factors (i.e. light, CO2, pH) to influence the organism's observable characteristics, like growth rate, chlorophyll content, or lipid accumulation (i.e. Phenotype). The overall goal of the project would be to translate such laboratory experiments and results into hands on classroom activities. This will require the teacher to work with researchers to complete algal experiments and further develop draft lessons plans that can teach the important phenomena of "genotypes to phenotypes". The summer team will use a framework of algal biofuel technology to implement the cross-cutting scientific concepts, science and engineering practices, and the disciplinary core ideas of NGSS.

What is required from you:

- A creative mind for stimulating lab work and experience in developing course material
- A copy of your resume/CV
- A description of your interest and background
- A description of your school, teaching assignment, and your students
- **Please email all materials to see@systemsbiology.net before April 16, 2018.**

Also, if you are interested in being a part of this process by field-testing materials, using completed materials, attending training workshops, or by supporting some of our education efforts, please contact Claudia Ludwig (cludwig@systemsbiology.org, 206-732-1453).

Please also view our education pages for more information: http://see.systemsbiology.net

Here's what Mari a teacher from Lynden High School has said about working in the Baliga Lab at ISB: *"The synergy created by the Baliga Lab group, interns, inspiring speakers, other teachers, and the entire ISB community will keep me fired up during my 30th!!! year in the classroom. A systems approach is a paradigm shift...I'm having dreams about ISB and how I am going to adjust my teaching and learning. Total immersion therapy?!"*