The aim of this workshop on 20th July is to share intervention strategies to improve students understanding of key concepts in biochemistry.

Associate Professor Paula P. Lemons from the Department of Biochemistry and Molecular Biology at the University of Georgia focuses on problem solving about threshold concepts in biochemistry. In particular, her group looks at student thinking about three concepts: the physical basis of interactions, the thermodynamics of macromolecular interactions, and metabolic pathway dynamics and regulation. They are currently about 2 years into a 5 year study of how problem solving develops within this domain over the career of a life sciences university student. They have developed a number of problems that include visual representations of biochemical phenomena, such as protein folding, and ask students to make predictions. In a recent study, they found that experts solved biochemistry problems more quickly and in fundamentally different ways than students. Among students, some completed expert-like solutions, but they did so much less efficiently. However, several students did not successfully solve the problem, and this lack of success occurred among beginning and advanced biology students.

**Date:** 20 July 2016, 10 am - 12 pm  
**Venue:** Seminar Room 3110, Abercrombie Building

**Register:** [Click here](#)