

Special Seminar

Date: Tuesday May 24, 2016
Time: 1:00 p.m. – 2:00 p.m.
Location: Rosebrugh Building
164 College Street, 2nd Floor, Room 208

Dr. Shawn C. Owen

Chem-Eng Alumni and Tenure-Track Faculty Member

Department of Pharmaceutical Chemistry, University of Utah

“Building Superior Biologics: Enhancing ADCs, Resurrecting ADEPT, and Replacing ELISA”

Antibodies are important biological scaffolds used in diagnostics and as biotherapeutics and can be conjugated or fused to potent drug payloads or proteins to enhance their function. Recent developments in antibody-drug conjugates (ADCs) aim to couple the selective target binding of therapeutic monoclonal antibodies with the high potency of small drug molecules. We are building a series of ADCs that will increase the amount of drug delivered to disease cells and thereby enhance ADCs efficacy beyond current obtainable levels. In a parallel approach, we are utilizing split-enzyme technology to construct a new class of antibody-mediated diagnostics that are more sensitive and rapid than current technologies, as well as antibody-mediated complementation to activate therapeutic prodrugs at the target cell surface.

Biography



Shawn Owen is an Assistant Professor at the University of Utah in the Department of Pharmaceutics and Pharmaceutical Chemistry, Adjunct Assistant Professor in the Department of Internal Medicine. Dr. Owen earned his Ph.D. in Pharmaceutics at the University of Utah. After graduate studies, Dr. Owen worked at the University of Toronto in the lab of Professor Molly S. Shoichet.

The Owen Lab utilizes chemical biology approaches to develop novel therapies. Broadly, we are interested in biotherapeutics, including monoclonal antibody drug conjugates and recombinant growth factor hybrids, and in biomaterials as templates to guide cell-based therapies.

Dr. Owen has received numerous awards including the CRS Nagai Postdoctoral Award and the Wolf Prize in Teaching. In the 2+ years that Dr. Owen has been a professor, he has supervised 3 postdoctoral fellows, 3 graduate students and several undergraduate students.

Hosted by Dr. Molly Shoichet
Snacks and Refreshments will be served