



**Thursday, March 22, 2018, 12:30 pm**  
**Seaver Science Library, Room 150**

*SSC Auditorium next to the library*

## **Professor Morgan Huse**

*Department of Chemistry*

*Memorial Sloan Kettering Cancer Center*

### **Mechanical Control of Cytotoxic T Cell Function**

#### **Abstract:**

Cytotoxic T lymphocytes (CTLs) fight viral infections and cancer by selectively recognizing and destroying infected or cancerous target cells. CTLs kill by forming a specialized interface, known as an immunological synapse, with their target cell, into which they secrete a mixture of toxic proteins. Our laboratory is interested in the cytoskeletal architecture of the immunological synapse and how this architecture contributes to the potency and the specificity of effector responses like target cell killing. To this end, we have developed a multidisciplinary approach that combines single cell biophysical measurements, synthetic chemistry, fluorescence imaging, and functional assays. Our recent studies have focused on the generation of mechanical force at the immunological synapse and the implications of this force exertion for cytotoxicity and intracellular communication.

Hosted by Professor Matthew Pratt

*The scientific community is invited*

**USC Department of Chemistry**

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