

Seminar



Tanja Kortemme

**Professor,
Department of Bioengineering
and Therapeutic Sciences
School of Pharmacy
University of California San
Francisco**

Computational design of reprogrammed and new protein functions

There has been exciting progress in the computational design of proteins with new structures, highlighting the potential to advance many applications in biological engineering, as well as to provide insights into the design principles of natural protein functions. Many significant challenges remain, both in the accuracy of current computational approaches, and in the complexity of protein geometries and functions that can be designed at present. I will discuss our recent progress with computational methods and describe new approaches and their applications. Our new work includes (i) reshaping of protein conformations for reprogrammed functions, (ii) engineering small molecule binding sites de novo to detect and respond to new small molecule signals in living cells, and (iii) controlling protein shapes to create fold families for new functions.

Friday, April 19, 2019

2:30 PM

Laufer Center Lecture Hall 101

Host: Ken Dill

*Refreshments following the lecture
Laufer Hub 110*