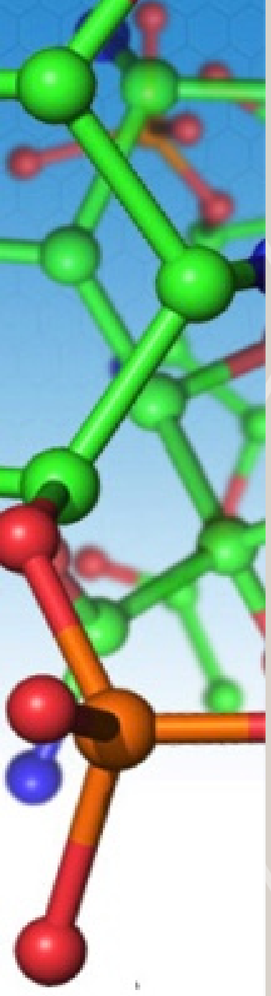

14th Annual

Riley O. Schaeffer

Endowed Lectureship

2023

Presented by:

Prof. Akif Tezcan

University of California at San Diego

Protein Self-Assembly by Chemical Design

Friday, November 10, 2023 4:00 PM

Clark Hall, Lecture Hall 101

Reception Clark Hall 105 Open Space 3:15 PM

DEPARTMENT OF CHEMISTRY & CHEMICAL BIOLOGY

Proteins represent the most versatile building blocks available to living organisms or the laboratory scientist for constructing functional materials and molecular devices. Underlying this versatility is an immense structural and chemical heterogeneity that renders the programmable self-assembly of proteins a difficult design task. To circumvent the challenge of designing extensive non-covalent interfaces for controlling protein self-assembly, we have endeavored to use chemical bonding strategies based on fundamental principles of inorganic and supramolecular chemistry. These strategies have resulted in discrete or infinite, 1-, 2- and 3D protein architectures that display high structural order over many length scales yet are dynamic and stimuli-responsive while also possessing new physical and functional properties. In this talk, I will present some of the recent protein-based materials constructed in our laboratory.

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