

# **BIOENGINEERING**

## **Fall 2020 Seminar**

**Date:** Thursday, November 19

**Time:** 12:00 pm - 1:00pm

**Location:** Virtual

Join Zoom Meeting—<https://gmu.zoom.us/j/92554249038?pwd=V2p1ZUdqM1Y2RnBCcWhDU0V0T2FZZz09>

Meeting ID: 925 5424 9038 Passcode: 640851



## **Fei Wen, Ph.D.**

**Biography:** Fei Wen received her Ph.D. degree in Chemical Engineering from the University of Illinois at Urbana Champaign (UIUC) in 2010, and her B.S. degree in Chemical Engineering from Tsinghua University in 2003. She joined the faculty at the University of Michigan in 2012 after completing her postdoc training in Microbiology & Immunology at Stanford. She is currently the Associate Department Chair for Undergraduate Education, the Director of the UM CyTOF Facility, and the

Co-Director of Immune Monitoring Shared Resources at the UM Rogel Cancer Center. Her research focuses on protein assembly engineering, single-cell proteomics, cancer immunotherapy and personalized medicine. She has received many awards in recognition of her contributions in research, teaching, and service including the Dow Corning Assistant Professorship in 2014, UM Provost's Teaching Innovation Prize in 2016, NSF CAREER Award in 2018, and UIUC Young Alumni Achievement Award in 2019.

**Title:** Engineering Protein Assemblies for Immune Modulation

**Abstract:** Over more than 500 million years of evolution, nature has relied on the cooperation of functionally related proteins to perform complex tasks in all life forms ranging from unicellular organisms to human. Harnessing this functional cooperativity remains a grand challenge in synthetic biology. In the past two decades, by focusing on the engineering of single target proteins, a great number of value-added natural and unnatural proteins have been successfully generated and commercialized, such as monoclonal antibodies, industrial enzymes, protein pharmaceuticals, etc. Looking forward to address challenges in more complex systems, the next generation protein engineering strategies that focus on the cooperative function by bringing related proteins together to form assemblies are desired. In this presentation, I will discuss how these novel strategies will lead to enabling technologies in Immune Modulation.