Spring 2024 Seminar Series Department of Biomedical

Engineering

The City College of New York

The Grove School of Engineering

## **SKT Lecture**

April 17, 2024 Steinman ST-161, 3-4 PM

## Tejal Desai, PhD

Sorensen Family Dean of Engineering at Brown University



## Therapeutic Biomaterials: Engineering Material "Structure" to Modulate Biologic Delivery

The ability to deliver therapeutics within and across physiologic barriers is a much soughtafter goal. In this talk, I will discuss our work in developing nanostructured materials for biologic delivery as well as injectable micro/nanoscale materials for the reduction of fibrosis and immune activation. By incorporating micro and nanoscale features into biomaterials, one can modulate properties such as tissue permeability, matrix production, and cell activation. The understanding of how small-scale topographies can influence the biological microenvironment allows us to design platforms for applications in therapeutic delivery and tissue regeneration. Micro and nanostructured materials can add functionality to current drug delivery platforms while becoming an enabling technology leading to new basic discoveries in the pharmaceutical and biological sciences.

Reception to follow the seminar