

Ramille Shah, PhD
University of Illinois Chicago
Department of Biomedical Engineering

### **AREA(S) OF FOCUS:**

## New biomaterial strategies for tissue and organ regeneration

The Shah lab develops 3D printable materials for biomedical applications, including organ function recovery and treating musculoskeletal defects.

#### **KEY RESEARCH AREAS:**

# Genesis of new materials and processes to recover biological function

Engineer strategies for tissue and organ regeneration, including self-assembling biomaterials, gene, and growth factor delivery systems.

## **Expanding the 3D-printable materials** palette

Optimizing printable materials for both biomedical and non-biomedical applications.

### **Properties of 3D-printed biomaterials**

Characterize how biomaterials properties influence printability and functionality of 3D-printed products.

### **Patient tailored biomaterials**







#### **ENTREPRENEURIAL SUCCESS:**



Dimension Inx is a biomaterials platform company that designs, develops, and manufactures therapeutic products. Enabling a new generation of regenerative therapeutics, their platform engineers three-dimensional microenvironments that direct cell behavior and allow the body to restore tissue and organ function more effectively.

Dimension Inx's biomaterials can be precisely tuned to create clinical solutions not otherwise possible. They work shoulder-to-shoulder with biotech and medical device partners to help solve their most challenging materials problems, and internally develop medical products for therapeutic applications ranging from bone regeneration to fertility preservation.

In December 2022, Dimension Inx received FDA clearance for CMFlex®, the first 3D-printed regenerative bone graft cleared for oral and maxillo-facial indications.

Over \$17.5M of venture funding raised (2023).