



Faculty Member

Timken Foundation Center for Precision Manufacturing

Contact Information



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Research Relevant for Precision Manufacturing: 3D Biomaterial Devices

Advanced wound healing devices need to have the following properties:

- Biodegradability
- Ability to modulate the inflammatory and tissue remodeling properties of wound healing
- Align the degradation of the device with tissue regeneration
- Sustained release of therapeutics or cytokines as needed

We design biomaterial based scaffolds to meet the above requirements. Examples shown below

Precision manufacturing will enable personalization of such biomaterial devices for wound healing

Research Interests

Development of Biomaterial devices and Technologies and applied to the following areas:

- Polymer-based devices for wound healing
- Antibacterial / antibiofilm polymers
- Polymeric systems for sustained release of proteins
- Polymer adhesives

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