



# Wake Forest University

## School of Medicine

### **Postdoctoral Fellowship Opportunity in Bioprinting and Regenerative Medicine**

Drs. Amish Asthana and Giuseppe Orlando are currently recruiting a Postdoctoral Fellow with PhD in biochemistry, cell and molecular biology, biotechnology, or bioengineering. The successful candidate will join a multidisciplinary team advancing a cutting-edge program that integrates 3D bioprinting and tissue-engineered organoids with regenerative medicine.

Our laboratory is housed within the Wake Forest Institute for Regenerative Medicine (WFIRM), a global leader in tissue engineering and regenerative medicine. WFIRM fosters collaboration through its open-laboratory concept and interdisciplinary environment.

The lab's central mission is to develop biomimetic constructs of pancreatic tissue and to identify novel strategies for enhancing vascularization and engraftment of biofabricated tissues following transplantation.

### **Key Responsibilities**

- Conduct basic and advanced cell culture, including primary cell isolation and expansion
- Perform chemical and physical characterization of biomaterials
- Assemble 3D constructs using biofabrication and bioprinting techniques
- Execute in vitro biological and functional assays to assess tissue viability and function
- Collect, organize, and analyze experimental data
- Contribute to the preparation of scientific reports and manuscripts

### **Preferred Background**

Candidates with experience in stem cell or islet biology, biomaterials, or tissue engineering are strongly encouraged to apply.

### **Start Date**

The position is available starting December 15, 2025.

### **Required Skills and Qualifications**

- Proficiency in cell culture, primary cell isolation and characterization, and 3D culture methodologies
- Strong foundation in biochemistry, cell biology, and biomaterials
- Experience with chemical, biochemical, and biological assays, including microscopy

## Desirable Experience

- Islet isolation and culture
- Organoid fabrication and characterization
- Developing rodent models of diabetes and Islet transplantation
- Biochemistry and biomaterial chemistry, including hydrogel development
- Microfluidic systems for biological applications

Interested candidates should submit their cover letter, CV, and contact information for three references to Dr. Amish Asthana ([Amish.Asthana@advocatehealth.org](mailto:Amish.Asthana@advocatehealth.org)) and Dr. Giuseppe Orlando ([Giuseppe.Orlando@wfusm.edu](mailto:Giuseppe.Orlando@wfusm.edu)) with the subject line: *Postdoctoral Fellowship Application – Bioprinting and Regenerative Medicine*