

2015 WFIRM Summer Scholar Program Director's Welcome & Wednesday Seminar Series

(9:00 a.m., Room 250 A&B)

June 2015

3rd Benjamin Harrison, Ph.D. Regenerative Medicine Fundamentals: Welcome and Overview
9am

Welcome and Introductory session addresses the interdisciplinary nature of tissue engineering and regenerative medicine, major components necessary to produce engineered tissues and organs, opportunities and today's most critical challenges.

10th David Williams, PhD Biomaterials TE
9am

Background provided on the status of biomaterials in TERM and relevant concepts in biology and materials science.

17th Christopher Porada, PhD Gene Therapy in Regenerative Medicine
9am

Addresses the status of gene therapy in regenerative medicine. Students will become familiar with dangers associated with gene therapy and will also gain an understanding of why restoration of only a portion of normal expression capacity is sufficient to correct inborn genetic diseases.

24th Thomas Shupe, PhD Body-on-a-Chip
9am

WFIRM was awarded a contract by the Defense Threat Reduction Agency to develop a "Body-on-a-Chip". Addresses the overall goal of the project, which is to construct 3D multicellular human organoids that are housed within a microfluidic system and function in concert as an integrated system. The platform contains multiple integrated microsensors, that monitor tissue organoid response to drugs and toxins. Currently, liver and cardiac organoids have been included in the system with planned integration of vascular and lung over the next year

July 2015

8th Tracy Criswell Whole Organ Tissue Engineering
9am

This session will address the potential, the methods and the challenges in engineering a whole functional organ.

July 2015 (cont.)

15th Graca Almeida-Porada, MD, PhD
9am

Cell Sources and Biology for Tissue

This session will introduce key concepts forming a basis for exploring the properties of selected populations of adult and embryonic stem cells. Paradigms for the study of stem cell biology may be presented.

22nd No Wednesday Seminar - Regenerative Medicine Essentials Course

Special invitation to attend 3-4 sessions associated with the annual [Regenerative Medicine Essentials Course](#)

Quick Overview: *WFIRM summer scholars are invited to participate in the annual Regenerative Medicine Essentials Course (held July 20th to 24th). This 1-week immersion course provides a unique, flexible opportunity for scholars to become acquainted with the broad spectrum of topics that make up regenerative medicine. A series of eight topic areas features prominent faculty members of WFIRM along with distinguished invited experts in the field. The eight content areas are grouped thematically and address a breadth of topics spanning: stem cells, cell sources, biomaterials, cellular therapies, enabling technologies and animal models, as well as legal, commercial, regulatory and ethical issues. WFIRM summer scholars, with the approval and guidance of their assigned mentor(s), are invited to sign up to attend a maximum of four of the eight sessions. In addition to the formal presentations, scholars will also have the opportunity to interact with speakers in smaller groups during lunch and other informal, social networking events and settings.*

29th Benjamin Harrison, PhD
9am

**Technical Communication and
Scientific Presentations 101**

Describes techniques for planning and preparing written communications, including journal and conference papers. Also emphasizes key components for structuring a good presentation, including researching, preparing, visually presenting different types of data, organizing and subject delivery.