#### 2020 McGowan Institute Retreat



## Program – Draft (1/24/2020) 2020 McGowan Institute Retreat March 9 and 10, 2020

## Monday-March 9, 2020

12:00 pm Registration Open

Lobby

1:00-2:30 pm **Trainee Workshop** 

Banquet Room 2 Second Floor

Session Organizers and Chairs: Piyumi Wijesekara Kankanange

Doctoral Student, Laboratory of Charlie (Xi) Ren

Department of Biomedical Engineering

Carnegie Mellon University

and

Abigail Adams

Doctoral Student, Laboratory of Partha Roy

Department of Bioengineering

University of Pittsburgh

Speakers:

Elaine Soohoo, PhD Biomedical Engineer

Division of Circulatory Support, Structural and Vascular Devices

Office of Cardiovascular Devices U.S. Food and Drug Administration

Elizabeth Wayne, PhD Assistant Professor

Departments of Biomedical Engineering and Chemical Engineering

Carnegie Mellon University

2:30-3:30 pm **Break** 

3:30-4:00 pm Poster Teaser Presentations

Glessner Ballroom Ground Floor

Andrew Duncan, PhD Assistant Professor Department of Pathology University of Pittsburgh

4:00-6:00 pm Opening Reception and Poster Session

Glessner Ballroom Ground Floor Odd numbers posters present 4-5pm Even number posters present 5-6pm

6:00-6:15 pm Welcome and Opening Address

Glessner Ballroom

William R. Wagner, PhD Director-McGowan Institute

6:15-7:30 pm Technology Pitches

Glessner Ballroom

7:30-9:00 pm Movie Night - Screening of "Burden of Genius"

Glessner Ballroom

Introduction By: Carl Kurlander

Documentarian and Filmmaker Visiting Distinguished Senior Lecturer Faculty Adviser. Pitt In Hollywood

University of Pittsburgh

#### Tuesday-March 10, 2020

7:00 am Registration Open

Lobby

7:00-8:00 am Networking Breakfast

Glessner Ballroom

8:00-9:00 am Patient Stories

Glessner Ballroom

Session Organizer and Chair:

George Gittes, MD

Director

Richard King Mellon Foundation Institute for Pediatric Research;

Co-Scientific Director UPMC Children's Hospital

9:00-9:30 am **Break** 

9:30-11:00 am Morning Breakout Sessions (2 concurrent)

Session 1 Team Formation to Address Grand Challenges in Regenerative Medicine

Banquet Room 1 Second Floor

Do you have an idea for a large-scale proposal that requires new collaborations and team formation? Prospective team leaders will pitch their proposal ideas to the audience. All participants will receive coaching from established leaders on assembling large teams to address unmet clinical needs. fill technological gaps or develop educational tools and experiences. Time

will be allotted for team formation, brainstorming and creating action plans.

Session 2 **Synthetic Biology and Regenerative Medicine** 

Banquet Room 3 Second Floor Session Organizer and Chair:

Mo Ebrahimkhani, MD

Associate Professor

Department of Pathology

School of Medicine;

Member, Pittsburgh Liver Research Center

University of Pittsburgh

#### "Linking Synthetic Biology with Mechatronic Systems"

Warren Ruder, PhD

**Assistant Professor** 

Department of Bioengineering

University of Pittsburgh

### "Building Engineered Systems with Synthetic Biology"

Philip LeDuc. PhD

William J. Brown Professor

Department of Mechanical Engineering

Director, Center for the Mechanics and Engineering of Cellular Systems

Carnegie Mellon University

# "Synthetic Control of Gene Regulatory Networks by CRISPR: The Roadmap to Human Translation"

Samira Kiani, MD

Associate Professor

Department of Pathology, Division of Experimental Pathology

School of Medicine

Pittsburgh Liver Research Center

University of Pittsburgh

# "Optogenetic Control of Telomere Clustering by Protein Phase Separation in ALT Cancer"

Huaiying Zhang, PhD

**Assistant Professor** 

Department of Biological Sciences

Carnegie Mellon University

### 9:30-11:00 am Commercialization Office Hours- by appointment only

Conference Room 3

Session Organizer and Chair:

Don Taylor, PhD, MBA, CLP

Assistant Vice Chancellor, Health Sciences Translation

Executive Director, sciVelo:

Co-Director, Center for Commercial Applications of Healthcare Data and of the Clinical and

Translational Science Institute;

Associate Director. Center for Medical Innovation:

Associate Professor, Biomedical Informatics and Plastic Surgery, School of Medicine;

Associate Professor of Bioengineering

Swanson School of Engineering

University of Pittsburgh

# 11:00am-1:00 pm Lunch, Diversity Lecture and Awards

Glessner Ballroom

## 1:00pm-2:30 pm Afternoon Breakout Sessions (2 concurrent)

# Session 3 Support for Early Stage Translational Research

#### Banquet Room 1

Session Organizers and Chairs: Alan Hirschman, PhD Executive Director Center for Medical Innovation; Professor of Bioengineering Swanson School of Engineering University of Pittsburgh

#### and

Scott Morley, MBA Coulter Program Director and EIR Innovation Institute University of Pittsburgh

#### "Welcome and Introduction to Session"

Alan Hirschman, PhD

# "From Bench, to Bedside, to Business: Commercializing your Medtech Innovation" Scott Morley, MBA

# "Building a Research Program with an Eye on Commercialization"

Morgan Fedorchak, PhD Assistant Professor Department of Ophthalmology University of Pittsburgh School of Medicine

#### "Sowing the Seeds of a Successful Aortic Stent Design Program"

Bryan Tillman, MD, PhD Associate Professor Division of Vascular Surgery Department of Surgery University of Pittsburgh Medical Center

#### and

Youngjae Chun, PhD Associate Professor Department of Industrial Engineering Swanson School of Engineering University of Pittsburgh

## "The Long and Winding Road to Technology Commercialization"

Jeremy Kimmel, PhD Vice President of New Technology ALung Technologies; Commercial Translation Program Manager Pitt SciVelo

# "Laboratory Practices that Enhance Chances for Industry Partnerships and Clinical Translation"

Steven Badylak, DVM, PhD, MD Professor Department of Surgery University of Pittsburgh; Deputy Director McGowan Institute for Regenerative Medicine;

Director

Center for Pre-Clinical Tissue Engineering McGowan Institute for Regenerative Medicine

# Session 4 Regenerative Tissue Therapies and Cancer Risk/Progression

Banquet Room 3

Session Organizers and Chairs:

Faina Linkov, PhD, MPH

Associate Professor of Ob/Gyn and Epidemiology

University of Pittsburgh School of Medicine;

Department of Obstetrics, Gynecology & Reproductive Sciences

Magee-Womens Research Institute

and

Lauren Kokai, PhD

Faculty

Department of Plastic Surgery

University of Pittsburgh School of Medicine;

Co-Director

Adipose Stem Cell Center

University of Pittsburgh

#### "Stem Cells and Cancer: An Overview"

Faina Linkov, PhD, MPH

# "Post-Mastectomy Reconstruction with Tumor Suppressing Autologous Adipose Tissue"

Lauren Kokai, PhD

### "Pleural Environment in Cardiovascular Disease and Cancer"

Vera Donnenberg, PhD

Associate Professor

Department of Cardiothoracic Surgery

University of Pittsburgh

#### "Adipose Derived Stem Cells: From Bench to Bedside"

Asim Ajaz, PhD

Research Assistant Professor Department of Plastic Surgery

University of Pittsburgh School of Medicine

Panel discussion with speakers- 20 min

#### 1:00-2:30 pm Commercialization Office Hours- by appointment only

Conference Room 3

2:30-3:00 pm **Break** 

# 3:00-4:30 pm Afternoon Breakout Sessions (2 concurrent)

# Session 5 Fireside Chat with Local Entrepreneurs

Terrace Room Second Floor In this informal session, attendees will engage with a panel of academic entrepreneurs and CEOs from local start-up companies to learn tips for success in starting a new company.

Session Organizer and Chair:

Don Taylor, PhD

#### Panelists:

Antonio (Tony) Torres Executive in Residence Innovation Institute University of Pittsburgh

Cecelia Yates, PhD Associate Professor Department of Health Promotion & Development School of Nursing University of Pittsburgh

Andrew Brown, PhD
Assistant Director
Commercial Translation Programs
sciVelo
University of Pittsburgh;
Clinical Assistant Professor
Department of Periodontics and Preventative Medicine
University of Pittsburgh School of Dental Medicine

# Session 6 Scientific Session: Pulmonary Injury Repair, Regeneration and Transplantation

Banquet Room 3

Session Organizer and Chair: Charlie (Xi) Ren, PhD Assistant Professor Department of Biomedical Engineering Carnegie Mellon University

#### "Mitochondrial Dysfunction in Aging and Pulmonary Fibrosis"

Marta Bueno

Research Assistant Professor of Medicine Aging Institute & Division of Pulmonary, Allergy and Critical Care Medicine University of Pittsburgh

# "Engineering of Pulmonary Stem Cells"

Charlie (Xi) Ren, PhD

# "Donor Lung Preservation and Transplantation "

Kentaro Noda, PhD Research Assistant Professor Department of Cardiothoracic Surgery University of Pittsburgh Medical Center

## "De Novo Lung Biofabrication"

Erica Comber
Doctoral Student, Laboratory of Keith Cook
Department of Biomedical Engineering
Carnegie Mellon University

**Commercialization Office Hours-** *by appointment only* Conference Room 3 3:00-4:30 pm

4:30 pm Departure