

2020 McGowan Institute Retreat

# Pitt McGowan

Program – Draft (2/11/2020)  
2020 McGowan Institute Retreat  
March 9 and 10, 2020

**Monday-March 9, 2020**

12:00 pm                   **Registration Open**  
Lobby, Wilson Lodge

1:00-2:30 pm           **Trainee Workshop- Academic Vs. Industry Career Paths**  
Banquet Room 2  
Wilson Lodge- 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 Allen  
Doctoral Student, Laboratory of Partha Roy  
Department of Bioengineering  
University of Pittsburgh

Panel 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  
Wilson Lodge-Ground Floor

Session Organizers and Chairs:  
Andrew Duncan, PhD  
Assistant Professor  
Department of Pathology  
University of Pittsburgh

and

Evan Delgado, PhD  
Postdoctoral Associate  
Department of Pathology  
University of Pittsburgh

**“CRISPR-based transcriptional repression to perform immunomodulation in vivo”**

Farzaneh Moghadam, BS  
PhD Student  
Department of Pathology  
University of Pittsburgh  
Poster #11

**“Effect of macro-calcification on the failure mechanics of intracranial aneurysmal wall tissue”**

Ronald Fortunato, BS  
PhD Student  
Department of Mechanical Engineering and Materials Science  
University of Pittsburgh  
Poster #22

**“Organ-on-a-chip: three-dimensional self-rolled biosensor array for electrical interrogations of electrogenic spheroids”**

Anna Kalmykov, MS  
PhD Student  
Department of Biomedical Engineering  
Carnegie Mellon University  
Poster #59

**“Contact Lens Delivery of Interleukin-4 for Treatment of Dry Eye Disease Promotes Anti-inflammatory Macrophage Populations”**

Alexis Nolfi, BS  
PhD Student  
Department of Bioengineering  
University of Pittsburgh  
Poster #37

**“foxm1 is required for cardiomyocyte proliferation after zebrafish cardiac injury”**

Daniel Zuppo, BS  
PhD Student  
Department of Developmental Biology  
University of Pittsburgh  
Poster #19

**“Hydrogel-enabled Intratumoral Co-Delivery of Anti-PD-1 Antibody and Adenosine Deaminase in a Mouse Model of Renal Cell Carcinoma”**

Ngoc Pham, BS  
PhD Student  
Graduate School of Pharmaceutical Sciences  
Duquesne University  
Poster #39

4:00-6:00 pm

**Opening Reception and Poster Session**

Glessner Ballroom  
Wilson Lodge- 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  
 Wilson Lodge- Ground Floor
- William R. Wagner, PhD  
 Director-McGowan Institute
- 6:15-7:30 pm      **Technology Pitches**  
 Glessner Ballroom  
 Wilson Lodge- Ground Floor
- 7:30-9:00 pm      **Movie Night - Screening of “Burden of Genius”**  
 Glessner Ballroom  
 Wilson Lodge- Ground Floor
- 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  
 Wilson Lodge- Ground Floor
- 8:00-9:00 am      **Patient Stories**  
 Glessner Ballroom  
 Wilson Lodge- Ground Floor
- 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  
 Wilson Lodge- 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. 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.
- Session 2      **Synthetic Biology and Regenerative Medicine**  
 Banquet Room 3

Wilson Lodge- 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  
Associate 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  
Wilson Lodge- Second Floor

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

Advisors:

Alex Ducruet, PhD, CLP  
Director, Licensing and Intellectual Property

Innovation Institute  
University of Pittsburgh

Seth Boudreaux, PhD  
Senior Manager, Business Development and Licensing  
Center for Technology Transfer and Enterprise Creation  
Carnegie Mellon University

Shawn Bengtson, RQAP-GLP  
Director, Quality Assurance-Quality Systems Program  
McGowan Institute for Regenerative Medicine

Dennis P. Swanson, MS  
Assistant Dean for Special Projects  
Professor, Pharmacy and Therapeutics  
University of Pittsburgh

11:00am-1:00 pm

**Lunch, Diversity Lecture and Awards**

Glessner Ballroom  
Wilson Lodge- Ground Floor

Speaker:  
Paula K. Davis, MA  
Assistant Vice Chancellor for Health Sciences Diversity  
Schools of Health Sciences  
University of Pittsburgh

Poster Awards:  
Chair: Andy Duncan, PhD

1:00pm-2:30 pm

**Afternoon Breakout Sessions (2 concurrent)**

Session 3

**Translating Early Stage University Research into the Healthcare Marketplace**

Banquet Room 1  
Wilson Lodge- Second Floor

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

**“University of Pittsburgh Center for Medical Innovation Early Stage Seed Grant Program – Overview and Results”**

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  
Wilson Lodge- Second Floor

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 Ejaz, 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

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Associate Professor, Biomedical Informatics and Plastic Surgery, School of Medicine;  
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Assistant Dean for Special Projects

Professor, Pharmacy and Therapeutics  
University of Pittsburgh

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  
Wilson Lodge 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:

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  
Wilson Lodge- Second Floor

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, PhD  
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

3:00-4:30 pm

**Commercialization Office Hours- *by appointment only***

Conference Room 3  
Wilson Lodge- Second Floor

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;  
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Dennis P. Swanson, MS  
Assistant Dean for Special Projects  
Professor, Pharmacy and Therapeutics  
University of Pittsburgh

4:30 pm

**Departure**