

# 17th Annual Plastic Surgery Research Day Department of Plastic Surgery University of Pittsburgh Friday, June 26, 2020 (Virtual)

The overall goal of the Pitt Plastic Surgery Research Day is to discuss and educate the audience on new concepts and technologies in clinical and translational research in all areas of plastic surgery.

10:00 AM - 10:05 AM	Introduction and Opening Remarks (J. Peter Rubin, MD; Kacey Marra, PhD; Jesse Goldstein, MD)
10:05 AM - 10:35 AM	Visiting Professor - Lecture I  Developing Novel Therapeutics for Lymphedema  Babak J. Mehrara, MD  Chief, Plastic and Reconstructive Surgical Service Peter G. Cordeiro Endowed Chair in Plastic and Reconstructive Surgery Memorial Sloan Kettering Cancer Institute Professor of Surgery, Weill Cornell Medical College
10:35 AM - 11:20 AM	Session I - Clinical Research I Presentations (Jesse Goldstein, MD)
11:20 AM - 11:56 PM	Session II - Basic Science Research Presentations (Asim Ejaz, PhD)
11:56 PM - 12:45 PM	Lunch
12:45 PM - 1:15 PM	Visiting Professor - Lecture II  Using a Continuous Improvement Strategy to Increase Enhanced Outcomes of Cancer Reconstruction Surgery  Babak J. Mehrara, MD Chief, Plastic and Reconstructive Surgical Service Peter G. Cordeiro Endowed Chair in Plastic and Reconstructive Surgery Memorial Sloan Kettering Cancer Institute Professor of Surgery, Weill Cornell Medical College
1:15 PM - 2:00 PM	Session III - Clinical Research II Presentations (Carolyn De La Cruz, MD)
2:00 PM - 2:50 PM	Session IV – Education, Quality and Innovation Presentations (Kacey Marra, PhD)
2:54 PM - 3:00 PM	Concluding Remarks (J. Peter Rubin, MD; Kacey Marra, PhD; Jesse Goldstein, MD)
3:00 PM - 3:30 PM	Break
3:30 PM - 4:30 PM	Virtual Cocktail Hour and Award Presentations; Open Q & A

#### Course Directors:

Jesse A. Goldstein, MD Associate Professor of Plastic Surgery University of Pittsburgh, Pittsburgh, PA

Kacey G. Marra, PhD Professor and Vice Chair of Research Department of Plastic Surgery Professor of Bioengineering University of Pittsburgh, Pittsburgh, PA

#### Intended Audience:

The target audience for the meeting includes plastic surgeons in practice and in training, both private and academic, and members of the plastic surgery research community.

## **Learning Objectives:**

At the conclusion of this activity, attendees should be able to:

- ☐ Demonstrate knowledge of current concepts in plastic and reconstructive surgery;
  - Access clinical data that will have a direct impact on the everyday practice of plastic surgery,
- Integrate basic science research to assist in making better clinical and operative decisions; and
- Implement techniques in the areas of patient safety, clinical/surgical outcomes, and complications that will improve their performance and patient outcomes.

The University of Pittsburgh School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

CME Credits Pending.

### Sponsored by:

University of Pittsburgh School of Medicine Center for Continuing Education in the Health Sciences and the Department of Plastic Surgery

The information presented at this CME program represents the views and opinions of the individual presenters, and does not constitute the opinion or endorsement of, or promotion by, the UPMC Center for Continuing Education in the Health Sciences, UPMC / University of Pittsburgh Medical Center or Affiliates and University of Pittsburgh School of Medicine. Reasonable efforts have been taken intending for educational subject matter to be presented in a balanced, unbiased fashion and in compliance with regulatory requirements. However, each program attendee must always use his/her own personal and professional judgment when considering further application of this information, particularly as it may relate to patient diagnostic or treatment decisions including, without limitation, FDAapproved uses and any off-label uses.

## Visiting Professor and Keynote Speaker



Babak J. Mehrara, MD
Chief, Plastic and Reconstructive Surgical Service
Peter G. Cordeiro Endowed Chair in Plastic and Reconstructive Surgery
Memorial Sloan Kettering Cancer Institute
Professor of Surgery, Weill Cornell Medical College

Babak J. Mehrara, MD, is the Chief of the Plastic and Reconstructive Surgery Service and the William G. Cahon Endowed Chair in the Department of Surgery at Memorial Sloan Kettering Cancer Center (MSK), with a joint appointment as Professor of Surgery at Weill Cornell Medical College. Dr. Mehrara is an oncologic reconstructive surgeon with a broad background in both the clinical management and the biology of cancer. He has authored more than 200 peer-reviewed publications and serves as the Director of the National Institutes of Health-funded Lymphatic Biology Laboratory at MSK.



## University of Pittsburgh School of Medicine Department of Plastic Surgery Faculty:

J. Peter Rubin, MD Professor & Chair

Joseph E. Losee, MD Professor & Executive Vice Chair

Kacey G. Marra, PhD Professor & Vice Chair of Research

T. Oguz Acarturk, MD Visiting Clinical Associate Professor

Devra B. Becker, MD Associate Professor

Sydney R. Coleman, MD Clinical Assistant Professor

Gregory M. Cooper, PhD Associate Professor

Alexander J. Davit III, MD Assistant Professor

Carolyn De La Cruz, MD Assistant Professor

Asim Ejaz, PhD Research Assistant Professor

James R. Gilbert, PhD Research Assistant Professor

Michael L. Gimbel, MD Associate Professor

Jesse A. Goldstein, MD Associate Professor Lorelei J. Grunwaldt, MD Associate Professor

Jeffrey A. Gusenoff, MD Professor

Lauren E. Kokai, PhD Assistant Professor

Ernest K. Manders, MD Emeritus Professor

Vu T. Nguyen, MD Assistant Professor

James M. Russavage, DMD, MD Clinical Assistant Professor

Lindsay A. Schuster, DMD, MS Clinical Assistant Professor

Kenneth C. Shestak, MD Emeritus Professor

Mario G. Solari, MD Assistant Professor

Alexander M. Spiess, MD Associate Professor

Guy M. Stofman, MD Clinical Professor

Jignesh V. Unadkat, MD Assistant Professor

Dawn J. Wang, MD Assistant Professor

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10:35 – 10:40 AM	Noninvasive Quantification of Skin Pigmentation after Light Based Therapy: A Pilot Study <b>David Turer, MD, MS</b> ; Isaac B. James, MD; Barry E. DiBernardo, MD
10:40 – 10:44 AM	Discussion led by Michael Hu, MD
10:44 – 10:49 AM	Virtual 3D Reduction of Displaced Mandible Fractures: A Validation Study Comparing Surgical Reductions with Virtual Reductions  Justin Beiriger, BSE; Lucas Dvoracek, MD; Erin Anstadt, MD; Joseph Losee, MD; Jesse A. Goldstein, MD
10:49 – 10:53 AM	Discussion led by Xiao Zhu, MD
10:53 – 10:58 AM	Optimizing Fat Graft Processing: A Prospective, Controlled Clinical Trial Comparing Telfa Rolling versus Centrifugation for Fat Grafting Craniofacial Deformities  Isaac B. James, MD; Debra A Bourne, MD; Danielle M. Minteer, PhD; M. Asher Schusterman, MD; Sheri Wang, BS; Jacqueline Bliley, MS; Albert Donnenberg, PhD; Vera Donnenberg, PhD; Barton Branstetter, MD; Gretchen L. Haas, PhD; Patsy Simon, RN, BS; Ernest Michael Meyer, BA; Kacey G. Marra, PhD; Sydney Coleman, MD; J. Peter Rubin, MD
10:58 - 11:02 AM	Discussion led by Francesco Egro, MBChB, MSc, MRCS
11:02 – 11:07 AM	The Impact of Autologous versus Implant Based Breast Reconstruction on BMI in Breast Cancer Patients <b>Eva Roy, BS</b> ; Jennifer A. Hall, BS; Xiao Zhu, MD; Francesco Egro, MBChB, MSc, MRCS; Carolyn De La Cruz, MD
11:07 – 11:11 AM	Discussion led by M. Asher Schusterman, MD
11:11 – 11:16 AM	Reverse Sural Artery Flap: Anatomic Study of Peroneal Perforators and Modifications for Coverage of Medial and Distal Foot Defects  Xiao Zhu MD; Guilherme Barreiro, MD, PhD
11:16 – 11:20 AM	Discussion led by Elizabeth A. Moroni, MD, MHA
11:20 – 11:56 AM	Session II - Basic Science Research Presentations (Asim Ejaz, PhD)

11:20 - 11:25 AM	Allogeneic Adipose-Derived Stem Cells Mitigate Acute Radiation Syndrome Somaiah Chinnapaka, PhD; Michael W. Epperly, PhD; Renee L. Fisher, BS; Joel S. Greenberger, MD; J. Peter Rubin, MD; Asim Ejaz, PhD	
11:25 - 11:29 AM	Discussion led by Isaac B. James, MD	
11:29 - 11:34 AM	Reconstruction of Calvarial Wounds Complicated by Infection: Effect of Varying Doses of Bone Morphogenetic Protein 2  Lucas A. Dvoracek, MD; Kyle Parks, PhD; F. Paul Marji, MD; Saigopalakrishna Yerneni, PhD; Phil G. Campbell, PhD; Gregory M. Cooper, PhD; James R. Gilbert, PhD; Joseph E. Losee, MD	
11:34 - 11:38 AM	Discussion led by Liliana Camison, MD	
11:38 - 11:43 AM	A Novel Polysaccharide Derivative to Enhance Wound Healing in MRSA-infected Porcine Partial-thickness Burn Wound Model Francesco M. Egro, MD, MSc, MRCS; Asim Ejaz, PhD; Alexander Repko, BS; Deokyeol Kim, MD; M. Asher Schusterman, MD; Ali Ayyash, MD; Allister J. Loughran, PhD; Vidya Narayanaswamy, MS; Shenda Baker, PhD; Jenny A. Ziembicki, MD, FACS; Kacey G. Marra, PhD; J. Peter Rubin, MD	
11:43 – 11:47 AM	Discussion led by Shawn Loder, MD	
11:47 – 11:52 AM	Improving Functional Outcomes After Peripheral Nerve Injury: Muscle vs. Nerve Treatment Jocelyn S. Baker; Benjamin K. Schilling, MS; David M. Turer, MD, MS; Chiaki Komatsu, MD; Adam R. Cottrill, BS; J. Peter Rubin, MD; Mario G. Solari, MD; Kacey G. Marra, PhD	
11:52 - 11:56 AM	Discussion led by Ian Chow, MD	
11:56 - 12:45 PM	Lunch: e-posters on rotation	
12:45 - 1:15 PM	Visiting Professor – Lecture II  Using a Continuous Improvement Strategy to Increase Enhanced Outcomes of Cancer Reconstruction Surgery  Babak J. Mehrara, MD	
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1:38 - 1:42 PM	Discussion led by Samantha Maliha, MD
1:42 - 1:47 PM	Racial Disparities in Early Evaluation in Management of Patients with Non-Syndromic Craniosynostosis  Casey Tompkins-Rhoades, BS; Erin Anstadt, MD; F. P. Marji, MD; Jesse A. Goldstein, MD
1:47 – 1:51 PM	Discussion led by Brodie Parent, MD
1:51 - 1:56 PM	Pediatric Hand Trauma in Under-served Populations: A Cohort Study  Brodie Parent, MD, MS; Chelsey Johnson, MD; Erin Anstadt, MD; Jennifer Fantuzzo, BS; James Fisher, MD, PhD; John Fowler, MD; Alexander Davit, MD
1:56 – 2:00 PM	Discussion led by Josh David, MD
2:00 - 2:54 PM	Session IV - Education, Quality and Innovation Presentations (Kacey Marra, PhD)
2:00 – 2:05 PM	Individual Biocontainment Unit for Protecting Healthcare Workers from Aerosolized Pathogens like COVID-19  Benjamin K. Schilling, MS; David M. Turer, MD, MS; Cameron H. Good, PhD; Heng Ban, PhD; Jason S. Chang, MD; J. Peter Rubin, MD
2:05 - 2:09 PM	Discussion led by Angela Prescott, MD
2:09 - 2:14 PM	ACAPS Plastic Surgery Boot Camp: The Fifth Year Experience Angela Prescott, MD; Vu T. Nguyen, MD
2:14 - 2:18 PM	Discussion led by Joanna Ng-Glazier, MD
2:18 - 2:23 PM	Push-to-Spin Syringe (P2S™): A New Device for Autologous Fat Grafting Xiaonan Yang, MD, PhD; <b>Jonathan P. Brower, MD</b> ; Lauren E. Kokai, PhD; Beth R. Gusenoff, DPM; Jeffrey A. Gusenoff, MD
2:23 – 2:27 PM	Discussion led by David Turer, MD, MS
2:27 – 2:32 PM	The Utility of Formal Breast & Hand Simulation and Ultrasound Courses in Plastic Surgery Education - One Institution's Experience Joanna Ng-Glazier, MD; Jeffrey A. Gusenoff, MD
2:32 - 2:36 PM	Discussion led by Wendy Chen, MD
2:36 - 2:41 PM	Teaching the Furlow Palatoplasty: A Randomized, Controlled Trial Comparing Traditional Didactics to a Low-Fidelity Model  Erin Anstadt, MD; Eva Roy, BS; Pooja Humar, BS; Lisa Block, MD; Jesse A. Goldstein, MD
2:41 – 2:45 PM	Discussion led by Lucas Dvoracek, MD
2:45 - 2:50 PM	A Pathway to Leadership: Evaluation of Training Institutions on Developing Plastic Surgery Leadership Francesco M. Egro, MBChB, MSc, MRCS; Carolyn P. Murphy, BA; <b>Brandon T. Smith, MS</b> ; Eva Roy, BS; Alexander G. Stavros, BS; Joseph E. Losee, MD; Vu T. Nguyen, MD
2:50 - 2:54 PM	Discussion led by Chelsey Johnson, MD
2:54 - 3:00 PM	Concluding Remarks (J. Peter Rubin, MD; Kacey Marra, PhD; Jesse Goldstein, MD)
3:00 – 3:30 PM	Break
3:30 - 4:30 PM	Virtual Cocktail Reception and Award Presentations; Open Q & A with Dr. Mehrara