

19th Annual Plastic Surgery Research Day

Department of Plastic Surgery University of Pittsburgh University Club, Ballroom B Friday, June 24, 2022

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.

7:30 AM - 8:00 AM	Breakfast
8:00 AM - 8:05 AM	Introduction and Opening Remarks (J. Peter Rubin, MD, MBA; Kacey Marra, PhD; Jesse Goldstein, MD)
8:05 AM - 9:00 AM	Visiting Professor – Lecture Nerve Transfers – Next Level Considerations for Success Amy M. Moore, MD, FACS Professor and Chair Robert L. Ruberg MD Alumni Chair Department of Plastic and Reconstructive Surgery Wexner Medical Center The Ohio State University
9:00 AM - 9:15 AM	Break/Vendor Exhibits
9:15 AM - 10:25 AM	Session I - Clinical Research I Presentations (Dr. Carolyn De La Cruz)
10:25 AM - 10:40 AM	Break/Vendor Exhibits
10:40 AM - 11:40 AM	Session II - Basic Science Research Presentations (Dr. Asim Ejaz)
11:40 AM - 12:00 PM	Break/Vendor Exhibits
12:00 PM - 1:00 PM	Lunch
12:00 PM - 1:00 PM	Visiting Professor – Second Lecture Climbing the Academic Ladder: A New Chair's Perspective Amy M. Moore, MD, FACS
1:00 PM - 2:20 PM	Session III - Clinical Research II Presentations (Dr. Michael Bykowski)
2:20 PM - 2:30 PM	Break/Vendor Exhibits
2:30 PM - 3:40 PM	Session IV - Education, Quality and Innovation Presentations (Dr. Lauren Kokai)
3:40 PM - 3:45 PM	Concluding Remarks (J. Peter Rubin, MD, MBA)
3:45 PM	Adjournment
3:45 PM - 5:30 PM	Rooftop Reception and Award Presentations

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.

Accreditation and Credit Designation Statement:

In support of improving patient care, the University of Pittsburgh is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Physician (CME)

The University of Pittsburgh designates this live activity for a maximum of 6.5 *AMA PRA Category 1 Credits* $^{\text{TM}}$. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Physician Assistant (AAPA)

The University of Pittsburgh has been authorized by the American Academy of PAs (AAPA) to award AAPA Category 1 CME credit for activities planned in

accordance with AAPA CME Criteria. This activity is designated for 6.5 AAPA Category 1 CME credits. PAs should only claim credit commensurate with the extent of their participation.

Other health care professionals will receive a certificate of attendance confirming the number of contact hours commensurate with the extent of participation in this activity.

Link to website to register for CME https://cce.upmc.com/19th-annual-plastic-surgery-research-day

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 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, FDA-approved uses and any off-label uses.

Visiting Professor and Keynote Speaker



Amy M. Moore, MD, FACS

Amy M. Moore, MD, FACS, is Professor and Chair of the Department of Plastic and Reconstructive Surgery at The Ohio State University Wexner Medical Center in Columbus, Ohio USA. Her clinical focus is nerve and hand surgery for children and adults.

A committed surgeon-scientist, Dr. Moore has developed a parallel translational science research program with more than \$3.5 million in funding from the Department of Defense. Her research focus is to develop novel treatments for nerve injuries and pain. She has published her clinical and translational research findings with more than 100 peer-reviewed journal articles and chapters.

Her dedication to her field is manifested in her service and leadership roles on national and international associations and boards. She serves on the scientific advisory board for the International Symposium of Neural Regeneration and has participated on multiple study sections for the DoD. She also has leadership roles on the Board of the American Association of Hand Surgery and the American Society for Peripheral Nerve.

Dr. Moore received her medical degree at the Virginia Commonwealth University School of Medicine and completed her general surgery residency, peripheral nerve research fellowship and plastic and reconstructive surgery fellowship at Washington University School of Medicine. She then completed an orthopedic hand fellowship at Mayo Clinic.

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

J. Peter Rubin, MD, MBA Professor & Chair

Joseph E. Losee, MD Professor & Executive Vice Chair

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

T. Oguz Acartürk , MD Clinical Associate Professor

Devra B. Becker, MD Associate Professor

Michael R. Bykowski, MD, MS Assistant Professor

Gregory M. Cooper, PhD Associate Professor

Alexander J. Davit III, MD Assistant Professor

Carolyn De La Cruz, MD Associate Professor

Asim Ejaz, PhD Assistant Professor

Michael L. Gimbel, MD Associate Professor

Jesse A. Goldstein, MD Associate Professor

Jeffrey A. Gusenoff, MD Professor Lauren E. Kokai, PhD Assistant Professor

Mark Kubik, MD Assistant Professor

Ernest K. Manders, MD Professor Emeritus

Vu T. Nguyen, MD Associate Professor

Brodie Parent, MD, MS Assistant Professor

James M. Russavage, MD Clinical Assistant Professor

Lindsay Schuster, DMD, MS Associate Professor

Mario G. Solari, MD Assistant Professor

Alexander M. Spiess, MD Associate Professor

Shaum Sridharan, MD Assistant Professor

Guy M. Stofman, MD Clinical Professor

Jignesh V. Unadkat, MD Assistant Professor

Dawn J. Wang, MD, MS Assistant Professor

19th Annual Plastic Surgery Research Day
Department of Plastic Surgery
University of Pittsburgh
University Club, Ballroom B
Friday, June 24, 2022

	Friday, June 24, 2022
7:30 AM - 8:00 AM	Breakfast
8:00 AM - 8:05 AM	Introduction and Opening Remarks (J. Peter Rubin, MD, MBA; Kacey Marra, PhD; Jesse Goldstein, MD)
8:05 AM - 9:00 AM	Visiting Professor – Lecture Nerve Transfers – Next Level Considerations for Success Amy M. Moore, MD FACS Professor and Chair Robert L. Ruberg MD Alumni Chair Department of Plastic and Reconstructive Surgery Wexner Medical Center The Ohio State University
9:00 AM - 9:15 AM	Break/Vendor Exhibits
9:15 AM - 10:25 AM	Session I - Clinical Research I Presentations (Dr. De La Cruz)
9:15 AM - 9:20 AM	Robotic Versus Standard Harvest of Bilateral Deep Inferior Epigastric Artery Perforator Flaps: Early Outcomes <u>Elizabeth Bailey, MD</u> ; Brian Chen, MD; William Nelson, MD; Stanislav Nosik, MD; Richard Fortunato, DO; Andrea Moreira, MD; Daniel Murariu, MD
9:20 AM - 9:25 AM	Equity in Head and Neck Reconstruction: Assessing the Impact of Area Deprivation Index and Distance from Hospital on Outcomes in Free Tissue Transfer Patients Elizabeth A. Moroni, MD, MHA; Lauren Gardiner, MD; Casey Zhang, BS; Pooja Humar, BS; Fuat Baris Bengur, MD; Rakan Saadoun, MD; Mario G. Solari, MD; Shaum S. Sridharan, MD; Mark Kubik, MD
9:25 AM - 9:30 AM	Protraction Headgear Compliance and Orthognathic Surgery in Patients with Cleft Lip and Palate Cleo Yi, DMD, MDS; Nilesh Shah, PhD; Bernard Costello, DMD, MD; Jesse Goldstein, MD, FAAP, FACS; Anand Kumar, MD; Joseph Losee, MD, FAAP, FACS; Lindsay Schuster, DMD, MS
9:30 AM - 9:35 AM	Association between The Use of Intraoperative Pressors and Outcomes in Patients Undergoing Free Flap Reconstruction of The Head and Neck Region Malke Asaad, MD; Rakan Saadoun, MD; Elizabeth A. Moroni, MD, MHA; Nayel Khan, MD; Mark Kubik, MD; Shaum Sridharan, MD; Mario G. Solari, MD
9:35 AM - 9:40 AM	Direct-to-Implant Breast Reconstruction with Free Nipple Grafting: A Safe and Effective "Nipple-Sparing" Approach Meeti Mehta, BS; Elizabeth A. Moroni, MD, MHA; Kendall Peters, MD
9:40 AM - 9:55 AM	Discussion

9:55 AM - 10:00 AM	Retrospective Review of Outcomes of Revision Carpal Tunnel Release with Hypothenar Fat Flap Michael Hu, MD, MPH, MS; Ian Chow, MD; Kristen Jackson, PA-C; Shea Ray, MD; Linden Head, MD; Teun Teunis, MD, PhD; Joseph Imbriglia, MD
10:00 AM - 10:05 AM	Re-Pigmentation in the Nipple-Areolar Complex Following the Use of Free-Nipple Grafts in Breast Reduction Surgery Pooja Humar, BS; Elizabeth Bailey, MD; Vu Nguyen, MD; Carolyn De La Cruz, MD; Michael Gimbel, MD
10:05 AM - 10:10 AM	Association between Venous Thromboembolism Rates and Different Prophylactic Anticoagulation Regimens in Patients Undergoing Free Flap Transfer to The Head and Neck Region Rakan Saadoun, MD; Fuat Baris Bengur, MD; Elizabeth A. Moroni, MD, MHA; Mark Kubik, MD; Shaum Sridharan, MD; Mario G. Solari, MD
10:10 AM - 10:25 AM	Discussion
10:25 AM - 10:40 AM	Break/Vendor Exhibits
10:40 AM - 11:40 AM	Session II - Basic Science Research Presentations (Dr. Asim Ejaz)
10:40 AM - 10:45 AM	Dexamethasone-Loaded Poly(lactic-co-glycolic acid) Microspheres Improve Fat Graft Retention in an Immunocompetent Rat Model <u>Caroline N. Fedor, BA</u> ; Asim Ejaz, PhD; W. Vincent Nerone, BA; Kacey G. Marra, PhD; J. Peter Rubin, MD, MBA
10:45 AM - 10:50 AM	Nerve Conduit with Glial Cell Line-Derived Neurotrophic Factor Containing Microspheres Improves Recovery After Facial Nerve Transection Fuat Baris Bengur, MD; Chiaki Komatsu, MD; Caroline N. Fedor, BA; Shawn Loder, MD; Jocelyn S. Baker, BS; Aanchal Totwani; Zhazira Irgebay, BA; W. Vincent Nerone, BA; Mario G. Solari, MD; Kacey G. Marra, PhD
10:50 AM - 10:55 AM	Allogenic Adipose Tissue-Derived Matrix Mitigates Radiation-Induced Fibrosis Katherine S. Yang, BSE; Yusuf Surucu, MD; Somaiah Chinnapaka, PhD; J.P. Rubin, MD, MBA; Asim Ejaz, PhD
10:55 AM - 11:10 AM	Discussion
11:10 AM - 11:15 AM	A Naturally Occurring Biologic Response Modifier, Thymosin alpha 1, Promotes Wound Revascularization and Inhibits Biofilm Adherence in a Mouse Model Phoebe L. Lee, BS; Shawn J. Loder, MD; David Guerrero, MS: Fuat Baris Bengur, MD; Wayne V. Nerone, BS; Rachel Ricketts; Lauren Kokai, PhD
11:15 AM - 11:20 AM	Single-Stage Trilaminar Skin Reconstruction Following Full-Thickness Burn Injury Fuat Baris Bengur, MD; Shawn J. Loder, MD; Wayne V. Nerone, BS; Phoebe L. Lee, BS; Rachel Rickett, BS, Lauren E. Kokai, PhD; Kacey G. Marra, PhD; Elof Eriksson, MD; J. Peter Rubin, MD, MBA
11:20 AM - 11:25 AM	Establishment of Protocol to Enable On-Site Cryopreservation of Fat for Repeat Procedures Yusuf Surucu, MD; Somaiah Chinnapaka, PhD; Katherine S. Yang, BS; Asim Ejaz, PhD; J. Peter Rubin, MD, MBA
	, ,

11:40 AM - 12:00 PM	Break/Vendor Exhibits
12:00 PM - 1:00 PM	Lunch
12:00 PM - 1:00 PM	Visiting Professor Lecture - Amy M. Moore, MD FACS Climbing the Academic Ladder: A New Chair's Perspective
1:00 PM - 2:20 PM	Session III - Clinical Research II Presentations (Dr. Michael Bykowski)
1:00 PM - 1:05 PM	Flap Closure of Spinal Defects in High-Risk Patients: A Ten-Year Institutional Experience <u>Elizabeth M. Kenny, MD</u> ; Isaac B. James, MD; Fuat Barış Bengür, MD; Ernest K. Manders, MD; James M. Russavage, MD, DMD; Tahsin Oğuz Acartürk, MD
1:05 PM - 1:10 PM	Tissue Augmenting Palatoplasty for the Treatment of Velopharyngeal Insufficiency Erin E. Anstadt MD; Madeleine K. Bruce, MD; Matthew Ford, MS; Noel Jabbour, MD; Miles J. Pfaff, MD; Michael Bykowski, MD; Jesse A. Goldstein, MD; Joseph E. Losee, MD
1:10 PM - 1:15 PM	Stable or Not? Machine Learning Analysis of Postoperative Results in Patients with Metopic Craniosynostosis Justin W. Beiriger, BSE; Wenzheng Tao, MS; Zhazira Irgebay, BA; John Smetona, MD; Ross Whitaker, PhD; Jesse A. Goldstein, MD
1:15 PM - 1:20 PM	The Effects of Volume and Radiotherapy on Outcomes in Patients Undergoing Autologous Fat Grafting for Breast Reconstruction <u>Casey Zhang, BS</u> ; Pooja Humar, BS; Joshua A. David, MD; Sydney R. Coleman, MD; <u>Carolyn De La Cruz, MD</u>
1:20 PM - 1:25 PM	Pediatric Hand Trauma: Demographics, Injury Patterns and Operations Meeti Mehta, BS; Michael Marallo, MD; Elizabeth A. Moroni, MD, MHA; Nallammai Muthiah, BS; Casey Zhang, BS; Alexander J. Davit III, MD, FAAP
1:25 PM - 1:40 PM	Discussion
1:40 PM - 1:45 PM	Skull Vertex Position as A Novel Craniometric Measurement to Assess Severity and Surgical Outcomes in Sagittal Craniosynostosis Samantha G. Maliha, MD, MS; Madeleine K. Bruce, BA; Casey Zhang, BA; Allison K. Mak, BA; Justin W. Beiriger, BSE; Lucas A. Dvoracek, MD; Jesse Goldstein, MD
1:45 PM - 1:50 PM	True Incidence of Marginal Mandibular Nerve Palsy Following Neonatal Mandibular Distraction Osteogenesis Sarah Myers, BSN; Justin W. Beiriger, BSE; Madeleine K. Bruce, BA; Sayna Matinrazm, BA; Anjali Raghuram, MD; Zhazira Irgebay, BA; John Smetona, MD; Joseph E. Losee, MD; Jesse A. Goldstein, MD
1:50 PM - 1:55 PM	Pediatric Facial Fractures: Demographics, Injury Patterns, and Associated Injuries in 3,334 Patients Zhazira Irgebay, BA; Justin W. Beiriger, BSE; John Smetona, MD; Joseph E. Losee, MD; Jesse A. Goldstein, MD
1:55 PM - 2:00 PM	Assessment of Long-Term Outcomes and Cranial Growth after Large Porous Polyethylene Cranioplasty in Children Liliana Camison, MD; Lucas A. Dvoracek, MD; Madeleine K. Bruce, BA; Justin W. Beiriger, BSE; Mandeep S. Tamber, MD, PhD; Michael R. Bykowski, MD; Jesse A. Goldstein, MD; Joseph E. Losee, MD

2:00 PM - 2:05 PM	Squamosal Suture Synostosis: An Under-Recognized Phenomenon <u>Iustin Beiriger, BSE</u> ; Xiao Zhu, MD; Madeleine K. Bruce, BA; Zhazira Irgebay, BSA; John Smetona, MD; Joseph E. Losee, MD; Jesse A. Goldstein, MD
2:05 PM - 2:20 PM	Discussion
2:20 PM - 2:30 PM	Break/Vendor Exhibits
2:30 PM - 3:40 PM	Session IV - Education, Quality and Innovation Presentations (Dr. Lauren Kokai)
2:30 PM - 2:35 PM	Simplifying, Standardizing, and Improving the Skin De-epithelialization Process Brenton R. Robinson, MD; Anjali C. Raghuram, MD; Malke Asaad, MD; J. Peter Rubin, MD, MBA
2:35 PM - 2:40 PM	Publication Disparity in Breast-Cancer Related Lymphedema Compared to Lymphedema Secondary to Other Causes: A Review of Current Literature Vrusha K. Shah, MPH; Elizabeth A. Moroni, MD, MHA; Carolyn De La Cruz, MD
2:40 PM - 2:45 PM	Neck Rejuvenation Using a Minimally Invasive Light Guided Suture Suspension System Isaac B. James , MD; David M. Turer, MD; Matthew J. Trovato, MD; Barry E. DiBernardo, MD
2:45 PM - 2:50 PM	Towards the Development of an Autonomous Pressure Relieving Seating System: An Analysis of Pressure Injuries and Current Seating Systems in Wheelchair Users <u>Iames D. Fisher MD. PhD</u> ; Claire Collison, MD; Brad Dicianno, MD; Guy M. Stofman, MD
2:50 PM - 3:05 PM	Discussion
3:05 PM - 3:10 PM	Presentation and Management of Radial Polydactyly: A 12-Year Institutional Experience Allison K. Mak, BA; <u>Iustine S. Kim, MD</u> ; <u>James Fisher</u> , MD; Alexander J. Davit III, MD
3:10 PM - 3:15 PM	Current Utilizations and Limitations of Augmented Reality in Plastic and Reconstructive Surgery Lucille Cheng, BA; Nicolas Kass, BA; Sayna Matinrazm, BA; Elizabeth Moroni, MD MHA; Lucas Dvoracek, MD; Edward Andrews, MD; Jesse Goldstein, MD; Mario Solari, MD
3:15 PM - 3:20 PM	Augmented Reality for Frontal Sinus Setback in Facial Feminization Surgery Nicolás Kass, BA; Zhazira Irgebay, BA; Lucille Cheng, BA; Elizabeth A. Moroni, MD MHA; Lucas Dvoracek, MD; Edward Andrews, MD; Jesse Goldstein, MD
3:20 PM - 3:25 PM	The Oblique Flankplasty Revisited: Outcomes of 108 Consecutive Cases Mehmet C. Uluer, MD; Isaac B. James, MD; Armando A. Davila, MD; Dennis J. Hurwitz, MD
3:25 PM - 3:40 PM	Discussion
3:40 PM - 3:45 PM	Concluding Remarks (J. Peter Rubin, MD, MBA)
3:45 PM - 5:30 PM	Reception on the Rooftop at the University Club

Description of Awards

Best clinical presentation

Awarded to the best oral presentation of a clinical abstract based on the assessment made by the Visiting Professor. Selection criteria include innovation, quality of approach, application to practice, and quality of presentation.

Best basic science presentation

Awarded to the best oral presentation of a basic science abstract based on the assessment made by the Visiting Professor. Selection criteria include experimental design, significance of results, innovation, and quality of presentation.

Best quality/education presentation

Awarded to the best oral presentation of a quality/education abstract based on the assessment made by the Visiting Professor. Selection criteria include innovation, quality of approach, application to practice, and quality of presentation.

Faculty Disclosures

All individuals in a position to control the content of this education activity have disclosed all financial relationships with any companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients. All of the relevant financial relationships for the individuals listed below have been mitigated.

Receives royalties (Stockholder, publicly traded) from designed cannulas and also
serves as a Mentor
Receives Grant/Research support from Cynosure, and he is a consultant for Cynosure
and Alma Lasers.
Chief Medical Officer of Applied Tissue Technologies which produces the Platform
Wound Device
CE Speakers Bureau: Integra Life Sciences
Stockholder (privately held): Push2Spin Technologies, Inc.; BRG Innovations, LLC.
Consultant: Galderma; Stockholder (publicly traded): InMode
Receives Grant/Research support from Cynosure
Receives Other/Royalties from Publishing (Elsevier and Thieme)
Stockholder (privately held), CSO, and Medical Director of Promethean Life Sciences
Receives Grant/Research support: DOD/Grant # W81XWH-21-1-0480
Other/Equity in Sofregen, Regen Med LLC, and Plastic Surgery Channel
Receives Grant/Research support from Cynosure
Receives Grant/Research support from Cynosure

No other members of the planning committee, speakers, presenters, authors, content reviewers and/or anyone else in a position to control the content of this education activity have relevant financial relationships with any companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.

We gratefully acknowledge support from the following for this activity

Exhibitors:

TELA Bio^(R) MTF Biologics

