Presented by
Department of Plastic and Reconstructive Surgery & Department of Neurosurgery

Fourth Annual
Selected Topics in Neuroplastic & Reconstructive Surgery:
An International Symposium on Cranioplasty and Implantable Neurotechnology

November 3 - 4, 2018

General Session: November 3
Chevy Chase Auditorium
Johns Hopkins Hospital
Baltimore, MD

Hands-on Lab: November 4
VISTA Lab
1030 North Charles Street
Baltimore, MD

This activity has been approved for AMA PRA Category 1 Credits™.
Modern-day cranioplasty, along with the burgeoning field of Neuroplastic and Reconstructive Surgery, is undergoing a significant paradigm shift related to various techniques, surgical advancements, implantable neurotechnology, and improved biomaterials. These changes have stimulated us to assemble premier thought leaders in various specialties including neurosurgery, neuroplastic surgery, craniofacial surgery, and plastic surgery to meet for the fourth annual symposium dedicated to the subjects of “cranioplasty,” “implantable neurotechnology,” and “neuroplastic surgery”— to be hosted this year in Baltimore, Maryland. The faculty will gather to present evidence-based data on surgical approaches and state-of-the-art materials, engage and network within a broad array of colleagues and experts, and share high-yield experiences to help attendees improve their patient outcomes. Interactive panel discussions following each lecture will offer the opportunity to debate the evidence, exchange ideas, and gain invaluable insight to assist with the most challenging cases. This year’s symposium will engage an international faculty and audience consisting of neurosurgery, neuroplastic surgery, craniofacial surgery, plastic/reconstructive surgery, oral/maxillofacial surgery, and otolaryngology/head and neck surgery to explore and elucidate the new insights and advances relative to skull reconstruction, cranial implants, and groundbreaking neurotechnologies.

WHO SHOULD ATTEND

OBJECTIVES
After attending this activity, the participant will demonstrate the ability to:

• Create a cranioplasty reconstruction management plan with or without implants, from peri- to postprocedural care.
• Discuss recent advances in cranioplasty and neuro-cranial reconstruction, and how you may incorporate them into your practice.
• Translate cranioplasty and implantable neurotechnology research findings to improved outcomes based on recent evidence based literature.
• Employ cooperative learning to analyze practice barriers and apply appropriate solutions.

ACCREDITATION STATEMENT
The Johns Hopkins University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

CREDIT DESIGNATION STATEMENT
The Johns Hopkins University School of Medicine designates this Live activity for a maximum of 12.50 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

OTHER CREDIT(S)
American Nurses Credentialing Center (ANCC) accepts AMA PRA Category 1 Credit™ from organizations accredited by the ACCME.
American Academy of Nurse Practitioners National Certification Program accepts AMA PRA Category 1 Credit™ from organizations accredited by the ACCME.
National Commission on Certification of Physician Assistants (NCCPA). PAs may claim a maximum of 12.50 Category 1 credits for completing this activity. NCCPA accepts AMA PRA Category 1 Credit™ from organizations accredited by ACCME or a recognized state medical society.

POLICY ON SPEAKER AND PROVIDER DISCLOSURE
It is the policy of the Johns Hopkins University School of Medicine that the speaker and provider globally disclose conflicts of interest. The Johns Hopkins University School of Medicine OCME has established policies that will identify and resolve conflicts of interest prior to this educational activity. Detailed disclosure will be made prior to presentation of the education.

GENERAL INFORMATION

REGISTRATION
Saturday, November 3, 2018
6:00 – 7:00 a.m.

LOCATION
Chevy Chase Bank Conference Center
The Sheikh Zayed Tower
The Johns Hopkins Hospital
1800 Orleans Street, Main Level
Baltimore, Maryland 21287

FEES

REGISTRATION CUT-OFF DATE: October 28, 2018

Register Online at:

Methods of Payment: We require full payment prior to the start of the activity. The registration fee includes instructional materials, continental breakfasts, refreshment breaks and lunch.

Physicians
Saturday, November 3rd only .................................................. $495
Sunday, November 4th only .................................................. $750
Saturday and Sunday ............................................................ $1,200

Residents*/Fellows*/Allied Health Professionals
Saturday, November 3rd only .................................................. $95
Sunday, November 4th only .................................................. $100
Saturday and Sunday ............................................................ $195

*with verification of status

You will receive a confirmation by e-mail. If you have not received it by October 28, 2018, call (410) 502-9636 to confirm that you are registered. A transcript of attendance will be available upon attestation of your credit hours and submission of the post activity online evaluation.

The Johns Hopkins University reserves the right to cancel or postpone any activity due to unforeseen circumstances. In this event, the University will refund the registration fee but is not responsible for travel expenses. Additionally, we reserve the right to change the venue to a comparable venue. Under such circumstances registrants will be notified as soon as possible.
LATE FEE AND REFUND POLICY
A $50 late fee applies to registrations received after 5:00 p.m. ET on October 28, 2018. A handling fee of $50 will be deducted for cancellation. An additional fee may apply for cancellation of other events, including workshops and social activities. Refund requests must be received by fax or mail by October 28, 2018. No refunds will be made thereafter. Transfer of registration to another Johns Hopkins activity in lieu of cancellation is not possible.

SYLLABUS
The syllabus will be accessible online and via your mobile device in the CloudCME App prior to the activity.

HOW TO OBTAIN CREDIT
Post activity, an online evaluation will be available to attendees to evaluate the activity and individual presentations and to identify future educational needs. Upon completion of the evaluation, the learner must attest to the number of hours in attendance. Credits earned will be added to the learner’s transcript and immediately available for print. The last day to access the evaluation and attest to your credits is December 18, 2018.

An outcome survey will be sent to all physician attendees within two months post activity to assist us in determining what impact this activity had on the learner’s practice.

EMERGENCY CALLS
On November 3, 2018 direct emergency calls to the Hopkins registration desk, (443) 287-5426. On November 4, 2018 direct emergency calls to the Hopkins registration desk, (410) 637-3704. Messages will be posted for participants.

AMERICANS WITH DISABILITIES ACT
The Johns Hopkins University School of Medicine fully complies with the legal requirements of the ADA and the rules and regulations thereof. Please notify us if you have any special needs.

ACKNOWLEDGEMENT
Applications for commercial support from health care related industries are pending. A complete list of contributors will be provided in the syllabus. Please note that commercial support received is solely for the educational component of the activity and will not be used to provide food and beverage.

Please note: The Physician Payments Sunshine Act was enacted by Congress to increase public awareness of financial relationships between drug and medical device manufacturers and physicians. In compliance with the requirements of this Act, the commercial supporter/s of this activity may require the Johns Hopkins University School of Medicine to report certain professional information (such as name, address, National Provider Identifier (NPI), and State License number) of physician attendees who receive complimentary food and beverage in conjunction with a CME activity. The commercial supporter is required to submit the collected data to the Centers for Medicare and Medicaid Services which will then publish the data on its website.
SATURDAY, NOVEMBER 3, 2018

6:00 - 7:00 Registration and Continental Breakfast

7:00 - 7:10 Welcome and Conference Goals
Chad Gordon, DO, FACS

7:10 - 7:15 Chairman’s Welcome
Henry Brem, MD

7:15 - 7:20 Chairman’s Welcome
W. P. Andrew Lee, MD

7:20 - 7:30 Opening Remarks
Redonda Miller, MD, MBA

7:30 - 7:50 Patient Experience with Neuroplastic Surgery and Cranial Reconstruction

Session 1: Implantable Neurotechnology
Moderators: William Curry, MD and Michael Yaremchuk, MD

8:00 - 8:15 Expansion Microscopy and Optogenetics in Normal and Diseased Brain
Pablo Valdes Quevado, MD, PhD

8:15 - 8:30 Intraoperative OCT Imaging for Brain Tumors
Kaisorn Chaichana, MD

8:30 - 8:45 Implanting Seeds for Local Radiation Therapy
Lawrence Kleinberg, MD

8:45 - 9:00 Convection-Enhanced Delivery for Brain Tumors
Jon Weingart, MD

9:00 - 9:15 Improving Shunts and Devices for Hydrocephalus
Rajiv Iyer, MD on behalf of Mark Luciano, MD, PhD

9:15 - 9:30 Foreign Body Reaction and Biological Interface Phenomena
Aldo Ferrari, PhD

9:30 - 9:45 Patient Selection for Implantable Neuromodulation
Gregory Bergey, MD

9:45 - 10:00 Neurostimulation for Epilepsy
William Anderson, MD

10:00 - 10:30 Fourth Annual Keynote Lectureship: Restoration and Control of Motor Function and Sensation Using High Electrode Count Utah Electrode Arrays
Richard Normann, PhD

10:30 - 10:45 Challenges of Achieving Long-Term Neural Interfaces
John Donoghue, PhD

10:45 - 11:00 Neuromodulation for Movement Disorders
Jonathan Miller, MD, FAANS, FACS

11:00 - 11:15 Targeting Brain Cancer Stem Cells with miRNA Therapeutics
John Laterra, MD, PhD

11:15 - 11:30 Nanoparticles for CNS Therapeutics
Jordan Green, PhD

11:30 - 11:45 Low-Profile Intercranial Devices with Power
Chad Gordon, DO, FACS

11:45 - 12:15 Lunch

Session 2: Cranioplasty and Craniofacial Implants
Moderators: Peter Taub, MD and Judy Huang, MD

12:15 - 12:30 Cranial Implants for Pediatric Patients
Jesse Goldstein, MD on behalf of Joseph Losee, MD

12:30 - 12:45 Brain Tumors And Neuro-Reconstruction
William Curry, MD

12:45 - 1:00 Skull Neoplasm Resection and Single-Stage Reconstruction with Implants
Michael Lim, MD

1:00 - 1:15 Neuro-Cranial Injuries from the Battlefield
Randy Bell, MD

1:15 - 1:30 Reconstructing the Wounded Warrior
Anand Kumar, MD

1:30 - 1:45 Refreshment Break
Session 3: Neurocranial Reconstruction and Post-Traumatic Cranioplasty

Moderators: Rafael Tamargo, MD and Mutaz Habal, MD

1:45 - 2:00 Managing Civilian Neurotrauma
Graeme Woodworth, MD, FACS

2:00 - 2:15 Four Decades of Experience: The Need for Plastic Surgery
Paul Manson, MD

2:15 - 2:30 Robotic-Assisted Technology for Cranial Implant Modification
Mehran Armand, PhD

2:30 - 3:00 Intra-Op Modification of Cranial Implants
Orin Bloch, MD

3:00 - 3:15 The Apollo System and Futuristic Applications
Erol Veznedaroglu, MD

3:15 - 3:30 An Analysis of Cranioplasty Complications and Costs
Gordon Li, MD

3:30 - 3:45 Preferred Technique and Materials for Cranioplasty
Amir Wolff, DMD

3:45 - 4:00 Futuristic Applications of 3D Printing for Neuro-Cranial Reconstruction
Gerald Grant, DMD, MS

4:00 - 4:15 Novel Applications of Rectus Fascia for Repairing Dura Defects and Thin Scalps
Gabriel Santiago, MD

4:15 - 4:30 Non-Invasive Temporal Hollowing Correction with Fillers
Mary Sheu, MD

4:30 - 4:45 Adopting New Technology into Your Practice
Kenneth Liebman, MD, FACS, FAANS

4:45 - 5:00 Closing Remarks
Chad Gordon, DO, FACS

SUNDAY, NOVEMBER 4, 2018

VISTA Lab

7:00 - 7:45 Registration and Continental Breakfast

7:45 - 7:55 Welcome and Faculty Overview
Chad Gordon, DO, FACS

8:00 - 9:45 Session I: Neurosurgical Approaches to the Craniofacial Skeleton
1. Burr hole for Ventriculostomy Placement
2. Pterional Craniotomy for Trauma
3. Parasagittal Craniotomy
4. Bifrontal Craniotomy for Frontal Sinus Trauma
5. Orbito-zygomatic Osteotomy
6. Occipital Craniotomy
7. Posterior Fossa Craniotherapy

9:45 - 10:00 Refreshment Break

10:00 - 11:45 Session II: Neurocranial Reconstruction and Cranioplasty Technique
1. Bifrontal Cranioplasty for Frontal Bone/Frontal Sinus Trauma
2. Pterional Cranioplasty Reconstruction with Customized Cranial Implant
3. Hemipenectionomy Cranioplasty Reconstruction with Customized Cranial Implant
4. Chiari Reconstruction with Alloplastic Implant
5. Temporal Hollowing Correction with Methyl Methacrylate
6. Complex Scalp Reconstruction for Large Defects

11:45 - 12:00 Closing Remarks
Adjourn

You will receive an email notification to complete the evaluation form and to attest to the number of hours in attendance.

The registration desk will remain open during conference hours.
Activity Directors

JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE

Chad Gordon, DO, FACS
Director, Neuroplastic and Reconstructive Surgery
Associate Professor of Plastic Surgery and Neurosurgery
Fellowship Director, Neuroplastic & Reconstructive Surgery (Plastic Surgery)
Co-Director, Multidisciplinary Adult Cranioplasty Center (MACC)

Judy Huang, MD
Vice-Chair and Professor of Neurosurgery
Fellowship Director, Neuroplastic & Reconstructive Surgery (Neurosurgery)
Co-Director, Multidisciplinary Adult Cranioplasty Center (MACC)

HARVARD MEDICAL SCHOOL

William Curry, MD
Professor of Neurosurgery
Co-Director, Massachusetts General Neuroscience
Massachusetts General Hospital

Michael Yaremchuk, MD
Clinical Professor of Surgery
Chief, Craniofacial Surgery
Massachusetts General Hospital

Faculty

JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE

William Anderson, MD
Associate Professor of Neurological Surgery

Mehran Armand, PhD
Associate Research Professor of Mechanical Engineering
Principle Scientist
Johns Hopkins University Applied Physics Laboratory

Gregory Bergey, MD
Professor of Neurology
Director, Johns Hopkins Epilepsy Center

Henry Brem, MD
Professor of Neurosurgery, Ophthalmology, Oncology and Biomedical Engineering
Director, Department of Neurosurgery

Harvey Chalmers
Surgical Assistant

Jordan Green, PhD
Professor of Biomedical Engineering, Ophthalmology, Oncology, Neurosurgery, Materials Science & Engineering, and Chemical and Biomolecular Engineering

Rajiv Iyer, MD
PGY7 Neurosurgery Resident
Department of Neurosurgery
The Johns Hopkins Hospital

Paul Manson, MD
Professor of Plastic and Reconstructive Surgery
Program Director, Plastic Surgery Residency Program, Department of Surgery

Lawrence Kleinberg, MD
Associate Professor of Radiation Oncology and Molecular Radiation Sciences

W. P. Andrew Lee, MD
The Milton T. Edgerton, MD Professor and Chairman
Department of Plastic and Reconstructive Surgery

John Laterra, MD, PhD
Professor of Neurology
Co-Director, Brain Cancer Program
Johns Hopkins Sidney Kimmel Comprehensive Cancer Center

Michael Lim, MD
Professor of Neurosurgery
Director, Brain Tumor Immunotherapy

Mark Luciano, MD, PhD
Professor of Neurosurgery

Redonda Miller, MD, MBA
President, The Johns Hopkins Hospital
Associate Professor of Medicine

Paul Manson, MD
Distinguished Professor of Plastic and Reconstructive Surgery

Mary Sheu, MD
Assistant Professor of Dermatology
Medical Director, Johns Hopkins Dermatology & Cosmetic Center
Green Spring Station

Rafael Tamargo, MD
Walter E. Dandy Professor of Neurosurgery

Jon Weingart, MD
Professor of Neurosurgery
Director, Neurosurgical Operating Room
TO REGISTER or FOR FURTHER INFORMATION:
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To Register:
Online: https://hopkinscme.cloud-cme.com/aph.aspx?P=5&EID=96361
FAX: (866) 510-7088 Phone: (410) 502-9636
Or mail this form to the Johns Hopkins University, Office of Continuing Medical Education, 720 Rutland Avenue, Baltimore, Maryland 21205.
Include e-check or credit card information below.

FULL PAYMENT IS REQUIRED PRIOR TO THE START OF ACTIVITY.

☐ I am a Johns Hopkins speaker for this activity.

Please type or print clearly

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What do you hope to learn by attending this activity?

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Please notify us if you have any special needs.

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Registration Fees

Physicians
Saturday, November 3rd only: ................................................................. $495
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Sunday, November 4th only: ................................................................. $100
Saturday and Sunday: ........................................................................ $195

*with verification of status

Total amount enclosed $ __________________

The registration fee includes instructional materials and food and beverage. For registrations received after 5:00 p.m. ET on October 28, 2018, include a $50 late fee. On-site registrations are payable only by credit card.

Payment Type

JHU Faculty/Staff Only:
If you are using your Tuition Remission Benefit or an ION budget, please upload your fully completed and approved form in the payment section of the activity link above.

☐ TR Form: http://benefits.jhu.edu/documents/trffacandstaff.pdf
☐ ION Form: http://hopkinscme.edu/migration/IonRequest.pdf

☐ e-Check: Routing # __________________ Account # __________________

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