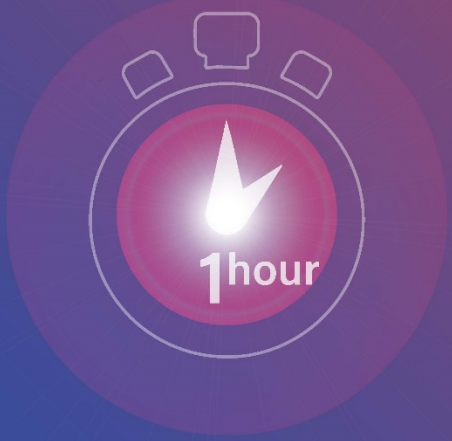
Innovations in Technologies to Extend the Golden Hour

An interagency workshop to propel innovative solutions for military and civilian trauma and emergency care



March 21 - 22, 2019

Natcher Conference Center

National Institutes of Health
Bethesda, MD 20892

NIH National Institute of Biomedical Imaging and Bioengineering | USU Uniformed Services University | FDA

The National Institute of Biomedical Imaging and Bioengineering (NIBIB), the Uniformed Services University of the Health Sciences (USUHS), and the Food and Drug Administration (FDA) welcome you to:

Innovations in Technologies to Extend the Golden Hour

An interagency workshop to propel innovative solutions for military and civilian trauma and emergency care

The National Institute of Biomedical Imaging and Bioengineering, the Uniformed Services University of the Health Sciences, and the Food and Drug Administration welcome you to the first workshop "Innovations in Technologies to Extend the Golden Hour" to discuss bioengineered solutions for improved diagnostic treatment of acute injuries and shock. The purpose of this meeting is to link nascent bioimaging and bioengineered solutions with the needs of the Departments of Defense and Health and Human Services, while offering an opportunity for subject matter experts to gather and determine the state of the science and regulatory policy in critical care trauma and resuscitation while discussing current and future research efforts that will lead to concrete solutions.

We look forward to your interactive participation throughout these two days. Enjoy the meeting!

COL Todd E. Rasmussen, MD, Uniformed Services University (USU), Walter Reed National Military Medical Center
Šeila Selimović, PhD, National Institute of Biomedical Imaging and Bioengineering (NIBIB)
Heather Agler, PhD, Food and Drug Administration (FDA)

With Gratitude to the Members of the Steering Committee:

Neil Aggarwal, PhD, NIH/NHLBI
Manfred Boehm, PhD, FDA
Khaled Bouri, PhD, FDA
Jeremy Brown, MD, NINDS
COL Kevin Chung, MD, USUHS
COL Michael Davis, MD, CCCRP
RADM (ret) Bruce Doll, PhD, USUHS
Anthony Garza, PhD, FDA
COL Matthew Hepburn, MD, DARPA
Andrei Kindzelski, MD/PhD, NHLBI
Todd Merchak, NIBIB
Marcello Pilia, PhD, USU/HJF
George Sopko, MD, NHLBI
Justin Yang, MBA, BARDA

And Thanks for Additional Support From:

Henry M. Jackson Foundation for the Advancement of Military Medicine

AGENDA: March 21, 2019	
0800 – 0830	**Registration**
0830 – 0900	**Welcoming Remarks and Introductions**
0830 – 0845	Bruce Tromberg, PhD – Director, NIBIB
0845 – 0900	Arthur Kellermann, MD, MPH – Dean of the School of Medicine, USUHS
0900 – 1200	**SESSION I – Introduction**
0900 - 0920	**Current status and needs in managing severe injuries and shock – the civilian perspective** Thomas Scalea, MD – Physician-in-Chief, Adams Cowley Shock Trauma Center, University of Maryland
0920 - 0925	**Questions and Answers with Dr. Scalea**
0925 – 0945	**Current status and needs in managing severe injuries and shock – the military perspective** Col Todd Rasmussen, MD – Vice-Dean of Research, School of Medicine, USUHS
0945 - 0950	**Questions and Answers with Dr. Rasmussen**
0950 – 1010	**Status of related research supported by NIH** Jeremy Brown, MD – Office of Emergency Care Research, NIH
1010 – 1015	**Questions and Answers with Dr. Brown**
1015 – 1100	**Break & Networking**
1100 – 1130	**Status of related research supported by DOD agencies** Col Michael Davis, MD – Director, Combat Casualty Care Research Program
1130 – 1200	**FDA Guidance** Michael Hoffman, MS – Deputy Director, Neurological and Physical Medicine Devices, FDA
1200 – 1300	**Lunch & Networking**
1300 – 1500	**SESSION II – Up-and-Coming Technologies from Current Research**
1300 – 1315	**Clinically Informed Wound Repair Biomaterials: Chemistry and Engineering** Mark Grinstaff, PhD – Boston University
1315 – 1330	**Imaging – Ultrasound for Emergency Medicine** Will Mauldin, PhD – Rivanna Medical
1330 – 1345	**Organ support, polytrauma, acute respiratory diseases syndrome** Andriy Batchinsky, MD – US Army Institute of Surgical Research (USAISR)
1345 – 1400	**Radiobiology – Radiation Exposure** CAPT John Gilstad, MD – Armed Forces Radiobiology Research Institute (AFRRI)

1400 – 1415	**Biosensors** Shalini Prasad, PhD – University of Texas, Dallas				
1415 – 1430	**Hemostatic Medical Devices** John Holcomb, MD – University of Texas, Houston				
1430 – 1445	**Biosensors** Natalie Wisniewski, PhD – Profusa				
1445 – 1500	**Laser Optical Diagnostics** Matthew Brenner, MD – University of California, Irvine				
1500 – 1515	**Break & Networking**				
1515 – 1645	**SESSION III – Working Session I: Breakout Session**				
1515 – 1645	**Extracorporeal Organ Support Technologies**	**Radiation Exposure / Burn and Wound Healing**	**Hemostatic Medical Devices**	**Portable Imaging Technologies**	**Wearable biosensors**
Discussion lead	Jennifer Gurney (USAISR)	Eric Elster (USUHS)	Craig Goolsby (USUHS)	Matt Hepburn (DARPA)	Justin Yang (BARDA)
Discussion participants	Kevin Chung (USUHS) George Sopko (NHLBI) Fernando Aguel (FDA) Nicole Gillete (FDA) Claire Hambright (FDA)	David Rampulla (NIBIB) George Zubal (NIBIB) Narayan Iyer (BARDA) Lixin Liu (FDA) Laura Marquart (FDA)	Michael Dubick (USAISR) Traci Mondoro (NHLBI) Kira Moore (FDA)	Andrew Hersh, Vincent Ho (USUHS) Randy King (NIBIB) Jeffrey Ballyns (FDA)	Michael Davis (CCCRP) Christian Hartshorn (NCI) Šeila Selimović (NIBIB) Linda Ricci (FDA)
1645 – 1700	**Summary & Adjournment of Day 1**				
1800 – 2030	**Conference dinner**				

AGENDA: March 22, 2019					
0800 – 0830	**Registration**				
0830 – 0845	**Welcoming Remarks and Outline for the day**				
0845 – 1100	**SESSION IV – Working Session II: Conclusion**				
0845 – 1015	**Extracorporeal Organ Support Technologies**	**Radiation Exposure / Burn and Wound Healing**	**Hemostatic Medical Devices**	**Portable Imaging Technologies**	**Wearable Biosensors**
Discussion lead	Jennifer Gurney (USAISR)	Eric Elster (USUHS)	Craig Goolsby (USUHS)	Matt Hepburn (DARPA)	Justin Yang (BARDA)
Discussion participants	Kevin Chung (USUHS) George Sopko (NHLBI) Fernando Aguel (FDA) Nicole Gillete (FDA) Claire Hambright (FDA)	David Rampulla (NIBIB) George Zubal (NIBIB) Narayan Iyer (BARDA) Lixin Liu (FDA) Laura Marquart (FDA)	Michael Dubick (USAISR) Traci Mondoro (NHLBI) Kira Moore (FDA)	Andrew Hersh, Vincent Ho (USUHS) Randy King (NIBIB) Jeffrey Ballyns (FDA)	Michael Davis (CCCRP) Christian Hartshorn (NCI) Šeila Selimović (NIBIB) Linda Ricci (FDA)
1015 – 1030	**Break & Networking**				
1030 – 1100	**Readout of the Roundtable Summaries**				
1100 – 1215	**SESSION V - Closing Session**				
1100 – 1200	**Panel Discussion: Challenges in the Development and Translation of New Technologies**				
Panel lead	Šeila Selimović (NIBIB)				
Panelists	Bruce Doll (USU), Jeremy Brown (NINDS), Michael Davis (CCCRP), Jacqueline Gertz (FDA), Justin Yang (BARDA), Matt Hepburn (DARPA), Todd Merchak (NIBIB)				
1200 – 1215	**Summary & Adjournment of Workshop**				

Natcher Conference Building map – Level 1

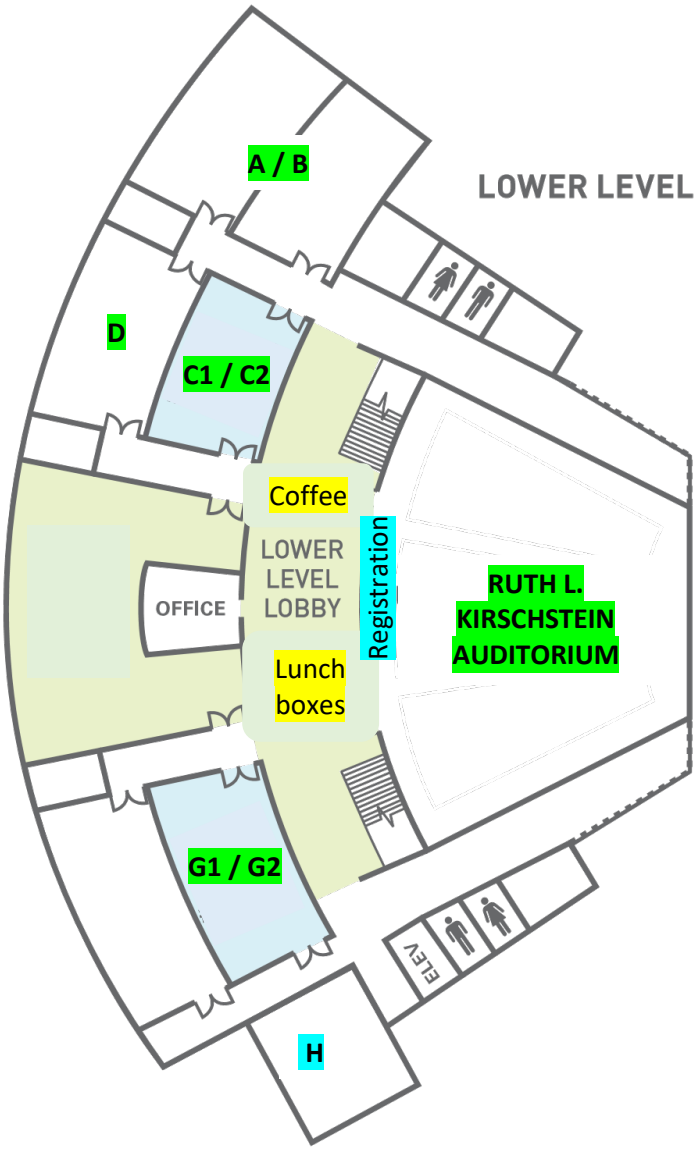
Sessions III, IV:

Extracorporeal Organ Support Technologies:
Balcony A

Radiation Exposure / Burn and Wound Healing:
Balcony B

Hemostatic Medical Devices:
Balcony C

Natcher Conference Building map – Lower level



Sessions I, II, V, readout of the roundtables:
Ruth L. Kirschstein Auditorium

Sessions III, IV:

Wearable Biosensors:
Room A/B

Portable Imaging Technologies:
Room D

Lounge / Luggage and Work Space:
Room H

Logistics

Check-in
Check-in will begin at 0800 on both meeting days.

Wireless access
Wireless internet is free and can be accessed using the network **NIH-Guest**.

Food
Food and drinks cannot be brought into the auditorium. You can purchase snacks or lunch at the Natcher cafeteria, which is open from 0630 to 1430, and the Natcher concession stand, open from 0700 to 1530.
You can also purchase lunch ahead of time here:
https://eurestconferencecatering.catertrax.com/
Pre-ordered lunch boxes will be ready for pick-up outside the Natcher Auditorium.
Coffee and snacks during the breaks will be available in front of Balconies A and C.

Conference dinner
Shangri-La Nepalese and Indian Cuisine
7345-A Wisconsin Ave, Bethesda, MD 20814
March 21, 2019: 1800 – 2030

Those who signed up for the dinner should plan to arrive at the restaurant in downtown Bethesda the evening of Day 1, March 21, 2019 by 1830. If you are waitlisted, please check additional availability at the registration desk.
The restaurant is a short walk away from the Bethesda Metro Station (about 25-minute walk from the NIH campus). Parking is available in public garages nearby. The buffet price is $30 and includes one meal per person with a glass of wine or beer (and tax and tip). Please bring cash, if possible.

Transportation
Please allow adequate time to get to the NIH main campus and to get through security at the NIH Gateway Center Entrance. You will need to state the purpose of the visit and obtain a visitor's badge, so please bring a government-issued photo ID (driver's license, passport, green card, etc.). Please allow 20-30 minutes for taxis, Uber or Lyft to arrive and ask to be picked up at the MEDICAL CENTER METRO STATION.

Lounge
Room H in the basement of Natcher Conference Center is available for work, phone calls, and to store your luggage.