AGENDA

9:00 am – 10:15 am  
Poster Session A

10:15 am – 11:30 am  
Poster Session B

11:30 am – 1:00 pm  
Lunch - Hackerman Lobby

1:00 pm – 2:00 pm  
Welcome & Keynote Presentation
   Krista Donaldson
   CEO, Equalize Health

2:00 pm – 3:15 pm  
Student Presentations:
   CBID Master's Projects

3:15 pm – 3:45 pm  
Break

3:45 pm – 4:45 pm  
Student Presentations:
   Design Team & Project-Based
   Courses

4:45 pm - 5:00 pm  
Awards

THANK YOU TO OUR SPONSORS & SUPPORTERS:

Aravind Eye Hospital
Baxter
Boston Scientific
C.R. Dyer '84
Danaher
Hogan Lovells
Medtronic
Nihon Kohden
POSTER SESSION A

Shriver Lobby

Precision Care Medicine
- Prediction of the Microbial Origin of Presumed Sepsis in PICU Encounters
- Predicting COVID-19 Resistance Using JH-CROWN Dataset
- Development and Validation of a Clinical Decision Support Tool for Prediction of Weaning Outcome on Admission to the Intensive Care Unit
- Artificial Intelligence Assessment of Ocular Torsion from Conventional Funduscopic Photography and other Ocular Imaging and Recordings

BME Design Team
- SafeShunt: Detecting failure of cerebrospinal fluid shunts in patients with Hydrocephalus
- PAPmate: Augmenting bCPAP systems to reduce nurse workload and improve neonatal development
- Scentcare: A novel At-Home Olfactory Training and Testing Device
- Silectrode: Novel electrodes for improved intraoperative nerve action potential recording during the treatment of peripheral nerve injuries
- InVenimus: Improving Intravenous Access in Pediatric Patients
- Tempo: Improving Temporary Epicardial Pacing Wire Removal

Shriver Boardroom

BME Design Team
- Visilant: Increasing Access to Eye Care through Community-Based Telemedicine
- VectorCam: Fighting Malaria One Image at a Time
- MalariaVision: Automating Malaria Microscopy in Uganda
- CurveAssure: Spinal Implant System to Promote Sagittal Alignment with Dynamic Fixation
- LaparoscopiX: Expanding Access to Minimally Invasive Surgery

Rehabilitation Engineering
- Self-Tightening Brace for Upper Arm Fractures
- Biogaming
- Positional Magnetic Wheelchair Control Interface
- Haptic Feedback Device for Lower Limb Amputees

Independent Design
- Engineered Therapeutic Viruses can Target Abnormal RNA Splicing in Cancer

Shriver Auditorium Stage

CBID Global Health
- Visilant: Increasing Access to Eye Care through Community-Based Telemedicine
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Shriver Auditorium Floor

BME Design Team
- Pleurops: Pleural Biopsy Made Simple
- FiOR: Automating the Future of OR Safety
- Earlier Detection of Hypoxemia in Dark Skin Tone Patients

Advanced Design Team
- FreeFlo2: Creating a Smart Oxygen Delivery System to Match Patient Needs
POSTER SESSION B

Shriver Lobby

Precision Care Medicine
- Early Prediction of Length of Stay in Hospitalized Patients with Stroke and Traumatic Brain Injury
- Identification and Validation of a CCEP-Derived Computational Marker of the Epileptogenic Zone
- Prediction of Neurologic Injury in Pediatric ECMO
- Prediction of Cardiac Arrest in the Pediatric ICU

Shriver Boardroom

BME Design Team
- ICPrevict: A Non-Invasive Way of Measuring Intracranial Pressure
- The Bronchosleeve: Streamlining One Lung Ventilation
- Manevra
- OCTeam
- DiscovEar: An endoscopic attachment system for visualization of the Eustachian tube lumen

Advanced Design Team
- DioTeX: Hemorrhage Diagnostics

Shriver Auditorium Stage

CBID US Healthcare
- LymphaSense: Enabling Life-Changing Lymphedema Screening
- CurveAssure: Enhancing Spine Surgery with Preoperative Dynamic Posture Diagnostics
- β-Trace: Providing Innovative Radiation Therapies for Pancreatic Cancer Patients
- SealCore: Making Kidney Biopsies Safer for All Patients
- InWave: Healthy Sleep for Healthy Aging

Neuro Data Design
- Decision Forests / Deep Networks
- Scene Segmentation Using Progressive Learning
- Streaming Synergistic Forests

Independent Design
- Real Time Brain Signal Analysis for Deep Brain Stimulation
- Privacy-Preserving Model Training for Breast Cancer Prediction

Shriver Auditorium Floor

BME Design Team
- DermaMark: Finite Surgical Site Localization
- Neuraskull Technologies: The CranioSpring
- NeoHydrate
- SynoSim: Improving Joint Access Procedural Competence
STUDENT PRESENTATIONS

CBID Master's Projects

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Design Team & Project-Based Courses

Neuro Data Design

- Kernel Density Graphs
- Multivariate Feature Selector

Precision Care Medicine

- Prediction of Cardiac Arrest in the Pediatric ICU
- Artificial Intelligence Assessment of Ocular Torsion from Conventional Funduscopic Photography and other Ocular Imaging and Recordings

Advanced Design Team

- Free Flo2: Creating a smart oxygen delivery system to match patient needs

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