Penn Acute Research Collaborative (PARC)

Interdepartmental clinical and translational research at Penn Presbyterian Medical Center

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Clinical research vignette

Sunday, 2 AM: Pt resuscitated from cardiac arrest; transferred to MICU

Post-arrest care bundle initiated

Clinical research team member notified; patient screened remotely and meets enrollment criteria for NHLBI R01 study

Blood draw with sample prep is required within 90 min of arrest to satisfy enrollment

Clinical team busy saving lives

Only family for possible consent - distraught son, unknown power-of-attorney status

R01: Hyperoxia during post-arrest care
Challenges inherent in Acute Care Research (ARC)

A number of major barriers serve to limit ACR:

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<td><strong>Logistical:</strong></td>
<td>Clinical events occur 24/7 and without warning; immediate response required</td>
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<td><strong>Cost/efficiency:</strong></td>
<td>Full-time staffing for infrequent events cost prohibitive and inefficient</td>
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<td><strong>Specialized training:</strong></td>
<td>Issues surrounding rapid consent, often by proxy; interactions with clinical team</td>
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<td><strong>Coordination:</strong></td>
<td>Infrequent patients often qualify for multiple studies across research silos</td>
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Timely opportunity to address this issue

Chance to bridge silo structures and build new collaborative approach

"Together, We are Stronger"
Aim 1. Establish a broad, multidisciplinary faculty group to foster acute care research collaboration and new project proposals.

Aim 2. Implement a 24/7 research staff program to support acute care research projects and serve as an attractive infrastructure to support funding proposals to federal and other sources.

Aim 3. Develop a collaborative translational laboratory space.

Aim 4. Develop collaborative translational projects in order to understand the mechanistic underpinnings of acute care conditions and subsequent pathophysiology.
PARC Multidisciplinary Support

- University of Pennsylvania School of Medicine
- Surgery
- Neurosurgery
- Neurology
- Emergency Medicine
- Medicine
- Orthopedics
- Anesthesia
- Physical Medicine and Rehabilitation
PARC Organization

Leadership structure

- Advisory Board
- Steering Committee

Investigators
SOM Departments, industry partners, contracted research

Human Subjects Division
Medical director (Abella)
Research coordinators

Translational Laboratory Division
Laboratory director (Sims)

Education and Informatics Division
Educational director (Levine)
data managerliaison to Penn data store

SOM research structures
IRB, ORS, CTT
Penn BioBank
Penn datastore

Investigators

Antonio Davila Jr. Ph.D.
What can PARC do for you?

- Research design - clinical and translational
- Assay consultation and 24/7 lab access
- Regulatory support
- ACR 24/7 coverage for screening, enrollment, consent, data collection, sample processing
- Small grants