

VASCULAR CURES | FEBRUARY 26, 2018



2ND ANNUAL RESEARCH SUMMIT

Convening Leaders to Address Unmet Needs in Vascular Health



PARTICIPATING ORGANIZATIONS:

Abbott Vascular
Cook Medical
Emory University
Harvard University
Kaiser Permanente
Medtronic
National Heart, Lung, and Blood Institute (NHLBI)
Northwestern University
OptumCare
Stanford University
UC Davis
UCLA
UCSF
UCSF-Stanford Center of Excellence in Regulatory Science and Innovation (CERSI)
University of Arizona
University of Chicago
University of Florida
University of Maryland
University of Massachusetts
University of Michigan
University of Nebraska
University of Pennsylvania
University of Pittsburgh
University of Utah
University of Washington
Vanderbilt University
Washington University
WL Gore & Associates

Collaboration Speeds Innovation

In preparation for the second annual Research Summit, Vascular Cures engaged 97 leaders from 56 institutions to share insights about critical gaps in vascular research and care, and participate in the projects following the summit. Over 40 attended the meeting to brainstorm approaches to improving the millions of lives of patients with vascular disease. The summit's results included:

- Research priorities for solving crucial health issues
- Ideas for collaborative projects that could address these needs
- Research assets from participating organizations that could be shared for such projects (e.g. tissue samples and imaging data)



Urgent Solutions for Patients

National experts led discussions around key problems in the vascular system that urgently need innovation: peripheral artery disease; aortic, venous and carotid disease; and dialysis access.

These resulted in prioritized research questions that could improve patient care, including the need to identify biomarkers, patient-reported outcomes or novel clinical approaches to predict disease progression, guide treatment decisions, and reduce disease burden.



Participants were then challenged to brainstorm collaborative research projects that could quickly have a meaningful impact on patient lives.

Some ideas included:

- A major review of PAD patients who have had below-the-knee amputations to better understand what lifestyle and disease factors result in this devastating outcome
- Identifying biomarkers (new and existing) in patients who have had a deep vein thrombosis (DVT), which could be used to determine which patients need continued use of anticoagulant therapy
- An academic-industry collaboration to develop smart materials to repair ruptured aortas



Leveraging Shared Assets to Speed Results

For Vascular Cures, breaking the barriers to collaboration includes sharing expertise, anonymized data, tissue samples, research tools, and other technologies. As a nonprofit without proprietary interests, Vascular Cures is able to be a catalyst for this and the development of solutions without a stake in the outcome – other than the benefit of patients.

Examples of the research assets offered for potential projects include:

- Diagnostic tools that could be used for identifying biomarkers
- Blood samples and vascular tissue from patients with PAD and other conditions
- Databases of ultrasound, MRI and other diagnostic images

Value-Based Vascular Care: How Do We Get There?

Many observers note the unsustainable growth in healthcare costs, even as outcomes continue to be poor in certain diseases. Juggling the sometimes conflicting goals of patient outcomes, cost control, and patient experience is a challenge and definitions of “value” are often inconsistent. Panelists from different stakeholders (physicians, researchers, insurers, and industry) discussed the opportunities and obstacles to implementing value-based care, in spite of the different incentives facing each sector of healthcare.

The State of Patient-Reported Outcomes in Vascular Research

Everyone from biopharma to the FDA is talking about patient-reported outcomes (PROs), but what does that really mean and how should the data be used? Dr. Matthew Corriere, Assistant Professor at the University of Michigan, presented his work investigating measurement and application of PROs in PAD clinical research care. During the discussion it became clear that, while researchers, clinicians, and industry all agree that PROs are valuable, it remains a challenge to determine which outcomes should be captured and how they should be utilized.

Progress Report: 2017 Collaborative Patient-Centered Research Projects

The brainstorming at the Research Summit stimulated proposals for Vascular Cures’ Collaborative Patient-Centered Research (CPCR) grant, which will be awarded in June. In 2017, Vascular Cures awarded milestone-based grants to two project teams.

Microbiome-Modulated Metabolites and Advanced Atherosclerosis

Dr. Karen Ho with collaborators at Brigham & Women’s Hospital (Boston), the University of Chicago, and Northwestern University

Dr. Ho and her team have completed the study’s first milestone, the results of which have been published in the *Journal of Vascular Surgery*. The results show that patients with advanced atherosclerosis have different levels of certain metabolites than healthy individuals, which means that targeting the microbes or their metabolic pathways may have a therapeutic benefit for PAD patients.

Implementing Pre-operative Frailty Assessment in the Vascular Surgery Clinic

Dr. Larry Kraiss with collaborators at University of Utah, Emory University, Dartmouth-Hitchcock Medical Center, Stanford University and the University of Nebraska

Dr. Kraiss and his team have enrolled 110 patients at four institutions to study whether classic patient fragility tests can be used to predict how well certain patients will do post-surgery, specifically looking at their ability to live independently. It is Dr. Kraiss’ hypothesis that patients will begin to think differently about whether to undergo surgery if the risk of mortality or institutionalization within one year is greater than 50%.