The Stanford CV Med Division is currently recruiting for the following faculty positions:

- Two full-time academic advanced heart failure and transplant cardiologists in the Medical Center Line. Click for details.

- One full-time interventional cardiologist to join the VA Palo Alto in the Medical Center Line. Click for details.

- One full-time faculty member with an interest in biobanking and the use of biobanked samples in population research in the University Tenure Line, Medical Center Line, or Non-Tenure Line (Research). Click for details.

- One full-time general cardiologist in the Clinician Educator line. Click for details.

The American Heart Association’s Scientific Sessions is among the leading cardiovascular conferences for basic, translational, clinical and population science. In November, Stanford faculty, fellows and students traveled to the Sunshine State of Florida to participate in the annual Scientific Sessions.

Leading members of the Stanford Cardiovascular Institute shared their insights on numerous topics. From cardiothoracic surgery, Joseph Woo, MD, led a discussion on ‘Developing a Mitral Repair Program’ and Michael Fischbein, MD, presented on developing a career in cardiovascular surgery and anesthesia. Marlene Rabinovitch, MD, Mark Nicolls, MD, and Vinicio de Jesus Perez, MD, led discussions on therapeutic avenues in pulmonary hypertension and targeting inflammation. Moderating the session on ‘Clinical Genomics Boot Camp’ was Euan Ashley, MD, and presenting results from the TRACER Trial were Robert Harrington, MD, and Kenneth Mahaffey, MD. A discussion on ‘Abdominal Aortic Aneurysms’ was led by Ronald L. Dalman, MD.

During the annual conference, CVI Director Joseph C. Wu, MD, PhD, Simon H. Stertzer Professor, received the inaugural Joseph A. Vita Award in recognition of his scientific contributions to the cardiovascular field.

The future of cardiovascular research and medicine lies in the fellows and students whose outstanding research will shape new treatments and understanding of health and disease. An impressive number of fellows and students presented their research at the AHA. CVI is proud to support their work and will continue to facilitate travel to conferences like the AHA through travel awards (see page 9).

Scientific Sessions 2015 abstracts are now available on the Circulation website.

Stanford at the AHA by the numbers:
Several advances in basic research and technology now afford us the unique opportunity to test novel diagnostic methods and therapeutics. This conference takes advantage of the collective experience and expertise of our speakers in drug discovery.
To understand the clinical differences and complexities of heart disease between men and women of all ages and genetic backgrounds, WSDM, CVI, and Women’s Heart Health Clinic are hosting a half-day conference.

12:30–1:00 Lunch and poster viewing

1:00p Marcia Stefanick, PhD, Jennifer Tremmel, MD and Joseph C. Wu, MD, PhD
Introduction

1:15p Patricia Nguyen, MD
’Sex Differences in Myocardial Gene Expression’

1:40p Mintu Turakhia, MD
“Gender Differences in Quality and Outcomes of Care of Atrial Fibrillation”

2:05p Sean M. Wu, MD, PhD
“Estrogen: A Friend or Foe in Viral Cardiomyopathy?”

2:30–2:45p Coffee Break

2:45p Jennifer Tremmel, MD
TBD

3:10p Matthew Wheeler, MD
TBD

3:35p Phillip C. Yang, MD
‘Male vs. Female Human Fetal Amniotic Mesenchymal Stem Cells: Immuneprivilege, Cardiac Differentiation, and Regenerative Capability’

4:00p William Fearon, MD
“Sex Differences and Transcatheter Aortic Valve Replacement”

Invited Speakers:

William Fearon, MD  Patricia Nguyen, MD  Marcia Stefanick, PhD  Jennifer Tremmel, MD  Mintu Turakhia, MD  Matthew Wheeler, MD  Sean Wu, MD, PhD  Phillip Yang, MD

Hosted by:

Stanford Cardiovascular Institute

Register today!
http://tinyurl.com/sexdifferences2016

About the Stanford Cardiovascular Institute

The Institute currently consists of 124 faculty members representing engineers, physicians, surgeons, basic and clinical researchers. The mission of the Institute is integrating fundamental research across disciplines and applying technology to prevent and treat cardiovascular disease. To support cardiovascular research and education at CVI, please contact Cathy Hutton, Senior Associate Director, Medical Center Development (cathy.hutton@stanford.edu) or Dr. Joseph C. Wu, Director CVI (joewu@stanford.edu), or Ingrid Ibarra, Assistant Director of CVI, (iibarra@stanford.edu).

For more information: http://cvi.stanford.edu/waystogive.html and http://cvi.stanford.edu
Cardiovascular Institute Annual Retreat

The 2015 annual retreat had a tremendous turnout with 61 submitted abstracts and posters and a total of 230 participants. Twelve invited speakers each represented their departments and presented work on new angles of cardiovascular health and disease. The symposium also featured short talks selected from fellows and students abstracts and an afternoon poster reception.

Keynotes speaker, Garret A. FitzGerald, MD (Chair, Department of Systems Pharmacology and Translational Therapeutics, University of Pennsylvania) discussed recent progress with prostanoids and inhibitors Clyde W. Yancy, MD, (Chief, Division of Medicine-Cardiology, Northwestern University) addressed racial disparities in heart failure, from the bench to the community. Entertainment was kindly provided by Robert LoPresto on saxophone.

The next CVI retreat will be a joint event with the Karolinska Cardiovascular Institute on October 20, 2016. This meeting is open to the public. The goal is to incorporate other Institutes to provide new and exciting opportunities.

During the retreat five research awards were given to:

**Basic Research Award:**
- Sandra DePorter, MD, Postdoctoral Fellow, Bioengineering
- Ioannis Karakikes, PhD, Instructor, Cardiovascular Medicine
- Alexandre Ribeiro, PhD, Postdoctoral Fellow, Mechanical Engineering

**Clinical Research Award:**
- James Priest, MD, Postdoctoral Fellow in Pediatric Cardiology
- Petra Mamic, MD, Internal Medicine Resident

Petra Mamic, MD, Internal Medicine Resident wins clinical research prize.
Faculty panel considers promises, challenges of precision health

By Jennie Dusheck, Stanford Office of Communication and Public Affairs

At a Stanford Medicine Town Hall, three faculty members explored prospects for precision health — health care whose goal is to anticipate and prevent disease in the healthy and precisely diagnose and treat disease in the ill.

A population-health scientist (Mark Cullen, MD), a surgeon (Mary Hawn, MD) and a geneticist (Michael Snyder, PhD) discussed how clinicians could take advantage of large health data sets and advances in genomics during a panel discussion at an Oct. 12 Stanford Medicine Town Hall.

Moderated by Lloyd Minor, MD, Dean of the School of Medicine, the discussion focused on the future of precision health — health care whose goal is to anticipate and prevent disease in the healthy and precisely diagnose and treat disease in the ill. The town hall took place at the Li Ka Shing Center for Learning and Knowledge and was hosted by the dean; Amir Dan Rubin, president and CEO of Stanford Health Care; and Christopher Dawes, president and CEO of Stanford Children's Health.


Vera Moulton Wall Center 2nd International Symposium

On November 6, the Vera Moulton Wall Center brought together clinicians, basic science researchers, and clinician scientists; including thought leaders from the rheumatology and pulmonary vascular disease communities for their 2nd International Symposium: Immunity and the Pathogenesis of Pulmonary Hypertension. Drs. Mark Davis of Stanford and Marc Humbert of the Universite Paris-Sud served as keynote speakers. Many left the symposium with new understanding, ideas, and collaborations that will, hopefully, impact the field in the years ahead. Thank you to the organizing committee and all who participated. Presentations will be available online in January at http://med.stanford.edu/phsymposium.html.
Early Sunday, November 1st more than 1,700 racers and walkers came out to participate in the Annual Race Against PH 5k on the Stanford Campus. In its 15th year, the race is put on by the Vera Moulton Wall Center for Pulmonary Vascular Disease at Stanford and brings together patients, families, practitioners, and the Stanford and general community to raise awareness and funds for the fight against pulmonary hypertension (PH). Close to $50,000 was raised which will support the Wall Center Seed Grant Program. A big thank you to everyone who came out to support the event and congratulations to Stanford medical student, (Jonathan Tijerina) who took 1st place overall. To learn more about the Race Against PH visit raceagainstph.org.

The NIH/NHLBI Awards Stanford for PH Research

Integrative Omics as a Discovery Tool for Pulmonary Hypertension

A recently awarded NIH/NHLBI project is a fruitful collaboration between the laboratories of Marlene Rabinovitch, MD, Mark R. Nicolls, MD and Michael Snyder, PhD. The project takes a systems biology approach to characterize pulmonary arterial hypertension (PAH) at the transcriptome and metabolome level of several cell types known to contribute to PAH and aims to establish a common PAH module. Samples of explanted lungs from human PAH patient’s and healthy counterparts will be used to find common aberrant pathways in different vascular and inflammatory cells that could be targeted therapeutically in PAH. To study the evolution of disease, experiments in rodents will focus on the relationship of the pathways identified. In addition, new models using cultured cells derived from patients with PAH will be used to explore therapies, beginning with those that repress critical pathways.

Notable Seminars:

Dr. Rabinovitch presented at Cardiovascular Grand Rounds and Medical Grand Rounds for the 32nd Annual Laurence H. Green Lectureship, in October at Brigham and Women’s Hospital in Boston, MA. She spoke on Novel Functions of PPAR gamma in the Vascular Response to Injury.
Close-up Look at Mutinous Mutant Molecule Implicated in Hypertrophic Cardiomyopathy  By Bruce Goldman

The healthy human heart is a hard-working muscle: Beating just over 100,000 beats per day, it pumps five quarts of blood per minute – enough to fill three supertankers worth of blood over the course of an average person’s lifetime.

Like any other mechanical pump, the heart is made up of various components, including different kinds of proteins. One of those proteins, a “molecular motor” called cardiac myosin (there are several varieties of myosin), plays a crucial role. A myosin molecule can oscillate lengthwise, contracting and relaxing by turns. It’s the coordinated oscillations of myriad cardiac myosin molecules that are, in the aggregate, responsible for the heartbeat.

Defective cardiac myosin exacts a severe medical price. Hypertrophic cardiomyopathy, caused by mutations in a gene encoding cardiac myosin, occurs in at least one in 500 people and is a leading cause of heart failure in the United States and worldwide. It’s also the primary cause of sudden deaths due to heart attack in people under age 30.

A mutation known as R403Q, identified a couple of decades ago, ranks among the nastiest and most widely studied of literally hundreds of cardiac-myosin mutations. The general thinking has been that the mutation results in a “gain of function,” meaning stronger-than-normal myosin contractility.

Now, researchers under the direction of Stanford biochemist James Spudich, PhD, have for the first time been able to look at the effects of this mutation in human cardiac myosin as opposed to animal models. Spudich is the winner of the 2012 prestigious Lasker Award for Basic Medical Research, is a pioneer in the analysis of myosin and its associated motility-related proteins. Integrating approaches drawn from cell physiology, physics, biochemistry, structural biology and genetics, Spudich and his colleagues have developed methods of measuring the exact amount of energy consumed in each contraction of a single molecule of myosin. (In my 2012 Lasker Award write-up, I explained myosin’s critical involvement not only in heartbeat but also in all muscular movement and, indeed, all transport of molecular material within every living plant or animal cell.)

In a study published in Science Advances, Spudich’s team measured the effects of the R403Q mutation at the single-molecule level and was able to demonstrate tiny, but relevant changes in the power of the mutant myosin molecule. The next step is to, in an even more sophisticated way, measure these effects in a microenvironment more closely approximating that of a living human heart.

R403Q is just the first of several hypertrophic-cardiomyopathy-inducing mutations the team is analyzing, one by one, with their state-of-the-art techniques.

See more: http://scopeblog.stanford.edu/2015/10/12/secret-pried-from-mutinous-mutant-myosin-molecule-implicated-in-hypertrophic-cardiomyopathy/

Precursor Cells Discovered that Could Help Regrow Heart Arteries  By Christopher Vaughan

Researchers at Stanford have discovered, in mice, the direct progenitors to coronary artery smooth muscle cells, the important component that encases the artery and gives it strength.

The researchers, including Kristy Red-Horse, PhD, the lead author of the paper, have discovered which type of cell develops into the muscular lining of arteries that feed the heart.

The finding, in mice, as well as the discovery of the molecular signals that govern this transformation, may ultimately lead to human therapies to regrow healthy coronary arteries.

Scientists previously showed that portions of the coronary artery develop from cells on the surface of the heart called epicardial cells. However, the direct progenitors to coronary artery smooth muscle cells, the important component that encases the artery and gives it strength, were not identified.

Through a series of sophisticated techniques, the researchers solved the mystery: They determined that smooth muscle cells in cardiac arteries grew out of a kind of cell called a cardiac pericyte. Perhaps more important, scientists also identified a molecule called notch3 as the signal that governs the conversion of pericytes to cardiovascular smooth muscle cells.

A paper describing the work was published Oct. 19 in eLife.

“What is important about this study is that a precise stem cell technology was used to visualize coronary progenitors among the millions of other cells in the developing heart,” said Irving Weissman, MD, the Virginia and D. K. Ludwig Professor in Clinical Investigation in Cancer Research and the director of the Stanford Institute for Stem Cell Biology and Regenerative Medicine, who is a co-author of the paper. “This was the key to discovering that pericytes turn into smooth muscle cells in response to increased blood flow.”

The National Institutes of Health halted a clinical trial on high blood pressure in order to share the results publicly right away. According to the initial study findings, managing high blood pressure so it falls below a specific blood pressure target significantly reduces rates of cardiovascular disease and lowers risk of mortality.

The Systolic Blood Pressure Intervention Trial, commonly called SPRINT, is the largest known study of its kind to examine how holding systolic blood pressure below the currently recommended level affects cardiovascular and kidney diseases.

For this trial, nearly 100 medical centers in the United States and Puerto Rico, including Stanford, recruited more than 9,300 participants age 50 and older for a study that involved carefully adjusting the amount or type of blood pressure medication to achieve a target systolic pressure of 120 millimeters of mercury (mm Hg).

As outlined in an NIH press release, the researchers found that reducing systolic pressure to 120 mm Hg or less, reduced rates of stroke, heart attacks, heart failure and other cardiovascular events by almost a third and reduced the risk of death by almost a quarter, compared to the target systolic pressure of 140 mm Hg.

“SPRINT addressed a fundamental question faced by internal medicine physicians, nephrologists, cardiologists and other specialists – that is, how low should our blood pressure target be?” said Glenn Chertow, MD, MPH, principal investigator for the Stanford site.

Although researchers have known for some time that lowering patients’ blood pressure can improve survival rates and reduce their chances of having a stroke, heart disease or a kidney-related event, studies that link these benefits to a specific blood pressure were lacking. This is why the SPRINT study is so important.

“Before today there was no evidence from randomized clinical trials to demonstrate that lowering systolic blood pressure toward or below 120 mmHg was safe and effective,” Chertow told me yesterday afternoon.

“Adoption of the approach learned from SPRINT could change medical practice and materially improve the public health,” Chertow continued. “We’re proud to have participated” in the study.


Vascular Surgery News

In October, Matthew Mell, MD, Associate Professor of Surgery (Vascular Surgery) was nominated for a new departmental role as the Department of Surgery Vice Chair for Clinical Affairs. In this position he will oversee and facilitate the quality and efficiency of clinical care for the Department of Surgery.

Nicholas Leeper, MD, assumed the role for the Division of Vascular Surgery: Chief, Vascular Medicine and Director of Vascular Surgery Research. Dr. Leeper was also promoted to Associate Professor of Surgery as of November 1, 2015.

Matthew Mell, MD
Nicholas Leeper, MD
Seven Stanford researchers, including Irving Weissman, MD, who directs Stanford’s Institute for Stem Cell Biology and Regenerative Medicine, and David Magnus, PhD, director of Stanford’s Center for Biomedical Ethics, have joined with four other prominent scientists to urge the lifting of a recent and unexpected ban on funding by the National Institutes of Health for research that involves placing human stem cells into early-stage, non-human embryos. Their comments will be published tomorrow in a letter to Science.

As I describe in our release:

At issue is the growing field of research that seeks to understand how human pluripotent stem cells, which can become any cell type, may integrate and contribute to the development of a nonhuman animal, such as a laboratory mouse. Pluripotent stem cells can be isolated from human embryos or created in a lab from adult human cells, in which case they’re known as induced pluripotent stem cells. Once obtained, these versatile cells can be injected into an early-stage animal embryo and studied as the embryo develops into an adult animal.

Tracking where these cells go and how they function in the growing embryo and the adult animal can help researchers understand early stages of human development that can’t be studied any other way. (Although researchers can and do study the development of fertilized human eggs, the study period is restricted to only a few days after fertilization for ethical reasons.)

In addition to investigating human development, the research is expected to lead to significant advances in disease modeling, drug testing and even transplantation. As cardiologist and one of the co-senior authors of the letter, Sean Wu, MD, PhD, explains:

By eliminating federal funding for all aspects of this research, the NIH casts a shadow of negativity toward all experiments involving chimera studies regardless of whether human cells are involved. The current NIH restriction serves as a significant impediment to major scientific progress in the fields of stem cell and developmental biology and regenerative medicine and should be lifted as soon as possible.

Science recently published a great background article describing the ban, and its effect on researchers like Sean Wu and geneticist and stem cell researcher Hiromitsu Nakauchi, MD, PhD, who also signed the letter. Other signees include Joseph Wu, MD, PhD, professor of medicine and director of Stanford Cardiovascular Institute; Christopher Scott, PhD, director of Stanford’s Program on Stem Cells and Society; and Vittorio Sebastiano, PhD, assistant professor of obstetrics and gynecology and director of Stanford’s Human Pluripotent Stem Cells Core Facility.

See more at: http://scopeblog.stanford.edu/2015/11/05/stanford-researchers-protest-nih-funding-restrictions/
Since announcing the roll-out of a new Clinical Research Management System, OnCore Enterprise, in June of this year, the Stanford Center for Clinical Research (SCCR), in partnership with Spectrum, has made great strides during the pilot implementation. The Cardiovascular Institute has been a part of the pilot, with three Coordinators representing CVI’s trials. The Pilot has focused on a limited test of functionality and protocols. Eleven coordinators across CVI and the Department of Medicine have been trained, 5 focus groups were held with representatives from across the School of Medicine, and a new website has been created with a host of how-to guides, quick reference tips, and visual aids. Tine Bjornlund, the Research Manager for CVI, and the Divisions of Gastroenterology and Hepatology, and of Cardiovascular Medicine within the Department of Medicine, has worked closely with Coordinators to develop workflows and gather feedback on the use of the system. Feedback has been positive, and the enthusiasm high for the long-term potential for OnCore to streamline clinical research operations, provide immediate reporting capabilities for leadership, and enable research staff to access standardized tools for tracking research progress.

http://med.stanford.edu/sccr.html

Recent Acknowledgements

Three members of the School of Medicine faculty have been elected members of the National Academy of Medicine, formerly known as the Institute of Medicine.

Glenn Chertow, MD, MPH; Amato Giaccia, PhD; and Robert Harrington, MD, are now among the academy's 1,826 members and 137 international members. Dr. Harrington joined Stanford as the chair of the Department of Medicine in 2012 after serving as the director of the Duke Clinical Research Institute. He is the Arthur L. Bloomfield Professor in Medicine and a member of the Stanford Cardiovascular Institute. Harrington’s research focuses on cardiovascular disease, including mechanisms, treatments and clinical trial methodologies. He has authored or co-authored more than 400 peer-reviewed manuscripts, reviews, book chapters and editorials.

Eight faculty members from the School of Medicine and one from the School of Humanities and Sciences have been elected fellows of the American Association for the Advancement of Science. Two are members of the Stanford Cardiovascular Institute.

Calvin Kuo, MD, PhD, professor of hematology, was elected for contributions to the fields of angiogenesis, stem cell biology and cancer modeling, particularly for the discovery of novel molecular mediators and organoid methods. Kuo, the Maureen Lyles D’Ambroglio Professor, develops methods to grow tissues and tumor samples to create therapies for cancer patients and discover cancer-related genes.

Hugh O’Brodovich, MD, professor and chair of pediatrics, was elected for his work in pulmonary and critical care medicine, particularly for studies of the physiology and pathogenesis of respiratory distress syndrome and bronchopulmonary dysplasia. O’Brodovich, who holds the Arline and Pete Harman Professorship for the Chair of the Department of Pediatrics, investigates why some newborns get lung disease and others don’t.
Notable Fellow Awards

**Kitch Wilson, MD, PhD**, received a K08 award entitled “Defining the Molecular Mechanism of Hypertrophic Cardiomyopathy with Human Induced Pluripotent Stem Cells.”

**Won Hee Lee, PhD**, received an AHA BGIA grant for “Identifying Biomarkers of Low-Dose Radiation Risk and Mechanisms of Individual Radiation Sensitivity.”

**Elena Matsa, PhD**, received an AHA BGIA as a new awardee for “Nanoparticle-mediated delivery of allele-specific siRNAs as a novel therapy for dilated cardiomyopathy.”

**Oscar John Abilez, PhD**, NIH NHLBI K01 Career Development Award “Optogenetic Engineered Heart Muscle for Disease Modeling.”

Travel Awards

**Tina Baykaner, MD** | EP Research Fellow
*Sanjiv Narayan, MD*

ACC Scientific Session
‘Does Atrial Fibrillation Organize Spatially or Temporally Before Termination? Continuous Tracking of Spatio-Temporal Periodicity During Ablation’

**Sang Ging Ong** | Postdoctoral Fellow
*Joseph C. Wu, MD PhD*

AHA Scientific Sessions; November, 2015
‘Exosomal microRNA Transfer in Ischemic Heart Disease’

**Rushi Parikh, MD** | CV Med Fellow
*William F. Fearon, MD*

ACC Scientific Sessions
‘Higher Levels of Asymmetric Dimethylarginine are Associated with Lower Fractional Flow Reserve After Orthotopic Heart Transplantation’

**Nir Qvit, PhD** | Postdoctoral Fellow
*Daria Mochly-Rosen, PhD*

American society for cell biology annual meeting, December 2015
‘Inhibition of one substrate phosphorylation of a protein kinase’

**Elias Salfati** | Postdoctoral Fellow
*Themistocles Assimes, MD, PhD*

AHA Scientific Sessions; November, 2015
‘Association between a Genetic Risk Score for Clinical CAD and Early Stage Lesions’

**AJ Venkatakrishnan, PhD** | Postdoctoral Fellow
*Brian Kobilka, MD*

GPCR Workshop 2015
‘Rational engineering of stable G protein coupled receptors’

**Sang Ging Ong** | Postdoctoral Fellow
*Joseph C. Wu, MD PhD*

AHA Scientific Sessions; November, 2015
‘Exosomal microRNA Transfer in Ischemic Heart Disease’
Recently Awarded Projects

Russ B. Altman, MD, PhD  
NIH | NSF | EFRI-MIKS: Force Sensing and Remodeling by Cell-Cell Junctions in Multicellular Tissues

Beth Pruitt, PhD  
NSF | NIH | Women's Health Initiative - Regional Centers 2015-2020

Kristy Red-Horse, PhD  
New York Stem Cell Foundation | NIH | PharmGKB: From Association to Mechanism

Marcia L. Stefanick, PhD  
NIH | NIH | NIH | Women’s Health Initiative - Regional Centers 2015-2020

Seda Tierney, MD  
AHA | NIH | On-line Intervention to Lower Cardiovascular Risk in Pediatric Heart Transplant Patients

New Clinical Trials

William F. Fearon, MD  
Assessment of Catheter-based Interrogation and Standard Techniques for Fractional Flow Reserve measurement: the ACIST-FFR study

Robert Harrington, MD  
Clinical Trial Services - A Phase 2b, Multi-center, Randomized, Placebo-controlled, Dose-ranging Study to Investigate the Safety and Tolerability of Multiple Dose Administration of CSL112 in Subjects with Acute Myocardial Infarction

Jason T. Lee, MD  
• Endurant EVO US Clinical Trial (Medtronic Vascular, Inc.)  
• TriVascular Evaluation of Females who are Underrepresented Candidates for Abdominal Aortic Aneurysm Repair (Trivascular, Inc.)

Nicholas J. Leeper, MD  
An international, multicenter, randomized, double-blind, placebo-controlled phase 3 trial investigating the efficacy and safety of rivaroxaban to reduce the risk of major thrombotic vascular events in patients with symptomatic peripheral artery disease undergoing lower extremity revascularization procedures (Bayer Healthcare Pharmaceuticals, Inc.)

New CVI Staff

Clinical Research Coordinator Maja Cruz, Joins CVI

Maja Cruz has joined the Stanford clinical trial coordinating group. She was previously with the Stanford Blood and Marrow Transplant and Stanford Sleep Medicine before joining the Cardiovascular Institute. She completed an MD at the University of Santo Tomas Faculty of Medicine and Surgery in the Philippines. Currently she is working on Ischemia trials and industry-sponsored Cardiology and Vascular trials.

Details: http://med.stanford.edu/cvi/translational-research/clinical-trials.html
**FEBRUARY**

**Wallace H. Coulter Translation Research Grant Program**

Stanford Coulter – Translational Research Grants

**Progeria Research Foundation**

Research Grants (Innovative, Established Investigator, Specialty awards)

**National Institute of Health**

Improving Outcomes in Cancer Treatment-Related Cardiotoxicity (R01)
Deadline: Feb. 12, 2016
R01: PA-16-035

Improving Outcomes in Cancer Treatment-Related Cardiotoxicity (R21)
Deadline: Feb. 16, 2016
R21: PA-16-036

**Progeria Research Foundation**

Research Grants (Innovative, Established Investigator, Specialty awards)

**National Institute of Health**

Improving Outcomes in Cancer Treatment-Related Cardiotoxicity (R01)
Deadline: Feb. 12, 2016
R01: PA-16-035

Improving Outcomes in Cancer Treatment-Related Cardiotoxicity (R21)
Deadline: Feb. 16, 2016
R21: PA-16-036

**Postdoctoral Funding Opportunities**

**FEBRUARY**

**Stanford Child Health Research Institute (CHRI) Clinical Trainee Support**

**National Institute of Health**

K99/R00 NIH Pathway to Independence Award
Deadline: Feb. 12, 2016
PA-15-083

**K08 Mentored Clinical Research Career Development Award**
Deadline: Feb. 12, 2016
PA-14-046

**K23 Mentored Patient-Oriented Research Career Development Award**
Deadline: Feb. 12, 2016
PA-14-049

**NHLBI K01 Mentored Career Development Award to Promote Faculty Diversity**
Deadline: Feb. 12, 2016
RFA-HL-16-006

**Marfan Foundation**

Victor A. McKusick Fellowship Program
Deadline: Feb. 16, 2016
Marfan Foundation

**Early Investigator Grant Program**
Deadline: Feb. 16, 2016
Marfan Foundation

**MARCH**

**Spectrum Education Program**
TL1 Clinical Research Training Program
Deadline: March 1, 2016
Spectrum

**Stanford University – CVI Fellowship Training Program (T32)**
Multi-Disciplinary Training Program in Cardiovascular Imaging
Deadline: March 1, 2016
CVI Fellowship

**Thrasher Research Fund**

Early Career Awards
Deadline: March 15, 2016
Thrasher Early Career Awards

**APRIL**

**National Institute of Health**

Ruth L. Kirschstein National Research Service Awards (NRSA) for Individual Postdoctoral Fellows
Deadline: April 8, 2016
PA-14-149

**Marfan Foundation**

Victor A. McKusick Fellowship Program
Deadline: April 11, 2016
Marfan Foundation

2016 CVI Faculty Club

This informal meet-up is tailored to Stanford faculty and Instructors only. Once a month (first Wednesday of the month) one or two CVI faculty members will present their research aims to their colleagues to receive feedback and input. Please contact Crystal Botham, PhD (cbotham@stanford.edu) with questions and request to present at CVI Faculty Club. Join us! Lorry Lokey Stem Cell Building, G1161 at 4:30 p.m.

January 6 MARY TERUEL, PHD
A circadian code for fat cell differentiation

February 3 DOMINIK FLEISCHMANN, MD
Aortic Dissection: Morphology and Function

March 2 MICHAEL CORONADO TBD

April 6 PHILIP S. TSAO, PHD
MicroRNA Regulation of Blood Brain Barrier Function and Hypoperfusion-induced Cerebrovascular Disease

May 4 JARED CHURKO, PHD
Transcriptomic analysis of hiPSCs to cardiomyocytes

June 1 Y. JOSEPH WOO, MD and AMANDA STEELE
A Pilot study for an engineered HGF fragment for the treatment of myocardial infarction in a preclinical ovine model

September 7 KENNETH MAHAFFEY, MD, RYAN O’MALLEY; FANCOIS HADDAD, HOLDEN MAECKER, MARK DAVIS
Defining the role of immune Biomarkers in Non-ST Elevation Myocardial Infarction: analysis from TRACER trial biorepository

October 5 EVGENIOS NEOFYTOU, MD
Modeling Chronic Chagasic Cardiomyopathy Disease Mechanisms Using Human induced Pluripotent Stem Cells

November 2 MICHAEL MCCONNELL, MD
TBD

December 7 ANITRA ROMFH, MD and MANISH BUTTE, MD, PHD
T-Cell Deficiencies in Adult Congenital Heart Disease
JANUARY 12, 2016
Stanley Hazen, MD, PhD
Director, Center for Cardiovascular Diagnostics & Prevention; Section Head, Preventive Cardiology & Rehabilitation

JANUARY 19, 2016
Jonathan Seidman, PhD
Professor, Department of Genetics Harvard Medical School

JANUARY 26, 2016
Dominik Fleischmann, MD
Professor of Radiology, Stanford School of Medicine &
Patricia Nguyen, MD
Assistant Professor of Medicine
Palo Alto Veterans Affairs Health Care System

FEBRUARY 9, 2016
Aruni Bhatnagar, PhD
Professor of Medicine, University of Louisville
12:30 - 1:30 p.m.

FEBRUARY 16, 2016
Eric J. Topol, MD
Director, Scripps Translational Science Institute

FEBRUARY 23, 2016
Helen M. Blau, PhD
The Donald E. and Delia B. Baxter Foundation Professor Stanford School of Medicine

MARCH 01, 2016
Todd Rosengart, MD, FACS
Professor of Surgery and DeBakey-Bard Chair of Surgery, Texas Heart Institute

MARCH 08, 2016
Jonathan S. Stamler, MD
Director, Harrington Discovery Institute, Case Western Reserve University School of Medicine

MARCH 15, 2016
Linda L. Demer, MD, PhD
M.C. Guthman Professor of Medicine and Physiology; Director, UCLA STAR Program, UCLA

MARCH 22, 2016
Andrew Plump, MD, PhD
Chief Medical and Scientific Officer
Takeda Pharmaceutical Company

APRIL 05, 2016
Mark Nicolls, MD
Associate Professor of Medicine (Pulmonary and Critical Care), Stanford School of Medicine

APRIL 12, 2016
Calum A. MacRae, MD, PhD
Chief, Cardiovascular Medicine, Harvard Medical School; Brigham and Women’s Hospital

April 19
Mark Hlatky, MD
Professor of Health Research and Policy, Stanford University

MAY 10, 2016
Phil Tsao, PhD
Professor of Medicine (Cardiovascular Medicine) Stanford School of Medicine &
Themistocles Assimes, PhD
Assistant Professor of Medicine (Cardiovascular Medicine), Stanford School of Medicine

MAY 24, 2016
Edward Yeh, MD
Professor and Chair Dept. of Cardiology
MD Anderson Cancer Center

MAY 31, 2016
Thomas F. Lüscher, MD, FRCP
Professor and Chairman of Cardiology, U. Hospital Zurich; University Zurich

Stanford Cardiovascular Institute
cvi.stanford.edu
### MED223: Cardiovascular & Pulmonary Research

The focus of MED223 is to fine tune critical thinking skills by analyzing original publications and understand the current complexities of the cardiovascular and pulmonary system. Students will attend a lecture series presented by prominent external speakers on **Tuesdays** (12:00–1:00p at SKC—Followed by lunch or coffee with external speaker) and learn new approaches and medical advances from Stanford faculty on **Thursdays** (12:30–1:20p at SIM1 G1002). Winter 2016, 3 Credits

#### Winter 2016- Internal Speakers

**Christopher Almond, MD**  
Assistant Professor of Pediatrics (Cardiology),  
Lucile Packard Children's Hospital

**Marcia L. Stefanick, PhD**  
Professor (Research) of Medicine  
Stanford Prevention Research Center  
and of Obstetrics & Gynecology

**James Spudich, PhD**  
Douglas M. and Nola Leishman  
Professor of Cardiovascular Disease

**Thomas Quertermous, MD**  
Professor, Chief  
Division of Cardiovascular Medicine

**Cornelia Weyand, MD**  
Professor, Chief  
Division of Immunology and Rheumatology

**Stanley G. Rockson, MD**  
Professor of Lymphatic Research and Medicine

**Joshua W. Knowles, MD**  
Assistant Professor of Medicine  
(Cardiovascular Medicine)

**Edda Spiekerkoetter, MD**  
Assistant Professor of Medicine  
(Pulmonary and Critical Care Medicine)

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<th>FEBRUARY</th>
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| **Vascular and Endovascular Surgery Society – Annual Winter Meeting**  
February 4-7, 2016  
Park City, Utah  
http://www.pvss.org/  
**International Stroke Conference**  
February 16-19, 2016  
Los Angeles, California  
**Stroke Conference**  
**Stanford Sex Differences in Cardiovascular Health & Disease**  
February 24, 2016  
Stanford, California  
**Sex Differences**  
**Quality of Care and Outcomes Research 2015**  
February 28 – March 1, 2016  
Phoenix, Arizona  
**QCOR 2016** | **Epidemiology and Prevention; Lifestyle and Cardiometabolic Health**  
March 1-4, 2016  
Phoenix, Arizona  
**EPI LIFESTYLE 2015**  
**International Congress of Update in Cardiology and Cardiovascular Surgery**  
March 10-13, 2016  
Antalya, Turkey  
**UCCVS 2016**  
**Society for Clinical Vascular Surgery Annual Symposium**  
March 12-16, 2016  
Las Vegas, Nevada  
http://scvs.org  
**Stanford 2016 Drug Discovery Conference**  
March 29, 2016  
Stanford, California  
**Drug Discovery** | **American College of Cardiology Scientific Session & Expo**  
April 2-4, 2016  
Chicago, Illinois  
http://accscientificsession.cardiosource.org/ACC.aspx  
**Heart Failure: Genetics, Genomics and Epigenetics**  
April 3 – 7, 2016  
Snowbird, Utah  
**Keystone Symposium**  
**Cardiac Development, Regeneration and Repair**  
April 3 – 7, 2016  
Snowbird, Utah  
**Keystone Symposium**  
**New Therapeutics for Diabetes and Obesity**  
April 17 - 20, 2016  
La Jolla, California  
**Keystone Symposium** |
Our Mission

We provide quantitative assessment of clinical cardiovascular phenotypes for translational research and clinical trials. These cardiovascular phenotypes include evaluating cardiac structure and function, measuring carotid intimal thickness and arterial stiffness, and testing endothelial function and cardiopulmonary exercise testing.

In collaboration with the Human Immune Monitoring Center at Stanford and members of the Cardiovascular Institute, we also offer central blood processing and banking capabilities. In addition, we develop new biomarker platforms and imaging modalities.

Contact Us

Francois Haddad, MD (fhaddad@stanford.edu) or Ingrid Ibarra, PhD (iibarra@stanford.edu) at CVI.

Stanford CVI Human iPSC Biobank Service

Normal and patient-derived reprogrammed cardiomyocytes is a tremendous resource for researchers and physicians here at Stanford and around the country. Understanding the disease process directly at the population level and observing these cells as surrogates under a myriad conditions has the potential to be a game-changer for cardiovascular medical research.

To facilitate research in a dish that allows screening of new compounds or characterization of human disease phenotypes using cardiomyocytes, the Institute created a service by which de-identified PBMC samples from selected patients can be sent to Stanford CVI for reprogramming free of cost. Please contact Joseph Wu, MD, PhD (joewu@stanford.edu) or Biobank manager, Justin Vincent (justin81@stanford.edu), with any questions.

SCVI biobank is supported in part by National Heart, Lung and Blood Institute (NHLBI), the California Institute for Regenerative Medicine (CIRM), and the Stanford Cardiovascular Institute (CVI). Stanford iPSC Biobank was recently mentioned in Nature Methods news: http://www.nature.com/nmeth/journal/v12/n2/full/nmeth.3263.html.

3DQ Imaging Laboratory

Stanford’s 3DQ Imaging Laboratory was established in 1996 at Stanford by Geoffrey Rubin, MD, and Sandy Napel, PhD, Professor of Radiology (General Radiology) and, by courtesy, Electrical Engineering. Today the center is co-directed by Dominik Fleischmann, MD, Professor of Radiology (General Radiology) and Roland Bammer, PhD, Associate Professor (Research) of Radiology.

Currently the lab processes over 1,200 clinical cases per month. Linda Horst, Marc Sofilos, and Shannon Walters are an integral part of the 3DQ Lab management team.

For more visit: http://3dqlab.stanford.edu/
Communication is at the heart of scientific advancement and innovation. This quarter the Stanford Cardiovascular Institute members published over 240 original manuscripts and reviews further contributing to our understanding of cardiovascular biology and disease. In the following pages, we highlight selected manuscripts by our members.

**OCTOBER 2015: 149 PUBLICATIONS**


Part Two: Against the Motion. Fenestrated EVAR Procedures are not Better than Snorkels, Chimneys, or Periscopes in the Treatment of Most Thoracoabdominal and Juxtarenal Aneurysms. Better than Snorkels, Chimneys, or Periscopes in the Treatment of Most Thoracoabdominal and Juxtarenal Aneurysms. Lee JT. Eur J Vasc Endovasc Surg. 2015 Nov;50(5):557-61.


Should We Start Community Screening for Left Ventricular Dysfunction? Heidenreich PA. J Card Fail. 2015 Nov 16.


Molecular pathogenesis and current pathology of pulmonary hypertension. de Jesus Perez VA. Heart Fail Rev. 2015 Dec 22.


The impact of left ventricular ejection fraction on fractional flow reserve: Insights from the FAME (Fractional flow reserve versus Angiography for Multivessel Evaluation) trial. Kobayashi Y, Tonino PA, De Bruyne B, Yang HM, Lim HS, Pijls NH, Fearon WF; FAME Study Investigators. *Int J Cardiol*. 2016 Feb 1;204:206-10.


Leadership

Joseph C. Wu, MD, PhD
Simon H. Stertzer, MD, Professor & Director,
Stanford Cardiovascular Institute,
Stanford University School of Medicine

Robert A. Harrington, MD
Arthur L. Bloomfield Professor of Medicine
Chair, Dept. of Medicine

Ronald L. Dalman, MD
Walter C. and Elsa R. Chidester
Professor of Surgery
Chief, Division of Vascular Surgery

Stephen J. Roth, MD, MPH
Professor and Chief, Pediatric Cardiology
Director, Children’s Heart Center

Dominik Fleischmann, MD
Professor, Dept. of Radiology
Chief, Cardiovascular Imaging

Michael Snyder, PhD
Professor and Chair, Dept. of Genetics
Director, Stanford Center for Genomics
and Personalized Medicine

Kenneth Mahaffey, MD
Professor, Dept. of Medicine
Vice Chair of Medicine for Clinical Research

Y. Joseph Woo, MD
Norman E. Shumway Professor
in Cardiothoracic Surgery
Chair Dept. of Cardiothoracic Surgery

Mark Nicolls, MD
Associate Professor, Dept. of Medicine
Chief, Pulmonary and Critical Care Medicine

Alan Yeung, MD
Li Ka Shing Professor of Medicine
Co-Chief (Clinical),
Division of Cardiovascular Medicine

Tom Quertermous, MD
William G. Irwin Professor of Medicine
Co-Chief (Research),
Division of Cardiovascular Medicine

Paul Yock, MD
Martha Meier Weiland Professor
of Bioengineering and Medicine;
and Professor, by courtesy,
of Mechanical Engineering
Director of Biodesign

Marlene Rabinovitch, MD
Dwight and Vera Dunlevie Professor
in Pediatric Cardiology