Welcoming New Faculty!

Koen Nieman, MD, PhD, was recently recruited by the Stanford Cardiovascular Medicine, Department of Radiology and the Cardiovascular Institute, as a new faculty member. He is a pioneer in CT coronary angiography, publishing over 90 research articles on cardiac imaging. Prior to joining Stanford he was the Medical Director of the Intensive Care Unit at Erasmus Medical Center Rotterdam. He recently published a multi-center randomized trial (BEACON) study measuring the performance of cardiac CT in the emergency ward entitled, 'Coronary CT Angiography for Suspected ACS in the Era of High-Sensitivity Troponins: Randomized Multicenter Study,' in the Journal American College Cardiology (2016 Jan 5;67(1):16-26).

The Division of Stanford Vascular Surgery is pleased to announce the recruitment of Clinical Assistant Professor Jennifer Avise, MD. Dr. Avise specializes in open and percutaneous treatment of peripheral vascular disease including management of claudication and limb salvage techniques, vascular trauma, dialysis access, treatment of venous disease, aortic disease including aneurysm and dissection, and management of carotid artery disease.

Cardiovascular Faculty Recruitment:

- Two full-time academic advanced heart failure and transplant cardiologists 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.

T32 Imaging Postdoctoral Fellowship

We are seeking highly qualified MD, PhD, or MD/PhD graduates. Applicants must be either a U.S. citizen or permanent resident to apply. Intended start date: January 1, 2017.

Application Deadline is Dec. 1, 2016.

For information and to apply: http://tinyurl.com/zz6pkaq

2017 Stanford Drug Discovery Symposium

April 24, 2017
Stanford University
Register:
http://tinyurl.com/cvidd2017

Invited Speakers Include:

Thomas Sudhof, PhD
(2013 Nobel Laureate)

James Bradner, MD
(President Novartis Institutes for Biomedical Research)

Eric Olson, PhD
(Professor, University of Texas, Southwestern)
The Cardiovascular Institute hosted its “Stanford-Karolinska Cardiovascular Research and Medicine Symposium” in Paul Berg Hall in the Li Ka Shing Center on Oct. 20, 2016. Attendance was 262 guests. The meeting featured keynote guest speaker Michael Levitt, PhD, Robert W. and Vivian K. Cahill Professor in Cancer Research in Stanford School of Medicine and Professor (and 2013 Nobel Laureate).

Special guests from the Karolinska Institute in Stockholm, Sweden, were: Ralph Knöll, PhD; Lars Magdefessel, MD, PhD; and Ulf Hedin, MD. Other speakers included, Stefan Jovinge, MD, PhD; Daniel Bernstein, MD; Latha Palaniappan, MD, MS; Roland L. Dalman, MD; Erik D. Ingelsson, MD, PhD; Themistocles, L. Assimes, MD, PhD; Kenneth Mahaffey, MD; Manisha Desai, PhD; Roham T. Zamanian, MD, FCCP; Koen Nieman, MD; PhD; Alisson Marsden, MD; and William Hiesinger, MD. Moderators were: Robert A. Harrington, MD; Y. Joseph Woo, MD; Michael Snyder, PhD; Philip S. Tsao, PhD; Mark Mercola, MD; and Nicholas Leeper, MD.

There were 41 posters presented during the poster session. Faculty and guest judges for the best research posters were Ian Rogers, MD; Fatima Rodriguez, MD; Ngan Huang, PhD; and Lars Magdefessel, MD, PhD. Five posters (listed below) were awarded $750 prizes.

### Clinical Research Poster Award Winners

- **Christopher Kowalewski**
  Evaluating New Imaging Software for Focal Impulse and Rotor Mapping in Atrial Fibrillation Ablation Procedures
  *Sanjiv Narayan, MD, Lab*

- **Vedant Pargaonkar, MD**
  The Diagnostic Value of Abnormal Heart Rate Recovery during Exercise Stress Testing in Predicting the Presence of Endothelial and Microvascular Dysfunction
  *Jennifer Tremmel, MD, Lab*

### Basic Research Poster Award Winners

- **Milos Pjanic, PhD**
  TCF21 Interacts With Aryl-hydrocarbon Receptor to Modify Coronary Smooth Muscle Cell Response
  *Thomas Quertermous, MD, Lab*

- **Nazish Sayed, MD, PhD**
  Modeling Endothelial Dysfunction in LMNA-related Dilated Cardiomyopathy
  *Joseph C. Wu, MD, PhD, Lab*

- **Darshan Trivedi, PhD**
  Beyond the Myosin Mesa: A Potential Unifying Hypothesis on the Molecular Basis of Hyper-contractility
  *James Spudich, PhD, Lab*
Researchers already knew that LVNC begins muscle cells that they could study in a dish. The researchers then made human heart in a lab from adult cells. Using these stem potent stem cells, which are stem cells made by LVNC and converted into induced pluripotent stem cells can overcome a research hurdle, and suggests that the same methods could help scientists tackling other hard-to-study conditions.

The new findings still leave unanswered questions about the origins of LVNC. But the paper does demonstrate how induced pluripotent stem cells can overcome a research hurdle, and suggests that the same methods could help scientists tackling other hard-to-study conditions.

“How Does a Heart Defect Start? Stanford Scientists Use Stem Cells to Find Out

By Erin Digitale

For years, pediatric cardiologists have been trying to understand the origin of a puzzling structural defect of the heart muscle wall, a congenital problem called left ventricular non-compaction (LVNC). In people with this defect, the muscle of the heart’s biggest pumping chamber looks spongy rather than smooth and solid.

“For such congenital cardiomyopathies, currently there is no effective therapy, and the only ‘cure’ is heart transplantation,” said Stanford’s Joseph Wu, MD, PhD, a cardiologist who led a new study of the condition that published online in Nature Cell Biology.

His team was looking for a new way to address a very old research problem: They didn’t know how much they could trust studies done on animal models of the disease. Mouse and rat models of LVNC also have spongy heart muscle, but it’s not clear if their defect starts the same way as in humans, nor whether findings from rodent studies could help treat humans.

So Wu’s team used innovative stem cell techniques instead. They took skin and blood cells donated by four members of a family affected by LVNC and converted them into induced pluripotent stem cells, which are stem cells made in a lab from adult cells. Using these stem cells, the researchers then made human heart muscle cells that they could study in a dish.

Researchers already knew that LVNC begins long before birth, when the heart muscle fails to make an important developmental shift. In the earliest stages of cardiac development, it’s normal for the muscle to be spongy. At about 8 weeks of gestation, the human heart muscle is supposed to compress into a thick, compact mass, but that shift doesn’t happen correctly in LVNC patients.

Another mystery about the disease is its range of severity, which varies from no symptoms at all to complete heart failure. As the new paper describes, the family who agreed to have their cells studied is a good example. Of three siblings who donated cells for research, one had already had a heart transplant, while the other two had hearts that pumped normally in spite of deeper trabeculations (the scientific word for the spongy formations). Meanwhile, their father had an enlarged heart, but no sponginess in his heart muscle and no other symptoms.

Using the heart muscle cells derived from all four people, the researchers identified the gene defect that causes LVNC in this family; it codes for a cardiac transcription factor — or a protein that controls the expression of other genes — called TBX20. The scientists conducted several experiments to figure out how the TBX20 abnormality changes heart muscle cell proliferation — with the abnormality, the cells don’t proliferate enough, it turns out. They also explored the exact signaling pathways that cause the problem, showing that the magnitude of signaling abnormalities could explain differences in symptom severity between family members. They created a mouse model with the family’s gene defect for further characterization, and also showed that blocking the faulty signal from the altered TBX20 could restore the mutated cells’ ability to proliferate.

The Stanford Pulmonary Hypertension Clinic and the American Heart Association partnered with Peking University and organized a joint symposium entitled “Improving Clinical Outcomes in Pulmonary Hypertension: Role of Registries and Precision Medicine” this October at the Great Wall International Congress in Cardiology. The goal of the symposium was to discuss the clinical phenotypes of pulmonary hypertension and how implementation of precision medicine initiatives can provide opportunities for better clinical practices. The symposium facilitated investigators from Stanford and University of Peking to exchange information about pulmonary hypertension practices and establish collaborations that will be of mutual benefit to both institutions. The symposium featured a keynote presentation by Dr. Bradley Maron from the Brigham and Women’s Hospital in Boston. This event was co-organized by Dr. Vinicio de Jesus Perez (Stanford PH clinic) and Dr. Dayi Hu (Chief of Cardiology, Peking University). This activity was sponsored by the American Heart Association Council of Cardiopulmonary, Critical Care and Resuscitation.
Gene could help explain insulin resistance

By Jennie Dusheck, Medical school’s Office of Communication & Public Affairs

Health researchers have known for decades that Type 2 diabetes results from a phenomenon called insulin resistance, but what causes insulin resistance has remained a mystery. Now, researchers at the Stanford University School of Medicine and the University of Wisconsin-Madison have begun to untangle a web of connections that includes a gene; mitochondria, which produce energy for cells; insulin resistance; and how well the body’s metabolism functions.

“We’ve identified a mechanism for insulin resistance that involves a gene that ties insulin resistance to mitochondrial function,” said Joshua Knowles, MD, PhD, an assistant professor of cardiovascular medicine at Stanford. A paper describing the work was published in the Oct. 4 issue of Cell Reports. Knowles is the senior author, and Indumathi Chennamsetty, PhD, a postdoctoral scholar at Stanford, is the lead author.

Insulin is a hormone secreted by the pancreas that helps fat and muscle cells take glucose from the blood. When a person’s cells stop responding to insulin, the person has insulin resistance and glucose builds up in the blood, signaling the pancreas to produce ever more insulin. The new study shows that suppressing the expression of the Nat1 gene in mice interferes with the function of mitochondria — cell structures that make ATP, the energy currency of cells. Without ATP, cells cannot live and function. In addition, mice whose Nat1 gene had been eliminated gained more weight and had larger fat cells and higher levels of biomarkers indicating inflammation than did regular mice, even though all the mice got the same amount of food and water.

Additional co-authors of the study are instructor in pediatric cardiology Michael Coronado, PhD; visiting graduate student John Sandin; research associate Giovanni Fajardo, MD; postdoctoral scholars Kévin Contrepois, PhD, Ivan Carcamo-Orive, PhD, Andrew Whittle, PhD, and Mohsen Fathzadeh, PhD; professor of genetics Michael Snyder, PhD; professor of pediatric cardiology Daniel Bernstein, MD; and professor of cardiovascular medicine Thomas Quertermous, MD.

Researchers Launch iPhone App to Study Peripheral Artery Disease

By Tracie White

Stanford University School of Medicine researchers have launched a free iPhone app designed to help them conduct a clinical study to discover better treatments for peripheral artery disease and as a convenient way for people with the disease to monitor their daily activity.

“We hope to gain insights into patterns of disease progression over time by collecting participants’ activity data from their iPhones,” said Oliver Aalami, MD, Clinical Associate Professor of vascular surgery and lead investigator of the study. “We will be looking for any changes in activity patterns that may indicate disease advancement.”

Peripheral artery disease, which affects about 12 million people in the United States, is a circulatory problem caused by a buildup of plaque in the peripheral arteries, most commonly in the legs. Symptoms include cramping and pain while walking or climbing stairs. Treatment is directed at reducing leg pain and the risk of heart attack and stroke from clogged arteries.

“One of the key metrics we will look at is the greatest distance that people with PAD can walk without stopping,” Aalami said. “It gets really painful, and they have to stop and rest before continuing on.”

The VascTrac app will collect activity data using Apple’s Research Kit, an open-source framework that allows iPhone users to easily join clinical research studies. Since its launch over a year ago, the software has been used by researchers to collect data on diseases ranging from diabetes to melanoma. Stanford researchers launched one of the first of these studies, MyHeart Counts, in the spring of 2015 to study heart disease. That study has enrolled more than 54,000 people so far.

Aalami said the goal for the PAD study is to enroll 2,000 to 5,000 participants, “much more than you can do with a traditional trial.”

Researchers emphasize that the app is not a medical diagnostic tool and isn’t designed to provide medical advice, professional diagnosis, opinion, treatment or health-care services. All participants’ data will be stored using military-grade encryption, and participant names will be replaced by random codes, keeping identities and medical information confidential, the researchers said. With permission from a participant, his or her de-identified data may be shared with researchers at other institutions approved by Stanford.

The trial is being sponsored by the companies Abbott Vascular, Cook Medical, W. L. Gore & Associates and Microsoft.

Recipients of Stanford-Intermountain Seed Grants

Stanford Medicine and Intermountain Healthcare have announced the recipients of more than $500,000 in seed grants focused on transforming health care.

Earlier this year, the two organizations announced a collaboration to enable joint clinical, research and education projects. Intermountain Healthcare is a not-for-profit health-care system based in Utah. The seed grants were awarded to projects that will be jointly led by principal investigators from Stanford and Intermountain. The one-year, $75,000 grants took effect on Nov. 1.

Following are the recipients and their project titles:

- Whole-genome DNA sequencing of stage-3 colorectal cancer — James Ford, MD, associate professor of oncology and of genetics at Stanford; Lincoln Nadauld, MD, PhD, Intermountain genomics and health precision.
- Baseline assessment of hand hygiene practices and ICU microbiology — Arnold Milstein, MD, MPH, professor of medicine; William Beninati, MD, Intermountain critical care medicine.
- Developing a precision-based approach for the diagnosis and prognosis of heart failure with preserved ejection fraction in the community — Francois Haddad, MD, clinical associate professor of cardiovascular medicine; Kirk Knowlton, MD, Intermountain cardiovascular medicine.
- Translational approaches to the mechanisms of septic cardiomyopathy — Euan Ashley, MRCP, DPhil, associate professor of cardiovascular medicine; Samuel Brown, MD, Intermountain critical care medicine.
- Implementation and evaluation of graduating from pediatric to adult care — Korey Hood, PhD, clinical professor of pediatrics; Aimée Hersh, MD, Intermountain pediatrics.
- Impact of donor-derived BK virus infection and immune recovery in kidney transplant recipients — Benjamin Pinsky, MD, PhD, assistant professor of pathology and of infectious diseases; Diane Alonso, MD, Intermountain transplant services.
- Development and implementation of a digital health-care program for patients with atrial fibrillation — Mintu Turakhia, MD, assistant professor of cardiovascular medicine; Jared Bunch, MD, Intermountain heart-rhythm services.

More information about the grant program is available by emailing: intermountain-stanford-collab@stanford.edu.

Notable Awards

Leah Backhus, MD, Associate Professor of Cardiothoracic Surgery, was appointed to serve as a member of the Patient-Centered Outcomes Research Institute (PCORI) advisory panel on Improving Healthcare Systems. Her expertise will help PCORI refine and prioritize research funding priorities and ensure that the research PCORI supports centers on the outcomes that matter to patients and other healthcare decision makers.

Vinicio de Jesus Perez, MD, Assistant Professor of Medicine, received a Young Physician-Scientist Award from the American Society for Clinical Investigation. The award recognizes junior researchers whose work is notable for its insight into the mechanisms of disease and the potential for new therapies. His research and clinical focus is pulmonary hypertension and lung fibrosis.

P.J. Utz, MD, Professor of Medicine, has joined the scientific advisory board of the Arthritis National Research Foundation, which provides grants for research on arthritis and other autoimmune disorders. He directs Stanford’s Medical Scientist Training Program and is the founder and director of the Stanford Institutes of Medicine Summer Research Program for high school students. His research focuses on improving the understanding and treatment of autoimmune disorders.

Joshua Knowles, MD, PhD, received 2016 Clinical Scientist Development Awards from the Doris Duke Charitable Foundation. Awardees receive $495,000 over three years to launch their research programs and to help balance their clinical and research roles. Knowles, an assistant professor of medicine, is examining the risk factors and mechanisms of statin-associated diabetes.

Joshua Knowles, MD, PhD

Jason T. Lee, MD, was elected for a three-year terms as Secretary-Treasurer of the Association of Program Directors in Vascular Surgery, a national society comprised of surgical educators and program directors that oversee vascular surgery training in the US.

John Harris, MD, has been elected as the 78th President of the San Francisco Surgical Society, founded in 1938. Former presidents have included Stanford Surgeons to include Drs. Harry Oberhelman, James B D Marks, R Scott Mitchell, Carlos Esquivel, and Sherry Wren.

Supporting 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).

For more information: http://cvi.stanford.edu/waystogive.html and http://cvi.stanford.edu
The Dorothy Dee & Marjorie Helene Boring Trust Award provides a stipend up to $15,000. Stanford MD, PhD, and MD/PhD students are encouraged to apply for the next cycle of awards.

Eligibility:
- At least one quarter of MedScholars
- Previous research experience at Stanford
- A letter of recommendation from a Stanford research mentor
- A medical or PhD student interested in Cardiovascular Research

To download application and additional information visit: [http://tinyurl.com/ihraward](http://tinyurl.com/ihraward)
Joshua W. Knowles, MD
Statin-associated diabetes: Identifying Risk Factors and Physiologic Mechanisms
National Institutes of Health

Mark R. Nicolls, MD
Stanford Training Program in Lung Biology
National Institutes of Health

Cornelia Weyand, MD
JAK-STAT Signaling in Giant Cell Arteritis
National Institutes of Health

Jennifer R. Cochran, PhD
Graduate Training Program in Biotechnology
National Institutes of Health

James A. Spudich, PhD
Myosin Movement in Vitro-Molecular Characterization
National Institutes of Health

Daniel Bernstein, MD
hiPSC-Cardiomyocytes to Screen Variants Predictive of Doxorubicin Cardiotoxicity
National Institutes of Health

Stanley G. Rockson, MD
AIBP Mediates A NOVEL Interplay between cholesterol and Lymphangiogenesis
National Institutes of Health

PJ Utz, MD
ACE: Autoimmunity Center of Excellence (ACE) at Stanford

Thomas Quertermous, MD
Mechanism of the coronary heart disease association at chromosome 6q23.2
National Institutes of Health

Myriam Amsallem, MD | Francois Haddad, MD, Laboratory
Right Heart End-systolic Remodeling Index Predicts Outcomes in Pulmonary Arterial Hypertension

Devon Hunerdosse, PhD | Mary Teruel, PhD, Laboratory
Opposing Roles for C/EBPβ in Regulating Adipogenesis and TNFalpha-Induced Inflammation
Keystone Symposia on Obesity and Adipose

Qing Liu, PhD | Michael Snyder, PhD, Laboratory
Genome-wide Transcriptomic And Epigenomic Alterations Of Cardiac Differentiation
Society of Toxicology - Annual Meeting, Baltimore, 2017

Nilay Shah, MD | David Maron, MD, Laboratory
Dietary Pattern and Long-Term Survival: A Cohort Study of Patients in a Preventive Medicine Clinic

Jin Li, PhD | Themistocles Assimes, PhD, Laboratory
Predictors of fatal incident coronary heart disease in the Women’s Health Initiative

Haodi Wu, PhD | Joseph Wu, MD, PhD, Laboratory
Restoring diastolic function in iPSC-cardiomyocytes

Kazuya Miyagawa, MD, PhD | Marlene Rabinovitch, MD, Laboratory
Smooth Muscle Cells Regulate the Capacity for Endothelial Regeneration
New Clinical Trials

**Euan Ashley, MD**
A Phase 2, Multi-Center, Open-Label, Ascending Dose Study on the Efficacy, Safety and Tolerability of Perhexiline in Patients with Hypertrophic Cardiomyopathy and Moderate-to Severe Heart Failure with Preserved Left Ventricular Function.

**Craig D. Miller, MD**
A prospective, randomized, controlled, multi-center study to establish the safety and effectiveness of the SAPIEN 3 transcatheter heart valve in low risk patients requiring aortic valve replacement who have severe, calcific, symptomatic aortic stenosis.

**Christina Mora-Mangano, MD**
A Prospective, Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Safety and Efficacy of Preoperative Antithrombin Supplementation in Patients Undergoing High-Risk Cardiac Surgery with Cardiopulmonary Bypass.

**Stanley G. Rockson, MD**
A Phase 2, randomized, double-blind, placebo-controlled study of the efficacy, safety, and pharmacokinetics of ubenimex in adult patients with secondary lymphedema of the lower limb.

**Marcia L. Stefanick, PhD**
Randomized trial of cocoa flavanols and multi-vitamins in the reduction of cardiovascular disease and cancer.

**Phillip C. Yang, MD**
A Double blind, Randomized, Sham-procedure-controlled, Parallel group Efficacy and Safety Study of Allogeneic Mesenchymal Precursor Cells (rexlemestrocel-L) in Patients with Chronic Heart Failure Due to Left Ventricular Systolic Dysfunction of Either Ischemic or Nonischemic Etiology: DREAM HF-1.

Vascular Surgery Clinical Trial Highlights

**VorapAccess**
The VorapAccess study is a double-blind placebo-controlled clinical trial examining whether Vorapaxar can improve the functional maturation, patency, and cannulation of the arteriovenous fistula to provide a durable source of blood for hemodialysis. The enrollment target is 50 patients who are receiving surgical AV fistulas, do not have a history of stroke, TIAA, or intracranial hemorrhage, and are not taking anti-platelet or anti-coagulant medications.

**BEST-CLI**
The BEST-CLI study is a multi-site randomized trial that compares endovascular techniques and surgical revascularization for peripheral arterial disease. The goal is to learn which therapy is more suitable for patients who are candidates for open surgery and endovascular treatment. Approximately 700 subjects have been randomized into the trial with the total enrollment target being 2,100 across all sites.

**Gore IBE 12-04**
The GORE® EXCLUDER® AAA Endoprosthesis is an extension intended to isolate the common iliac artery from systemic blood flow and preserve blood flow in the external iliac and internal iliac arteries in patients with a common iliac or aortoiliac aneurysm. The device designed to be used in conjunction with the GORE® EXCLUDER® AAA Endoprosthesis. The purpose of The Gore IBE 12-04 study is to determine the safety and effectiveness of the GORE® EXCLUDER® Iliac Branch Endoprosthesis when used for treatment of Common Iliac Artery Aneurysms (CIAA) or Aorto-iliac Aneurysms. The study enrolled 100 patients at all sites.

**Cook Zilver PTX-V**
The Zilver® PTX® Drug-Eluting Peripheral Stent has been approved by the U.S. Food and Drug Administration (FDA) to treat narrowing of the femoropopliteal (leg) arteries. The stent is a flexible metal tube used to keep an artery open that is coated with paclitaxel, which is directly absorbed by the artery wall cells. The purpose of this post-approval study is to provide continued evaluation of the stent’s safety and effectiveness by confirming that post-market results are similar to results observed in pre-market testing and by evaluating the long-term device integrity. A total of 200 patients were enrolled across all sites.
Faculty Funding Opportunities

JANUARY
National Institute of Health
Bold New Bioengineering Methods and Approaches for Heart, Lung, Blood and Sleep Disorders and disease (RFA-HL-17-015)
Deadline: Jan. 17, 2017

American Heart Association
Institute Innovative Development Grants for identifying novel approaches to analyzing data
Deadline: Jan. 31, 2017

American Heart Association
Data Mining Grants aimed at uncovering patterns and knowledge from existing data sets
Deadline: Jan. 31, 2017

FEBRUARY
National Institute of Health
NHLBI Outstanding Investigator Award (RFA-HL-16-024) intended to support a research program rather than a research project
Deadline: Feb. 15, 2017

NHLBI Early Investigator Award (RFA-HL-16-025) intended to support a research program, rather than a research project
Deadline: Feb. 15, 2017

NHLBI Clinical Trail Pilot Studies (PAR-16-037)
Deadline: Feb. 16, 2017

Postdoctoral Funding Opportunities

NOVEMBER
Research Fellowship Program In Cardiovascular Disease Prevention
Deadline: Nov. 15, 2016

DECEMBER
National Institute of Health
Ruth L. Kirschstein National Research Service Award (NRSA) Individual Postdoctoral Fellowship (PA-16-307)
Deadline: Dec. 8, 2016

FEBRUARY
National Institute of Health
K08 Mentored Clinical Research Career Development Award (PA-16-191)
Deadline: Feb. 12, 2017

K23 Mentored Patient-Oriented Research Career Development Award (PA-16-198)
Deadline: Feb. 12, 2017

K99/R00 NIH Pathway to Independence Award (PA-16-077)
Deadline: Feb. 12, 2017

Howard Hughes Medical Institute
Hanna H. Gray Fellows Program
Deadline: Feb. 15, 2017

NHLBI Mentored Career Development Award to Promote Faculty Diversity in Biomedical Research (K01) (RFA-HL-16-006)
Deadline: Feb. 18, 2017

CT Surgery Translational Surgeon Scientist Distinguished Lecture

A jointly-sponsored lecture by Stanford’s Department of Cardiothoracic Surgery and the Cardiovascular Institute will be held at 12:30 p.m., Tuesday, Dec. 6, at the Li Ka Shing Center for Learning and Knowledge (room LK130), 291 Campus Drive, Stanford.

The guest speaker will be Ralph J. Damiano, MD, the Evarts A. Graham Professor of Surgery; the Chief, Division of Cardiothoracic Surgery; and the Co-Chair of the Heart & Vascular Center, at Washington University School of Medicine.


Second Annual Dr. Lawrence H. & Mrs. Roberta Cohn Visiting Lecture

This year’s Dr. Lawrence H. and Mrs. Roberta Cohn Visiting Lecture Series took place on September 26, 2016.

The guest speaker was Tomislav Mihaljevic, MD, Chief Executive Officer of Cleveland Clinic Abu Dhabi.

His talk was titled “Cleveland Clinic Abu Dhabi: International Growth of the U.S. Hospital Care Industry”.

Vascular Residency and Fellowship Interview Dates

Vascular Surgery 0+5 Integrated Residency Program
Interview Date - January 19, 2017

Vascular Surgery Two-year Traditional Fellowship Program
Interview Date – March – Date TBD
NOVEMBER 01, 2016
Kirk U. Knowlton, MD
Director of Cardiovascular Research and Co-Chief of Cardiology
Intermountain Heart Institute

Professor of Medicine, Cardiology
University of Wisconsin-Madison School of Medicine and Public Health

JANUARY 17, 2017
Rui-Ping Xiao, MD, PhD
Professor at the Institute of Molecular Medicine, Peking University, Beijing, China

JANUARY 24, 2017
Mark A. Creager, MD, FAHA
Director, Heart and Vascular Center, Dartmouth-Hitchcock Medical Center
Professor of Medicine, Geisel School of Medicine at Dartmouth

FEBRUARY 28, 2017
Gerald W. Dorn, II, MD
Philip and Sima K Needleman Professor
Director, Center for Pharmacogenomics
Washington University School of Medicine

MARCH 7, 2017
Vinicio de Jesus Perez, MD
Assistant Professor of Medicine (Pulmonary and Critical Care Medicine)
Stanford University

and

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

MARCH 23, 2017 (THURSDAY)
Maruo Giacca, MD
Director-General International Centre for Genetic Engineering and Biotechnology (ICGEB), Trieste, Italy

MARCH 28, 2017
Peter J. Mohler, PhD
Professor and Chair, Physiology and Cell Biology
Ohio State University

MAY 9, 2017
Charles E. Murry, MD, PhD
Woods Professor of Pathology, Bioengineering and Medicine/Cardiology
Co-Director, Institute for Stem Cell and Regenerative Medicine
Co-Director, Center for Cardiovascular Biology
University of Washington

June 6, 2017
John L. Spudich, PhD
Robert A. Welch Distinguished Chair in Chemistry
Director, Center for Membrane Biology
Professor, Biochemistry & Molecular Biology
University of Texas, Houston, Texas

June 6, 2017
Louis J. Dell’Italia, MD
Professor, UAB Comprehensive Cardiovascular Center
University of Alabama at Birmingham

National and Global Cardiovascular Conferences

NOVEMBER
AHA Scientific Sessions
November 12-16, 2016, Orleans, LA

The Future of Cardiovascular Research
November 21, 2016 | 12 - 5p
Li Ka Shing Center
Lunch, science, wine & cheese

DECEMBER
World Stem Cell Summit
December 6-8, 2016, West Palm Beach, FL
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. We are also developing new biomarker platforms and imaging modalities.

Contact Us
Francois Haddad, MD, Clinical Associate Professor of Medicine (Cardiovascular Medicine): fhaddad@stanford.edu.

Key Initiatives
1. Stanford Athletic Screening Program. The BPCL is the core laboratory responsible for the echocardiographic studies of Stanford Athletic Screening Program and has imaged more than 500 athletes.

2. Stanford Immune Aging Longitudinal Study. The BPCL is the core providing clinical cardiovascular phenotypes for collaboration through the NIH funded projects of the Immunity Transplantation and Infection Institute led by Mark Davis, MD.

3. The Pulmonary Hypertension Wall Center Outcome and Physiology Studies. The BPCL works closely with the Vera Moulton Wall Center for Pulmonary Vascular Disease to provide quantitative echocardiographic assessment of the right heart.

4. The CCML-Stanford Collaborative Effort. Through a close collaboration with the University of Paris and the Marie-Lannelongue surgical center (CCML), the BPCL is providing quantitative analysis of experimental and clinical studies focused on right heart physiology. The CCML is a recognized worldwide center of expertise in pulmonary hypertension (Elie Fadel MD PhD and Olaf Mercier MD PhD).

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) 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 146 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.

**JULY 2016**


On-Treatment Outcomes in Patients With Worsening Renal Function With


AUGUST 2016


Wnt pathway regulation of intestinal stem cells. Mah AT, Yan KS, Kuo CJ. J Physiol. 2016 Sep 1;594(Pt 17):4837-47.


Depressive Symptoms, Cardiac Disease Severity, and Functional Status in Patients With Coronary Artery Disease (from the Heart and Soul Study). Schofer DW, Regan M, Heidenreich PA, Whooley MA. Am J Cardiol. 2016 Aug 12.


Leadership

Joseph C. Wu, MD, PhD
Director, Stanford Cardiovascular Institute
Simon H. Stertzer, MD, Professor,
Dept. of Medicine (Cardiovascular) & Radiology

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

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