Welcoming New Faculty!

Ioannis Karakikes, PhD, was appointed Assistant Professor of Cardiothoracic Surgery. Dr. Karakikes received his PhD from the University of Essex (UK) and completed his postdoctoral training at the Cardiovascular Research Center at the Icahn School of Medicine at Mount Sinai, New York. His research focuses on delineating the molecular mechanisms underling the pathogenesis of cardiomyopathies using patient-specific cardiomyocytes derived from human induced pluripotent stem cells (hiPSCs), and also the development of biologica- l therapies for heart failure.

William Hiesinger, MD, has joined the Department of Cardiothoracic Surgery an Assistant Professor in Adult Cardiothoracic Surgery. He received his undergraduate degree from Dartmouth, and completed his medical degree at the University of Pennsylvania. He also conducted his general surgery and cardiothoracic surgery residency at University of Pennsylvania. He has extensive surgical experience with thoracic transplantation, mechanical circulatory support, transcatheter aortic valve replacement, and endovascular thoracic aortic procedures. His lab at Stanford will focus on myocardial bioengineering, angiogenesis, and regeneration.

Elan Burton, MD, joins the Department of Cardiothoracic Surgery as a Clinical Assistant Professor, as its newest faculty member in Stanford’s Division of Adult Cardiothoracic Surgery. She will work at the division’s Stanford program at the VA Hospital, and at the Santa Clara Valley Medical Center in San Jose. Dr. Bruton obtained her undergraduate degree from Duke University, and then went on to Morehouse School of Medicine to obtain her medical degree. She completed her residency training in general surgery at the University of Pittsburgh Medical Center-Mercy. Dr. Burton then completed her cardiothoracic surgical training with Dr. Sarah Shumway at the University of Minnesota.

Cardiovascular Recruitment:

- 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.
- One full-time faculty member in Pediatric Cardiology with an interest in cardiovascular genetics in the University Tenure Line or Medical Center Line. Click for details.

We are seeking highly qualified MD, PhD, or MD/PhD graduates. Applicants must be either a U.S. citizen or permanent resident to apply. Funding support includes postdoctoral salary, supplies, and travel for up to two years.

Application Deadline is August 15, 2016.

For information and to apply: http://med.stanford.edu/cvi/education/cvis-t32.html
Mitochondrial remodeling: Rearranging, and reprogramming

In a recent review Daniel Bernstein, MD, Alfred Woodley Salter and Mabel Smith Salter Endowed Professor in Pediatrics, highlights the contribution of the mitochondria- the energy hub of cells, in cardiovascular diseases.

The article entitled, ‘Mitochondrial remodeling: Rearranging, recycling, and reprogramming,’ was published in Cell Calcium Journal.

For more visit: http://www.ncbi.nlm.nih.gov/pubmed/27130902

New T32 fellow

Jin Qian, PhD, was selected as a new trainee for the NIH funded ‘Mechanisms and Innovation in Vascular Disease’ T32 training grant.

Her research is on “Development of PAH by progressive infiltration of activated macrophages that secrete LTβ4 in the lung and mediate vascular remodeling”.

Study examines clinical outcomes of heart transplant

A recent study examined 102 heart transplant recipients to evaluate the relationship between periarterial neovascularization and the development of cardiac allograft vasculopathy (CAV) after heart transplantation. The group concluded that the presence of increasing periarterial small vessels (PSV) around the coronary arteries was associated with early CAV progression and reduced survival after heart transplantation. The article was published in J Heart Lung Transplant. 2016 and entitled ‘Association of periarterial neovascularization with progression of cardiac allograft vasculopathy and long-term clinical outcomes in heart transplant recipients.’ The authors include, Hideki Kitahara, Kozo Okada, Shigemitsu Tanaka, Kiran K. Khush, William F. Fearon and Yasuhiro Honda.

The associations of leptin, adiponectin and resistin with incident atrial fibrillation in women

A recent study explored the relationship between adipokines leptin, adiponectin and resistin with incident of Atrial Fibrillation in women. The cohort included an ethnically diverse group of postmenopausal women aged 50–79 who were nationally recruited at 40 clinical centers as part of the Women’s Health Initiative investigation. Of the 4,937 participants included, 892 developed AF over a follow-up of 11.1 years.

Those with AF had higher mean leptin, adiponectin and resistin levels. The study concluded that elevated levels of serum resistin are significantly associated with higher rates of incident AF and partially mediate the association between BMI and AF. Leptin and adiponectin levels were not significantly associated with AF.

Authors include Simon Ermakov, Farnaz Azarbal, Marcia L. Stefanick, Michael J. LaMonte, Wenjun Li, Katie M. Tharp, Lisa W. Martin, Rami Nassir, Elena Salmoirago-Blotcher, Christine M. Albert, JoAnn E. Manson, Themistocles L. Assimes, Mark A. Hlatky, Joseph C. Larson, Marco V. Perez. This study was published in Heart, 2016 May 4.

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
Nanofiber scaffolds could treat lymphedema by rerouting lymphatic system around blockages

By Sarah C. P. Williams

Stanford engineers and doctors collaborated with industry to design a possible new treatment for lymphedema, which often affects cancer patients whose lymph nodes become blocked.

The lymphatic system drains fluids from the body’s tissues. When a lymphatic vessel is blocked, as is the case in lymphedema, fluid can get backed up into a limb, causing painful swelling.

Researchers at the School of Medicine have developed a possible treatment for lymphedema, the severe swelling of an arm or leg that can occur when the lymph system is blocked. Using scaffolding composed of specially patterned collagen nanofibers, the researchers coaxed lymph vessels to grow around lymph blockages.

The technique was effective at treating lymphedema in pigs, the scientists report in a study published online June 7 in *Biomaterials*.

“We were able to take a cue from nature about what molecules spur vessel growth, but also think outside the box and use this nanoscale scaffolding to bridge the blockages,” said Ngan Huang, PhD, assistant professor of cardiothoracic surgery and a co-senior author of the study. “I think combining the two was really key.”

The lymphatic system is responsible for draining fluids from the body’s tissues and filtering this lymph fluid. When a lymphatic vessel is blocked, as is the case in lymphedema, fluid can get backed up into a limb, causing painful swelling.

Huang’s lab, in collaboration with the Union City, California-based company Fibralign, has been studying how nanofibers of collagen can be used in medicine. Collagen, the most abundant protein in the human body, acts as a structural support in a variety of tissues. The scientists have designed nanofibers, dubbed “BioBridge,” that mimic collagen’s different arrangements. “The unique feature about the BioBridge scaffolds is that they’re not just noodles on a nanoscale,” said Huang. “They have patterning that’s physiologically relevant.”

Previously, Huang’s group has studied how the BioBridge nanofibers can be used to guide new blood vessels. As new cells that make up the vessels grow, they align themselves along the nanofibers. But lymph vessels, at a molecular level, are similar to blood vessels. So Huang and her collaborators wondered whether the fibers could also be used to coax and direct new lymph vessel growth as well.

The scientists coated stretches of the BioBridge nanofibers with fragments of lymph nodes, since the nodes are known to produce molecules that stimulate new lymph vessel growth. Then, they surgically implanted the fibers around lymph blockages in pigs with lymphedema, building a stretch of fibers that bypassed each blockage like a bridge. After three months, the eight pigs that had received BioBridge scaffolding had 27 lymphatic collector vessels per square millimeter in the area around the implant, significantly more than the 1 lymphatic collector per square millimeter seen in control animals.

So far, the BioBridge approach has only been tested in pigs. But Fibralign has a small clinical trial planned in Latin America, and Rockson is putting together a Stanford-based study to test the treatment in breast cancer patients with lymphedema.

The study was funded by the U.S. Army Medical Research & Materiel Command and the National Science Foundation.

Anti-tumor antibodies could counter atherosclerosis

By Bruce Goldman, Science Writer Stanford Medical School Office of Communication & Public Affairs

A drug could be used to combat cardiovascular disease by targeting not mere risk factors such as high cholesterol or high blood pressure, but the actual lesions bearing direct responsibility: atherosclerotic plaques.

Investigators at the Stanford University School of Medicine have learned the signal that tumor cells display on their surfaces to protect themselves from being devoured by the immune system also plays a role in enabling atherosclerosis, the process underlying heart attacks and strokes.

A biological drug capable of blocking this so-called “don’t eat me” signal is now being tested in clinical trials in cancer patients. The same agent, the investigators found, was able to prevent the buildup of atherosclerotic plaque in several mouse models of cardiovascular disease. If this success is borne out in human studies, the drug could be used to combat cardiovascular disease — the world’s No. 1 killer — and do so by targeting not mere risk factors such as high cholesterol or high blood pressure, but the actual lesions bearing direct responsibility for cardiovascular disease: atherosclerotic plaques.

“It seems that heart disease may be driven by our immune system’s inability to ‘take out the trash,’” said Nicholas Leeper, MD, associate professor of vascular surgery and of cardiovascular medicine. A study describing the researchers’ findings was published online July 20 in Nature. Leeper is the senior author.

Atherosclerosis is caused by the deposition of fatty substances along arterial walls. Over the years, these substances form plaques. It’s now known that numerous dead and dying cells accumulate in atherosclerotic plaques, which inflammation renders brittle and vulnerable to rupture, the ultimate cause of heart attack and stroke.

Contributing to the pathology is malfeasance on the part of a class of immune cells that first arrive at the site with presumably benign intentions, said Leeper.

Many cells in the human body feature a “don’t eat me” signal on their surface: a protein called CD47. The protein tells the immune system that a cell is alive, still going strong and part of a person’s healthy tissue.

Normally, as a cell approaches death, its CD47 surface proteins start disappearing, exposing the cell to macrophages’ garbage-disposal service. But atherosclerotic plaques are filled with dead and dying cells that should have Anti-tumor antibodies could counter atherosclerosis

Nicholas Leeper, MD

CD47, a ‘don’t eat me’ protein

NEW DRUG Continued on p. 9

Stanford Biodesign New Arrhythmia Technologies

In May, the Stanford Biodesign New Arrhythmia Technologies Conference convened at Stanford to showcase updates on the latest in Sudden Cardiac Death (SCD) research. The conference presented the latest advances in state-of-the-art cardiac electrophysiology and provided opportunity for extensive discussion and interaction with the faculty and others interested in the field.

The audience included cardiac electrophysiologists, arrhythmia nurses and technologists, scientists, device experts, engineers, industry and business leaders and scientists, investment leaders, and others with a special interest in arrhythmias. The Steven M. Gootter Foundation provided generous funding for this one-day conference organized by Paul Wang, MD and Sanjiv Narayan, MD.

Dorothy Dee & Marjorie Helene Boring Trust Research Award

As part of a $2M gift to the Cardiovascular Institute the Dorothy Dee and Marjorie Helene Boring award supports medical students dedicated to cardiovascular research at Stanford School of Medicine. Each recipient receives up to $15,000. Medical students dedicated to cardiovascular research should apply!

For details and to apply visit: http://med.stanford.edu/cvi/research/i-heart-research-award.html
New Program Announcement Vascular and Vein Clinic opens its doors in Portola Valley

The Division of Vascular Surgery announces Stanford’s first ever Vascular and Vein Clinic. It is now open for patients with venous disease and is located at 3240 Alpine Road in Portola Valley. The clinic provides comprehensive vascular care for medically necessary and cosmetic procedures to treat venous disease. This common disease affects more than 30 million people in the United States and is associated with decreased quality of life due to symptoms. Treatments are performed by a board certified Stanford physician in a private and serene setting.

“Metformin treatment status and abdominal aortic aneurysm disease progression”

A recent study published by Dr. Ronald Dalman’s group, Walter Clifford Chidester and Elsa Rooney Chidester Professor of Surgery, was featured as an Editor’s Choice publication for July in the Journal of Vascular Surgery. The research article showed the association between diabetes mellitus and metformin on abdominal aortic aneurysm (AAA) disease. The authors include: Naoki Fujimura, Jiang Xiong, Ellen B. Kettler, Haojun Xuan, Keith J. Glover, Matthew W. Mell, Baohui Xu and Ronald L. Dalman.

Welcome to New Vascular Surgery Fellows

Left to right: Graeme McFarland, MD; Michael Sgroi, MD; Tiffany Wu, MD; Andy Lee, MD

For more visit: http://vascular.stanford.edu/education/current-fellows-and-residents.html

T32 Vascular Biology Training Grant Recipient

Nathan Itoga, MD, was selected as a new trainee for the NIH funded ‘Mechanisms and Innovation in Vascular Disease’ T32 training grant managed by CVI. He began his first year on the grant on July 1. His research is on "Identifying and Reducing Variability of Operating Room Supplies and Diagnostic Imaging in Vascular Surgery Patients".

APDVS Election of Jason Lee, MD

Jason T. Lee, MD, Professor of Surgery in the Division of Vascular Surgery at Stanford was elected Secretary/Treasurer of the Association of Program Directors in Vascular Surgery.

Mary Leonard appointed new chair of pediatrics

By Erin Digitale, Medical school’s Office of Communication & Public Affairs

Mary Leonard, MD, MSCE, professor of pediatrics and of medicine, has been appointed chair of the Department of Pediatrics at the Stanford University School of Medicine and physician-in-chief at Lucile Packard Children’s Hospital Stanford and Stanford Children’s Health.

Leonard has taken over from Hugh O’Brodovich, MD, professor of pediatrics, who is retiring after holding the position since 2007.

“This is an exceptionally exciting time for Stanford pediatrics,” Leonard said. “The growth of our clinical and research programs and the new initiatives in precision health are providing us with unprecedented opportunities to shape the future of pediatrics. The house staff, faculty and patients inspire me in my work every day, and it will be an honor and privilege to advocate on their behalf.”

A 1989 graduate of the School of Medicine, Leonard returned to Stanford in 2014 after spending 25 years at the Children’s Hospital of Philadelphia and the University of Pennsylvania, first as a resident and fellow and then as a faculty member.

“Dr. Leonard is an energetic, collaborative physician, researcher and mentor who cares deeply about improving the health and well-being of children everywhere,” said Lloyd Minor, MD, dean of the School of Medicine. “She is committed to Stanford Medicine’s vision of proactive and personalized health care and has been at the forefront of efforts to integrate precision health approaches and skills into our training programs.”

“Dr. Leonard invariably receives high praise from colleagues and trainees for her thoughtful leadership and inspiring vision for the future of pediatric research, education and patient care,” said Christopher Dawes, president and CEO of Lucile Packard Children’s Hospital Stanford and Stanford Children’s Health. “I’m very pleased to welcome her to the role of physician-in-chief of our hospital and network.”

At the Children’s Hospital of Philadelphia, Leonard directed the Of-
A recent study titled "Enhanced electrochemical sensing with carbon nanotubes modified with bismuth and magnetic nanoparticles in a lab-on-a-chip (Ferrochip)" was published in *ChemNanoMat* describing the generation of a novel material to facilitate ultrasensitive detection of Iron.

Iron plays an important role in human physiological functions and pathological impairments. The superior properties of carbon nanotubes (CNTs) and its modifications with bismuth and magnetic nanoparticles developed in this work have led to an extraordinary and novel material to facilitate ultrasensitive detection in the nanomolar range.

This work was published in *ChemNanoMat* June 29, 2016. Authors include: Preetha Jothimuthu, Joe L. Hsu, Robert Chen, Mohammed Inayathullah, Venkata Raveendra, Pothineni, Antony Jan, Geoffrey C. Gurtner, Jayakumar Rajadas, and Mark R. Nicolls.

For more visit: http://www.ncbi.nlm.nih.gov/pubmed/27130902

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**New Clinical Research Center partnership**

The Stanford Center for Clinical Research (SCCR), lead by Dr. Kenneth Mahaffey, MD and AstraZeneca have entered into a collaboration intended to address major health care challenges.

This collaboration focuses on cardio-metabolic and respiratory diseases, oncology, mobile health (mHealth), innovations in clinical trial design and operations, and education and training initiatives. Two million dollars in funding will be provided to support innovative research projects of Stanford investigators over the next three years.

The collaboration committee has recently awarded first two research projects for funding in Year 1 (2016-2017) under this collaboration:

1. “Smartphone guided cardiac rehabilitation and medication adherence management after acute coronary syndrome”, PI Dr. Mintu Turakhia, MD
2. “Learning Personalized Treatment Guidelines”, PI Dr. Nigam Shah, PhD

As a part of this award, the collaboration will provide a funding of $260,000 to each of these selected projects for the project duration of one year.

The collaboration is excited to announce that it will start accepting the next round of research proposal applications for Year 2 starting November, 2016. Please contact Nicole Ventre: nventre@stanford.edu for any questions about this collaboration and the proposal submission process and timeline.

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**Material facilitates detection of physiological iron**

A recent study titled "Enhanced electrochemical sensing with carbon nanotubes modified with bismuth and magnetic nanoparticles in a lab-on-a-chip (Ferrochip)" was published in *ChemNanoMat* describing the generation of a novel material to facilitate ultrasensitive detection of Iron.

Iron plays an important role in human physiological functions and pathological impairments. The superior properties of carbon nanotubes (CNTs) and its modifications with bismuth and magnetic nanoparticles developed in this work have led to an extraordinary and novel material to facilitate ultrasensitive detection in the nanomolar range.

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For more visit: http://www.ncbi.nlm.nih.gov/pubmed/27130902

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**Leonard continued from p. 5**

Leonard is a member of the American Society of Clinical Investigation and the Society for Pediatric Research.

**2016 Summer Travel Awards**

**Xulei Qin, PhD**
AHA BCVS Scientific Sessions, July, 2016  
Joseph C. Wu Lab

**Darshan Trivedi, PhD**
Basic Cardiovascular Sciences, July, 2016  
James Spudich lab

**Maureen Wanjare, PhD**
NIBIB Training Grantees Meeting; July, 2016  
Ngan Huang Lab

**Mirwais Wardak, PhD**
National Institute of Biomedical Imaging and Bioengineering (NIBIB) Training Grantees Meeting; July, 2016  
Sanjiv Sam Gambhir Lab

**Robin Wilson, PhD**
Myofilament Meeting; June, 2016  
Beth Pruitt Lab

**Haodi Wu, PhD**
AHA Scientific Sessions  
Joseph C. Wu Lab

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**Notable Awards**

**Kiran Khush, MD** was promoted to Associate Professor of Medicine, effective Oct. 1. Her research focuses heart transplantation donor selection and post transplantation issues.

**Helen Blau, PhD**, School of Medicine faculty member, was elected to the National Academy of Sciences

**E. John Harris, MD**, Professor of Surgery in the Division of Vascular Surgery at Stanford, was elected President of the San Francisco Surgical Society

**Euan A. Ashley, MRCP, DPhil**, Associate Professor of Medicine (Cardiovascular and Genetics), received a gift from the Order of the Eastern Star to support his research in inherited cardiovascular disease.

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**2016 CVI Faculty Club**

4:30 p.m., First Wednesday of each month, Lorry Lokey (SIM1): Room G1161  
All Faculty, Junior Faculty and Instructors welcome

**September 07** KENNETH MAHAFFEY, MD  
"Defining the role of Immune Biomarkers in Non-ST Elevation Myocardial Infarction: analysis from TRACER trial biorepository"

**October 05** EVGENIOS NEOFYTOU, PHD AND DAVID STEVENS, MD  
"Modeling Chronic Chagasic Cardiomyopathy Disease Mechanisms Using Human induced Pluripotent Stem Cells"

**November 02** MICHAEL MCCONNELL, MD, MSEE  
Topic TBD

**December 07** ANITRA ROMFH AND MANISH BUTTE, MD, PHD  
"T-Cell Deficiencies in Adult Congenital Heart Disease"
Recently Awarded Projects

Russ B. Altman, MD
NIH | Biomedical Data Science Graduate Training at Stanford

Daniel Bernstein, MD
NIH | Training in Myocardial Biology at Stanford (TIMBS)

Michael Fischbein, MD
NIH | Marfan Aortic Embryologic Origin Influences miR-29b Regulators and Targets

Christopher D. Gardner, PhD
NIH | Cardiovascular Disease Prevention Training Program

Calvin J. Kuo
NIH | Modeling KRAS Dependent Synthetic Lethality in Human Colon Organoids

Won Hee Lee, PhD
AHA, Beginning Grant-in-Aid | Identifying Biomarkers of Low-Dose Radiation Risk and Mechanisms of Individual Radiation Sensitivity

Doff McElhinney, MD
Children’s Heart Foundation | DNA Damage Following Radiation Exposure in Patients with Congenital Heart Disease Undergoing Cardiac Catheterization: Exposure-Effect Variability and Factors Associated with Impaired DNA Repair

Daria Mochly-Rosen
NIH | Development of a novel treatment for hyperbilirubinemia-induced kernicterus

Edda Spiekerkoetter
NIH | Targeting Novel BMPR2 modifiers in Pulmonary Hypertension with Repurposed Drugs

PJ Utz
CIRM | Stem Cell and Regenerative Medicine-Summer Research Internship

Cornelia Weyand, MD
NIH | Oligoclonal T Cell Expansion and Rheumatoid Arthritis

Phillip C. Yang, MD
NIH | Patient Oriented Research in Cardiovascular Regeneration

Paul Wang, MD | ARCA biopharma
GENETIC-AF - A Genotype-Directed Comparative Effectiveness Trial of Bucindolol and Toprol-XL for Prevention of Symptomatic Atrial Fibrillation/Atrial Flutter in Patients with Heart Failure

Roham T. Zamanian, MD | Eiger BioPharmaceuticals, Inc.
A Phase 2, Randomized, Double-Blind, Placebo-Controlled Study of UBEnimex in Patients with Pulmonary ARTERial Hypertension (WHO Group 1) (LIBERTY)

A Phase 2, Open-Label, Extension Study to Evaluate the Long-Term Safety and Efficacy of UBEnimex in Patients with Pulmonary Arterial Hypertension (WHO Group 1)
Frontiers in Cardiovascular Medicine 2016 | FIC 2016

Stanford-Gachon 3rd Annual Session
Nine faculty members and three fellows attended the annual Stanford-Gachon Frontiers in Cardiovascular Medicine Conference in Incheon, Korea. The conference was attended by over seventy leading faculty members in Korea and 200 students and trainees. An active discussion following each session (7 total sessions) was led by the Korean experts. This format encouraged participation by all and made this conference very personal and, yet, meaningful. The final session, Young Investigator Sessions, was represented by 3 Korean and 3 Stanford fellows: Andrew Goldstone (winner!), Brian Kim, and Michelle Santoso. This effort to represent Stanford Cardiovascular Medicine globally will foster future collaboration and scholarship.

NEW DRUG Continued from p. 4
been cleared by macrophages, yet weren’t. In fact, many of the cells piling up in these lesions are dead macrophages and other vascular cells that should have been cleared long ago.

In the new study, Leeper, Kojima and their colleagues performed genetic analyses of hundreds of human coronary and carotid artery tissue samples collected at Stanford and at Sweden’s Karolinska Institute. They found that CD47 is extremely abundant in atherosclerotic tissue compared with normal vascular tissue, and correlated with risk for adverse clinical outcomes such as stroke.

In a laboratory dish, anti-CD47 antibodies induced the clearance of diseased, dying and dead smooth muscle cells and macrophages incubated in conditions designed to simulate the atherosclerotic environment. And in several different mouse models of atherosclerosis, blocking CD47 with anti-CD47 antibodies dramatically countered the buildup of arterial plaque and made it less vulnerable to rupture. Many mice even experienced regression of their plaques — a phenomenon rarely observed in mouse models of cardiovascular disease.


Faculty Funding Opportunities

**JULY**

**American Heart Association**

AHA Grant-In-Aid
Amount of funding: $154K over two years
Deadline: July, 2016
AHA Grant-In-Aid

**AUGUST**

**HOW WILL YOU MAKE YOUR MARK?**

2016 CVI Seed Awards
Deadline: August 1, 2016

**SEPTEMBER**

**Stanford University**

Spectrum Pilot Grants
Amount of funding: $15-50K for 1 year

**Postdoctoral Funding Opportunities**

**JULY**

**AHA Mentored Clinical and Population Research**
Amount of funding: $154,000 over 2 years
Deadline: July, 2016
AHA Postdoctoral Fellowship
Amount of funding: $95,450-120,800 over 2 years
Deadline: July, 2016
AHA Postdoctoral Fellowship

**Juvenile Diabetes Research Foundation**

Postdoctoral Fellowships

**Advanced Postdoctoral Scholar Fellowship**
Deadline: July, 2016

**Stanford University**

Katherine McCormick Advanced Postdoctoral Scholar Fellowship
Amount of funding: $35,000 for 1 year
Deadline: July 2016
McCormick Fellowship

Walter V. and Idun Berry Postdoctoral Fellowship Program
Amount of funding: $55,000 for 1 year
Deadline: July 2016

**Translational Research Applied Medicine (TRAM) Pilot Grant**
Amount of funding: $5K-30,000 for 1 year
Deadline: July, 2016

**AUGUST**

**National Institute of Health**

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

Li Ka Shing Center for Learning & Knowledge | 291 Campus Drive, Stanford, CA 94305
Room LK130: Tuesdays from 12:30 - 1:30pm

SEPTEMBER 13, 2016
Glenn I. Fishman, MD
William Goldring Professor of Medicine; Director, Leon H. Charney Division of Cardiology, NYU, School of Medicine

SEPTEMBER 20, 2016
James N. Weiss, MD
Kawata professor of Medicine & Physiology; Chief, Division of Cardiology; Director, Cardiovascular Research Laboratory, David Geffen School of Medicine at UCLA

SEPTEMBER 27, 2016
Evangelia “Litsa” Kranias, PhD
Hanna Professor and Director Cardiovascular Biology; Distinguished University Professor; Co-Director, Cardiovascular Center of Excellence Department of Pharmacology & Cell Biophysics, University of Cincinnati College of Medicine

OCTOBER 04, 2016
Professor Thomas Eschenhagen
Director, Department of Experimental Pharmacology and Toxicology, University Medical Center Hamburg-Eppendorf (UKE)

OCTOBER 18, 2016
Edda Spierkoetter, MD, and Vinicio de Jesus Perez, MD
Assistant Professors of Medicine (Pulmonary and Critical Care Medicine) at Stanford

OCTOBER 25, 2016
Sushma Reddy, MD and Francois Haddad, MD
Reddy: Assistant Professor of Pediatrics (Cardiology) at the Lucile Salter Packard Children's Hospital; Haddad: Clinical Associate Professor, Medicine (Cardiovascular Medicine); at Stanford

NOVEMBER 01, 2016
Kirk U. Knowlton, MD
Director of Cardiovascular Research and Co-Chief of Cardiology, Intermountain Heart Institute

NOVEMBER 08, 2016
Brian H. Annex, MD
Chief, Division of Cardiovascular Medicine; Chair, George A. Beller, M.D; Lantheus Medical Imaging Distinguished Professor of Cardiovascular Medicine ; University of Virginia Health System

NOVEMBER 22, 2016
Jake Lusis, PhD
Professor of Medicine; Cardiology; and Microbiology, Immunology & Molecular Genetics; Vice-Chair of Human Genetics; David Geffen School of Medicine, UCLA

DECEMBER 06, 2016
Ralph J. Damiano, MD
Evarts A. Graham Professor, Surgery; Chief, Division of Cardiothoracic Surgery, Washington University School of Medicine

DECEMBER 13, 2016
Jonathan M. Graff, MD, PhD
Professor, Department of Developmental Biology UT Southwestern

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

National and Global Cardiovascular Conferences

JULY
International Academy of Cardiology – 21st World Congress on Heart Disease
July 30 – Aug 1, Boston, MA

AUGUST
9th World Cardiology Conference
August 1-3, 2016, Manchester, UK

European Society of Cardiology – Congress 2016
August 27-31, 2016, Rome, Italy

SEPTEMBER
Council on Hypertension
2016 Scientific Sessions
September 14-17, 2016, Orlando, FL

Heart Failure Society of America Annual Scientific Meeting
September 17-20, 2016, Orlando, FL

Western Vascular Society
September 23-28, 2016
Colorado Springs, CO

OCTOBER
Centre for Commercialization of Regenerative Medicine
October 27-28, 2016, Whistler, Canada

Vascular Biology (NAVBO – North American Vascular Biology)
October 30 – November 3, 2016
Boston, MA

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

DECEMBER
World Stem Cell Summit
December 6-8, 2016, West Palm Beach, FL
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 managers, Justin Vincent (justin81@stanford.edu), or Rinkal Chaudhary (rinkalc@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.

Clinical Biomarker & Phenotyping Core Lab (BPCL)

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.

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).

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/
Selected Member Publications

Communication is at the heart of scientific advancement and innovation. This quarter the Stanford Cardiovascular Institute members published over 352 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.

APRIL 2016: 67 PUBLICATIONS


Translation of Human-Induced Pluripotent Stem Cells: From Clinical Trial in a Dish to Precision Medicine. Sayed N, Liu C, Wu JC. J Am Coll Cardiol. 2016 May 10;67(18):2161-76.


Comparative Effectiveness of Cardiac Resynchronization Therapy Among Patients With Heart Failure and Atrial Fibrillation: Findings From the National Cardiovascular Data Registry's Implantable Cardioverter-Defibrillator Registry. Khazanie P, Greiner MA, Al-Khatib SM, Piccini JP, Turakhia MP, Varosy PD, Masoudi FA, Curtis LH, Hernandez AF; National Cardiovascular Data Registry. *Circ Heart Fail*. 2016 Jun;9(6).


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