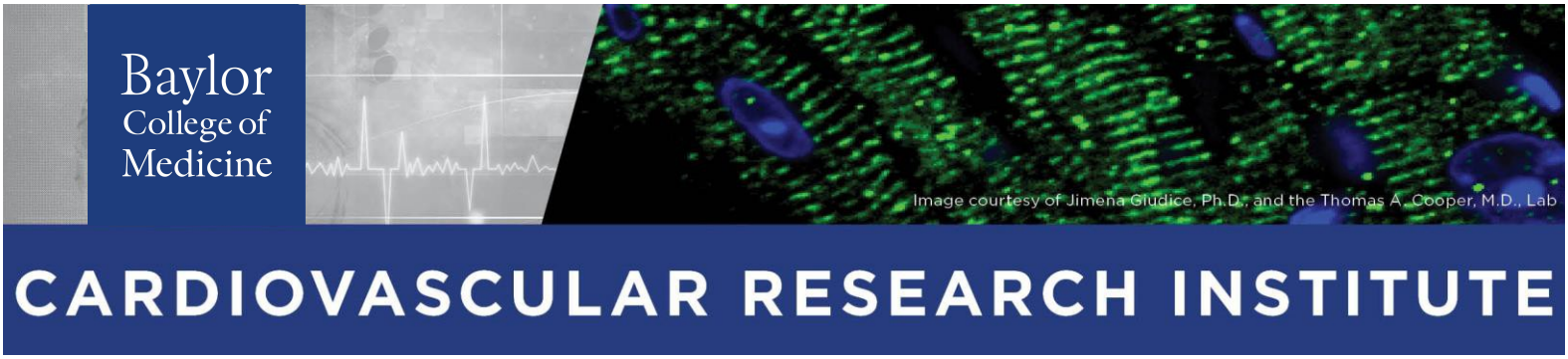


CARDIOVASCULAR RESEARCH INSTITUTE

Newsletter Summer 2020

Pediatric Cardiology and Heart Surgery at Texas Children's Hospital Ranked #1

US News & World Report ranks Texas Children's Hospital #1 in Pediatric Cardiology and Heart Surgery for 2020-2021. This makes it four consecutive years as the best pediatric cardiology service line in the nation. Texas Children's Hospital also ranks in the 4th spot for overall 2020-2021 Best Children's Hospitals honor roll. Below are just a few of the Texas Children's esteemed cardiologists and CVRI members.

Please click on the link for further details. https://health.usnews.com/best-hospitals/pediatric-rankings

Daniel Penny, MD, PhD
Chief of Cardiology

Christopher A. Caldarone, MD
Chief, Congenital Heart Surgery

Emad B. Mossad, MD
Director, Cardiovascular Anesthesia

Lara S. Shekerdemian, MD
Section Head, Cardiac Intensivist
Chief, Critical Care

Baylor St. Luke's also is deemed High Performing by *U.S. News & World Report* in eight additional Adult Procedures and Conditions:

Abdominal Aortic Aneurysm Repair
Colon Cancer Surgery
Lung Cancer Surgery
Aortic Valve Surgery
Heart Bypass Surgery
Transcatheter Aortic Valve Replacement
Chronic Obstruction Pulmonary Disease
Heart Failure

NIH Funding -Baylor College of Medicine's 2019 Department Rankings

In February 2020, annual rankings of NIH funding were compiled by Blue Ridge Institute for Medical Research. **For the 13th year in a row, BCM's Department of Molecular and Human Genetics ranked number 1 in the nation for NIH funding.**

Other national Baylor department rankings for NIH funding were:

- Anatomy and Cellular Biology - ranked #8
- Neurosurgery - ranked #3
- Pediatrics - ranked #4
- Physiology - ranked # 11.

For further details, click on the Blue Ridge Institute for Medical Research link. http://www.brimr.org/NIH_Awards/2019/NIH_Awards_2019.htm

INSIDE

IN MEMORIAM

SOUSAN ARAB (1988-2020)

It is with great sadness that we announce the unexpected passing of Sousan (Juju) Arab on July 10, 2020. Sousan was the Senior Business Operations Associate of the Cardiovascular Research Institute at Baylor College of Medicine.

Sousan was born and raised in Houston and graduated from Westside High School in 2006. She worked as an executive assistant and office manager while completing her undergraduate Bachelor of Science degree in Biology at the University of Houston-Victoria in 2015. In 2017, Sousan joined Baylor College of Medicine as the Executive Assistant to the Chair of Orthopedics. She quickly emerged as a natural born leader and provided outstanding administrative assistance to both the department Chair and administrator.

In January 2020, Sousan was eager to start a challenging new position as the Senior Business Operations Associate and administrator of the Cardiovascular Research Institute at Baylor. From the very beginning, Sousan made important contributions to the CVRI. She was instrumental in recruiting her previous co-worker and friend Dellina (Lane) Carpio, who is now the Business Operations Coordinator of the CVRI. Sousan did a meticulous analysis of our Institute's membership, scientific accomplishments, and grant support for cardiovascular research at Baylor. Despite the Covid-19 'stay home' orders and disruptions of normal work routines, Sousan remained a dedicated and hard worker who helped advance the interests of all CVRI members.

It has been a pleasure and honor to work with Sousan. Our workplace will never feel the same without Sousan's positive presence and cheerful attitude. Sousan is survived by her mother Karen Sweet-Angel, step-father Keith Angel, father Kambiz Arab, sisters Delara and Sahar Aubon, and step-sisters Alyson Angel and Carissa Gordon. Please keep Sousan's family and friends in your thoughts and prayers.

Sousan's family will be starting a foundation that focuses on domestic and gun violence. Anyone who would like to contribute can visit the GoFundMe page established in memory of Sousan and her sister, Nasim who also passed as a result of the same incident.
https://tinyurl.com/y5wbhtb7

Sousan Arab *Nasim Arab*

CVRI UPDATE

The Cardiovascular Research Institute at Baylor College of Medicine was established in 2012 as a key strategic initiative to enhance collaborative opportunities for research in cardiovascular sciences. The CVRI aims to provide administrative and research support to promote collaborative and interdisciplinary basic, translational, and clinical research. The CVRI also provides educational tracks for students, residents, fellows, and junior faculty to train future leaders in basic, translational and clinical cardiovascular medicine and research. The Institute is led by Director Xander Wehrens, M.D., Ph.D., and Associate Director Biykem Bozkurt, M.D., Ph.D.

Xander Wehrens, MD, PhD
CVRI Director

Biykem Bozkurt, MD PhD
CVRI Associate Director

2019 CVRI Progress

We recently spoke with CVRI Director Dr. Xander Wehrens about the accomplishments and highlights of CVRI in 2019.

"CVRI administration made a considerable effort on the analysis of our Institute's membership, scientific accomplishments, and grant support. Our findings show continued progress of CVRI's impact on cardiovascular research."- *Wehrens*

Membership has grown for CVRI to a total of 418 members consisting of 299 faculty members and 85 trainees. Cumulatively, these cardiovascular disease investigators have made a significant impact on the study of heart disease.

CVRI members have contributed greatly in 2019 to the study of cardiovascular disease and treatment through written publications. They were extremely productive in terms of peer reviewed publications in "high-impact journals" -journals considered to be highly influential in their fields. When an analysis was done of individual papers and reviews published in journals with an index factor of 15 or higher, 80 journal articles and reviews were found. That was a 196% increase of publications in high impact journals compared to 2018. Fourteen of those publications were collaborative efforts.

Another contribution to the growth of CVRI is grant funding. CVRI's overall annual funding increased 11.5% in 2019. New grants increased by 38.5%. Multi PI Grants increased to 61.5%. CVRI has 4 T32 grants.

In support of expanding basic science research, CVRI helped recruit Dr. Jason Karch to Baylor in FY19. Dr. Karch is an Assistant Professor of Molecular Physiology & Biophysics, who studies cell death pathways in various human diseases including ischemic heart disease.

In the realm of cardiovascular education, CVRI hosted several seminar events with renowned speakers. With the inception of the Mark Entman Endowed Lecture, CVRI was able to invite Dr. Dao Wen Wang, Chief of Cardiology at Tongji Hospital and Director of the Translational Medicine Center, Genetic Diagnostics Center and Institute of Hypertension at Huazhong University of Science and Technology from Wuhan, China.

The culmination of CVRI's 2019 year, was the Seventh Annual CVRI Symposium which showcased CVRI's mission. This annual symposium provided the latest, most innovative research developments in cardiovascular diseases, it allowed networking opportunities for future collaborative research efforts and exposed learners to new CV technologies and treatments. Two renowned cardiovascular scientists gave key note lectures, Dr. Mariell Jessup, Chief Science and Medical Officer of the American Heart Association and Dr. Mark Sussman, Biology Professor and Chief Research Scientist SDSU Heart Institute.

CVRI in the Future

There are many new exciting avenues of cardiovascular research that basic, translational and clinical scientists are pursuing. CVRI will continue to support and promote the advancement of collaborative cardiovascular research.

CVRI's most recent collaboration with the Human Genome Sequencing Center Clinical Laboratory is HeartCare, an innovative precision medicine study. This collaboration seeks to further identify cardiovascular genetic risks through genomic testing.

"In the future, collection of patient blood and tissue samples during the routine CV clinic visit may provide more precise treatment and deeper collaboration of basic scientists with clinical researchers. Further integration of research with clinical training will be key to stay abreast of new technology and treatment in cardiovascular care." – *Wehrens*

With the combined talents and enthusiasm of its members, BCM CVRI will continue to strive and lead in discoveries of cardiovascular research, medicine and education.

By Lane Carpio

FACULTY HIGHLIGHT

MEET CLINICIAN SCIENTIST AND GENETICIST DAVID R. MURDOCK, MD, FACMG

David R. Murdock, MD, FACMG

David R. Murdock , MD, FACMG is a clinician scientist and geneticist engaged in an ambitious endeavor to support BCM's precision medicine initiative; identifying genetic risks through genomic testing and striving for more personalized treatment, earlier detection and better outcomes.

Dr. Murdock is Assistant Professor in Molecular and Human Genetics and Assistant Director of the Human Genome Sequencing Center Clinical Lab.

CVRI caught up with Dr. Murdock to get know our genetics faculty and have a glimpse of his innovative and collaborative work.

Pathway to Genetic Clinician Scientist

Dr. Murdock's path to genetics was a natural one. "As a child", he expressed, "I liked to take things apart to understand how things operated and that's what eventually led me to engineering".

After graduating from Rice, he worked in bioengineering labs at Rice and Baylor and fell in love with research. This experience influenced him to move forward with medical school at Baylor College of Medicine and encouraged him to be a physician scientist.

He discovered genetics as a medical student and was fascinated by the rapidly growing field. Dr. Murdock reflected that he felt lucky to be in a medical school with such a strong genetic program. He was inspired when working with Shwta Dar, MD, MS, FACMG and saw himself following in her footsteps.

During his post doctoral time at Baylor, Dr. Murdock met Richard Gibbs, PhD , Wofford Cain Chair and Professor in Molecular and Human Genetics who further fueled his investigative fire with genome sequencing technologies.

His internal medicine residency at LSU confirmed his drive to help people solve their medical mystery. While doing clinical and molecular genetics fellowships at NIH, he met Harry "Hal" Dietz, MD, professor of genetics at Johns Hopkins. Dr. Dietz spurred his determination to better understand gene defects in connective tissue disorders and aortopathologies such as Marfan syndrome and Loeys-Dietz syndrome.

Returning to BCM as Faculty

In 2017 Dr. Murdock returned to his academic home at BCM in the Molecular and Human Genetics department. As a new faculty, his area of expertise fosters collaboration between basic scientists and clinical researchers.

When asked how he manages his clinical time versus his research time, Dr. Murdock says he is able and fortunate to have mentors, family and colleagues that support him. Dr. Murdock had several mentors guiding him through out the years. Dr. Gibbs and Dr. Brendan Lee have guided him in the early part of his career.

"One of the best lessons, " Dr. Murdock says he learned, "was to focus on one area at a time until completion in order to balance his clinician scientist role."

As an internal medicine geneticist, Dr. Murdock cares for adult patients who have genetically influenced diseases. Among the gene testing tools he uses are whole exome and genome sequencing as well as RNAseq. He interprets the results and collaborates with different departments to identify a diagnosis. Dr. Murdock then helps patients understand the mechanism contributing to their condition and helps manage their overall care.

As a scientist his research and area of expertise involve connective tissue disorders such as Marfan syndrome and Loeys-Dietz syndrome, conditions that lead to aortic aneurysms and dissections. He seeks to identify new genes associated with such aortopathies and explores the mechanisms of genetically mediated aneurysm development. Another area of study is Xia Gibbs Syndrome. A few of Dr. Murdocks research collaborations are listed in the following page.

Dr. Murdock's efforts support Baylor's commitment to precision medicine and he hopes to incorporate the use of genetics into routine clinical practice through new sequencing technologies to discover/ identify diagnoses and optimize patient care.

"This is a very exciting time in terms of genetics and genomic discoveries. I firmly believe that it will have a significant impact on how patients are cared for in the near future."

-David R. Murdock, MD, FACMG

You can find Dr. David Murdock at the
Adult Genetics Clinic

Baylor College of Medicine Medical Center - McNair Campus
7200 Cambridge St.
Houston, TX 77030
To make an appointment , please call 713-798-7820.

ONGOING AND COLLABORATIVE STUDIES OF DAVID MURDOCK, MD, FACMG

HeartCare is a cardiovascular genomics study being offered at Baylor College of Medicine at the Human Genome Sequencing Center Clinical Laboratory

Dr. Murdock is working with Dr. Richard Gibbs, Dr. Christie Ballentyne, Dr. Xander Wehrens and others on this novel precision medicine study that looks at genetic variations that can contribute to the risk of cardiovascular disease. The HeartCare™ genetic screening panel analyzes 158 genes associated with a risk for CVD and related conditions, including aortic aneurysms, cardiomyopathies, arrhythmias and hypercholesterolemia. It also screens for pharmaco-genetic conditions. Identifying these genetic risks for cardiovascular diseases may lead to personalized treatment, earlier detection and better outcomes.

The genomic testing will be available at no cost to patients. Active recruitment for the pilot phase has stopped due to the pandemic but may resume in the near future in Baylor's cardiovascular clinics with the hope of offering it in all clinics. To date, 700 patients have participated in the study. Of the 700 samples collected, 30% had genetic findings that has led to a change in management or therapy.

"This is a fantastic study and further work may show that a genetic screen like this offered in a routine clinic visit might be beneficial and impactful on the care of patients. "-Dr. Murdock

For further information on HeartCare, please click on the following links:

https://www.hgsc.bcm.edu/sites/default/files/documents/cvd/CVD_Brochure.updated_201903_v2.pdf

https://www.hgsc.bcm.edu/sites/default/files/documents/cvd/cvd_poster.pdf

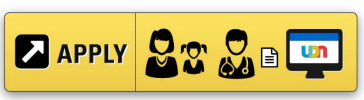
Dr. Murdock is excited to start his next NIH project, All Of Us. The Baylor Hopkins Clinical Genomics Center (BHCGC), incorporating the Baylor College of Medicine (BCM) Human Genome Sequencing Center (HGSC) and the Johns Hopkins University Center for Inherited Disease Research (CIDR) are collaborating to perform genome sequencing of all Americans.
Participants will be from different races and ethnicities, age groups, and regions of the country. They will also be diverse in gender identity, sexual orientation, and health status. Dr. Murdock is leading the sequencing and interpretation team.

He states, "This study will greatly improve our understanding of genetics, yield new discoveries in medicine and hopefully move precision medicine into common practice."

https://www.joinallofus.org/

The Undiagnosed Diseases Network is a collaboration with BCM, Stanford University and the National Institute of Health to improve the level of diagnosis of rare and undiagnosed conditions.
Dr. Murdock leads the sequencing and interpretation team that analyses the data from genome sequencing. He also utilizes the new tool of RNA sequencing with this study.
Baylor College of Medicine is involved in this study as a clinical site, sequencing core and model organism screening center.

For further information please click on the link .
https://commonfund.nih.gov/diseases
To sign up for the study, click on the link.

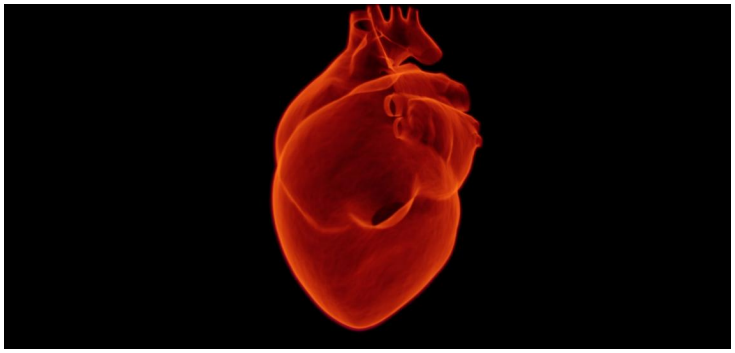


Xia-Gibbs Study

Dr. Murdock is also involved in the Xia-Gibbs study, a rare intellectual disability syndrome, discovered by Dr. Richard Gibbs in 2014.

The study by Dr. Gibbs at Human Genome Sequencing Center has led to the creation of a national registry. As more patients join the registry, accompanying laboratory work aims to understand the full range of underlying molecular changes that cause the symptoms of Xia-Gibbs Syndrome.

This work is supported by the National Human Genome Research Institute, the Texas Institute for Advanced Studies at Texas A&M, the UK Medical Research Council, and by a private donation.



Decreased levels of a protein kinase leads to atrial fibrillation

With more than 33.5 million people worldwide being affected by atrial fibrillation, researchers are focused on trying to uncover exactly what causes this type of arrhythmia and what might be the best therapeutic target to prevent this potentially deadly disorder.

Past studies have recognized enhanced diastolic calcium release via a certain type of calcium channel known as ryanodine receptors (RyR2) as playing a role in atrial fibrillation, but what triggers this enhanced release has not been fully explained. That is until recently, when researchers at Baylor College of Medicine's Cardiovascular Research Institute identified in patients that reduced levels of striated muscle preferentially expressed protein kinase (SPEG) are responsible for the hyperactive state of RyR2 in atrial fibrillation. Their findings are published in the current edition of Circulation.

A protein kinase is an enzyme that modifies other proteins -- in this way, SPEG is a novel regulator of RyR2 phosphorylation.

"When SPEG is functioning properly, it reduces RyR2 activity. So when we find reduced levels of SPEG, RyR2 is more hyperactive, and we see this abnormal activity in atrial fibrillation," said Dr. Xander Wehrens, professor and director of the Cardiovascular Research Institute at Baylor. "This is one of the first examples of a kinase that has an inhibiting effect on calcium channels in the heart."

Researchers first noted that patients with early state atrial fibrillation were found to have reduced levels of SPEG. To look further into this finding, they used a new atrial-specific gene therapy vector to selectively downregulate SPEG levels in mouse models and found the mouse models to have an increased susceptibility to atrial fibrillation.

Atrial fibrillation can progress from early-stage or paroxysmal AFib, meaning it comes and goes, to persistent AFib, which lasts until it is treated with medication or surgery, to persistent, long-standing AFib that doesn't respond to treatments. It can lead to stroke, heart failure and death. Numerous factors can promote the development of AFib, including genetic variants, extracardiac risk factors such as aging, obesity or alcohol abuse, and cardiac remodeling.

"The implications of our work are that modulating SPEG activity might represent a very specific target for the treatment and possibly prevention of atrial fibrillation," said Hannah Campbell, M.D./Ph.D. student and first author on the study. "The next step is to study this process in human tissue and to test whether enhancing SPEG activity could cure atrial fibrillation in animal models."

Others who took part in the research include Drs. Ann P. Quick, Issam Abu-Taha, David Y. Chiang, Carlos F. Kramm, Tarah A. Word, Sören Brandenburg, Mohit Hulsurkar, Katherina M. Alsina, Hui-Bin Liu, Brian Martin, Satadru K. Lahiri, Eleonora Corradini, Markus Kamler, Albert J.R. Heck, Stephan E. Lehnart, Dobromir Dobrev as well as researchers Brian Martin, Dennis Uhlenkamp and Oliver M. Moore. Affiliations include Baylor College of Medicine, University Duisburg-Essen, Essen, Germany, Brigham and Women's Hospital, Harvard Medical School, University Medical Center Göttingen, Göttingen, Germany, Harbin Medical University, Harbin, China, and Utrecht University, Utrecht, The Netherlands. For full affiliate details see *Circulation* publication.

Funding is from the American Heart Association predoctoral fellowship 17CPRE33660059, and National Institutes of Health F30 fellowship HL140782. AQ was funded by AHA predoctoral fellowship 14PRE20490083, and NIH T32 training grant HL007676. TAW was funded by NIH T32 training grant HL139430. XW was funded through NIH grants HL089598, HL091947, HL117641, and HL147108. This work was performed during MH's tenure as "The Kenneth M. Rosen Fellowship in Cardiac Pacing and Electrophysiology" Fellow of the Heart Rhythm Society supported by an unrestricted educational grant from Medtronic. BM was funded by NIH T32 training grant HL007676. SKL was funded through AHA postdoctoral fellowship 18POST34080154. SEL was funded by Deutsche Forschungsgemeinschaft through SFB 1002-S02, SFB 1190-P03, and IRTG-RP2. DD was funded by NIH grants R01-HL131517, R01-HL136389, and R01-HL089598 and the German Research Foundation (DFG) grant Do 769/4-1.

By Graciela Gutierrez

AWARDS AND RECOGNITION

Congratulations!

- Dr. Richard Gibbs, Wofford Cain Chair and professor of molecular & human genetics and director of the Human Genome Sequencing Center, has been recognized for his work with the Genome Sequencing Centers team on the TCGA Pilot Project.
- Dr. Scott A. LeMaire, professor of surgery, in the Division of Cardiothoracic Surgery at Baylor College of Medicine, has been appointed to serve as Chair of the Literature Selection Technical Review Committee (LSTRC) of the U.S. National Library of Medicine (NLM) by Dr. Francis Collins, Director of the National Institutes of Health (NIH), for the one-year term from July 1, 2020 to June 30, 2021.
- Dr. Subhasis Chatterjee, assistant professor of surgery in the Divisions of General and Cardiothoracic Surgery, has been appointed to the Editorial Board of the Journal of Thoracic and Cardiovascular Surgery (JTCVS). Dr. Chatterjee joins five other surgeons from the Michael E. DeBakey Department of Surgery, on this board including, Drs. Joseph Coselli, Ourania Preventza, Bryan Burt, Sean Groth, and R. Taylor Ripley. He was also awarded the 2020 Early Career Faculty Award for Excellence in Patient Care.
- Na Li, PhD was awarded the 2020 Norton Rose Fulbright Faculty Excellence Award for Teaching & Evaluation
- The American Heart Association has recognized Ben Taub Hospital as a 2020 Mission: Lifeline – STEMI (ST-Elevation Myocardial Infarction) Receiving Center – Gold Plus. This recognition is based on Ben Taub's continued success in using the Mission Lifeline program, including applying up-to-date evidenced-based treatment guidelines to improve patient care and outcomes. Dr. Nasser Lakkis is chief of the section of cardiology at Ben Taub Hospital and professor of medicine at Baylor.
- Waleed Kayani, MD, Assistant Professor, Division of Cardiology was honored for his outstanding contributions to the College's clinical mission with a 2020 Faculty Award for Excellence in Patient Care.
- Covid 19 RFA: March 2020 Baylor College of Medicine awarded several small pilot projects ($20,000) for COVID-19-related research. Two CVRI awardees with heart related projects were:
    - Dr. James Martin, ""Hippo-Yap signaling in the innate immune response to SARS-CoV2 in the heart."
    - Dr. Russell Ray, "A modular SARS-CoV-2 infection model for mapping cell specific cytopathology and neuro-cardiorespiratory effects in COVID-19 etiology."
- FY20 Cardiovascular Research Institute Pilot Award Recipients:
    - Ravi Ghanta, MD, et al: “Immune evasive alginate encapsulation for sustained cell therapy for heart failure”
    - Joshua Wythe, PhD, et al.: “Targeting endothelial transcriptional networks in GBM”
    - Tyler Moran, MD, PhD, et al.: “Genetic and proteomic predictors of cardiovascular risk in cancer patients”

    *Each recipient received $15,000

Salim S Virani, M.D., Ph.D, F.A.C.C, F.A.H.A
Professor, Medicine - Cardiology

New App from Dr. Salim Virani - NCD ACADEMY

Dr. Salim Virani, professor of medicine, is serving as chair of the Global NCD Academy for the American College of Cardiology, which has launched a new mobile education app for frontline health workers in low-resource environments to combat non-communicable diseases such as cardiovascular disease. The first course on cardiovascular disease prevention is now available on Google Play, the App Store and via desktop. At the end of the course, a final test is administered and a certificate is issued. This cardiovascular disease prevention educational course is provided at no cost to anyone who wants to learn and it is mobile.

For further information or to down load the app, please follow the links.

Desktop

GET IT ON Google Play

Download on the App Store

Free Virtual CME

The FIRST ANNUAL HOUSTON "PREVENTION RULES" for CARDIOMETABOLIC DISEASES

VIRTUAL CONFERENCE

Saturday, September 19, 2020

7:45 AM- 4 PM

Provided by
Baylor College of Medicine, Department of Medicine
Atherosclerosis & Lipoprotein Research

REGISTER NOW VIEW BROCHURE

Course Directors

Christie Ballantyne, MD,FACP, FACC

Vijay Nambi, MD, PhD FACC, FAHA, FASE

CVRI MEMBERSHIP

If you have received this newsletter and are not currently a member of CVRI, we invite you to submit an application for membership in one of Baylor College of Medicine's largest strategic research centers.
Please fill out the online membership form MEMBERSHIP
Many benefits of CVRI member include:

- Access to a central repository of human tissue samples and core lab functions
- Collaborative opportunities for investigators, physicians, centers and institutes to foster cross-cutting opportunities and innovative translational research opportunities at BCM, the Texas Medical Center, and globally
- Opportunities for pilot grant funding for collaborative research projects in selected years
- Administrative support for submission of multi-investigator grants, program project grant proposals, and clinical trial agreements
- Listing on the BCM CVRI website and in the member database
- Participation in Institute retreats, seminars, grant workshops and other activities

For more information about CVRI membership benefits, contact Lane Carpio at cvri@bcm.edu, 713.798.6941.
Visit CVRI's membership page at www.bcm.edu/research/centers/cardiovascular-research-institute/membership

CVRI FALL 2020 SEMINAR SERIES

The Cardiovascular Research Institute at Baylor College of Medicine conducts a monthly seminar series during the spring and fall of each year open to all faculty,students and all who are interested.

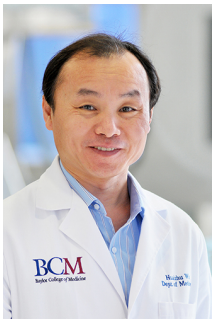
Select Wednesdays, 12 PM to 1 PM

Zoom Seminar
Meeting ID # will be provided closer to the lecture date.

August 26, 2020

Speaker: Svetlana Reilly, MD, D.Phil

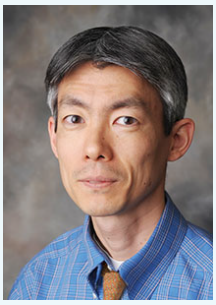
Title: Associate Professor, Cardiovascular Science
Affiliation: University of Oxford, UK



October 21, 2020

Speaker: Huaizhu Wu, M.D.

Title: Associate Professor, Department of Medicine
Affiliation: Baylor College of Medicine



November 4, 2020

Speaker: Michihisa Umetani, Ph.D.

Title: Assistant Professor, Department of Biology and Biochemistry
Affiliation: University of Houston

November 18, 2020

Speaker: Vasanth Vedantham, M.D., Ph.D.

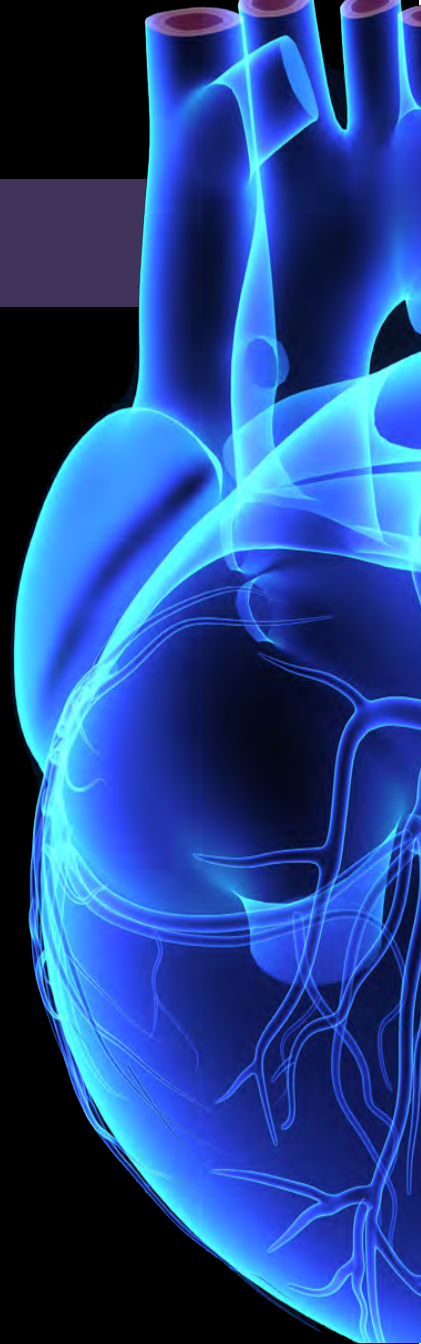
Title: Associate Professor , Department of Medicine
Affiliation: University of California, San Francisco

Click on the link for further updates on new upcoming seminar speakers.
https://www.bcm.edu/research/labs-and-centers/research-centers/cardiovascular-research-institute/seminars

Baylor College of Medicine

SAVE THE DATE
& CALL FOR ABSTRACTS

Cardiovascular Research Institute
8th Annual Symposium



Wednesday, April 7, 2021
Cullen Auditorium/Rayzor Lounge
1 Baylor Plaza
Houston, TX 77030

Featured Keynote Speaker
Alan Daugherty, PhD, DSc
University of Kentucky
Director, Saha Cardiovascular Research Center
Gill Foundation Chair, Preventive Cardiology
Chair, Department of Physiology
Senior Associate Dean for Research
Associate Vice President for Research

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EDUCATION

Graduate School of Biomedical Sciences Courses

The Cardiovascular Research Institute has been actively working to expand training programs in cardiovascular sciences. This academic year, the CVRI offered 3 graduate school courses to PhD students, postdocs, clinical trainees and others interested in cardiovascular disease. Due to the pandemic, all lectures were converted to the Zoom platform; presentations and reading materials were uploaded to Blackboard; and Mid-term and Final tests were administered via Blackboard.

Registration in CVRI graduate school courses increased by 116 % from Term 3 to term 4 and 46% from term 4 to term 5. Registered students were not only from the Development, Disease Models and Therapeutics Program but also from Gene and Genomics, Cancer and Cell Biology, Chemical and Physical Structural Biology to the Clinical Scientist Training Program .

2020 GSBS Courses

Term 3 Advanced Topics in CVD
GS DD 6210
Course Directors:
Xander Wehrens, MD, PhD

3 DDMT
1 CCB
2 Trainees Auditing Course
(Students and Postdocs)

12 Instructors
14 Classes
Total Students 6

Term 4 Advanced Topics in CV Anatomy
GS DD 6401
Course Directors: Na Li, PhD
Xander Wehrens, MD, PhD

2 DDMT
1CCB
1 Resident
9 Trainees Auditing Course
(Students and Postdocs)

21 Instructors
28 Classes
Total Students 13

Term 5 Advanced Topics in CVD Pathogenesis
GS DD 6402
Course Directors: William R. Lagor, PhD
Xander Wehrens, MD, PhD

1 CSTP-MD
2 DDMT
2 Physiology
1 TBMM
2 Genetics
1 Chem, Phys, Struct
9 Trainees Auditing Course
(Students and Postdocs)
19 Instructors
28 Classes
Total Students 19

Thank you

to all the faculty who to took the time to teach and participate in CVRI's graduate school training program.
CVRI's continued success is a direct result of your commitment to cardiovascular education

Faculty Lecturers

Yachai Birbaum, MD
Robert Bryan, PhD
Katarzyna Cieslik, PhD
Miguel Cruz, PhD
Durgan, David, PhD
Neil Hanchard, PhD
Sandra Haudek, PhD
Han Hyojeong, MD
Jason Karch, PhD
William Lagor, PhD
Yi-Chen Lai, MD
Irina Larina, PhD
Scott LeMaire, MD

Na Li, PhD
Louise McCullough, MD, PhD
Bharti Manwani, MD, PhD
Tyler B. Moran, MD
Christina Miyake, MD
Vijay Nambi, MD, PhD
Anilkumar Reddy, PhD
Sai Saridey, MD
George Taffett, MD
Russell Ray, PhD
Zheng Sun, PhD

Ying Shen , MD, PhD
George Taffet, MD
Bryan Tucker, DO
Vinod Vijayan, PhD
Salim Virani, PhD
Huaizhu Wu, MD
Jun Wang, PhD
Ageedi Waleed, MD
Chris Walkey
Carl Walther, MD
Joshua Wythe, PhD
Lilei Zhang, MD, PhD

COVID-19 PUBLICATIONS

The emerging spectrum of cardiopulmonary pathology of the coronavirus disease 2019 (COVID-19): Report of 3 autopsies from Houston, Texas, and review of autopsy findings from other United States Cities.
Buja LM, Wolf D, Zhao B, Akkanti B, McDonald M, Lelenwa L, Reilly N, Ottaviani G, Elghetany MT, Trujillo DO, Aisenberg GM, Madjid M, KarB. *Cardiovasc Pathol* 2020;48.

Using telehealth cardiopulmonary rehabilitation during the COVID-19 pandemic.
Bryant MS, Fedson SE, Sharafkhaneh A. *Med Syst*. 2020;44(7).

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FUNDING OPPORTUNITIES

AUGUST 2020

NIH Support for Conferences and Scientific Meetings.
Deadline: August 12, 2020. PA-20-207

SEPTEMBER 2020

NIH R01 - Studies in Neonatal and Pediatric Resuscitation. Letter of Intent Deadline: September 5, 2020.

Deadline: October 5, 2020. PA-18-485

The Thoracic Surgery Foundation Research Award. Awards of up to $40,000 per year for up to two years are granted to support the work of an early-career cardiothoracic surgeon.
Deadline: September 15, 2020.

The Thoracic Surgery Foundation STS Research Award. The STS Research Award designation is given to the highest-ranking TSF research application awarded by TSF based on merit as judged by a rigorous peer review process.

Deadline: September 15, 2020.

The Thoracic Surgery Foundation Nina Starr Braunwald Research Award. Awards of up to $40,000 per year for up to two years are made each year to support the work of an early-career woman cardiac surgeon (within five years of first faculty appointment).
Deadline: September 15, 2020.

The Thoracic Surgery Foundation Resident Research Fellowship Award. This award provides up to $30,000 per year for up to two years to support the research fellowship of a resident who has not yet completed cardiothoracic surgical training. During the fellowship, the resident will work in a cardiothoracic surgical clinical or laboratory research program.
Deadline: September 15, 2020.

The Thoracic Surgery Foundation Nina Starr Braunwald Research Fellowship. This award provides up to $30,000 per year for up to two years to support the research fellowship of a resident who has not yet completed cardiothoracic surgical training. During the fellowship, the resident will work in a cardiothoracic surgical clinical or laboratory research program. Deadline: September 15, 2020.

American Heart Aassociation and Children's Heart Foundation Congenital Heart Defects Research Awards. Deadline: September 22, 2020.

October 2020

NIH Research Project Grant (Parent R01 Clinical Trial Not Allowed). New application
Deadline: October 5, 2020. PA-20-185

OCTOBER 2020

NIH Research Project Grant (Basic Experimental Studies with Humans Required). New application
Deadline: October 5, 2020. PA-20-184

NIH Research Project Grant (Parent R01 Clinical Trial Req). New application
Deadline: October 5, 2020. PA-20-183

NIH - R01 Improving Outcomes in Cancer Treatment Related Cardiotoxicity. Deadline. October 5, 2020. PA-19-112.

NIH R01 - The Mechanistic Role of the Microbiome in the Pathobiology of Heart, Lung, Blood, and Sleep Diseases. Deadline: October 5, 2020. PA-18-784

NIH Research Project Grant (Parent R01 Clinical Trial Not Allowed). New application Deadline: October 5, 2019. PA-19-056

NIH Research Project Grant (Parent R01 Clinical Trial Req). New application Deadline: October 5, 2019. PA-19-055

NIH Pathway to Independence Award (Parent K99/R00 - Independent Clinical Trial Req).
Deadline: October 12, 2020. PA-20-187

NIH Pathway to Independence Award (Parent K99/R00 Independent Clinical Trial Not Allowed).
Deadline: October 12, 2020. PA-20-188

NIH Pathway to Independence Award (Parent K99/R00 Indep Basic Exp Studies with Humans Req).
Deadline: October 12, 2020. PA-20-189

NIH K08 - Mentored Clinical Scientist Research Career Development Award.
Deadline: October 12, 2020. PA-20-203.

NIH K18 - Career Enhancement Award.
Deadline: October 12, 2020. PAR20-226

NIH K24 – Midcareer Investigator Award in Patient-Oriented Research.
Deadline: October 12, 2020. PA-20-186.

NIH R21 - Improving Outcomes in Cancer Treatment-Related Cardiotoxicity.
Deadline: October 16, 2020. PA-19-111.

*** Deadlines are subject to change.**

FUNDING OPPORTUNITIES

2020-2021 AMERICAN HEART ASSOCIATION RESEARCH FUNDING APPLICATION DEADLINES

Program	Letter of Intent Deadline	Application Deadline	Award Start Date
Strategically Focused Research Funding Opportunities			
AHA and Enduring Hearts Research Awards in Pediatric Heart Transplantation	Required by Oct 1, 2020	Invited Applicants: Jan 15, 2021	July 1, 2021
American Stroke Association-Bugher Foundation Centers of Excellence in Hemorrhagic Stroke		Aug 27, 2020	Jan 1, 2021
AHA and Children's Heart Foundation Congenital Heart Defects Research Awards		Sept 22, 2020	Jan 1, 2021

AHA Predoctoral Fellowship

AHA Postdoctoral Fellowship

Institutional Undergraduate Student Training Program

Merit Award

Established Investigator Award

Career Development Award

AHA Institutional Research Enhancement Award (AIREA)

Innovative Project Award

Transformational Project Award

Collaborative Sciences Award

The American Heart Association is in the process of resetting its research award schedule because of disruption caused by the coronavirus pandemic. This chart lists application deadlines that have been set for the 2020-21 fiscal year. Other program offerings will be posted as deadlines for submission are finalized. Click on the link for further updates.

https://professional.heart.org/professional/ResearchPrograms/ApplicationInformation/UCM_316909_Application-Information.jsp

***Deadlines are subject to change.**

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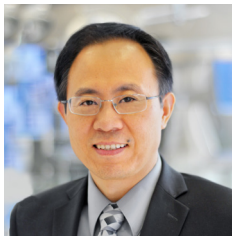

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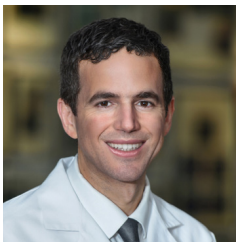

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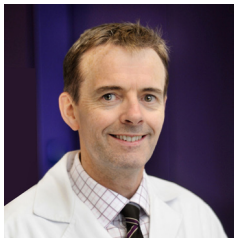

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