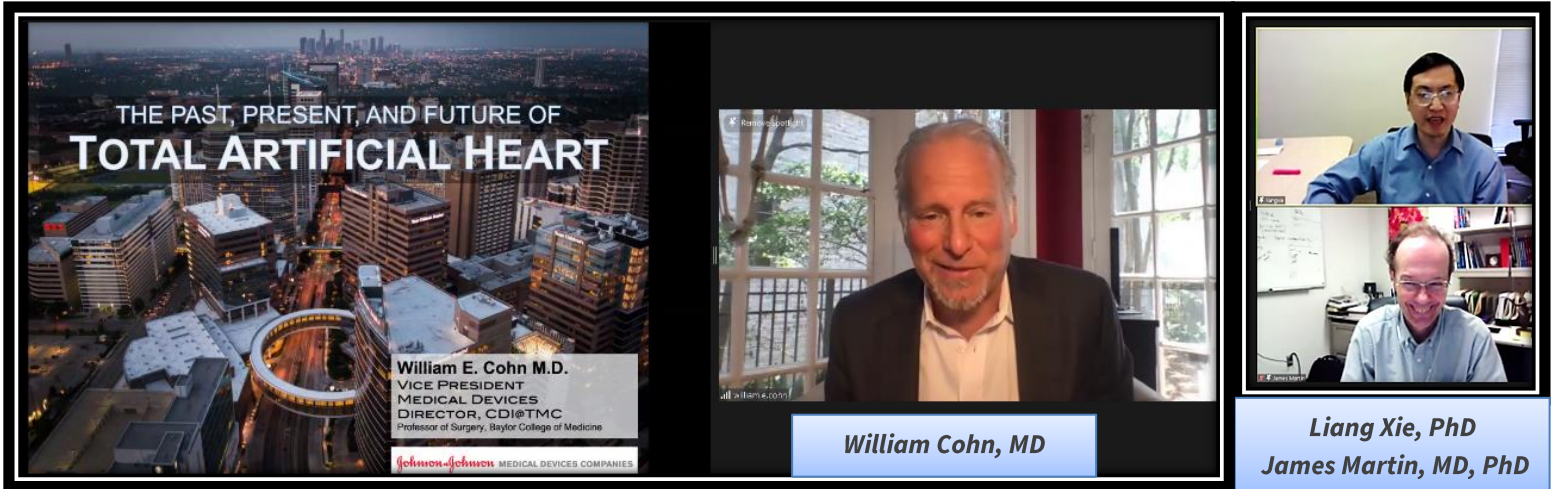


CARDIOVASCULAR RESEARCH INSTITUTE

8th Annual CVRI Symposium

Newsletter Spring 2021



Since its inception in 2012, the Cardiovascular Research Institute at Baylor College of Medicine has hosted an annual symposium. The event offers an exceptional opportunity to learn about the latest, most innovative research work related to cardiovascular diseases. Led by CVRI Director, Dr. Xander Wehrens and Associate Director, Dr. Biykem Bozkurt, the event encourages participants from BCM departments, affiliated hospitals and other institutions across the Texas Medical Center to attend.

The organizing committee of the 2021 8th Annual Symposium was led by Dr. Lilei Zhang, Assistant Professor of Molecular & Human Genetics at Baylor. Like many other events nationally and internationally, the symposium was hosted on a virtual platform. Attendees participated via Zoom and were able to enjoy several talks given by leaders in the cardiovascular research field. In addition, a special panel session focused on the impact of the SARS-CoV-2 virus on cardiovascular disease and new treatment paradigms.



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CVRI 8th Annual Symposium

Keynote Speaker

During the symposium, participants enjoyed a keynote lecture by **Dr. Alan Daugherty, Gill Foundation Chair of Preventative Cardiology and Director of the Saha Cardiovascular Research Institute**. For nearly four decades, he has examined the molecular determinants of vascular diseases such as atherosclerosis and aortic aneurysms. He pioneered the development of the Angiotensin II infusion mouse model to study aortic disorders and associated markers within the renin angiotensin system. In addition to publishing highly impactful scientific research, Dr. Daugherty is a champion for scientific rigor and reproducibility. As the editor-in-chief for the journal *Atherosclerosis, Thrombosis and Vascular Biology*, he has dedicated ten years in streamlining cardiac-focused manuscripts for the scientific community.

The title of Dr. Daugherty's presentation at the CVRI Symposium was "Aortic Heterogeneity as the Basis for Aortopathies". His talk intrigued us with a primary focus about how angiotensin II plays a vital role in thoracic aortic aneurysms via involvement of various smooth muscle cells and deletion of LDL Receptor Related Protein 1 (LRP1). Dr. Daugherty highlighted that angiotensin II infusion in normal mouse models caused thoracic aortic aneurysm within a short time span of 30 days. From a pharmacological perspective, he posed the question "What is the ligand that binds to the angiotensin II receptor that is responsible for this response?" He shared his discovery that the



models. Dr. Daugherty discussed his hypothesis that cell-specific deletion of the AT1 receptors may uncover how angiotensin II causes thoracic aneurysms. Surprisingly, deletion of the AT1 receptor in smooth muscle cells did not cause adverse effects. To further explore this phenomenon, Dr. Daugherty focused on smooth muscle cell development for cardiac neural crest cells and second heart field cells with the Wnt1-Cre and Mef2c-Cre mouse models, respectively. His work led to a significant breakthrough in finding that these cells types are key players in angiotensin II thoracic aortic aneurysms. In continuation of this significant work, he demonstrated that cell-specific LRP1 deletion led to embryonic lethality in cardiac neural crest cells while augmenting angiotensin II induced thoracic aortic rupture in mouse models. Dr. Daugherty highlighted his research collaborations at BCM, with Drs. Scott LeMaire and Ying Shen on the American Heart Association Strategically Focused Vascular Disease Award. The project titled, "Molecular signature of sex chromosome genes associated with sex-dependent susceptibility to ascending aortic aneurysms".

- **By Tawana Robinson, PhD**



Research Collaboration with Dr. Daugherty and Dr. LeMaire

Grant: American Heart Association Strategically Focused Vascular Disease Research Network (18SFRN33960114)

Center Title: University of Kentucky Baylor College of Medicine Aortopathy Research Center

Center Director: Alan Daugherty

Project 3 PIs: Scott LeMaire, Ying Shen

Period: 2018-2022

Title of Project 3 (BCM project): Molecular signature of sex chromosome genes associated with sex dependent susceptibility to ascending aortic aneurysms

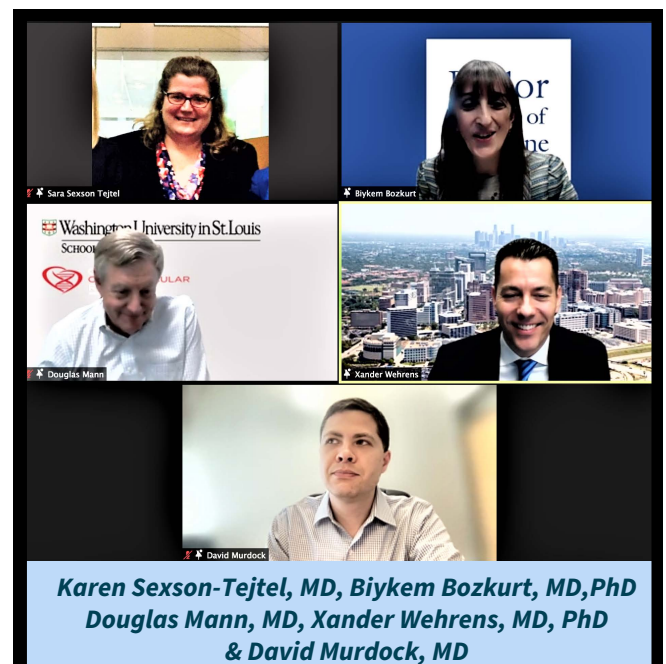
Hot-Topic Panel:

SARS-CoV-2 and the Heart

A panel of 4 outstanding researchers convened to discuss the impact of the SARS-CoV-2 virus on cardiovascular disease. The panel consisted of: Dr. Peter Hotez, Dean of the National School of Tropical Medicine at Baylor College of Medicine; Dr. Leslie Cooper, Chair of the Division of Cardiovascular Medicine at the Mayo Clinic in Jacksonville, FL; Dr. Douglas Mann, Lewin Chair and Professor of Medicine at Washington University School of Medicine; and Dr. Sara K. Sexson-Tejtel, Assistant Professor of Pediatrics-Cardiology at Baylor College of Medicine.

Dr. Hotez provided a great review on epidemiological trends for COVID-19 infection and its variants, available vaccine types and vaccination rates, current trends in vaccine acceptance and reasons for vaccine hesitancy. Dr. Leslie Cooper reviewed the data on cardiac injury, guidance for cardiac evaluation in patients with COVID-19, and lack of evidence for lymphocytic myocarditis in histology specimens in patients infected with SARS-CoV-2. Dr. Douglas Mann provided exciting information on potential mechanisms of cardiac injury associated with COVID-19 including predominant macrophage involvement of the myocardium, disaggregation of myocytes and fragmentation of DNA in the setting of COVID-19, all in the absence of lymphocytic myocarditis. Dr. Sexson -Tejtel provided a comprehensive review on evidence of myocardial involvement with COVID-19 in children, especially in the context of Multisystem Inflammatory Syndrome in children (MIS-C), and return to play recommendations.

It was a great panel discussion providing insight on vaccine trends, recent findings of SARS-CoV-2 mechanisms that may lead to cardiac injury, evidence of myocardial involvement in children and patient guidance from evaluation to return to play.



Abstracts and Virtual Poster Sessions

This year's scientific poster sessions were held in video format. Seventy abstracts were submitted and over 60 of them were featured in virtual poster presentations. These submissions came from graduate students, postdocs, junior faculty members, and clinical fellows from throughout the TMC and regional medical schools.

Each poster was reviewed and scored by several judges prior to and during the poster session. Winners were selected from 5 categories. Top poster presenters were recognized during the awards ceremony on April 8th, 2021 and their poster presentations were broadcasted to all attendees.

To review all the virtual scientific posters, please click [here](#).

To watch the poster session awards, please click [here](#).

Best Poster Awards

Best Basic Science Postdoctoral Poster Award



Mohit Hulsurkar, PhD

Molecular Physiology & Biophysics
Mentor: Xander Wehrens, MD, PhD
Baylor College of Medicine

"Atrial Specific LKB1 Knockdown
Represents a Novel Mouse Model of
Atrial Cardiomyopathy with
Spontaneous Atrial Fibrillation"

Best Clinical Student Poster Award



Heidi Krause

Medical Student
Mentor: Scott LeMaire, MD
Baylor College of Medicine

"A 23 Year Experience with the
Reversed Elephant Trunk
Technique for Stage Repair of
Extensive Thoracic Aortic
Aneurysm"

Best Basic Science Student Poster Award



Jiao Lu

Molecular Physiology & Biophysics
Mentor: Xander Wehrens, MD, PhD
Baylor College of Medicine

"Role of Juntophilin-2 In the
Cardiac Conduction System"

Best Poster Awards

Best Clinical Postdoctoral Poster Award



Reem Shawar, MD

Pediatric Endocrinology
Mentor: Fida Bacha, MD
Baylor College of Medicine

“Fasting Blood Glucose and
Cardiovascular Disease Risk in
Hispanic Youth with Obesity”

Best Junior Faculty Poster Award



Vicente Orozco-Sevilla, MD

Assistant Professor
Department of Surgery
Baylor College of Medicine

“Spinal Cord Deficit After 1114 Extent
to Open Thoracoabdominal Aortic
Aneurysm Repairs”



**Congratulations to all the winners of the
2021 CVRI Symposium Poster Sessions!**

Lilei Zhang, MD, PhD
Chair, Symposium and Seminar Committee



Dr. Mark L. Entman Teaching Award for Excellence in Cardiovascular Education



Mark L. Entman, MD

William J. Osher Chair and
Professor Cardiovascular Research
Department of Medicine
Scientific Director
The DeBakey Heart Center
Baylor College of Medicine

The **Dr. Mark L. Entman Award for Excellence in Cardiovascular Education** is a newly established initiative by the CVRI to recognize faculty for outstanding teaching contributions in the graduate school curriculum.

In honor of Dr. Entman's extensive contributions to cardiovascular education and research at Baylor College of Medicine, the CVRI presented the first prestigious awards at the 8th Annual Symposium. Dr. Entman is a Professor of Medicine, in the Division of Cardiovascular Sciences, the William J. Osher Professor of Cardiovascular Research, and the Scientific Director of the DeBakey Heart Center. Dr. Entman was recruited to Baylor as an Assistant Professor in 1970. He was a Howard Hughes Institute Investigator from 1971-1979. In 1977, Dr. Entman became the Chief of the Section of Cardiovascular Sciences and the Director of the Division of Research of the NHLBI National Research and Demonstration Center (now the DeBakey Heart Center) at Baylor College of Medicine and The Methodist Hospital from 1976-1985.

Dr. Entman has been an inspirational leader whose research has spanned a range of topics, including the role of myocardial calcium and sarcoplasmic reticulum function, acute inflammation and myocardial injury, and the chronic inflammatory response in cardiac repair and remodeling. Before joining the Baylor College of Medicine faculty, Dr. Entman's training at Duke involved matriculation in the highly innovative Research Training Program designed there to promote the proper background for cellular and molecular research for MDs seeking a career in academic medicine. In 1974, his former mentor at Duke, Dr. Salih Wakil, joined the Baylor faculty as Chairman of Biochemistry and the two collaborated in writing the NIH training grant to establish the MD/PhD Program at Baylor, of which Dr. Entman was a co-director until 1980. In 1978, Dr. Entman became the director of the Section of Cardiovascular Sciences in the Department of Medicine and he was paramount in the new development of that program. The core curriculum for the DeBakey Heart Center Graduate Program arose from those efforts and was funded for many years by an NIH training grant which supported an independent graduate program directed by his

colleague and close friend, Dr. Julius Allen. The resources of this program also provided the structure of a Basic Science Training program in Pediatric Cardiology at Texas Children's Hospital which was financed by an independent NIH training program.

Dr. Entman has given countless lectures to trainees on the Cardiovascular Sciences PhD Track and has been dedicated to furthering the educational mission at Baylor College of Medicine. Dr. Entman has mentored over 50 physician-scientists and researchers, many of whom are now leading cardiology departments and research programs across the US and world. His enthusiasm and commitment to the educational programs at Baylor College of Medicine is revered among his trainees and peers.

Trainees were invited to nominate faculty members who taught in the courses offered by the CVRI during Terms 3-5 in 2020. Three members were presented with awards at the CVRI's 8th Annual Symposium. Each faculty has contributed to cardiovascular education in a significant way and the CVRI is excited to continue the tradition of the Dr. Mark L. Entman Education Award in years to come.

Dr. Sandra Haudek did the honors in introducing the winners of the **Dr. Mark L. Entman Award for Excellence in Cardiovascular Education** on April 8, 2021.



DR. MARK L. ENTMAN EDUCATION AWARD WINNERS



Joshua D. Wythe, PhD

Associate Professor

Department of Molecular
Physiology & Biophysics
Baylor College of Medicine

“Dr. Wythe gave lectures on cardiovascular development. As a student, I found Dr. Wythe's lectures very easy to follow and understand. He offered a variety of ways and perspectives to explain topics so they could be understood. He also provided us with several resources to use as study aids to further understand the topics we went over in lecture”. -*Nominator*

“Dr. Wythe has taught the students and other trainees with great enthusiasm. He has inspired graduate students to pursue their thesis research in cardiovascular research. He always comes well prepared with high quality slides and a deep understanding of the topics he teaches.” -*Nominator*

Dr. Wythe has demonstrated a significant contribution to cardiovascular education, used innovative teaching methods and addressed novel topics. He was nominated for his lectures in both Terms 3 and 5 courses, “Advanced Topics in Cardiovascular Diseases”; “Advanced Topics in CVD Pathogenesis”.

DR. MARK L. ENTMAN EDUCATION AWARD WINNERS



David J. Durgan, PhD

Assistant Professor

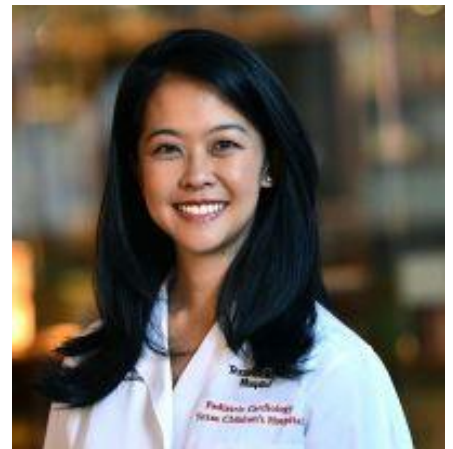
Department of Anesthesiology
Baylor College of Medicine

“Dave has taken on lectures in all four of the relevant cardiovascular courses. His enthusiasm for teaching and the effectiveness of his lectures are evidenced by top evaluation scores in three core cardiovascular courses.” -Nominator

Dr. Durgan has demonstrated a significant contribution to cardiovascular education and has used innovative teaching methods. He was nominated for his lecture in Term 3 course, “Advanced Topics in of Cardiovascular Diseases”.

“As a student, I found her lectures both exciting and informative. She utilized real world examples (her patients) to aid in the understanding of her topic. I really enjoyed her lectures.” -
Nominator

“Dr. Miyake has consistently given high-quality lectures. She has a deep understanding of the genetics of inherited arrhythmias. Her lectures covering several clinical cases give students a different understanding of the importance of these cardiac diseases. She can also engage students effectively.” *Nominator*



Christina Y. Miyake, MD

Associate Professor

Department of Molecular
Physiology & Biophysics;
Pediatrics-Pediatric Cardiology
Baylor College of Medicine

Dr. Miyake has demonstrated a significant contribution to cardiovascular education, used innovative teaching methods, and is an excellent teacher. She was nominated for her lectures in Term 4 course “Advanced Topics in Cardiovascular Physiology”.

From the Director

Dear Colleagues,

On behalf of the organizing committee, I would like to thank all of the attendees for participating in the 8th Annual CVRI Symposium. Thank you to our speakers, poster presenters and judges for their efforts and contributions which truly made this symposium a success. The scientific presentations were innovative, exciting and we all enjoyed them immensely.

I would also like to offer congratulations to the winners of the CVRI's inaugural Dr. Mark L. Entman Teaching Award for Excellence in Cardiovascular Education. This prestigious award will be presented each year at the CVRI symposium from now on.

To follow CVRI events and learn more about all of the exciting cardiovascular science that is happening, visit www.bcm.edu/cvri or email cvri@bcm.edu to join our membership list.

With gratitude,



Xander Wehrens, MD, PhD



Xander Wehrens, MD, PhD
CVRI Director

CVRI Member Accomplishments



American
Heart
Association.



News from the American Heart Association

Scientific research teams in California and Texas have been awarded nearly \$1.4 million in grants to study ways to improve [pediatric heart transplant](#) outcomes.

One of the awarded projects is led by **James F. Martin, MD, PhD, Professor and Vivian L. Smith Chair in Regenerative Medicine** in collaboration with **Diwakar Turaga, MD, PhD at Texas Children's Hospital**. His project will receive nearly \$700,000 for their three-year research study.

Early Detection of Cardiac Allograft Vasculopathy in post-transplant Pediatric Hearts via Single-Cell Genomics

This team will study ways to better detect cardiac allograft vasculopathy (CAV), a form of heart transplant rejection. CAV is an accelerated type of coronary artery disease caused when the blood vessels supplying the transplanted heart gradually narrow and restrict its blood flow. Current methods to detect CAV only look at large blood vessels of the heart and by the time there is evidence of large vessel disease, the smaller vessels are already damaged and treatment options are very limited. This team will use new genetic methods to identify CAV at early stages, using single-cell RNA sequencing (scRNA-seq) to study heart tissue obtained from children with heart disease which may allow for early detection and subsequent treatment.

Congratulations Dr. Martin!



Somatic Cell Genome Editing Consortium

A Baylor team led by Dr. Jason Heaney, Associate Professor of Molecular & Human Genetics, **CVRI members Dr. William Lagor, Associate Professor of Molecular Physiology & Biophysics, and Dr. Mary Dickinson, Senior Vice President and Dean of Research**, is participating in the Somatic Cell Genome Editing Consortium, a massive research effort funded by the National Institutes of Health that aims to accelerate genome editing research and the development of related technologies and therapeutic approaches. The Baylor team is responsible for developing new reporter mice to detect somatic genome editing events, such as small insertion and deletion mutations, homology directed repair and off-target editing.

CVRI Member Accomplishments



Dr. Biykem Bozkurt updates the American College of Cardiology/American Heart Association Heart Failure Data

The 2021 ACC/AHA [Key Data Elements and Definitions for Heart Failure](#) were published online in *the Journal of the American College of Cardiology and Circulation: Cardiovascular Quality and Outcomes*. **Dr. Bozkurt** and colleagues participate in a committee that is working to develop clinical data standards for heart failure. Members of the task force provide oversight for policies and rigorous methodologies involved in developing documents to meet the needs of practitioners and to improve patient care.



F30 Fellowship awardee

CVRI member and MD/PhD student in the Wehrens Lab **Oliver Moore**, is the recipient of an F30 Fellowship from the National Heart, Lung, and Blood Institute (NHLBI) for his project titled “*Genome Editing Treatment for Catecholaminergic Polymorphic Ventricular Tachycardia*”.



New R01 awarded from NHLBI

Dr. Xander Wehrens, CVRI Director has been awarded a new R01 grant from the National Heart, Lung, and Blood Institute (NHLBI) for his project entitled “*Junctophilin-2 Cleavage in Ischemic Heart Disease*”.

The award will span over 4 years and Dr. Wehrens will collaborate with Drs. Thomas Cooper and Lilei Zhang to test the central hypothesis that calpain-mediated cleavage of the structural protein junctophilin-2 leads to the formation of a signaling-peptide that in turn causes adverse remodeling due to changes in alternative splicing. These studies may lead to an improved understanding of the molecular signaling events causing ischemic cardiomyopathy.

CVRI SPRING SEMINAR SERIES

The Cardiovascular Research Institute at Baylor College of Medicine conducts a seminar series during the spring and fall of each year open to faculty, students, and all who are interested in cardiovascular research. This year, CVRI expanded to bi-weekly virtual seminars with local, national, and international cardiovascular scientists. The aim is to teach and share the recent work of renowned invited speakers and foster meaningful conversations and collaborations between speakers, students, and faculty. To watch previous seminars, please visit our [CVRI seminar webpage](#).



April 28, 2021

Speaker: Javed Butler, MD, MPH, MBA

Patrick H. Lenan Chair in Cardiovascular Research
Professor and Chairman, Department of Medicine
Professor, Department of Physiology
University of Mississippi Medical Center

Topic: Lessons Learned From Recent Heart Failure Clinical Trials



May 12, 2021

Speaker: Rong Tian, MD, PhD

Director of Mitochondria and Metabolism Center
Professor, Department of Anesthesiology & Pain Medicine and Bioengineering
University of Washington

Topic: Mitochondrial Metabolism

To view previous seminars , please go to our [CVRI seminar webpage](#).

CVRI Membership

The Cardiovascular Research Institute membership is open to faculty, researchers, clinicians, trainees and educators affiliated with the Texas Medical Center. Membership provides opportunities such as:

- Apply for pilot grant funding for collaborative projects.
- Be listed on the CVRI website and member database.
- Participate in CVRI retreats, seminars, annual symposia and other activities.

Join CVRI today!

[Membership Form](#)

CVRI EDUCATION

Graduate School of Biomedical Sciences Courses

The CVRI has been actively working to expand training programs in cardiovascular sciences. The CVRI offers 3 graduate school courses to PhD students, postdocs, clinical trainees and all others interested in cardiovascular disease. Lectures are available on Zoom. Mid-term and final exams are provided via Blackboard. For those interested in cardiovascular sciences who are not enrolled formally nor auditing the course, viewing of the scheduled Zoom classes are available as well. Email CVRI@bcm.edu for Zoom details. CVRI hopes to spark interest in cardiovascular sciences to foster and support the next generation of innovative cardiovascular scientists.

Registration for our next CVRI course begins April 26, 2021

Term 5

Advanced Topics in Vascular Physiology and Disease

GS-DD-6404

4 credits

This course emphasizes cardiovascular disease pathology with a focus on vascular disorders and atherosclerosis.

Lectures will cover all components of the normal system, inherited forms of disease, and the pathogenesis of acquired types of disease. Topics include vascular diseases, lipid disorders, atherosclerosis, hemostasis and bleeding disorders, microcirculation disorders, stroke, hypertension, and peripheral artery disease. The course will also discuss the cutting-edge research approaches used in cardiovascular research.

Course Directors:

William Lagor, PhD

Xander Wehrens, MD, PhD



TERM 5
GS-DD-6404 (4 CREDITS)

**ADVANCED TOPICS
IN VASCULAR PHYSIOLOGY
& DISEASE**

DEVELOPMENT, DISEASE MODELS & THERAPEUTICS (DDMT)

Baylor
College of
Medicine

CARDIOVASCULAR
RESEARCH INSTITUTE

MAY 24- JULY 23, 2021

9 AM- 10 AM
M, T, W, Th

LIVE LECTURES VIA ZOOM

Course Directors
William Lagor, PhD
Xander Wehrens, MD, PhD

Registration: April 26- May 7, 2021

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CVRI SOCIAL MEDIA

Share Your work, Increase Your Impact

CVRI is dedicated to helping members increase collaborations and over all impact. If you have a recent published article, a new accolade or event you want posted and shared, please email cvri@bcm.edu. Share your recent discovery along with a short description and your twitter handle. CVRI will post it on our Twitter, Facebook and Instagram accounts.

FOLLOW & TAG CVRI



@BCM.CVRI



@BCM_CVRI



@BCM_CVRI

FUNDING

American Heart Association

[Health Equity Research Network \(HERN\) on the Prevention of Hypertension](#)

Letter of Intent Deadline: Friday, April 23, 2021

Application Deadline: Thursday, May 13, 2021

Award Start Date: October 1, 2021

Hypertension is a major cause underlying cardiovascular morbidity and mortality, and addressing it is a major goal of AHA. Hypertension is also a significant health equity issue; uncontrolled hypertension is most acute in communities of color. Many risk factors associated with hypertension are preventable. This Health Equity Research Network (HERN) will provide a mechanism for the AHA to advance the prevention of hypertension. A key theme is diversity/equity/inclusion, with special attention targeted to underserved populations.

NIH

[Understanding and Reducing Cardiovascular Disease in Type 1 Diabetes Mellitus \(R01 – Clinical Trial Optional\)](#)

Application Deadline: October 15, 2021

This funding opportunity is intended to support research that enhances the understanding of the pathophysiology and epidemiology of cardiovascular disease among individuals with Type 1 Diabetes Mellitus (T1DM) and advances the development of interventions to reduce CVD risk among these individuals. The overall goal is to develop evidence-based guidelines to prevent or reduce CVD complications of T1DM across the lifespan. This funding opportunity will support epidemiologic studies to refine risk assessment, mechanistic trials to enhance understanding of the pathophysiology of CVD in T1DM, and small clinical trials that could inform the future development of larger trials focused on preventing or reducing the CVD complications of T1DM.

OPEN POSITIONS



Ravi K. Birla, PhD

Associate Professor

Congenital Heart Surgery
Department of Pediatric Surgery

Baylor College of Medicine
Texas Children's Hospital
1102 Bates Avenue,
Suite 450
Houston, TX, 77030

Phone: 713-474-3449
ravi.birla@bcm.edu

Job Opening for Post-Doctoral Research Associate,
Center for Cardiac Congenital Research
Heart Center
Texas Children's Hospital

The Center for Cardiac Congenital Research (C³ R) has an opening for a full time Post-Doctoral Research Associate. C³ R is part of the Heart Center at Texas Children's Hospital (TCH), Ranked Number 1 in the US. The Heart Center is a high-volume clinical program with the largest number of pediatric heart transplants, ventricular assist devices and other complex cases like HLHS and DSS. The Heart Center is home to an extensive biorepository, with over 10,000 samples from pediatric heart patients and provides a valuable tool for research.

The goal of C³ R is to apply state of the art techniques in single cell omics, proteomics and genomics to understand the underlying molecular mechanisms of complex pediatric diseases. A second objective is to develop novel functional models to understand and characterize functional changes in response to pediatric heart diseases. Collectively, this information will be used for the management and treatment of pediatric heart patients and will also form the basis of future therapies.

C³ R invites applications for a Post-Doctoral Research Associate, to support ongoing studies at the Heart Center. The successful candidate will have a Doctoral degree in the life sciences and have proven track record of successful publications. The successful candidate will work on using single cell omics, proteomics and genomics to understand the underlying mechanisms of pediatric heart disorders. The candidate will work in a multidisciplinary team consisting of Surgeons, Bioengineers and Cell Biologists, all working together in a collaborative manner. The successful candidate will have an opportunity to develop new collaborations across the Texas Medical Center, the largest Medical Center in the world and will have access to state-of-the-art research facilities.

The start date for this position is June 1st, 2021.

Interested candidates should send their resume; 2 representative publications and 3 references with contact information via email to:

Ravi K. Birla, PhD
Director, Center of Congenital Cardiac Research,
Heart Center, Texas Children's Hospital
ravi.birla@bcm.edu

CVRI EXECUTIVE LEADERSHIP



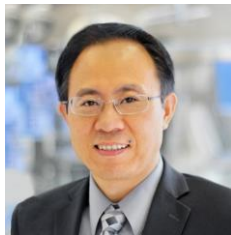
Xander Wehrens, MD, PhD
CVRI Director



Biykem Bozkurt, MD, PhD
CVRI Associate Director



Christie Ballantyne, MD
Medicine, Athero & Lipo



Changyi Johnny Chen, MD, PhD
Surgery, Vascular Surgery



Tom Cooper, MD
Pathology



Mark Entman, MD
Medicine, Cardiovascular
Sciences



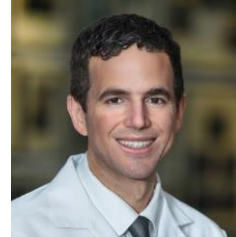
Irina V. Larina, PhD
Molecular Physiology



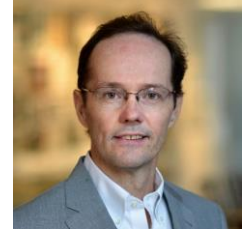
Mihail G. Chelu, MD, PhD
Medicine, Cardiology



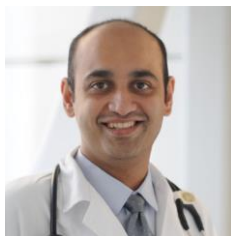
Scott LeMaire, MD
Surgery, Cardiothoracic



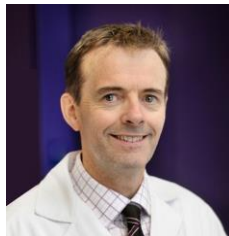
Gabriel Loor, MD
Surgery, CT Transplant



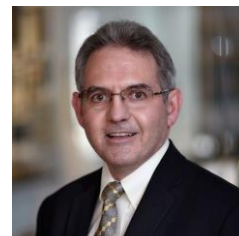
James Martin, MD, PhD
Molecular Physiology



Vijay Nambi, MD
Medicine, Athero & Lipo



Daniel Penny, MD, PhD MHA
Pediatrics- Cardiology



Rolando Rumbaut, MD, PhD
Medicine- Pulmonary, Critical Care





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**Cardiovascular Research Institute
Baylor College of Medicine**

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