



Baylor
College of
Medicine

CARDIOVASCULAR RESEARCH INSTITUTE SPRING 2023 NEWSLETTER

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10th ANNUAL CVRI SYMPOSIUM

Over the past decade, the CVRI has hosted ten annual symposia at Baylor College of Medicine to feature cardiovascular research conducted across the Texas Medical Center. Chaired by Dr. Xander Wehrens, Director of the CVRI and Dr. Biykem Bozkurt, Associate Director of the CVRI, these annual symposia feature cutting-edge basic, translational, and clinical research performed by CVRI members and other colleagues from around the Texas Medical Center. Physician attendees are eligible to receive Continuing Medical Education (CME) credit and BCM sponsors the activity for the American Medical Association Physician's Recognition Award (AMA PRA) on an annual basis. The event encourages participants from BCM departments, affiliated hospitals, and other institutions across the Texas Medical Center to attend.

This year we resumed the symposium in-person and over 150 basic scientists and clinicians participated in the event. During the symposium, participants enjoyed two keynote lectures. Dr. Dianna Milewicz of the McGovern Medical School at the University of Texas Health Science Center spoke on *"Molecular mechanisms for the vascular pleiotropy associated with pathogenic variants in smooth muscle α -actin (ACTA2)"* Dr. Jeffery Molkentin of Cincinnati Children's Hospital presented a lecture entitled *"Adult stem cells do not regenerate the damaged heart; they mildly rejuvenate it thru inflammation"*. Additionally, eight invited speakers from the Texas Medical Center gave lectures about topics such as macrophages in transplanted hearts, the cardiac conduction system, new therapies for cardiomyopathies, epigenetic regulation of cardiomyocyte maturation, and new models for examining subaortic stenosis. These presentations featured exciting, cutting-edge basic and translational research, a testament to the incredible environment for cardiovascular research and medicine in the Texas Medical Center.

In addition to these invited talks, there were over 70 poster presentations by basic science and clinical trainees, along with junior faculty. All poster presenters had the opportunity to present their work, and the CVRI awarded five "Best Poster Awards" to basic science and clinical trainees, and junior faculty. The symposium organizing committee was led by Dr. Lilei Zhang, Assistant Professor of Molecular and Human Genetics.

The event was a great success that showcased a variety of exciting research.



Pictured: Dr. Reza Ardehali



Pictured: Drs. Biykem Bozkurt and Dianna Milewicz



Pictured L to R, top to bottom: Drs. Ajith Nair, Jun Wang, Mihail Chelu, Jane Grande-Allen, Priyatansh Gurha, Jun-Ichi Abe, Reza Ardehali, & Diwakar Turaga

KEYNOTE SPOTLIGHT



Pictured: Dr. Jeffery Molkentin

At the CVRI symposium this year, the audience had the opportunity to listen to keynote speaker Dr. Jeffery Molkentin, a Professor of Pediatrics, executive co-director of the Heart Institute, and Director of the Division of Molecular Cardiovascular Biology at the University of Cincinnati College of Medicine. He holds a secondary appointment in the Department of Pharmacology and Systems Physiology and membership in the Cincinnati Children's Hospital Medical Center Heart Institute. Dr. Molkentin is a leading researcher in the field of cardiovascular biology, with a focus on understanding the molecular mechanisms underlying heart disease.

Dr. Molkentin has received numerous awards and honors throughout his career. He is a fellow of the American Heart Association, and has been awarded the Outstanding Investigator Award, the Basic Research Prize, and the Louis N. and Arnold M.

Katz Basic Research Prize, among others. His research has also been published in many high-impact scientific journals.

During his presentation titled, "Adult stem cell do not regenerate the damaged heart; they mildly rejuvenate it thru inflammation," Dr. Molkentin shared his thoughts on the theory of adult stem cell therapy for heart repair after injury. Many previous studies have attempted to introduce adult stem cells (such as progenitor stem cells, bone marrow, or c-kit+ cells) into the heart. However, Dr. Molkentin presented an overview of the many clinical trials showing contradicting and doubtful findings on the beneficial potential of this form of therapy. Interestingly, no new cardiomyocytes were being produced from the injected live stem cells. Despite the lack of

cardiomyocyte regeneration after coronary delivery of stem cells, numerous previous studies reported a beneficial effect from the stem cell therapy that was highlighted during Dr. Molkentin's talk. This "cardiac rejuvenation" that occurred in hearts following cell therapy was the focus of Dr. Molkentin's presentation.

Dr. Molkentin presented the findings of his lab, where he demonstrated that the source of beneficial effect from cell therapy was from the subsequent inflammatory



Pictured L to R: Drs. Xander Wehrens, Jeffery Molkentin, & Josh Wythe

immune response in the heart after stem cell injection. Dr. Molkentin provided compelling evidence that an acute immune response improved cardiac performance after myocardial ischemia in mice, and that this response could occur even if the stem cells were not alive. Furthermore, Dr. Molkentin's data suggested that it was specifically the macrophage population of immune cells that elicited this protective effect, since he demonstrated that inhibiting macrophages also stopped the benefit of the therapy. Overall, the presentation given by Dr. Jeffery Molkentin was contemplative and inspiring, as he proposed another avenue of exploration in the field of cardiac immunology. His continued work will surely contribute to the discovery of novel therapeutics for cardiovascular disease.

*By: Arielys Mendoza, Graduate Student
Karch Lab, Dept. of Integrative Physiology*



Pictured: Drs. Jeffery Molkentin and Mark Entman

KEYNOTE SPOTLIGHT



Pictured: Dr. Dianna Milewicz

During the 10th Annual Cardiovascular Research Institute Symposium, participants enjoyed an fascinating keynote presentation by Dr. Dianna Milewicz. Dr. Milewicz is the President George H.W. Bush Chair of Cardiovascular Medicine, the Director of the Division of Medical Genetics, and the Vice-Chair of Internal Medicine at McGovern Medical School at the University of Texas Health Science Center. She has also been the Director of the M.D./Ph.D. Program offered jointly between the University of Texas Health Science Center at Houston and MD Anderson Cancer Center institutions for over a decade.

Her research laboratory focuses on identifying genetic triggers for vascular conditions such as aortic aneurysms, aortic dissections and cerebral aneurysms. With over 250 publications and 26,000 citations, Dr. Milewicz and her team have led the field in discovering the majority of genes that predispose patients to thoracic aortic aneurysms and dissections. Her work has also helped establish several international collaborations such as the [Montalcino Aortic Consortium](#),

which connects researchers and physicians worldwide in defining gene-based management and treatment, and the [Leducq Foundation Transatlantic Network of Excellence](#), where leading laboratories in the field are collaborating on identifying cellular and molecular drivers of acute aortic dissections. Her work has made an immense impact in understanding and treating thoracic aortic disease and other vascular diseases.

While Dr. Milewicz's work is largely focused on identifying heritable aortic disease genes and their impact on aortic aneurysm development and dissection, her talk focused on "Molecular mechanisms for the vascular disease pleiotropy associated with pathogenic variants in smooth muscle α -actin (ACTA2)." She shared her story about the discovery of families with ACTA2 gene mutations that were not only predisposed to hereditary thoracic aortic disease but were also causing early onset coronary artery disease or early onset stroke due to moyamoya disease. Dr. Milewicz discussed her team's investigation into the molecular mechanisms in which different types of ACTA2 mutations contribute to moyamoya disease-like symptoms and early onset coronary artery disease. While these findings seemed to go against vascular dogma at the time, her published work garnered attention from the medical community and families across the world who had children in their teenage years with *de novo* mutations in ACTA2 resulting in moyamoya-like disease, early onset coronary artery disease, and thoracic aortic disease. Her work has since been translated into clinical studies for patients with the ACTA2 mutation.



Pictured: Drs. Dianna Milewicz and Xander Wehrens

*By: Samantha Xu, MPH
Sarnoff Cardiovascular Research Fellow
LeMaire and Shen Laboratory;
Sarnoff Advisee: Dianna Milewicz, MD, PhD*

DR. MARK L. ENTMAN AWARDS FOR EXCELLENCE IN CARDIOVASCULAR EDUCATION

The Dr. Mark L. Entman Awards for Excellence in Cardiovascular Education was established by the CVRI to recognize faculty for outstanding teaching and service in the graduate school curriculum.



Mark L. Entman, MD

Professor and William J. Osher Chair
Department of Medicine,
Cardiovascular Sciences
Scientific Director
The DeBakey Heart Center
The Methodist Hospital

In honor of Dr. Entman's extensive contributions to cardiovascular education and research at Baylor College of Medicine, the CVRI will present this prestigious award at the annual symposium. Dr. Entman is Professor of Medicine, 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 Medical 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.



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

The Dr. Mark L. Entman Teaching Award for Excellence in Cardiovascular Education recognizes course instructors who provide highly rated lectures in the cardiovascular courses offered by the Graduate School of Biomedical Sciences (GSBS) at Baylor College of Medicine. Registered learners who are enrolled or auditing one of the GSBS courses are provided lecture evaluations from the CVRI. A ranking of lectures is generated based on the scores received in those evaluations, and the CVRI Education and Training Committee reviews scores and eligibility criteria to determine the award recipient.



Ying H. Shen, MD, PhD
Associate Professor
Department of Surgery

"Dr. Shen has been instrumental in our department's research program. In addition to being an outstanding scientist who is committed to advancing our understanding of aortic disease, she is a dedicated and highly skilled teacher and mentor. Dr. Shen's students and postdoctoral trainees have benefited immeasurably from her patient and selfless guidance in building the essential skills they need to become successful investigators."

*-Scott A. LeMaire, MD
Jimmy and Roberta Howell Professor of
Cardiovascular Surgery
Vice Chair for Research, Michael E. DeBakey Department of Surgery
Baylor College of Medicine*



Pictured L to R: Drs. Ying Shen and Na Li



Congratulations!

The Dr. Mark L. Entman Service Award for Excellence in Cardiovascular Education

The Dr. Mark L. Entman Service Award for Excellence in Cardiovascular Education recognizes individuals who have made outstanding contributions to the educational mission of the CVRI. The CVRI Education and Training Committee Chairs provide a list of eligible candidates to committee members, who then nominate and vote on each candidate. The candidate who receives the highest number of votes is deemed the awardee.

"During Dr. Taffet's tenure at Baylor, he has mentored many trainees in the techniques of measuring cardiovascular function that occur spontaneously in aging. He has been a major factor in the development of the biology of aging programs within the Texas Medical Center and continues to provide guidance and collaboration for many laboratories to examine the impact of aging. Dr. Taffet's collaborative nature, and strong interest in cardiovascular education have been paramount to further the training of physician scientists for over 30 years."

*Mark L. Entman, MD
Professor of Cardiovascular Sciences
Baylor College of Medicine*

"Dr. Taffet has been teaching in CVS-related courses for many years, more than a decade, I think. He is dedicated to teaching, is open, supportive, and helpful to all students. He consistently receives high evaluations and overall, has contributed significantly to the longevity of CVS education at BCM."

-Sandra Haudek, MSc PhD; Associate Professor of Medicine



George Taffet, MD
*Professor &
Robert J. Luchi, MD Chair
Department of Medicine*



Pictured L to R: Drs. Na Li, George Taffet, and Mark Entman

Congratulations!



Pictured: Dr. Taffet judging a poster

POSTER WINNERS

Students:



Bing Xie, B.S.

Mentor: James F. Martin, MD, PhD

Department of Integrative Physiology

Title: *"YAP Mediates Cardiac Proliferation in TEAD-independent Mechanisms"*



Kyle Blackburn

Mentors: Scott LeMaire, MD; Marc Moon, MD; Joseph Coselli, MD

Department of Surgery

Title: *"Outcomes of Thoracoabdominal Aortic Aneurysm Repair in Patients with a Prior Myocardial Infarction"*

Postdoctoral Associate:



Rich Li, PhD

Mentor: James F. Martin, MD, PhD

McGill Gene Editing Lab, Texas Heart Institute

Title: *"YAP Induces a Neonatal Like Pro-Renewal Niche in the Adult Heart"*

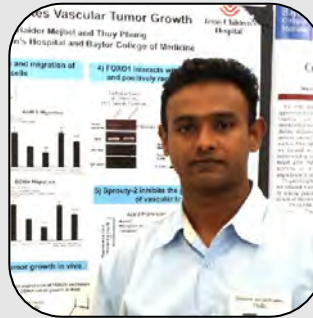
Clinical Fellow:



Heba El Ayash, MD
Mentor: Fida Bacha, MD
Department of Pediatrics

Title: *"Incretins and cardiac autonomic function in youth with obesity across the glycemia spectrum"*

Junior Faculty:

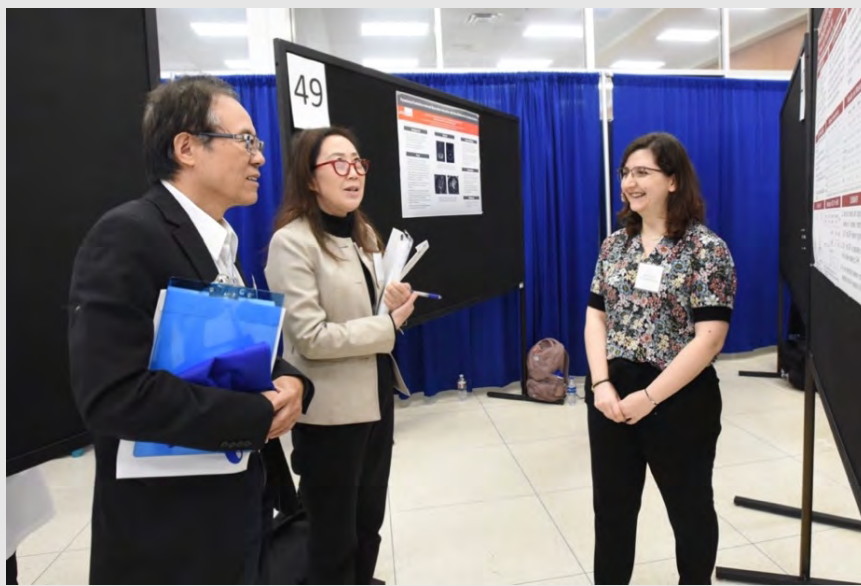


Sriram Ayyaswamy, PhD
Mentor: David Durgan, PhD
Department of Anesthesiology

Title: *"Obstructive Sleep Apnea-Induced Hypertension is Associated with Increased Gut and Neuroinflammation"*



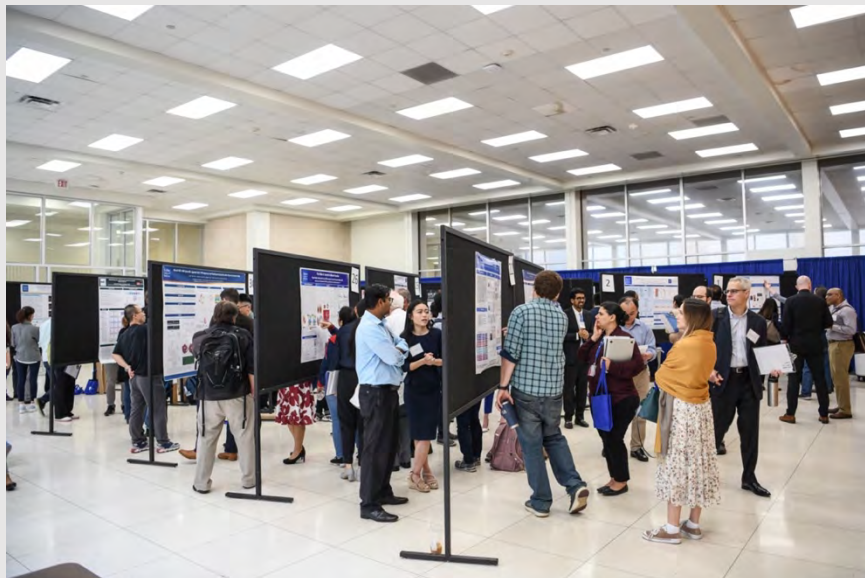
Congratulations!



Pictured L to R: Drs. Johnny Chen, Ying Shen, and Heba El Ayash



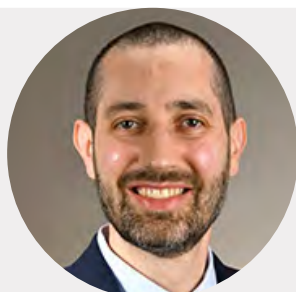
Pictured L to R: Wei Li, PhD and Kyle Blackburn



Spring 2023 James T. Willerson, MD Cardiovascular Sciences Seminar Series

The James T. Willerson, MD Cardiovascular Seminar Series continues in Spring 2023. In collaboration with the Texas Heart Institute, these seminars are in-person and held at Baylor College of Medicine on select Wednesdays at noon. Visit www.bcm.edu/cvri to learn more.

April 19



Romain Harmancey, PhD

Associate Professor, Cardiovascular Medicine
University of Texas Health Science Center
Houston, McGovern Medical School

April 26



Philipp Scherer, PhD

Professor, Department of Internal Medicine
UT Southwestern Medical Center

May 10



Francisco Altamirano, PhD

Assistant Professor, Cardiovascular Sciences
Houston Methodist Research Institute

May 17



Katia Kontrogianni-Konstatopoulos, PhD

Professor, Biochemistry & Molecular Biology
University of Maryland School of Medicine

May 24



Kathryn Jones, DVM, PhD

Associate Professor, Pediatrics-Tropical Medicine
Baylor College of Medicine

Save the Date

THE DR. MARK L. ENTMAN DISTINGUISHED LECTURE IN
CARDIOVASCULAR RESEARCH
NOV. 8, 2023



Christopher Semsarian, MBBS, PhD
Professor of Medicine, Sydney
Medical School
Cardiologist, Royal Prince Alfred
Hospital, Central Clinical School
Head, Molecular Cardiology Program,
Centenary Institute

AMERICAN HEART ASSOCIATION

Opportunity	Proposal Deadline	Award Date
<u>AHA's Second Century Clinical Fellow Research</u> Education Program To foster research, research-related opportunities, and ongoing optimal implementation of practice guidelines for clinical fellows. Program Director applies for this award to support five fellows per year for three years.	04/13/23	07/01/23
<u>AHA Predoctoral Fellowship</u> Enhances the training of promising students in pre-doctoral or clinical health professional degree training programs and who intend careers as scientists, physician-scientists or other clinician-scientists, or related careers aimed at improving global health and wellbeing.	09/06/23	01/01/24
<u>AHA Postdoctoral Fellowship</u> Enhances training of postdoctoral applicants who are not yet independent. The applicant must be embedded in an appropriate investigative group with the mentorship, support, and relevant scientific guidance of a research mentor.	09/07/23	01/01/24
<u>Career Development Award</u> Supports highly promising healthcare and academic professionals in the early years of first professional appointment to assure the applicant's future success as a research scientist in the field of cardiovascular and/or cerebrovascular disease research.	12/06/23	04/01/24
<u>Collaborative Sciences Award</u> Fosters innovative collaborative approaches to research projects that propose novel pairings of investigators from at least two broadly disparate disciplines. The proposal must focus on the collaborative relationship, such that scientific objectives could not be achieved without the efforts of at least two co-principal investigators and their respective disciplines.	TBA	TBA
<u>Established Investigator Award</u> Supports established investigators in rapid career growth phase, with records of accomplishments and showing extraordinary	TBA	TBA
<u>Innovative Project Award</u> Supports highly innovative, high-impact research that could ultimately lead to critical discoveries or major advancements that will accelerate the field of cardiovascular and/or cerebrovascular research.	TBA	TBA

See more funding opportunities through the American Heart Association, [HERE](#).



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ADDITIONAL FUNDING OPPORTUNITIES

	LOI deadline
<p><u>Single Ventricle Research Fund (SVRF)</u></p> <p>The Single Ventricle Research Fund (SVRF) is an annual research award program that is solely focused on accelerating research and improving care for those with single ventricle heart defects through multi-year, high-impact grants. The SVRF grants awards annually to support research projects over up to three-year periods and provides up to \$600,000 in direct costs.</p>	08/3/23

Opportunity - <u>Thoracic Surgery Foundation</u>	Application open date	Deadline
<p><u>TSF Research Award</u>→</p> <p>Operational support of original research efforts by cardiothoracic surgeons who have completed their formal training, and who are seeking initial support and recognition for the research program. Awards of up to \$85,000 per year for up to two years are granted to support the work of an early-career cardiothoracic surgeon (within seven years of first faculty appointment at time of application deadline).</p>	07/01/23	09/15/23
<p><u>STS Research Award</u>→</p> <p>Operational support of original research efforts by cardiothoracic surgeons who have completed their formal training, and who are seeking initial support and recognition for the research program. Awards of up to \$90,000 per year for up to two years are granted to support the work of an early-career cardiothoracic surgeon (within seven years of first faculty appointment at time of application deadline) <i>The STS Research Award designation is given to the highest-ranking TSF Research Award application.</i></p>	07/01/23	09/15/23
<p><u>TSF Resident Research Fellowship Award</u>→</p> <p>This award provides up to \$60,000 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.</p>	07/01/23	09/15/23
<p><u>Nina Starr Braunwald Research Award</u>→</p> <p>Nina Starr Braunwald, MD was the first woman to be certified by the ABTS and the first woman to conduct open heart surgery. This award in her name provides operational support of original research efforts by women cardiac surgeons who have completed their formal training, and who are seeking initial support and recognition for their research program. Since its inception, award recipients have gone on to become established leaders within the field and this award is one of the specialty's most prestigious research grants. Awards of up to \$85,000 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).</p>	07/01/23	09/15/23
<p><u>Nina Starr Braunwald Research Fellowship Award</u>→</p> <p>Nina Starr Braunwald, MD was the first woman to be certified by the ABTS and the first woman to conduct open heart surgery. This award in her name supports up to \$60,000 per year for up to two years for a woman resident working in a cardiac surgical clinic or laboratory research program who has not yet completed cardiothoracic surgical training. Since its inception, fellowship recipients have gone on to become established leaders within the field. This is widely recognized as one of the specialty's most prestigious research fellowships.</p>	07/01/23	09/15/23



ADDITIONAL FUNDING OPPORTUNITIES (CONT)...



Opportunity	Deadline
RFA-HL-24-001 Pediatric Heart Network Clinical Research Centers (UM1 Clinical Trial Optional)	05/12/23
PAR-18-771 PAR-18-772 NHLBI Career Transition Award for Intramural Postdoctoral Fellows and Research Trainees (K22)	06/12/23; 10/12/23
RFA-OD-23-013 Understanding Chronic Conditions Understudied Among Women (R21)	06/20/23
PAR-22-194 NHLBI TOPMed: Omics Phenotypes of Heart, Lung, and Blood Disorders (X01)	10/17/23
PAR-21-271 Maximizing Opportunities for Scientific and Academic Careers (MOSAIC) Postdoctoral Career Transition Award to Promote Diversity (K99/R00)	06/12/23
<u>Standard NIH Due Dates</u>	



REGISTRATION

APRIL 24 - MAY 5, 2023

ADVANCED TOPICS IN VASCULAR PHYSIOLOGY & DISEASE

Development,
Disease Models &
Therapeutics (DDMT)

TERM 5

GS-DD-6404 (4 CREDITS)

MAY 22 - JULY 21, 2023

MONDAY - THURSDAY

9-10 AM

ROOM: N304

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



COURSE DESCRIPTION

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.



Save the Date

2023-2024 Pilot Award Call for Applications

The CVRI will be accepting proposals in August 2023 for the 2023-2024 Pilot Awards.

Goal: To promote the writing of multi-PI grants in the area of cardiovascular research.

SELECT PUBLICATIONS



Share your work!
Increase your impact!

Email cvri@bcm.edu with your latest publications and we will share it with our CV community on social media.

January 2023

Sy MR, **Keefe JA**, Sutton JP, **Wehrens XHT**. Cardiac function, structural, and electrical remodeling by microgravity exposure. *AM J Physiol Heart Circ Physiol*; 2023 Jan 1; 324(1): H1-H13

Steimle J, **Martin JF**. Regrowing the heart, one TREE at a time. *Cell Stem Cell*; 2023 Jan 5; 30(1): 1-2.

Jia X, Al Rifai M, Ndumele CE, **Virani SS**, de Lemos JA, Lee E, Shah AM, Echouffo-Tcheugui JB, **Bozkurt B**, Hoogeveen R, Selvin E, **Ballantyne CM**, **Nambi V**. Reclassification of Pre-Heart Failure Stages Using Cardiac Biomarkers: Atherosclerosis Risk in Communities (ARIC) Study. *JACC Heart Fail*; 2023 Jan 9; S2213-1779(22)00723-5.

Martinez-Vargas M, Cebula A, Brubaker LS, Seshadri N, **Lam FW**, Loor M, **Rosengart TK**, Yee A, **Rumbaut RE**, Cruz MA. A novel interaction between extracellular vimentin and bribrinogen in fibrin formation. *Thromb Res*; 2023 Jan; 221: 97-104.

Zekavat SM, Viana-Huete V, Matesanz N, Jorshery SD, Zuriaga MA, Uddin MM, Trinder M, Paruchuri K, Zorita V, Ferrer-Pérez A, Amorós-Pérez M, Kunderfranco P, Carriero R, Greco CM, Aroca-Crevillen A, Hidalgo A, Damrauer SM, **Ballantyne CM**, Niroula A, Gibson CJ, Pirruccello J, Griffin G, Ebert BL, Libby P, Fuster V, Zhao H, Ghassemi M, Natarajan P, Bick AG, Fuster JJ, Klarin D. TP53-mediated clonal hematopoiesis confers increased risk for incident atherosclerotic disease. *Nat Cardiovasc Res*; 2023 Jan 16; 2: 144-158.

Durgan DJ, Farré R. Gut check: assessing the role of the gut microbiota in the adverse cardiovascular effects of obstructive sleep apnea. *Eur Respir J*; 2023 Jan 19; 61(1): 2201974.

Brimmer S, Ji P, Birla AK, **Keswani SG**, **Caldarone CA**, **Birla RK**. Recent advances in biological pumps as a building block for bioartificial hearts. *Front Bioeng Biotechnol*; 2023 Jan 20; 11: 1061622.

Berry JD, Chen H, **Nambi V**, Ambrosius WT, Ascher SB, Shlipak MG, Ix JH, Gupta R, Killeen A, Toto RD, Kitzman DW, **Ballantyne CM**, de Lemos JA. Effect of Intensive Blood Pressure Control on Troponin and Natriuretic Peptide Levels: Findings from SPRINT. *Circulation*; 2023 Jan 24; 147(4): 310-323.

Ontaneda AM, Coss-Bu JA, Kennedy C, **Akcan-Arikan A**, Fernandez E, Lasa JJ, Price JF, Shekerdemian LS. Post-operative dysnatremia is associated with adverse early outcomes after surgery for congenital heart disease. *Pediatr Res*; 2023 Jan 27; Online ahead of print.

Ansah D, Husain N, Ruh A, Berhane H, Smith A, Thompson A, De Freitas A, Rigsby CK, Robinson JD. Cardiac Magnetic Resonance Strain in Beta Thalassemia Major Correlates with Cardiac Iron Overload. *Children (Basel)*; 2023 Jan 31; 10(2): 271.

Rector G, Triska J, Ajene G, Wang A, Haddadin F, Jabri A, **Alam M**, Birnbaum Y. Right Bundle Branch and Bifascicular Blocks: Insensitive Prognostic Indicators for Acute Myocardial Infarction. *Curr Probl Cardiol*; 2023 Jan; 48(1): 101418.

Qasim A, Pham TD, Kim JJ, Valdes SO, Howard T, Diaz MA, **Morris SA**, **Miyake CY**. Corrigendum. *J Cardiovasc Electrophysiol*; 2023 Jan; 34(1): 249-250.

Savorgnan F, Moreira A, Moreira A, **Annapragada A**, **Sexson Tejtrel SK**, Flores S, **Rusin CG**, **Shekerdemian L**, Acosta S. Physiologic profile associated with severe multisystem inflammatory syndrome in children: a retrospective study. *Pediatr Res*; 2023 Jan; 93(1): 102-109.

Keefe JA, **Moore OM**, **Ho KS**, **Wehrens XHT**. Role of Ca²⁺ in healthy and pathologic cardiac function: from normal excitation-contraction coupling to mutations that cause inherited arrhythmia. *Arch Toxicol*; 2023 Jan; 97(1): 73-92.

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Varughese MG, Deshotels MR, **Zhang L, Ballantyne CM**. Severe hypercholesterolemia in a patient with very low albumin and normal renal function. *J Clin Lipidol*; 2023 Jan-Feb; 17(1): 64-67.

Howard TS, Chiang DY, Ceresnak SR, Ladouceur VB, Whitehill RD, Czosek RJ, Knilans TK, Ahnfeldt AM, Borresen ML, Jaeggi E, Udupa S, Gow R, Moore JP, Galloti RRG, Mah DY, Kim JJ, Valdes SO, **Milewicz DM, Miyake CY**. Atrial Standstill in the Pediatric Population: A Multi-Institution Collaboration. *JACC Clin Electrophysiol*; 2023 Jan; 9(1): 57-69.

February 2023

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Wattenbarger LE, Kim JJ, Melicoff E, Miyake CY, Valdes SO, Pham TD, Adachi I, Heinle JS, Howard TS. Atrial Tachyarrhythmias after lung transplantation in children: A common occurrence. *Pediatr Transplant*; 2023 Feb; 27(1): e14410

Krittanawong C, Rodriguez M, Lui M, Misra A, Tang WHW, **Bozkurt B**, Yancy CW. Misconceptions and Facts about Heart Failure with Reduced Ejection Fraction. *Am J Med*; 2023 Feb; 3: S0002-9343(23)00059.

Jia X, Al Rifai M, **Hoogeveen R**, Echouffo-Tcheugui JB, Shah AM, Ndumele CE, **Virani SS, Bozkurt B**, Selvin E, **Ballantyne CM, Nambi V**. Association of Long-term Change in N-Terminal Pro-B-Type Natriuretic Peptide With Incident Heart Failure and Death. *JAMA Cardiol*; 2023 Feb 8; 8(3): 222-30.

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