



Charleston HFpEF Conference

The Latest Knowledge on Heart Failure with preserved Ejection Fraction

AUGUST 19-21, 2022

FRANCIS MARION HOTEL

CHARLESTON, SC

For More Information:

Visit www.musc.edu/cme, Call the Office of CME,
843-876-1925 or email cmeoffice@muscedu



College of Medicine



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COURSE FACULTY

CONFERENCE DIRECTORS

Sheldon Litwin, M.D., FACC, FAHA, FASE, FSCCT

Alicia Spaulding-Paolozzi endowed chair
South Carolina Center of Economic Excellence
Professor of Medicine, Cardiology and Radiology
Director of Echocardiography
Medical University of South Carolina
Associate Editor, Journal of the American Society of Echocardiography

CONFERENCE CO-DIRECTORS

Ryan J. Tedford, M.D., FACC, FAHA, FHFSA

Dr. Peter C. Gazes Endowed Chair in Heart Failure
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Medical Director, Cardiac Transplantation
Director, Advanced Heart Failure & Transplant Fellowship
Training Program

Michael R. Zile, M.D.

Charles Ezra Daniel Professor of Medicine
Medical University of South Carolina
Chief, Division of Cardiology
RHJ Veterans Affairs Medical Center

GUEST FACULTY

Barry A. Borlaug, M.D.

Director, Circulatory Failure Research
Professor of Medicine
Consultant, Department of Cardiovascular Medicine
Mayo Clinic, Rochester, MN

Bykern Bozkurt, M.D., PhD, FHFSA, FACC, FAHA, FACP

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Associate Provost of Faculty Affairs,
Senior Associate Dean of Faculty Development
Director, Winters Center for Heart Failure Research
Assoc. Director, Cardiovascular Research Institute
Vice-Chair of Medicine, Baylor College of Medicine, Houston, TX

Marat Fudim, M.D., M.H.S.

Assistant Professor of Medicine
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Duke University, Durham, NC

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Professor, Cardiovascular Medicine and Geriatrics
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Markus Meyer, M.D.

Associate Professor of Medicine
Cardiovascular Division
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Alanna Morris M.D., MSc, FHFSA, FACC, FAHA

Associate Professor of Medicine, Division of Cardiology
Director of Heart Failure Research
Emory University Clinical Cardiovascular Research Institute, Atlanta, GA

Sanjiv Shah, M.D.

Director, Institute for Augmented Intelligence in Medicine
Center for Deep Phenotyping and Precision Therapeutics
Neil J. Stone, MD, Professor of Medicine, Division of Cardiology
Feinberg School of Medicine, Northwestern University, Evanston, IL

Scott D. Solomon, M.D.

The Edward D. Frohlich Distinguished Chair
Professor of Medicine, Harvard Medical School
Senior Physician, Director, Clinical Trials Outcomes Center
Brigham and Women's Hospital, Boston, MA

Amanda R. Vest, MBBS, MPH

Medical Director, Cardiac Transplantation Program, Division of Cardiology
Tufts Medical Center
Assistant Professor of Medicine
Tufts University School of Medicine, Boston, MA

MUSC FACULTY

Rahul G Argula MBBS, MPH

Associate Professor of Medicine
Director, Pulmonary Vascular Disease Program,
Medical Director, Adult and Pediatric Respiratory therapy Services

Brian Houston, M.D.

Associate Professor of Medicine, Division of Cardiology
Medical Director, Mechanical Circulatory Support

Daniel Judge, M.D.

Professor of Medicine, Division of Cardiology
Director, Cardiovascular Genetics
Director, Adult Cardiology Fellowship Program

David Koch, M.D., MSCR

Professor of Medicine, Division of Gastroenterology & Hepatology

Zipporah Krishnasami, M.D.

Professor of Medicine, Division of Nephrology

Bhavadharini Ramu, M.D.

Associate Professor of Medicine, Division of Cardiology
Advanced Heart Failure & Cardiac Transplantation
Cardio-Oncology, Co-Medical Director, CVICU

Daniel Silverman, M.D.

Assistant Professor of Medicine, Division of Cardiology

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COURSE AGENDA

FRIDAY, AUGUST 19

- 12:00 p.m. Registration and Exhibit Hall Open
- 12:50 p.m. Join Live Stream Session/Welcome
Session Chair, Dr. Litwin
- 1:00 p.m. Update on Cardiac Amyloidosis: Continued Evolution of Diagnosis and Treatment
Daniel Judge, M.D.
- 1:35 p.m. New Approaches to Outpatient Monitoring of Hemodynamics in Heart Failure
Michael Zile, M.D.
- 2:10 p.m. The Spectrum of Pregnancy Associated Heart Failure: Is This a Form of HFpEF?
Bhavadharini Ramu, M.D.
- 2:45 p.m. Break/Exhibit Hall
Session Chair, Dr. Silverman
- 3:00 p.m. Update on Nonpharmacological Therapies for HFpEF: Atrial Shunt Devices and Greater Splanchnic Nerve Ablation, *Sanjiv Shah, M.D.*
- 3:35 p.m. Arterial Stiffness: Does it Contribute to HFpEF and How Do We Treat It
Jennifer E. Ho, M.D.
- 4:10 p.m. Pulmonary Vascular Adaptations in HFpEF: Pathophysiology and Treatment
Barry Borlaug, M.D.
- 4:45 p.m. Break/Exhibit Hall
Session Chair, Dr. Tedford
- 5:00 p.m. Heart Failure with Mildly Reduced and Normal Ejection Fraction: Are These Different Diseases and Should we Treat Them Differently?
Scott Solomon, M.D.
- 5:40 p.m. Heart Rate as a Treatment of HFpEF
Markus Meyer, M.D.
- 6:20 p.m. Cocktail Reception in Exhibit Hall
- 7:30 p.m. Conclude

SATURDAY, AUGUST 20

- 7:00 a.m. Registration/Exhibit Hall Open/Breakfast
- 7:50 a.m. Join Live Stream Session/Welcome
Session Chair, Dr. Zile
- 8:00 a.m. It's Not the Heart! Impact of Pulmonary Vascular Disease in the HFpEF Patient
Rahul G. Argula, MBBS
- 8:35 a.m. Lymphatic and Veins: The 2 Forgotten Vessels. The Future of HFpEF Therapeutics?
Marat Fudim, M.D.
- 9:10 a.m. NAFLD and the Risk of HFpEF: The Liver-Heart Connection
David Koch, M.D., MSCR
- 9:45 a.m. Break/Exhibit Hall
Session Chair, Dr. Litwin
- 10:00 a.m. Guideline Recommendations for HFpEF
Biykem Bozkurt, M.D.
- 10:35 a.m. Preload Insufficiency: How Should it be Diagnosed and Treated?
Ryan Tedford, M.D.
- 11:10 a.m. Is There a Role for Inotropic Agents in HFpEF? A Novel Idea That May Not Be Crazy
Sheldon Litwin, M.D.
- 11:45 a.m. Adjourn for the day



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COURSE AGENDA

SUNDAY, AUGUST 21

- 7:00 a.m. Registration/Exhibit Hall Open/Breakfast
- 7:50 a.m. Join Live Stream Session/Welcome
Session Chair, Dr. Litwin
- 8:00 a.m. **Water from a Stone: Overcoming Diuretic Resistance in HFpEF**
Brian Houston, M.D.
- 8:35 a.m. **Role of Diet and Exercise in HFpEF: What's the Evidence?**
Dalane W. Kitzman, M.D.
- 9:10 a.m. **Social Determinants of Health Influence the Risk of HFpEF and Clinical Management**
Alanna Morris M.D.
- 9:45 a.m. Break/Exhibit Hall
Session Chair, Dr. Houston
- 10:00 a.m. **The Underappreciated Problem of Sarcopenia and Frailty in HFpEF: Can it be Treated?**
Amanda Vest, MBBD
- 10:35 a.m. **Chronic Kidney Disease and HFpEF: Treating AKI in Patients with Acute HF & Use of Dialysis for Volume Management in the Absence of ESRD**
Zipporah Krishnasami, M.D.
- 11:10 a.m. **SGLT2 Inhibitors in HFpEF: Sifting Through Murky Data**, *Daniel Silverman, M.D.*
- 11:45 a.m. Wrap-up (Dr. Litwin, Dr. Tedford, Dr. Zile)

HOTEL ACCOMMODATIONS

The Francis Marion Hotel
387 King Street
Charleston, SC 29403
(843) 722-0600

The Francis Marion Hotel, historic Charleston's landmark full service hotel, is in the heart of Charleston's historic district. Located at the newly restored Marion Square, the Francis Marion Hotel is only a few blocks from the Charleston Visitor Center, South Carolina Aquarium, restaurants, boutiques, galleries, museums, antique shops and night life. The hotel offers valet parking, spa, concierge, retail shops and the Swamp Fox Restaurant & Bar. Special group rates start at **\$239.00**, plus tax, per night. A limited number of guest rooms have been reserved and are being offered on a first come, first serve basis. The room block will be held until **July 11, 2022** however the room block may be filled prior to this date. In such a case, neither the group rate nor guest room availability can be guaranteed. Therefore, we recommend you make your reservation as soon as possible. Reservations can be made by calling the hotel directly at 843-722-0600 or 877-756-2121 and identifying yourself as being a participant in this meeting, or by following the online directions below.

Link for online reservations:

Booking Link: [HFpEF Booking Link at Francis Marion Hotel](#)
Online Booking Code: HEART22

Parking: Valet parking at the hotel is available at \$25.00 plus tax, per day and can be added to your guest folio. In addition, self-parking is available at \$20.00 per day (cash). Rates are subject to change with notice.



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CONFERENCE OBJECTIVES

At the completion of this conference, participants should be able to:

- Distinguish features of HFpEF that suggest underlying cardiac amyloidosis
- Discuss current and emerging therapies addressing the pathophysiology of amyloid
- Define hemodynamic causes symptoms/signs in acute decompensated heart failure (ADHF)
- Discuss Time course of changes in hemodynamics leading to ADHF
- Describe how to use remote monitoring to detect and predict ADHF
- Demonstrate how to use effective remote monitoring in CHF management to change outcomes, prevent ADHF
- Discuss the increasing recognition of heart failure with preserved ejection fraction in the peri-partum period
- Recognize risk factors for pregnancy associated HFpEF
- Identify the long-term cardiovascular risks for women with pregnancy associated HFpEF
- Summarize the data available to date on SGLT2 inhibitors in populations with heart failure and preserved ejection fraction
- Identify patients who might be most likely to benefit from SGLT2 inhibitors
- Appreciate the pathophysiological abnormalities in HFpEF that would likely improve with classical inotropic agents
- Identify patients with HFpEF who are potential candidates for therapy with inotropic agents
- Prescribe inotropic agents to overcome diuretic resistance or refractory volume overload in patients with advanced HFpEF
- Discuss the pathophysiology of pulmonary vascular disease in HFpEF
- Describe the prognostic implications of pulmonary vascular disease in HFpEF
- Discuss potential treatments for pulmonary vascular disease in HFpEF
- Describe the phenotypic differences between patients with heart failure and mildly reduced or normal ejection fraction
- Describe the strategy for excluding patients with specific diseases that may benefit from targeted therapies
- Describe the potential pathophysiologic differences between these groups of patients
- Review the pathophysiology and epidemiology of pulmonary vascular disease associated with lung diseases
- Discuss the contribution of pulmonary vascular disease to the morbidity associated with HFpEF
- Review the evaluation of pulmonary disease in the HFpEF patient
- Describe the management of pulmonary diseases in the HFpEF patient
- Appreciate the contribution of the lymphatic system to the pathology of heart failure
- Apply the dynamics of lymph production and drainage to the clinical care of heart failure patients
- Recognize clinical significance of NAFLD
- Identify shared risk factors between NAFLD and HFpEF
- Identify individuals who may need evaluation for NAFLD and / or HFpEF
- Identify new universal definition of heart failure
- Recognize differences in new stages of heart failure
- Recognize trajectories of heart failure
- Identify arterial stiffness as an important contributor to HFpEF pathophysiology
- Discuss current therapeutic approaches to arterial stiffness in HFpEF
- Describe sex differences in arterial stiffness as it relates to HFpEF
- Define the clinical difficulty presented by diuretic resistance in HFpEF
- Delineate proposed pathophysiologic pathways causal in diuretic resistance
- Review the literature and evidence for proposed therapies to combat diuretic resistance in HFpEF
- Discuss the rationale for use of exercise training and dietary weight loss in the treatment of HFpEF
- Become proficient in data supporting diet and exercise in HFpEF for improving key patient-oriented outcomes
- Enhance insight into mechanisms of improvements in outcomes with diet and exercise in HFPEF
- Identify the differential impact of cardiovascular risk factors on risk for HFPEF among various demographic subgroups
- Identify the impact of social determinants of health on traditional cardiovascular risk factors
- Develop a patient-centered approach to cardiovascular risk factor reduction that takes social determinants of health into account
- Recall the epidemiology of body composition abnormalities among patients with HFpEF
- Describe the relationships between sarcopenia, functional capacity and survival for patients with HFpEF
- Articulate the benefits of exercise training and cardiac rehabilitation for patients with HFpEF

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College of Medicine

TARGET AUDIENCE

This course is intended for cardiovascular specialists, heart failure specialists, practicing cardiologists, cardiovascular advanced practice providers (NP or PA), internists, family physicians, pharmacist, cardiovascular nurses, critical care nurses, and industry representatives.

KNOWLEDGE GAPS

There are now more patients who have Heart Failure with preserved Ejection Fraction (HFpEF) than those with reduced Ejection Fraction (HFrEF). Making the diagnosis of HFpEF is more challenging than HFrEF as many commonly used screening tools such as physical examination, echocardiography and measurement of natriuretic peptide levels are less sensitive and specific in this population. Most importantly, no therapies have yet been shown to improve major cardiovascular outcome (i.e. reductions in hospitalization rates or lower mortality). Several ongoing studies are evaluating novel treatments for this disorder.

Physician Credit Statement

The Medical University of South Carolina designates this live activity for a maximum of 12.0 *AMA PRA Category 1 Credit(s)*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Other Credit Statements

Nurses: Most states accept CMEs that apply to a specific nursing specialty as nursing continuing education. Please check with your respective State Board of Nursing to ascertain the equivalent number of contact hours offered for 12.0 *AMA PRA Category 1 Credit(s)*[™].

PAs: AAPA accepts certificates of participation for educational activities certified for *AMA PRA Category 1 Credit(s)*[™] and Prescribed credit from AAFP from organizations accredited by ACCME or a recognized state medical society. The MUSC Office of CME provides certificates to PAs with a statement, approved by AAPA, that PAs may receive a maximum of 12.0 AAPA Category 1 Credits for this conference.



Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 12.0 MOC points in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program. Participants will earn MOC points equivalent to the amount of CME credits claimed for the activity. It is the CME activity provider's responsibility to submit participants completion information to ACCME for the purpose of granting ABIM MOC credit.

ACCREDITATION

The Medical University of South Carolina is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

DISCLOSURE

In accordance with the ACCME Standards for Integrity and Independence in Accredited Continuing Education anyone involved in planning or presenting this educational activity will be required to disclose any financial relationships with any ineligible companies. An ineligible company is any entity whose primary business is producing, marketing, selling, reselling, or distributing healthcare products used by or on patients. Any financial relationships with these ineligible companies have been mitigated by the MUSC Office of CME. Speakers who incorporate information about off-label or investigational use of drugs or devices will be asked to disclose that information at the beginning of their presentation.

AMERICANS WITH DISABILITIES ACT

It is the policy of the Medical University of South Carolina not to discriminate against any person on the basis of disabilities. If you feel you need services or the auxiliary aids mentioned in this act in order to fully participate in this continuing medical education activity, please call the Office of CME at 843-876-1925.

ELECTRONIC SYLLABUS

The syllabus will be provided online. Information will be emailed to you the week of the conference so that you may download/print a copy.

ENDORSEMENT



Officially endorsed by the Heart Failure Society of America. The opinions presented in this educational activity do not necessarily reflect the opinions or recommendations of the HFSA.

*Offering
In-person & Virtual Registrations*

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ACCESS TO RECORDED PRESENTATIONS

The MUSC Office of CME, with the permission of each speaker, will be recording each presentation of the conference. The videos will be posted online after the conference and be available for those who are not able to live stream the entire conference. Viewing the videos will offer the same amount of CME credit and can be viewed for up to 14 days following the posting date. The non-refundable fee for this service is \$100.00 and is only available to individuals registered for the conference. Access to the videos will be granted to attendees who purchase this option in advance of the conference.

Credit Designation: The Medical University of South Carolina designates this enduring material for a maximum of 0.5 *AMA PRA Category 1 Credit(s)*TM for each video. Physicians should only claim the credit commensurate with the extent of their participation in the activity.

REGISTRATION INFORMATION

	Early Bird (on/before 4/30/2022)	Regular (after 5/1/2022)
Practicing Physicians (Virtual or in-person)	\$350	\$400
NP, PA, RPh, Resident, Retired, Other (Virtual or in-person)	\$250	\$300
MUSC Employee* (Virtual or in-person)	\$250	\$250

*MUSC Division of Cardiology faculty and staff should call the Office of CME at 843-876-1925 to register.

The fee for in-person attendance includes tuition, breaks, online syllabus, and certificates of attendance. The fee for live streaming the meeting includes tuition, online syllabus, and certificates of attendance.

Pre-registrations will be accepted until August 5, 2022 or until the conference capacity is reached. After this date, you must contact the MUSC Office of CME (cmeoffice@musc.edu or 843-876-1925) to see if space is still available.

REGISTRATION METHODS:

Please use ONE of these methods to register.

1. Mail registration form with check* or credit card information to:

MUSC Office of CME
96 Jonathan Lucas Street
HE221A, MSC 754
Charleston, SC 29425

*Checks should be made out to "Medical University of South Carolina"

2. Email/Scan completed registration form to cmeoffice@musc.edu
3. Complete registration through the [Online Registration Portal](#)

CANCELLATION

A refund will be made upon written request prior to July 19, 2022 less a \$100 cancellation fee. After July 19, 2022 no refunds will be made. We reserve the right to cancel the program if necessary. Full registration fees will be refunded for cancelled programs.

By registering for this conference, you acknowledge and agree to this cancellation policy

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August 19-21, 2022



College of Medicine

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Name _____ Personal ID# XXX - XX - _____
(As you would like it printed on your name badge) (Last four digits of your SSN)

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Specialty _____ Degree/Credentials _____

Email _____ Phone (_____) _____ - _____
(Please provide your active email address to ensure proper receipt of all CME Credit documentation.)

PLEASE READ THE STATEMENTS BELOW AND CHECK THE BOX IF YOU AGREE.

- ☐ YES I give permission to the MUSC Office of CME to share my name, city, and state with other attendees and the companies that will be exhibiting at and/or supporting the conference through educational grants.
- ☐ NO I **do not** give permission to the MUSC Office of CME to share my name, city, and state with other attendees and the companies that will be exhibiting at and/or supporting the conference through educational grants.

PLEASE SELECT THE APPROPRIATE RATE(S)

Practicing Physicians
NP, PA, RPh, Resident, Retired, Other
MUSC Employee*

Early Bird (On/Before 4/30/2022)

- ☐ \$350
☐ \$250
☐ \$250

Regular (After 5/1/2022)

- ☐ \$400
☐ \$300
☐ \$250

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PLEASE SELECT THE REGISTRATION TYPE

☐ In-Person Registration

☐ Virtual Registration

ACCESS TO RECORDED PRESENTATIONS**

Yes, I would like access to the recorded videos for an additional fee
No, I do not want access to the recorded videos for an additional fee

- ☐ \$100
☐ N/A

- ☐ \$100
☐ N/A

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CONFERENCE REGISTRATION MAY BE CHARGED TO:

- ☐ Enclosed Check Payable to MUSC ☐ MasterCard ☐ Visa ☐ Discover ☐ American Express

Card Number

Expiration Date

Name as it appears on card

CVV Security Code

Authorized amount to be charged

REGISTRATION METHODS (Please use ONE of these methods to register. Do not mail if previously faxed or telephoned).

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