

Sherrie Khadanga MD

CURRICULUM VITAE

Position: Assistant Professor of Medicine
Department of Medicine, Division of Cardiology
Director, Cardiac Rehabilitation

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EDUCATION

Year	Institution	Degree	Area of Degree
2016-2019	University of Vermont Medical Center	Fellowship	Cardiovascular Disease
2013-2016	University of Vermont Medical Center	Residency	Internal Medicine
2009-2013	University of South Alabama College of Medicine	M.D.	Medicine
2005-2009	Brown University	Sc.B. A.B.	Human Biology (Honors), History

LICENSES, CERTIFICATION

Year	Institution
2016	Medical Licensure, Vermont
2016	American Board of Internal Medicine, Certified
2024	American Board of Internal Medicine Cardiovascular Disease, Certified

FACULTY POSITIONS HELD

Year	Institution	Academic Title	Department
2019-Present	University of Vermont Medical Center	Assistant Professor	Internal Medicine

OTHER POSITIONS AND MAJOR ADMINISTRATIVE POSITIONS HELD

Year	Location/Program	Role
2017-2019	American College of Cardiology	Fellows in Training, Northern New England Chapter Representative
2017-2018	University of Vermont Cardiovascular Research Institute Advisory Early Career Committee	Vice Chair
2018-2020	University of Vermont Cardiovascular Research Institute Advisory Early Career Committee	Chair
2019-2022	UVMMC Cardiac Rehabilitation	Assistant Director
2023-Present	UVMMM Cardiac Rehabilitation	Director
2023-Present	American Association of Cardiovascular and Pulmonary Rehabilitation Annual Meeting Program Committee	Chair, Cardiac Rehabilitation Track

HONORS AND AWARDS

Year	Name of Award/Recognition
2015	American College of Physicians Vermont Chapter Research Abstract Winner
2014, 2016	Arnold P. Gold Humanism & Excellence in Teaching Award Nominee
2016- Present	University of Vermont Teaching Academy Protégé
2016	University of Vermont Harriet P. Dustan M.D. Resident Research Award
2018-2020	University of Vermont Cardiovascular Research Institute Travel Award
2019	American College of Cardiology Big Sky Teaching Tomorrow's Teachers (3T)
2019	Cardiac Rehab. Award, UVMMC Division of Cardiology
2019	American Association of Cardiovascular and Pulmonary Rehabilitation Beginning Investigator Award
2020	American College of Cardiology Leadership Academy
2020	UVM Cardiovascular Research Institute Early Career Grant Award Recipient
2022	Department of Medicine Nominee, 2022 Larner College of Medicine "Rising Star" Award
2022	Inaugural Department of Medicine Wohlgemuth Cardiology Research Fellowship
2023	Gender in Equity "Rising Star" Award, Larner College of Medicine
2023	Dean's Excellence in Research New Investigator Award, Larner College of Medicine

KEYWORDS/AREAS OF INTEREST

Cardiac rehabilitation, secondary prevention, women's cardiovascular health, structural imaging, heart failure with reduced ejection fraction.

SUMMARY OF PROFESSIONAL ACTIVITIES- OVERALL

As a physician scientist, I serve as an academic cardiologist with a focus on cardiovascular imaging and prevention of cardiovascular disease. Currently, I am the Director of Cardiac Rehabilitation at the University of Vermont Medical Center with a research focus on women's cardiovascular health and secondary prevention. My professional effort is allocated as follows: 30% clinical, 10% teaching, and 60% research. Since joining as a faculty in July 2019, I have been productive both on the clinical and research side. I received the 2019 American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR) Beginning Investigator Award, 2023 UVM LCOM Dean's Excellence in Research New Investigator Award, and 2023 UVM LCOM Gender Equity Rising Star Award. Recently, I completed my role as Project Director on the VCBH COBRE for my project titled *Early Case Management on Recovery From a Cardiac Event in Women*. Additionally, I submitted as an Early Career Principal Investigator for an initial R01 grant titled *Optimizing Aerobic Fitness and Functional Response to Exercise in Older Adults*. It scored in the 14th percentile and will be funded later this year.

Research remains an omnipresent dimension in the Division of Cardiology at UVMC. As the academic prestige of a program is often judged by publications and grants, I strive to contribute to such; regarding my research, I have published 30+ peer-reviewed papers, 17 of which I was listed as the first-author. Additionally, in the last 5 years, I have received the American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR) Beginning Investigator Award (2019), the UVM Network Medical Group Research Award (2022), inaugural Department of Medicine Wohlgemuth Cardiovascular Research Fellowship (2022), UVM LCOM Dean's Excellence in Research New Investigator Award (2023), and UVM LCOM Gender Equity Rising Star Award (2023). Through the support of the UVM Cardiovascular Research Institute (CVRI), I have received 3 travel awards to present my work at multiple national meetings as both poster and oral presentations, including American Heart Association Annual Meeting (2019, 2022, 2023), AACVPR Annual Meeting (2019-2023), and AHA Epidemiology & Lifestyle Annual Meeting (2020).

As a clinician scientist on the tenure pathway, my clinical and research interest focuses on women's cardiovascular health, particularly the use of cardiac rehabilitation (CR). I believe that CR provides a multi-disciplinary approach to improve one's recovery from a cardiovascular event and quality of life. As Director of the CR program, I work with exercise physiologists, nursing staff, and mid-level providers to deliver high quality care to our patients in the community. Despite the benefits of CR, it is underutilized in women and for those who do participate, women do not improve as much compared to men. Given this, I recently conducted a randomized controlled trial which examined ways to optimize training response in women participating in CR. This work was published in *JAMA Cardiology* in 2022 and I believe it will change the way we train women participating in Cardiac Rehab. Most recently, my research group presented our work as a late breaking clinical trial at the American College of Cardiology annual meeting for our project titled, *Improving Cardiac Rehabilitation Adherence in Patients with Lower Socioeconomic Status: A Randomized Controlled Trial*.

I believe that my area of interest will contribute to the field and that I will be able to draw strength by working with collaborators from various disciplines such as behavioral sciences, psychiatry, and public health. As former Chair of the Early Career Advisory Committee in the Cardiovascular Research Institute, I have had the opportunity to engage and work with colleagues in different fields outside of clinical medicine and feel that the dialogue has led me to new ideas and opportunities to explore. From the clinical side, my outpatient clinic is devoted to prevention of cardiac disease in women and congestive heart failure. This has led me to help organize and create a Vermont Chapter of American College of Cardiology Women in Cardiology (WIC) which promotes discussion and advocacy for women's cardiovascular care but also engages providers and trainees interested in gender equity both on a professional and clinical level. At UVM, I have been fortunate to train in a program that focuses on teaching/education and as a member of the UVM Teaching Academy, I have further developed my skill set to help train the next generation of clinicians.

SUMMARY OF ACCOMPLISHMENTS

- National recognition in the field of Cardiac Rehabilitation as evidenced by:
 - Vice Chair for AHA Scientific Guideline Statement, *Women in Cardiac Rehabilitation* (manuscript in progress)
 - Contributing author American Heart Association guideline statement, *Core Components of Cardiac Rehabilitation*
 - American Association of Cardiovascular and Pulmonary Rehabilitation Annual Meeting Program Committee Chair of Cardiac Rehabilitation (2023-2025)
 - Invited speaker for 5 regional and 14 national conferences/meetings including the American Heart Association Annual Meeting (2023) and American Association of Cardiovascular and Pulmonary Rehabilitation Annual Meeting (2019-2023)
 - Invited Guest Editor, *Women's Health Journal 2023*
- Excellence in research as demonstrated by:
 - University of Vermont Department of Medicine Resident Research Award (2017)
 - American Association of Cardiovascular and Pulmonary Rehabilitation Beginning Investigator Award (2019)
 - UVM LCOM Dean's Excellence in Research New Investigator Award (2023)
- Leadership as evidenced by
 - Selection to the American College of Cardiology Leadership Academy (2020)
 - Vice Chair/Chair of the Early Career Advisory committee at the University of Vermont Cardiovascular Research Institute (2017-2020)
- Recognition for teaching as seen by my acceptance into The Teaching Academy at the University of Vermont (Member)
- Recipient of the 2022 Inaugural Department of Medicine Wohlgenuth Cardiology Research Fellowship
- Recipient of the 2022 UVM Health Network Research Grant
- 2023 UVM LCOM Gender Equity Rising Star Award.
- Received a score in the 14th % for an initial R01 grant titled *Optimizing Aerobic Fitness and Functional Response to Exercise in Older Adults*
- I have had 30+ published articles and 2 book chapters

PROFESSIONAL SERVICE**DEPARTMENTAL SERVICE**

Years	Department	Committee	Role
2017-2019	Department of Medicine	Graduate Medical Education Resident/Fellow Program Representatives	Member
2019-Present	Department of Medicine	Cardiovascular Fellowship Selection Committee	Member
2019-Present	Department of Medicine	Division of Cardiology Faculty Search Committee	Member
2021-Present	Department of Medicine	Early Career Research committee	Member
2022-Present	Department of Medicine	Internal Medicine Residency Selection Committee	Member
2023-Present	Department of Medicine	Cardiovascular Fellowship Advancement Committee	Member
2024-Present	Department of Medicine	Diversity, Equity and Inclusion Committee	Member

COLLEGE SERVICES

Years	Service Committee	Role
2017-2018	Early Career Advisory Committee, Cardiovascular Research Institute	Vice-Chair
2018-2020	Early Career Advisory Committee, Cardiovascular Research Institute	Chair
2023- Present	LCOM Gender and Equity Committee	Member
2024	UVM Graduate College	Member

MEDICAL CENTER SERVICE

Years	Service Committee	Role
2019- Present	UVM Health Network CHF committee	Member
2023- Present	UVMMC Cardiac Rehabilitation	Director

UNIVERSITY SERVICE

Years	Service Committee	Role
2024	UVM Graduate College	Member

GOVERNMENTSOCIETY MEMBERSHIPS

2008-Present Sigma Xi Scientific Research Society
 2009-2016 American College of Physicians
 2016-2019 American Society of Nuclear Cardiology
 2016-Present American College of Cardiology
 2017-Present American Association of Cardiovascular and Pulmonary
 Rehabilitation
 2017-Present American Heart Association

SERVICE TO PROFESSIONAL ORGANIZATIONS

Year	Organization	Role
2016 -2019	American College of Cardiology, Northern New England Chapter	Fellow in training representative
2018-2019	American Heart Association Fellows in Training/Early Career Section	Blog contributor
2018-Present	American Association of Cardiovascular and Pulmonary Rehabilitation Research Committee	Member
2020-Present	American College of Cardiology Leadership Academy Cohort	Member
2021-Present	American Heart Association CLCD Exercise, Cardiac Rehabilitation, and Secondary Prevention Committee of the Council on Clinical Cardiology	Member
2021-2023	American Heart Association GPM & EPI Molecular Determinants of Cardiovascular Health Committee of the Council on Genomic and Precision Medicine	Member
2022-Present	American College of Cardiology Prevention of Cardiovascular Disease Section Leadership Council	Member
2022-Present	American College of Cardiology Annual Meeting Abstract Committee	Reviewer
2022-Present	American Heart Association Annual Meeting Abstract Committee	Reviewer
2023-Present	American Association of Cardiovascular and Pulmonary Rehabilitation Annual Meeting Program Committee	Chair, Cardiology Track

SERVICE TO PROFESSIONAL PUBLICATIONS

2017-2019	Coronary Artery Disease
2017-Present	Journal of Cardiopulmonary Rehabilitation and Prevention
2019-present	Journal of American College of Cardiology
2020-Present	American Journal of Cardiology
2022-Present	Preventive Medicine
2022-Present	American Heart Journal

PUBLIC SERVICE

2020	Local News Segment, WCAX Burlington VT, Physical Activity and Wellness during COVID-19
2020	<u>Keeping your Heart and Brain Healthy During COVID-19.</u> <i>American Heart Association Webinar.</i> April 21, 2020. Watch: Keep Your Heart and Brain Healthy During COVID-19 – American Heart Association – Eastern States
2020	Involved with VT Chapter “Go Red for Women”
2021	CVRI Vermont Town Hall: <u>How do you prevent a heart attack or stroke?</u>
2021	Expert contributor for Cardiology Today Article titled <u>Exercise protocol enhanced training response for women in cardiac rehabilitation (healio.com)</u>
2021	TAKEHeart Training Module: Module 7: Troubleshooting Your Automatic Referral System Agency for Healthcare Research and Quality (ahrq.gov)
2023	Expert contributor for VeryWell Health Article titled <u>Do You Really Need 10,000 Steps a Day for Your Health? (verywellhealth.com)</u>
2024	Keynote Speaker for American Heart Association Go Red VT

SUMMARY OF SERVICE ACTIVITIES

Nationally, for the past 5 years, I have been heavily involved in my society organizations, specifically the American College of Cardiology (ACC), American Heart Association (AHA), and the American Association of Cardiovascular Pulmonary Association (AACVPR).

I was selected to serve on the ACC Leadership Academy Cohort (2020-2024), a highly competitive process in which around 25 early career cardiologists are chosen to develop leadership skills and implement a project for the local community. Additionally, I was selected to serve as a member of the Prevention of Cardiovascular Disease Section Leadership Council. Similarly, I have been active with AHA, having served on 2 national committees and was an invited speaker for 2023 AHA Annual Meeting in Philadelphia to discuss women and cardiac rehabilitation. I also served as the 2024 Keynote Speaker for the VT American Association Go Red Chapter event. Given my expertise in cardiac rehabilitation, I was asked to serve as a

contributing author for the upcoming AHA guideline statement, *Core Components of Cardiac Rehabilitation: 2024 Update* (to be published in Fall 2024).

Additionally, I have been immensely involved with AACVPR, which is the premier academic society for cardiac rehabilitation. I have been an invited speaker at the annual conference over the past 5 years as well as served as a member of the research committee, reviewing research abstracts for oral and poster presentations, and selection of the Beginning Investigator Award for the annual meeting. Recently, I was asked to join the Annual Meeting Planning Committee and will serve as Chair of the Cardiology track. At the 2024 AACVPR Annual meeting in September, I will be an invited speaker for 2 didactic sessions as well as lead a pre-meeting workshop focusing on rehabilitation in older adults.

Locally, I have been actively involved in the Cardiovascular Research Institute Early Career Advisory Committee (CVRI ECAC), serving as Vice Chair for one year and moving on to be the Chair for a 2 year term; responsibilities included leading a monthly meeting for our committee where we organize and plan various events (journal club, scholars tea, science jam, networking events). I also regularly attended CVRI monthly board meetings. One of the biggest accomplishments from my term as Vice Chair and Chair was the development of Early Career Research Grants which provides funding for early career investigators to help finish small projects or help launch pilot studies. Another achievement was the Early Career Research Symposium where we highlight cardiovascular research of early career investigators throughout UVM.

TEACHING

FORMAL SCHEDULED CLASSES

Year	Course Title	Course R/E	Hours	Number of Learners	Learner Level
2016-2019	Valvular Heart Disease	R	5	15	Graduate
2016-Present	Point of Care Ultrasound	E	5	12	Graduate
2019-Present	Residents and Students as Teachers	E	4	10	Graduate

R-required, E-elective; hours-approximately per semester (instruction per Teaching Academy)

WORKSHOPS

- CVRI Early Career Advisory Grant Review Bootcamp (2018—2021)
- 2020 AACVPR Annual Meeting Pre-Meeting Workshop *Cardiac Rehabilitation in Special Populations*
- 2024 AACVPR Annual Meeting Pre-Meeting Workshop *Cardiac Rehabilitation in Older Adults*

CURRICULUM DEVELOPMENT

- I worked with the Cardiovascular Fellowship Program Director to develop a formal curriculum focused on Women's Cardiovascular health (launched in Spring 2021).

- Updated the curriculum regarding Preventative Cardiology (2 week required rotation for 3rd year fellows).

POSTGRADUATE AND OTHER COURSES

Year	Course Title	Course R/E	Hours	Number of Learners	Learner Level
2019	Valvular Heart Disease-Case based	R	2	20	Residents (PGY 2,3)
2020-Present	Women and Heart Disease	R	1	20	Residents (PGY 2,3)
2019-Present	Stable Angina	R	1.5	20	Residents (PGY 2,3)
2020-Present	Spontaneous Coronary Artery Dissection	R	1	10	Fellows (PGY 4-6)
2020-Present	Perioperative Management	R	1	10	Fellows (PGY 4-6)
2020-Present	Structural Imaging	R	1	10	Fellows (PGY 4-6)
2020-Present	Cardio-Oncology	R	1	10	Fellows (PGY 4-6)
2020-Present	Stress Testing	R	1	20	Residents (PGY 2,3)
2021-Present	Cardiac Rehabilitation	R	2	10	Fellows (PGY 4-6)
2023-Present	Morning Report: Case based discussion	R	4	20	Residents (PGY 2,3)
2024	Hyperlipidemia	R	2	20	Residents (PGY 2,3)

PREDOCTORAL STUDENTS SUPERVISED OR MENTORED

Dates	Name	Student	Subject	Faculty Role	Current Position
2018-Present	Will Middleton	PhD	Cardiac Rehab research	Research Mentor	Graduate student
2021-Present	Aria Elahi	Medical Student	Cardiac Rehab research; LCOM summer research award	Research Advisor	Medical student
2021-Present	Blair Yant	N/A	Cardiac Rehab research	Research Advisor	Research Assistant
2022-Present	Bradley Ahair	Medical Student	LCOM summer research award, <i>NEU-HF trial</i>	Research Advisor	Medical Student
2024	Clara Wyman	Undergrad	Outpatient Clinic	Preceptor	Premed-Pre-Health Enhancement Program (PEP)

DISSERTATION/THESIS COMMITTEE MEMBERSHIP

- Chair of Dissertation Committee for William Middleton- Department of Psychology PhD program

POSTDOCTORAL FELLOWS AND RESIDENTS DIRECTLY SUPERVISED OR MENTORED

Dates	Name	Fellow/ Resident	Subject	Faculty Role	Current Position
2018-19	Daniel Silverman MD	F	Heart Failure Research	Research Advisor	Faculty-Advanced Heart Failure, Medical University of South Carolina
2018-23	Margaret Infeld MD	F	Heart Failure Research	Research Advisor	Faculty-Cardiac EP, Tufts Medical Center
2018-Present	Joshua Zimmer	F	Guidelines of Cardiac Imaging	Research Mentor	CV Fellow, UVM
2020-22	Alison Kim	R	Research- <i>Cardiac Rehabilitation in Young Population</i>	Research Mentor	CV Fellow, University of Virginia
2020	Andrew Wall	R	Outpatient Clinic	Preceptor	CV fellow
2021	Krina Patel	F	CV fellowship	Mentor	CV fellow
2022-23	Taneesha Beebe	R	Outpatient Clinic	Preceptor	Internal Medicine Resident
2022-Present	Taneesha Beebe	R	Research	Research Mentor	Chief Resident
2022-Present	Kelly McGuire	R	Outpatient Clinic	Preceptor	Internal Medicine Resident

INFORMAL TEACHING

- Moderate Journal Club for Cardiac Rehabilitation staff (once a month)
- Informal didactic lectures when on in-patient cardiology service (once a month)
- Help facilitate orientation for patients starting cardiac rehab (bi-monthly)

FACULTY MENTORED

- Kaitlyn Vennard DO, Assistant Professor of Medicine
- Sulamunn Coleman PhD, Research Assistant Professor
- Nicole Habel MD, Assistant Professor of Medicine (starting in Fall 2024)

OTHER FACULTY MENTORED

- Margaret Infeld MD, Assistant Professor of Medicine at Tufts Medical Center
- Daniel Silverman MD, Assistant Professor of Medicine at Medical University of SC

TEACHING AIDS

- I have authored a chapter titled “Cardiac Testing” in Guidelines for Cardiac Rehabilitation and Secondary Prevention Programs, 6th Edition; this is a manual of reference for health care providers involved in cardiac rehab programs
- I have authored a chapter titled “Valvular Heart Disease” in Critical Care Secrets, 7th Edition; this is a manual of reference for trainees or providers in intensive care unit

TEACHING AWARDS AND NOMINATIONS

- 2014, 2016 Arnold P. Gold Humanism & Excellence in Teaching Award Nominee

- 2019, Big Sky Teaching Tomorrow's Teachers (3T)
- 2020 American College of Cardiology Leadership Cohort IV

SUMMARY OF TEACHING ACTIVITIES

Teaching is a priority for me and I have the opportunity to interact with learners at various levels, specifically 3rd and 4th year medical students as well as residents and fellows. I work 3 months in the in-patient setting. When on service, I will do informal teaching throughout the day, discussing common topics like heart failure or reviewing imaging (EKGs, echo, etc) with our housestaff. Additionally, I have worked with the medical school to lead a simulation on valvular heart disease for 3rd year medical students. I also do didactic lectures for the internal medicine residency program. I work individually with the 3rd year cardiovascular fellows to teach them about preventative cardiology and cardiac rehab; this is a required rotation for all fellows in their last year of training.

Another important aspect has been to serve as a mentor for female residents who express an interest in cardiovascular medicine. Cardiology is a male dominated field and for many female trainees, there is hesitancy in pursuing a career in this field given the years of training, lifestyle, and call schedule. I hope to shed a different light and allow trainees to feel supported and overcome potential barriers they may encounter. To help with this, I serve as mentor to some of our female cardiology fellows and also created a curriculum to specifically focus on women's cardiovascular health for all of our cardiology fellows.

Mentorship record: Over the last 5 years as a junior faculty, I have mentored/co-mentored several trainees, specifically medical/PhD students and medical residents. In the past 2 years, I have been involved in the UVM medical student Summer Research Program which entails having a medical student work closely with me over the summer on a specific project. Additionally, 3 of my mentees (Alison Kim MD, Bradley Anair BS, and Blair Yant BS) were selected as finalists for the AACPVR Beginning Investigator Award and Blair Yant received honorable mention in 2023. Of the cardiovascular fellows I have worked with, 2 have gone on (Dan Silverman and Margaret Infeld) into academic medicine and 5 of the medical residents (Joshua Zimmer, Alison Kim, Andrew Wall, Taneesha Beebe, and Kelly McGuire) have gone into cardiovascular fellowship.

I also had the privilege to serve on the UVM graduate college and served as the Chair of Will Middleton's dissertation committee which was a unique and rewarding experience.

RESEARCH AND SCHOLARLY ACTIVITIES

RESEARCH AWARDS AND GRANTS

Ongoing Research Support

P20 GM103644	Higgins (PI)	08/1/18-07/31/23
Vermont Center on Behavior and Health	Khadanga (Project Director)	
R33HL143305	Gaalema (PI)	08/1/2018-7/31/23

Khadanga Co-I

UVM Health Network Research Grant	Khadanga (PI)	01/01/22-/01/01/24
UVM DOM Research Grant R01, NIA	Khadanga (PI) Khadanga (PI)	04/01/22-/04/01/24 TBD- Fall 2024

Completed Research Support

Early Career Research Award Khadanga (PI) 07/1/20-07/31/21
University of Vermont Cardiovascular Research Institute
This center focuses on cardiovascular disease and risk prevention.

NCT03473223 CSL Behring 03/21/18-06/01/22
AEGIS II study to evaluate the efficacy and safety of CSL112 on reducing the risk of major
adverse CV events
Role: Sub-I

NCT03988634 Novartis 06/27/19-03/21/22
PARAGLIDE HF: Assess the effect of sacubitril/valsartan (LCZ696) vs. valsartan on changes
in NT-proBNP and outcomes, safety and tolerability in patients with HFpEF
Role: Sub-I

NCT03037931 American Regent 01/31/17-06/01/22
HEART FID: Assess the efficacy of IV iron therapy in patients with HFrEF
Role: Sub-I

NCT03037931 Cardiovascular Research Foundation 09/01/16-03/01/22
TAVR UNLOAD: Determine efficacy of TAVR in patients with moderate aortic stenosis
Role: Sub-I

NCT03473223 CSL Behring 03/21/18-06/01/22
AEGIS II study to evaluate the efficacy and safety of CSL112 on reducing the risk of major
adverse CV events
Role: Sub-I

Selected Unfunded Grant Submissions**SCHOLARSHIP****Peer Reviewed Publications**

1. **Khadanga S**, Massey CV. Incidence of Vitamin D Insufficiency in Coastal South-Eastern US Patient Population with Cardiovascular Disease. *J Clin Med Res*. 2014;6(6):469-75. PMID: 25247022
2. **Khadanga S**, Raza S. Lyme Carditis and Complete Heart Block: An Unusual Case of a Young Student. *J Med Cases*. 2014;5(8):435-436. <http://dx.doi.org/10.14740/jmc1841w>.

3. **Khadanga S**, Solomon B, Dittus K. Hemophagocytic lymphohistiocytosis (HLH) associated with t-cell lymphomas: broadening our differential for fever of unknown origin. *North Am J Med Sci* 2014;6(9):484-486. PMID: 25317396
4. **Khadanga S**, Lakoski SG, Hart V, Sprague BL, Ba Y, Hampton JM, Higgins ST, Ades PA, Newcomb PA, Trentham-Dietz A. Partnership Status and Socioeconomic Factors in Relation to Health Behavior Changes after a Diagnosis of Ductal Carcinoma In Situ. *Cancer Epidemiol Biomarkers Prev*. 2016 Jan;25(1):76-82. Epub 2015 Nov 6 PMID: 26545402.
5. **Khadanga S**, Savage PD, Ades PA. Insulin Resistance and Diabetes Mellitus in Contemporary Cardiac Rehabilitation. *J Cardiopulm Rehabil Prev*. 2016;36(5):331-338. PMID: 27182762.
6. Infeld M, Nicolli C, **Khadanga S**, Vanburen P. Case Series of Congenital Left Ventricular Aneurysm Presenting with Ventricular Arrhythmias. *Heart Rhythm Case Reports*. 2020 Oct; 6(10): 715–719. Published online 2020 Jul 3. doi: 10.1016/j.hrcr.2020.06.026
7. Gaalema DE, Bolívar HA, **Khadanga S**, Priest JS, Higgins ST, Ades PA. Current smoking as a marker of a high-risk behavioral profile after myocardial infarction. *Prev Med*. 2020 Sep 8:106245. doi: 10.1016/j.ypmed.2020.106245.
8. Rengo JL, **Khadanga S**, Savage PD, Ades PA. Response to Exercise Training During Cardiac Rehabilitation Differs by Sex. *J Cardiopulm Rehabil Prev*. 2020 Sep;40(5):319-324.
9. **Khadanga S**, Savage P, Gaalema D, Ades P. Predictors of Cardiac Rehabilitation Participation: Opportunities to Increase Enrollment. *J Cardiopulm Rehabil Prev*. *J Cardiopulm Rehabil Prev*. 2021 Jan 25.
10. Gaalema DE, Yant B, **Khadanga S**, Savage P, Rengo J, Ades PA. Implementing Carbon Monoxide Monitoring to Objectively Measure Smoking Status in Cardiac Rehabilitation. *Health Psychology* (2021).
11. Gaalema DE, Savage PD, O'Neill S, et al. The Association of Patient Educational Attainment With Cardiac Rehabilitation Adherence and Health Outcomes. *J Cardiopulm Rehabil Prev*. 2022;42(4):227-234.
12. Middleton WA, Savage PD, **Khadanga S**, Rengo JL, Ades PA, Gaalema DE. Benchmarking Depressive Symptoms in Cardiac Rehabilitation. *J Cardiopulm Rehabil Prev*. 2022;42(3):163-171. doi:10.1097/HCR.0000000000000657
13. Laddu DR, Biggs E, Kaar J, **Khadanga S**, Alman R, Arena R. The impact of the COVID-19 pandemic on cardiovascular health behaviors and risk factors: A new troubling normal that may be here to stay [published online ahead of print, 2022 Dec 5]. *Prog Cardiovasc Dis*. 2022;S0033-0620(22)00138-4. doi:10.1016/j.pcad.2022.11.017
14. **Khadanga S**, Yant B, Savage PD, Rengo J, Gaalema DE. Objective measure of smoking status highlights disparities by sex. *Am Heart J Plus*. 2022;17:100171. doi:10.1016/j.ahjo.2022.100171
15. **Khadanga S**, Savage PD, Ades PA. High-Intensity Interval Training vs Moderate-Intensity Continuous Training for Women Receiving Cardiovascular Rehabilitation-Reply. *JAMA Cardiol*. 2022;7(8):876-877. doi:10.1001/jamacardio.2022.1482
16. Ades PA, **Khadanga S**, Savage PD, Gaalema DE. Enhancing participation in cardiac rehabilitation: Focus on underserved populations. *Prog Cardiovasc Dis*. 2022;70:102-110. doi:10.1016/j.pcad.2022.01.003

17. Gaalema DE, Yant B, **Khadanga S**, Savage PD, Rengo JL, Ades PA. Carbon monoxide monitoring to objectively measure smoking status in cardiac rehabilitation. *Health Psychol.* 2022;41(10):733-739.
 18. **Khadanga S**, Savage PD. What's the Alternative?: CONSIDERING THE PATIENT PERSPECTIVE OF ALTERNATIVE CARDIAC REHABILITATION PROGRAMMING. *J Cardiopulm Rehabil Prev.* 2023;43(2):81-82.
 19. Katz BR, **Khadanga S**, Middleton WA, et al. Self-Reported Executive Function in Hospitalized Cardiac Patients and Associations With Patient Characteristics and Cardiac Rehabilitation Attendance [published online ahead of print, 2023 Mar 2]. *J Cardiopulm Rehabil Prev.*
 20. Yant B, Kromer L, Savage PD, **Khadanga S**, Ades PA, Gaalema DE. Financial incentives and case management to improve cardiac rehabilitation participation among patients with lower socio-economic status: Rationale and protocol for a randomized controlled trial. *Contemp Clin Trials.* 2023;129:107174.
 21. **Khadanga S**, Savage PD, Ades PA, et al. Lower-Socioeconomic Status Patients Have Extremely High-Risk Factor Profiles on Entry to Cardiac Rehabilitation [published online ahead of print, 2023 Oct 11]. *J Cardiopulm Rehabil Prev.* 2023;10.1097/HCR.0000000000000826.
 22. Gaalema DE, **Khadanga S**, Pack QR. Clinical challenges facing patient participation in cardiac rehabilitation: cigarette smoking. *Expert Rev Cardiovasc Ther.* 2023;21(11):733-745.
 23. **Middleton WA**, Savage PD, Khadanga S, Rengo JL, Ades PA, Gaalema DE. Anxiety Predicts Worse Cardiorespiratory Fitness Outcomes in Cardiac Rehabilitation for Lower Socioeconomic Status Patients. *J Cardiopulm Rehabil Prev.* Published online February 2, 2024.
- *Gaalema D, **Khadanga S**, Savage P, Yant B, Katz B, DeSarna M, *Improving Cardiac Rehabilitation Adherence in Patients with Lower-Socioeconomic Status.* Accepted to JAMA Internal Medicine Pending Revisions

Review Articles (all Invited Reviews by the Editors)

1. **Khadanga S**, Ades PA. What Do We Tell Patients with Coronary Artery Disease about Marijuana Use? *Coronary Artery Disease.* 2018 Jan;29(1):1-3 PMID: 28984637
2. **Khadanga S**. Cardiac Shock Wave Therapy for Refractory Angina: Angiogenesis, Placebo Effects and Randomized Control Trials. *Coron Artery Dis.* 2018 Nov;29(7):587-588.
3. **Khadanga S**, Savage PD, Ades PA. Resistance Training for Older Adults in Cardiac Rehabilitation. *Clin Geriatr Med.* 2019 Nov;35(4):459-468. doi: 10.1016/j.cger.2019.07.005. Epub 2019 Jul 3.
4. **Khadanga S**, Gaalema DE, Savage P, Ades PA. Underutilization of Cardiac Rehabilitation in Women: BARRIERS AND SOLUTIONS. *J Cardiopulm Rehabil Prev.* 2021 Jul 1;41(4):207-213.
5. **Khadanga S**, Barrett K, Sheahan KH, Savage PD. Novel Therapeutics for Type 2 Diabetes, Obesity, and Heart Failure: A REVIEW AND PRACTICAL RECOMMENDATIONS FOR CARDIAC REHABILITATION. *J Cardiopulm Rehabil*

Prev. 2023;43(1):1-7.

6. **Khadanga S**, Beebe-Peat T. Optimal Medical Therapy for Stable Ischemic Heart Disease in 2024: Focus on Exercise and Cardiac Rehabilitation. *Med Clin North Am.* 2024;108(3):509-516. doi:10.1016/j.mcna.2023.11.005
7. **Khadanga S**, Savage P, Keteyian S, Yant B, Gaalema D, Ades P. Cardiac rehabilitation: the gateway for secondary prevention. *Heart.* Published online February 1, 2024. doi:10.1136/heartjnl-2023-323152

Books and Chapters

1. Khadanga S. Cardiac Testing. Guidelines for Cardiac Rehabilitation and Secondary Prevention Programs, 6th Edition. 2020.
2. Khadanga S. Valvular Heart Disease Critical Care Secrets, 7th Edition. 2024 (in press)

Other Scholarly Publications

Patents Issued or Pending

Other Creative Activities

Quality Improvement and Patient Safety Activities

SUMMARY OF SCHOLARLY ACTIVITIES

My area of interest pertains to women and cardiac rehabilitation (CR). While CR has been found to be beneficial and plays an instrumental role in preventing a recurrent cardiac event, it remains underutilized particularly among women and the reasons for this aren't clearly understood. Further, women who do participate in CR do not improve their fitness as well as men and this partly could be attributed to the way women train. My various publications sought to answer these questions and specifically to focus on women, a population that is often under-represented in cardiac research studies.

Since joining the faculty, I have published 30+ manuscripts, one of which was in a high impact journal. In 2024, I completed my role as Project Director for the VCBH COBRE to conduct a randomized controlled trial assessing the utility of case management in increasing CR participation in women. Currently, I am PI for 2 additional RCT with the support of intramural funding. Of my 4 RCTs, 2 are specifically a women-only study. Later in 2024, I will receive funding for my first R01 study.

Journal Impact Factor of my notable publications:

- JAMA Cardiology 30.2
- Progress in Cardiovascular Disease 11.3
- Journal of Cardiopulmonary Rehabilitation and Prevention 3.8
- Preventive Medicine 5.5
- Health Psychology 4.2
- Clinics in Geriatric Medicine 2.9
- Coronary Artery Disease 1.7

PRESENTATIONS

Oral Presentations

1. **Khadanga S**, Savage PA, Ades PA. Optimizing the Exercise Training Response in Women. *American Association of Cardiovascular and Pulmonary Rehabilitation Annual Meeting* September 21-24, 2019.
2. **Khadanga S**, Savage PA, Gaalema D, Ades PA. Patient Characteristics Predictive of Cardiac Rehabilitation Participation. *American Association of Cardiovascular and Pulmonary Rehabilitation Annual Meeting* September 21-24, 2019.
3. **Khadanga S**. A Clinical Case on Diet and Exercise. Big Sky Cardiovascular Update: Practical Applications in Clinical Cardiology. Feb 18-22, 2019.
4. **Khadanga S**, Correa de Sa D, Keating F. Interesting Clinical Cases. *Northern New England ACC Annual Meeting*, Oct 20, 2018.
5. **Khadanga S**, Hopkins W, Terrien E, Carey K. Management of Cardiogenic Shock due to Acute Muscle Rupture with Percutaneous Left Ventricular Assist Device. *Northern New England ACC Annual Meeting*, Nov 5, 2016.
6. **Khadanga S**, Dunbar E, Sobel H. Quality Improvement Research: What is the Impact of a Community Health Team on Diabetes Management in a Resident Clinic? *Society of General Medicine New England Regional Meeting*, Mar 11, 2016.
7. **Khadanga S**. Systemic Scleroderma: Renal, Cardiac and Pulmonary Manifestations. *ACP Vermont chapter meeting*, Oct 17, 2014.

Poster PresentationsScientific Abstracts

1. **Khadanga, S**, Savage, P, Yant, B, Anair, B, Ades, P, Gaalema, D. Medicaid patients in Cardiac Rehabilitation: Underrepresented, High Risk, High Need. Poster to be presented at the *American Heart Association's annual Scientific Sessions 2023*, Philadelphia, PA (November 2023).
2. **Khadanga, S**, Savage, P, Yant, B, Anair, B, Ades, P, Gaalema, D. Current smoking impedes recovery in cardiac rehabilitation. Poster to be presented at the *American Heart Association's annual Scientific Sessions 2023*, Philadelphia, PA (November 2023).
3. Elahi, A, Savage, P, **Yant, B**, Anair, B, Ades, P, Gaalema, D, Khadanga, S. *Current Smoking Impedes Recovery in Cardiac Rehabilitation*. VCBH Annual Meeting 2022.
4. **Yant, B**, Gaalema, DE, Savage, P, Ades, PA, Khadanga, S. Sex Differences in Expired Carbon Among Cardiac Rehabilitation Patients. *72nd annual conference of the American College of Cardiology* (March 2023).
5. Gaalema, DE, Yant, B, **Khadanga, S**. Effect of Smoking Status on Cardiorespiratory Fitness Improvement within Cardiac Rehabilitation. *9th Annual Asian Preventative Cardiology & Cardiac Rehabilitation Conference*, Hong Kong, China (November 2022).
6. Yant, B, **Khadanga, S**, Savage, PD, Rengo, J, Gaalema, DE. Objective Measure of Smoking Status Highlights Disparities by Sex. *2nd Annual meeting of the Vermont Center of Cardiovascular and Brain Health*, Burlington, VT (June 2022) .
7. Gaalema D, Mahoney K, Yant B, Savage P, Rengo J, **Khadanga S**, Ades P. Characteristics of Hospitalized Cardiac Patients Who Smoke. Vermont Center on Behavior and Health Annual Conference Oct 2 2021.
8. Katz, B, **Khadanga S**, Gaalema D. Differences in the Relation Between Smoking Status and Either Education or Executive Function. *9th Annual Meeting Vermont Center on Behavior and Health Annual Conference* Oct 2 2021.

9. **Khadanga S**, Silverman D, Plante T, Cubberly C, Steiner J. Urban Rural Disparities Amongst Heart Failure Patients with Reduced Ejection Fraction. *AHA Epi Lifestyle Annual Meeting*, March 2-6, 2020.
10. **Khadanga S**, Savage P, Ades P, Gaalema D. Expired Carbon Monoxide: A Novel Approach to Assess Smoking Status in Cardiac Rehabilitation. *American Heart Association Annual Meeting*, Nov 22-25, 2019.
11. **Khadanga S**, Savage P, Gaalema D, Ades PA. Predictors for Cardiac Rehabilitation Participation. *American Heart Association Annual Meeting*, Nov 22-25, 2019.
12. **Khadanga S**, Kikut J, Silveira P, Reaves S, Keating FK. Controlled Technique For Rb82 Injected Activity Reduction Planning Using List Mode Data Truncation On Digital Pet. *American Society of Nuclear Cardiology National Meeting*, Sept 5-9, 2018.
13. Rengo JL, Savage PD, **Khadanga S**, Ades PA. Improvements in Aerobic Capacity in Women with Cardiac Rehab Exercise Training. *AACVPR National Meeting*, Oct 4-7, 2017.
14. **Khadanga S**, Silverman D, Dauerman H, Keating F. Thrombolytic therapy for TAVR thrombus Resultant Severe Valve Gradient Causing Heart Failure. Northern New England ACC Annual Meeting, Nov 12, 2017.
15. **Khadanga S**, Kikut J, Reynolds S, Keating FK. Ratio of Myocardial Uptake to Blood Pool Activity in Dual-Time-Point 18F-FDG PET for the Diagnosis of Cardiac Sarcoidosis. *American Society of Nuclear Cardiology National Meeting*, Sept 15-18, 2017.
16. Savage PD, **Khadanga S**, Ades PA. Insulin Resistance and Diabetes Mellitus in Cardiac Rehabilitation. *AACVPR National Meeting*, Sept 9-12, 2015.

Clinical Abstracts:

1. Dunbar E, **Khadanga S**, Sobel H. Quality Improvement Research: What is the Impact of a Community Health Team on Diabetes Management in a Resident Clinic? *ACP National Meeting*, May 2016: *ACP Vermont chapter meeting*, Nov 5· 2015.
2. **Khadanga S**, Solomon B, Rehman H, Balla A, Lunde J. Hemophagocytic Lymphohistiocytosis: A Rebellion from the Body's Immune System. A. *Northern New England Clinical Oncology Society meeting*. Oct 23, 2015.
3. **Khadanga S**. Oozing all over: A Unique Case of Acquired Hemophilia A. *ACP National Meeting*, Apr 30-May 2, 2015.
4. **Khadanga S**, Monterosso J, Unger P. A case of acquired hemophilia A. *Northern New England Clinical Oncology Society meeting*. Oct 24, 2014.
5. Burgess L, **Khadanga S**. Transient ischemic heart attack as an initial presentation of adenocarcinoma of the lung. *ACP Vermont chapter meeting*, Oct 17, 2014.
6. **Khadanga S**. The Implications of Toxic Epidermal Necrolysis. *ACP Vermont/New Hampshire joint chapter meeting*, Oct 25, 2013.
7. **Khadanga S**, Menson K. An unusual case of bleeding: A case of Acquired Hemophilia A. *ACP Vermont/New Hampshire joint chapter meeting*, Oct 25, 2013.
8. Solomon B, **Khadanga S**, Arling T, Dittus, K., Ji Y, Lamba G.. Two Case Series of Hemophagocytic lymphohistiocytosis (HLH) associated with t-cell lymphomas. *ACP Vermont/New Hampshire joint chapter meeting*, Oct 25, 2013.

INVITED DIDACTIC PRESENTATIONS

Local

1. Khadanga S. Key Note Speaker. Know Your Numbers Like Your Dress Size. *VT Chapter AHA Go Red Annual Luncheon*. April 25, 2024.
2. Khadanga S. Novel Approach to Improving Recovery After a Heart Attack. *LCOM Mini-Medical School*. March 27, 2024.
3. Khadanga S. Congestive Heart Failure: Review of the 2022/2023 Guidelines. *2024 Hospitalist Medicine Conference*. Feb 7, 2024.
4. **Khadanga S**, Bernstein I, Cushman M, Mukaz D. How do you prevent a heart attack or stroke? *CVRI Vermont Town Hall*. February 16, 2021.
5. **Khadanga S**. 23rd Cancer and Cardiovascular Complications. *Annual Women's Health and Cancer Conference*. Webinar. October 2, 2020.

National

1. **Khadanga S**, Gaalema D. Case Management in Cardiac Rehabilitation: Supporting Underrepresented Populations. *American Association of Cardiovascular and Pulmonary Rehabilitation Annual Meeting* September 12-15, 2023.
2. **Khadanga S**. Foreman D. Getting Patients to Stand Before They Can Walk – When and How Resistance Exercise Training Should Take Priority. *American Association of Cardiovascular and Pulmonary Rehabilitation Annual Meeting* September 12-15, 2023.
3. **Khadanga S**. Strategies That Increase the Use of CR for Patients with Heart Failure. *American Association of Cardiovascular and Pulmonary Rehabilitation Annual Meeting* September 12-15, 2023.
4. **Khadanga S**. Moderator panelist-*Genomic and Precision Medicine and Epidemiology Mid-Career Research Award and Lecture*. Annual American Heart Association's Scientific Sessions (November 2022).
5. **Khadanga S**. *Optimizing Exercise Outcomes for Women in Cardiac Rehab*. 37th annual meeting of the American Association of Cardiovascular and Pulmonary Rehabilitation (September 2022).
6. **Khadanga S**. Moderator panelist-*Spontaneous Coronary Artery Dissection: Diagnosis, Prognosis, Treatment, and the Role of Cardiac Rehabilitation*. 37th annual meeting of the American Association of Cardiovascular and Pulmonary Rehabilitation (September 2022).
7. **Khadanga S**, Cushman M, Carney J. Keeping your Heart and Brain Healthy During COVID-19. *American Heart Association Webinar*. April 21, 2020
8. **Khadanga S**, Savage P, Felming T, Kil M, Martins K. AACVPR Pre-Meeting Workshop: New Patient Populations for Cardiac Rehabilitation Care. *AACVPR National Meeting* Sept 28-Oct 2, 2020.
9. **Khadanga S**, Savage P. Rapid Fire Presentation: Atrial Fibrillation and Exercise. *AACVPR National Meeting* Sept 17-20, 2019.
10. **Khadanga S**, Galeem D. Pack Q. Marijuana, Cigars, E-cigarettes and Alcohol. *AACVPR National Meeting* Sept 17-20, 2019.
11. **Khadanga S**. Women and Cardiovascular disease. *AACVPR National Meeting* Sept 12-15, 2018.

Medical Grand Rounds

1. Khadanga S. Congestive Heart Failure: Review of the 2022/2023 Guidelines. University of South Alabama College of Medicine, Department of Medicine Medical Grand Rounds. May 2, 2024.

2. Khadanga S. “Improving Participation and Outcomes for Women in Cardiac Rehabilitation. Mass General Hospital Women’s Heart Health Program Grand Rounds. October 2, 2023.
3. Khadanga S. “The Nuts and Bolts of Cardiac Stress Testing”. UVM Family Medicine Grand Rounds. December 12, 2022.

Professional Development

- 1) *Junior Faculty Bootcamp hosted by University of Massachusetts 6/5/20-6/8/20*
- 2) *Early Career Advisory Committee Grant Bootcamp hosted by UVM CVRI 1/15/20*
- 3) *Women in Cardiology Summer Series hosted by American College of Cardiology*
- 4) *Navigating the Paths to Promotion and Tenure at Academic Centers hosted by American College of Cardiology 9/22/20*
- 5) Conferences 2020-2023:
 - *American Heart Association Annual Meeting*
 - *American College of Cardiology Annual Meeting*
 - *American Association of Cardiovascular and Pulmonary Rehabilitation*
- 6) *American College of Cardiology Leadership Academy- quarterly seminars focused on leadership, management, and team-building.*