

THE LINDNER RESEARCH CENTER

#50

November 2024

The Women’s Heart Center continues to blaze a path of productivity in the areas of research, education, and innovation. Thank you to the faculty and staff who supported and attended our Third Annual Women’s Cardiovascular Symposium – it was another well attended and informative meeting with 225 physicians and healthcare professionals learning from world-renowned experts, including a keynote from Dr. Nanette Wagner at a spry 94 years of age! The robust WHC Registry now houses data on more than 3600 patients and is a rich resource for pilot and feasibility data. The CRT Biorepository has enrolled 73 patients in the first 6.5 months, and the new EMBARK Pilot trial went from protocol development to IRB approval in less than a month and from IRB approval to 70% enrollment in another month! This collaboration between the WHC and Lindner Research Center is a shining example of collaboration, communication, and a can-do spirit; and this EMBARK study is providing critical preliminary data to support another R01 grant submission in 2025.

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Speaking of grant submissions, the WHC/Lindner teams (and their UC collaborators) have also been blazing trails in that arena as well submitting an impressive seven grants this calendar year including the following: R03, R01, APRA-H, AHA Innovation, Harold Amos Faculty Development, UC Rhen, and ACC CTR grant submissions. Anyone who has received grant funding knows it is an iterative and time intensive process with setbacks and frustrations before the taste of sweet success, but it is an incredibly rewarding experience to be a part of innovative and pivotal research that improves the care we are able to provide to our patients. And we are hopeful for good news soon with our R03 resubmission! Continue reading and tune-in to the monthly Lindner Research Meeting for more exciting WHC study updates!

- Women’s Heart Center

Women’s Heart Center Trials

Trial/ Databases	PI	Status	Brief Description
Hypertensive Disorders of Pregnancy Funding: NIH	Quesada	Enrolling	Determine the extent to which measures of coronary microvascular dysfunction or biochemical stress are related to abnormalities in cardiac structure and function that persist in women with prior preeclampsia. Nonrandomized. Long term observational follow up.

Women's Heart Clinic Long-term Follow-up Registry	Quesada	Enrolling	To determine the predictors of adverse outcomes (mortality, myocardial infarction, subsequent revascularization, and angina class) in women with CVD.
HARP Sponsor: Sarah Ross Soter Center of the AHA Go Red for Women Research Network At NYU.	Quesada	Enrolling	This is a diagnostic observational study enrolling patients referred for a cardiac catheterization with a diagnosis of a MI. The study will employ standardized imaging protocols in patients with MINOCA to determine the prevalence and composition of disrupted plaque and the prevalence and location of myocardial abnormalities. Observational study - no randomization.
Midwest STEMI Consortium Funding: ACC	Henry	Multi-center Consortium (Minneapolis Heart, Christ Hospital, Iowa Heart, Prairie Heart Institute) database for STEMI patients.	Dr. Quesada has had 6 abstracts accepted by the AHA and 3 abstracts presented to ACC. MINOCA Project Multiple Gender Related Projects
DISCOVER INOCA Sponsor: Yale Cardiovascular Research Group	Quesada	Enrolling	The overall objective of this multi-center registry is to identify specific phenotypes of INOCA with both an anatomic evaluation (coronary angiography and intravascular imaging) and physiologic assessment with the Abbott Coroventis Coroflow Cardiovascular System, and to determine long-term outcomes. No investigational equipment or procedures. Non-randomized registry.
Empower CAD Sponsor: Shockwave Medical	Quesada	Enrolling	Equity in Modifying Plaque Of WomEn with UnderTreated Calcified Coronary Artery Disease (EMPOWER CAD) Observational Trial to generate real-world clinical evidence associated with Coronary IVL in a population of female subjects with calcified coronary artery disease referred for percutaneous coronary intervention (PCI) with coronary IVL and stenting Afer standard of care. Post market, prospective multi center single arm.
Micro 2 Sponsor: Genetesis, INC	Quesada	Enrolling	Trial to validate CardioFlux MCG's ability to diagnose myocardial ischemia caused by coronary microvascular dysfunction in patients with suspected ischemia and confirmed no obstructive coronary artery disease (suspected INOCA) by using diagnostic measures of coronary flow reserve (CFR) via invasive angiography as a reference standard for diagnosis. Prospective, multicenter, observational, single-arm.
EMBARK Pilot	Quesada	Enrolling	To study the effects of open label treatment with empagliflozin, an SGLT2i drug, on coronary and peripheral microvascular function in a small cohort with no obstructive coronary artery disease (ANOCA) patients with CMD

			diagnosed by coronary functional testing, the gold standard diagnostic method.
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Highlighted Trial

NEXUS Aortic Arch Clinical Study to Evaluate Safety and Effectiveness (TRIOMPHE)

Prospective, non-randomized, multi-center clinical investigation of the NEXUS™ Aortic Arch Stent Graft System (NEXUSTM) for the treatment of thoracic aortic lesions involving the aortic arch with a proximal landing zone, native or previously implanted surgical graft, in the ascending aorta and with a brachiocephalic trunk native landing zone.

PI: Geoffrey Answini & Mark Harding

Study Coordinator: Michael Weber

Major Inclusion Criteria: 1. Male and female age ≥ 18 . 2. Proximal/ascending native or previously implanted surgical graft landing zone of appropriate length 3. Proximal/ascending native or previously implanted surgical graft landing zone of appropriate diameter 4. Distal/descending native landing zone of appropriate length 5. Distal/descending native landing zone of appropriate diameter 6. Brachiocephalic trunk native landing zone of appropriate length 7. Brachiocephalic trunk native landing zone of appropriate diameter 8. Appropriate take off angle between the Brachiocephalic Artery and the Aortic Arch perpendicular.

Major Exclusion Criteria: 1. Acute dissection 5. Lesions that can be safely treated with TEVAR landing in zone 2 (with or w/o LSA vascularization) 3. Required emergent treatment, e.g., trauma, rupture 4. Acute vascular injury of the aorta due to trauma 5. Aortic rupture or unstable aneurysm 6. Received a previous stent or stent graft in the treated area (including planned landing area) 7. Required surgical or endovascular treatment of an infra-renal aneurysm at time of implantation.

October Publications

1. Benson TW, Pike MM, Spuzzillo A, Hicks SM, Ali S, Pham M, Mix DS, Brunner SI, Wadding-Lee C, Conrad KA, Russell HM, Jennings C, Coughlin TM, Aggarwal A, Lyden S, Mani K, Björck M, Wanhainen A, Bhandari R, Lipworth-Elliot L, Robinson-Cohen C, Caputo FJ, Shim S, **Quesada O**, Tourdot B, Edwards TL, Tranter M, Gardiner EE, Mackman N, Cameron SJ, Owens AP 3rd. Soluble glycoprotein VI predicts abdominal aortic aneurysm growth rate and is a novel therapeutic target. *Blood*. 2024 Oct 17;144(16):1663-1678. doi: 10.1182/blood.2023021655. PMID: 38900973.
2. **Hirata GM**, Rempakos A, Walker Boyd A, Alexandrou M, Mutlu D, Choi JW, Poommipanit P, Khatri JJ, Young L, Davies R, Gorgulu S, Jaffer FA, Chandwaney R, Jefferson B, Elbarouni B, Azzalini L, Kearney KE, Alaswad K, Basir MB, Krestyaninov O, Khelinskii D, Aygul N, Abi-Rafah N, ElGuindy A, Goktekin O,

Rangan BV, Mastrodemos OC, Al-Ogaili A, Sandoval Y, Burke MN, Brilakis ES, **Frizzell JD**. Chronic total occlusion percutaneous coronary intervention of anomalous coronary arteries: insights from the PROGRESS CTO registry. *Catheter Cardiovasc Interv*. 2024 Oct 4. doi: 10.1002/ccd.31248. Epub ahead of print. PMID: 39363798.

3. **Henry TD**, Widmer RJ. Letter by Henry and Widmer Regarding Article, "Visual Estimates of Coronary Slow Flow Are Not Associated With Invasive Wire-Based Diagnoses of Coronary Microvascular Dysfunction". *Circ Cardiovasc Interv*. 2024 Oct;17(10):e014588. doi: 10.1161/CIRCINTERVENTIONS.124.014588. Epub 2024 Sep 26. PMID: 39324265.
4. Génèreux P, Pellikka PA, Lindman BR, Pibarot P, **Garcia S**, Koulogiannis KP, Rodriguez E, Thourani VH, Dobbles M, Giustino G, Sharma RP, Cohen DJ, Schwartz A, Leon MB, Gillam LD. Acute Valve Syndrome in Aortic Stenosis. *Structural Heart*. 2024 Oct; doi.org/10.1016/j.shj.2024.100377.
5. Hassan A, Abdelshafy M, Adel Diab R, Wienemann H, **Garcia S**, Saad M, Mohammad A. REC: interventional cardiology (English Edition). 2024 Oct; doi: 10.24875/RECICE.M24000477.
6. Rinfret S, Henry GA, Khatri JJ, Mashayekhi K, Alaswad K, Azzalini L, Ybarra LF, Vijayaraghavan R, **Frizzell JD**, Avran A, McEntegart MB, Lombardi WL, Grantham JA, Brilakis E. Knuckle Guidewires to Create Dissections in Chronic Total Occlusion Percutaneous Coronary Intervention: Position Statement. *JACC Cardiovasc Interv*. 2024 Oct 28;17(20):2411-2424. doi: 10.1016/j.jcin.2024.09.066. PMID: 39477645.
7. **Frizzell JD**, Cilia L, Dawson KL, Wanamaker BL, Davies RE. Early-Career Interventionalists: Hope for the Future and Opportunity for Change. *J Am Coll Cardiol*. 2024 Oct 8;84(15):e239-e240. doi: 10.1016/j.jacc.2024.06.047. PMID: 39357948.
8. Hahn RT, Makkar R, Thourani VH, Makar M, Sharma RP, Haeffele C, Davidson CJ, Narang A, O'Neill B, Lee J, Yadav P, Zahr F, Chadderdon S, Eleid M, Pislaru S, Smith R, Szerlip M, Whisenant B, Sekaran NK, **Garcia S**, **Stewart-Dehner T**, Thiele H, Kipperman R, Koulogiannis K, Lim DS, Fowler D, Kapadia S, Harb SC, Grayburn PA, Sannino A, Mack MJ, Leon MB, Lurz P, Kodali SK; TRISCEND II Trial Investigators. Transcatheter Valve Replacement in Severe Tricuspid Regurgitation. *N Engl J Med*. 2024 Oct 30. doi: 10.1056/NEJMoa2401918. Epub ahead of print. PMID: 39475399.
9. Arnold SV, Hahn RT, Thourani VH, Makkar R, Makar M, Sharma RP, Haeffele C, Davidson CJ, Narang A, O'Neill B, Lee J, Yadav P, Zahr F, Chadderdon S, Eleid M, Pislaru S, Smith R, Szerlip M, Whisenant B, Sekaran N, **Garcia S**, **Stewart-Dehner T**, Grayburn PA, Sannino A, Snyder C, Zhang Y, Mack MJ, Leon MB, Lurz P, Kodali S, Cohen DJ; TRISCEND II Pivotal Trial Investigators. Quality of Life After Transcatheter Tricuspid Valve Replacement: 1-Year Results From TRISCEND II Pivotal Trial. *J Am Coll Cardiol*. 2024 Oct 22:S0735-1097(24)09954-6. doi: 10.1016/j.jacc.2024.10.067. Epub ahead of print. PMID: 39480380.
10. Tamis-Holland J, Abbott D, Al-Azizi K, Barman N, Bortnick A, Cohen M, Dehghani P, **Henry TD**, Latif F, Madjid M, Yong C, Sandoval Y. SCAI Expert Consensus Statement on the Management of Patients With STEMI Referred for Primary PCI. *JSCAI*. 2024 Oct 7:102294. doi.org/10.1016/j.jscai.2024.102294. In Press.
11. **Tapp DN**, **Ashokprabhu N**, **Hamstra MS**, **Losekamp M**, **Schmidt C**, **Palmer C**, **Gallatin J**, **Tierney D**, **Henry TD**, **Quesada O**. Developing a Women's Heart Center with a Specialization in Coronary Microvascular and Vasomotor Dysfunction (CMVD): If You Build It, They Will Come. 2024. *Catheter Cardiovasc Interv*. 2024 Nov 6. doi: 10.1002/ccd.31281. Epub ahead of print. PMID: 39506505

12. **Quesada O, Ashokprabhu N, Tapp D, Hamstra MS, Losekamp M, Schmidt C, Palmer C, Gallatin J, Tierney D, Henry TD.** Utilizing Invasive Coronary Functional Testing in a Coronary Microvascular and Vasomotor Dysfunction Program: Methods and Considerations. 2024. CCI. In Press.
13. **Bashir H, Mendes-Hirata G,** Simone AE, **Garcia S, Kereiakes DJ.** Long-Term Outcomes and Durability of a Novel Dedicated Transcatheter Heart Valve to Treat Native Aortic Regurgitation. JACC Case Reports. 2024;29:102670.
14. Mutlu D, Simsek B, Rempakos A, Alexandrou M, Al-Ogaili A, Azzalini L, Rinfret S, Khatri JJ, Alaswad K, Jaffer FA, Jaber W, Basir MB, Goktekin O, Gorgulu S, Krestyaninov O, Khelimskii D, Davies R, **Frizzel J,** Choi JW, Chandwaney RH, Potluri S, Poommipanit P, Uretsky B, Ybarra LF, Murad B, Rangan BV, Mastrodemos OC, Sandoval Y, Burke MN, Brilakis ES. Validation of the coronary artery specific chronic total occlusion percutaneous coronary intervention angiographic difficulty scores in the PROGRESS-CTO registry. Cardiovasc Revasc Med. 2024 Oct 28:S1553-8389(24)00705-X. doi: 10.1016/j.carrev.2024.10.007. Epub ahead of print. PMID: 39488482.
15. Jolly SS, d'Entremont M, Lee SF, Mian R, Tyrwhitt J, Kedev S, Montalescot G, Cornel J, Stankovic G, Moreno R, Storey RF, **Henry TD,** Mehta SR, Bossard M, Kala P, Layland J, Zafirovska B, Devereaux P, Eikelboom J, Cairns JA, Shah B, Sheth T, Sharma S, Tarhuni W, Conen D, Tawadros S, Yusuf1 S, on behalf of the CLEAR investigators. Colchicine in Acute Myocardial Infarction - the CLEAR Trial. NEJM. 2024. In Press.

Research and Lindner Highlights

The Lindner Center Roles & Assignments at TCT

Dean Kereiakes

Moderator & Lecturer	Session: TCT Innovation 4: Zero Radiation Exposure in the Cath Lab: A Moral Imperative! Title: The Weight of a Lifetime of Lead: My Personal Journey Through Radiation Exposure.
Moderator	Session: The "Modern Era" of Aortic Regurgitation: Diagnosis and Therapy
Presenter	Session: Bioadaptor Technology – Restoring Vessel Function and Improving Long-term PCI Outcomes Title: Clinical Rationale for Bioadaptive PCI and BIOADAPTOR RCT Outcomes.
Discussant	Session: Coronary Stent Technology: Still Relevant and Evolving

Santiago Garcia

Lecturer	Session: The "Modern Era" of Aortic Regurgitation: Diagnosis and Therapy
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Moderator	Session: TCT Innovation 7: Innovations in the Interventional Treatment of Aortic Regurgitation
Abstract Presenter	Session: TAVR Techniques and Outcomes Title: Early US Commercial Experience With an Intra-Annular, Self-Expandable Valve in High-Risk Patients: 30-Day Results From the Navitor™ Post-Approval Study

Jarrold Frizzell

Discussant	Session: Troubleshooting Challenging Complications: Lessons Learned
Moderator	Session: Coronary Complications: CHIP - Late and Very Late Stent Thrombosis
Discussant	Session: Live Case 10 Didactic – Left Main/Bifurcations
Live Case Discussant	Session: LIVE Cases - Left Main/Bifurcation & MCS OCT

Upcoming Conferences



Saturday, November 16, 2024

Time: 9:45AM – 11:00AM	Session: Women's Professional Development Panel Discussion: Odayme Quesada Location: S102D
Time: 11:15AM – 12:00PM	Session: HeartHub Learning Studio session: The Future of AAV Gene Therapy in Congestive Heart Failure AskBio Discussant: Dr. Timothy Henry Location: Learning Studio 1
Time: 1:40PM – 1:50PM	Session: Featured Science: Novel Approaches to Managing Lipid Risk Title: Long-term Efficacy of Lerodalcibep in 1,468 Patients at Very High and High Risk for CVD in the 72 week Open-Label Extension Trial Speaker: Dean Kereiakes Location: S100A
Time: 1:30PM – 2:00PM	Session: HeartHub Learning Studio session: (Cardio Talk) AskBio Discussant: Dr. Timothy Henry Location: Learning Studio 1

Sunday, November 17, 2024

Time: 8:35AM – 8:45AM	Session: Circulation Cardiovascular Interventions 2023-2024 Editors' Picks: The Best and What's Next Title: Impact of Calcium Eccentricity on the Safety and Effectiveness of Coronary Intravascular Lithotripsy: Pooled Analysis from the Disrupt CAD Studies Speaker: Dean Kereiakes Location: S103D
Time: 3:15PM – 4:15PM	Session: Abstract Poster Session Title: Sex Differences in CVD 1 Presenter: Odayme Quesada Location: Zone 3
Time: 3:30PM – 4:45PM	Session: INOCA: Recent Advancement in the Diagnosis and Treatment (AHA Joint Sessions with Japanese Circulation Society) Moderator: Timothy Henry Location: N426C

Monday, November 18, 2024

Time: 10:40AM – 10:45AM	Session: Moderated Digital Poster Session Title: Sodium Glucose Cotransporter-2 Inhibitors (SGLT2i) and Improves Function in ANOCA Patient Speaker: Paxson Tipler Location: Zone 2, Moderated Digital Poster 10
Time: 1:40PM – 1:50PM	Session: Cardiovascular Seminar Unraveling Cardiovascular Health and Disease in Latinos: Insights from the SOL Study Title: Cardiovascular Disease Epidemiology in Latinos Speaker: Odayme Quesada Location: S104A

2024 PCR London Valves

Dr. Puvu Seshiah			
Rapid-fire - TAVI in aortic regurgitation			
Sunday 24 November 2024	14:20 - 15:05		The Exchange
Speaker	14:20 - 14:24	First-in-man deployment of Abbott Navitor Valve for left ventricular assist device associated aortic regurgitation	
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Tricuspid valve: TEER			
Tuesday 26 November 2024	10:05 - 10:50		Room F
Speaker	10:23 - 10:29	First-in-man transcatheter repair of tricuspid regurgitation caused by annuloplasty band dehiscence	

Cincinnati STEMI AngioClub November 12, 2024 at The Queen City Club

The content and discussion provided insightful and important discussions to continue to advance care for STEMI patients with MVD.

CINCINNATI STEMI ANGIOCLUB
INNOVATIONS IN STEMI

A forum for advancing evidence-based practices in the treatment of ST-segment elevation myocardial infarction

November 12, 2024 | 6:00-8:30PM
Queen City Club – 331 E 4th St, Cincinnati, Ohio 45202

ORGANIZERS

Tim Henry, MD
The Christ Hospital

Dean Kereiakes, MD
The Christ Hospital

AGENDA

- 6:00-6:30 PM
Networking Reception & Cocktails
Dinner begins at 6:15 PM
- 6:30-6:35 PM
Welcome to the STEMI AngioClub
Presenter: Dean Kereiakes, MD (The Christ Hospital)
- 6:35-7:00 PM
Ischemic Heart Failure: Implication of Microvascular Dysfunction (MVD)
Presenters / Panel: Juliana Viarecks, MD (University of Cincinnati), DP Suresh, MD (St. Elizabeth), Romesh Emori, MD (The Christ Hospital), Juan Linares, MD (Kettering Health)
- 7:00-7:25 PM
STEMI 2024: What We Know & What We Need to Know
Presenters / Panel: Tim Henry, MD (The Christ Hospital), William Martin, MD (TriHealth Heart), Adam Raske, MD (Mercy Health), Charles Hattner, MD (University of Cincinnati)
- 7:25-7:50 PM
Impact of Microcirculation on Cardiovascular Disease
Presenters / Panel: Odoyne Quesada, MD (The Christ Hospital), Andreas Tsoumas, MD (University of Cincinnati), Naj Ansari, MD (TriHealth Heart), Corey Haddock, MD (Mercy Health)
- 7:50-8:15 PM
SuperSaturated Oxygen Therapy for MVD in STEMI
Presenters / Panel: Jeff Chambers, MD (Mercy Hospital), Kevin Silver, MD (OhioHealth), Robert Bulow, DO (Premier Cardiovascular Institute)
- 8:15-8:30 PM
Fireside Chat: Ways to Identify MVD in the Cath Lab
Panel: Tim Henry, MD (The Christ Hospital), Puri Seshiah, MD (The Christ Hospital), Jarrod Frizzell, MD (The Christ Hospital)
- 8:30 PM
Wrap-up & Adjourn
Tim Henry, MD (The Christ Hospital)



Reminders

Upcoming Heart and Vascular Institute Grand Rounds

Date	Speaker	Presentation Title or Topic
November 25, 2024	Dr. Eliano Navarese	Role of virtual assistant in healthcare.
December 2, 2024	Dr. Tim Henry & Dr. Santiago Garcia	AHA/TCT Highlights
December 9, 2024	TBD	Recurrent Pericarditis
December 16, 2024	Dr. J. Micheal Smith	Update on Endocarditis: A Team Sport

Questions? Please contact Darlene Rock at Darlene.Rock@thechristhospital.com