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# THE LINDNER RESEARCH CENTER

### June 2023

Summer is here and the summer student program is underway and going strong! The program this year is full of bright young talented faces around for the next few months! Please see the pictures of the summer students and mentors in this issue.

This month we review the Regenerative Medicine trials which include our cell therapy and gene therapy as well as our refractory angina trials. This has been an unbelievably successful program and we are the top enroller in basically every trial with the help of the heart failure group, the Women's Heart Program, and the CTO program. Readers will also note that we had 16 manuscripts published this month with a wide spectrum of faculty and in particular want to welcome Dr. Costea to the EP group. We also had an outstanding presence at both the IN THIS ISSUE Regenerative/Advanced CAD Trials Highlighted Trials May Publications Research and Lindner Highlights Staff Spotlight Meeting Reminder & Schedule

SCAI meeting and the TVT meeting. Hope everyone has a great summer and keep up the great work!

### **Regenerative / Advanced CAD Trials**

Trial/ Databases	PI	Status	# Months Active	# Screened	# Enrolled	Last Patient Enrolled	Brief Description
Cosira II Sponsor: Neovasc	Henry	Enrolling	13	21	2 compassionate use, 12 study patients	5/11/23	The objective of the trial is to demonstrate the safety and effectiveness of the Reducer system for treatment of patients with refractory angina treated with maximally tolerated guideline-directed medical therapy who demonstrate evidence of reversible myocardial ischemia in the distribution of the left



							coronary artery and who are deemed unsuitable for revascularization.
Nanocor Sponsor: Asklepios	Henry	Open to enrollment	30	19	9	4/8/21	Phase I Open Label, Dose Escalation Trial of Intracoronary Infusion of NAN-101 gene therapy in Subjects with NYHA Class III Heart Failure.
ASK-CHF Sponsor: Asklepios	Henry	Will begin once Nancor enrollment is completed	NA	NA	NA	NA	A phase 2, double- blinded, placebo controlled, randomized, trial to evaluate the efficacy, safety and tolerability of intracoronary infusion of NAN-101 gene therapy in adult subjects with NYHA Class III heart failure and non-ischemic cardiomyopathy.
Xylocor Sponsor: Xylocor Therapeutics	Henry	Follow-up	30	13	5	5/17/22	A Phase 1/2 trial of direct administration via myocardial injection of AdVEGF-All6A+, a replication deficient adenovirus vector expressing a cDNA/Genomic hybrid of human vascular endothelial growth factor, to the ischemic myocardium of subjects with angina secondary to CAD that is refractory to drug therapy and unsuitable for revascularization
Optimist- Options in Myocardial Ischemic Syndrome Therapy- Long-term Follow-up Database	Henry	Open to enrollment	36 months				To determine the predictors of adverse outcomes (including mortality, incidence of malignancy, myocardial infarction, subsequent revascularization, and angina class) in the no- option patients.
Freedom Trial Sponsor: Caladrius	Henry	Closed			22	6/15/22	The objective of the trial is to demonstrate the safety and effectiveness of the Reducer system for treatment of patients with refractory angina treated with maximally tolerated



Future				guideline-directed medical therapy who demonstrate evidence of reversible myocardial ischemia in the distribution of the left coronary artery and who are deemed unsuitable for revascularization.
Trials				
LEXEO Sponsor: LEXEO Therapeutics				A Phase 1/2 Study of the Safety and Efficacy of LX2020 Gene Therapy in Patients with Arrhythmogenic Right Ventricular Dysplasia/Cardiomyopathy (ARVC) due to a Plakophilin-2 (PKP2) Mutatio
CARDIAMP Heart Failure Trial Sponsor: BioCardia, Inc.				Randomized trial of auotologous bone marrow mononuclear cells using the CardiAMP Cell Therapy System compared to sham procedure in patients with ischemic HF and refractory angina

## **Highlighted Trials**

Encircle

PI: Santiago Garcia, M.D.

### Study coordinator: Marien Bryson

This study will establish the safety and effectiveness of the SAPIEN M3 System in subjects with symptomatic, at least 3+ mitral regurgitation (MR) for whom commercially available surgical or transcatheter treatment options are deemed unsuitable.

<u>Major Inclusion criteria:</u> 1.18 years of age or older 2. MR  $\ge$  3+ 3. NYHA functional class  $\ge$  II 4. Per the Heart Team, commercially available surgical or transcatheter treatment options are deemed unsuitable due to clinical, anatomic or technical considerations. 5. Subject's heart failure management has been optimized based on subject characteristics and applicable guidelines, and stable for at least 30 days prior to enrollment. 6. The subject or subject's legal representative has been informed of the nature of the study, agrees to its provisions and has provided written informed consent.



<u>Major Exclusion Criteria</u>: 1. Mitral/cardiac anatomy that would preclude appropriate delivery and deployment of the SAPIEN M3 dock or valve 2. Inappropriate anatomy for femoral introduction and delivery of the SAPIEN M3 dock and valve 3. Presence of any device that will contact or interfere with the SAPIEN M3 System during delivery or after implantation 4. Left ventricular ejection fraction <25% 5. Severe right ventricular dysfunction 6. Need for aortic, tricuspid or pulmonic valve intervention within the next 12 months 7. History of heart transplant 8. Cardiac imaging evidence of intracardiac mass, thrombus or vegetation

### **Discover HCM**

PI: Wojciech Mazur, M.D.

#### Study coordinator: Megan Grone

The purpose of this study is to evaluate the safety of mavacamten in patients with symptomatic obstructive hypertrophic cardiomyopathy (HCM) treated in the real-world setting. The registry study also provide a real-world understanding of the current obstructive HCM patient population, treatment patterns, and clinical relevant outcomes for patients with symptomatic obstructive HCM in the US.

<u>Major Inclusion criteria:</u> 1. Willing and able to provide written informed consent form (ICF) and any required privacy authorization prior to the initiation of study procedures. i. Diagnosis of obstructive HCM consistent with 2020 American Heart Association/American College of Cardiology (AHA/ACC) guidelines. ii. Obstructive HCM is defined clinically by the presence of increased LV wall thickness  $\geq$  15 mm (or  $\geq$  13 mm with positive family history of HCM) in a nondilated ventricular chamber that is not solely explained by abnormal loading conditions (eg, another cardiac or systemic disease) and peak LVOT gradient of  $\geq$  30 mmHg at rest or with provocation. 2. Has documented LVEF of  $\geq$  55% recorded by echocardiography within the last 6 months. 3. Symptoms consistent with NYHA functional class II-IV. 4.  $\geq$  18 years of age at the time of informed consent. 5. Receiving BBs, non-dihydropyridine calcium. channel blockers (non-DHP CCBs), disopyramide, and/or mavacamten (once available) as part of routine clinical care; or currently receiving no treatment due to intolerance or failure of prior treatment (eg, BBs, non-DHP CCBs, or disopyramide) for obstructive HCM.

<u>Major Exclusion Criteria</u>: 1. Known phenocopy disease (eg, Fabry disease, amyloidosis) or LV hypertrophy associated with hypertension. 2. Documentation of any fixed obstruction of the outflow tract such as aortic valve stenosis or replacement. 3. Prior treatment of obstructive HCM with invasive septal reduction (surgical myectomy or percutaneous alcohol septal ablation [ASA]) within 6 months prior to enrollment; participants with an unsuccessful myectomy or percutaneous ASA performed > 6 months prior to enrollment may be enrolled. 4. Naïve to treatment for obstructive HCM (ie, never treated with BBs, non-DHP CCBs, or disopyramide). 5. Receiving an investigational therapeutic agent for obstructive HCM (eg, myosin-inhibitors other than mavacamten) in an interventional clinical trial at participant enrollment. 6. Previously or currently enrolled in a long-term safety extension study of mavacamten (eg, EXPLORER-HCM [ClinicalTrials.gov, NCT03470545], MAVA-LTE [NCT03723655], PIONEER-OLE [NCT03496168], VALORHCM [NCT04349072], or MAVERICK [NCT03442764])

### **May Publications**

 Navarese EP, Lansky AJ, Farkouh ME, Grzelakowska K, Bonaca MP, Gorog DA, Raggi P, Kelm M, Yeo B, Umińska J, Curzen N, Kubica J, Wijns W, Kereiakes DJ. Effects of Elective Coronary Revascularization vs Medical Therapy Alone on Noncardiac Mortality: A Meta-Analysis. JACC Cardiovasc Interv. 2023 May 22;16(10):1144-1156. doi: 10.1016/j.jcin.2023.02.030. PMID: 37225285.



- Kim G, Sayer G, Ransom J, Keebler M, Katz J, Kilic A, Lindenfeld J, Egnaczyk G, Shah P, Brieke A, Walenga J, Crandall D, Farrar DJ, Sundareswaran K, Uriel N. Association of Angiopoetin-2 and TNF-α With Bleeding During Left Ventricular Assist Device Support: Analysis from the PREVENT Biorepository. ASAIO J. 2023 May 2. doi: 10.1097/MAT.000000000001942. Epub ahead of print. PMID: 37134003.
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- 11. Mankerious N, Megaly M, Hemetsberger R, Allali A, Samy M, Toelg R, Garcia S, Richardt G. Short Versus Long-Term Dual Antiplatelet Therapy in Patients at High Bleeding Risk Undergoing PCI in Contemporary Practice: A Systemic Review and Meta-analysis. Cardiol Ther. 2023 Jun 1. doi: 10.1007/s40119-023-00318-5. Epub ahead of print. PMID: 37261649.



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- 15. Dehghani P, Singh J, Mancini GBJ, Stanberry L, Bergstedt S, Madan M, Case BC, Patel RA, Stone JH, Benziger C, Ghasemzadeh N, Grines CL, Shavadia J, Acharya D, Javed N, Bortnick A, Wiley JM, Bagur R, Garberich R, Garcia S, Henry TD. Journal of the Society for Cardiovascular Angiography & Interventions 2023 May;2:100658, 10.1016/j.jscai.2023.100658.
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### **Research and Lindner Highlights**

## Dr. Santiago Garcia is doing some great work with his presentations at TVT and the well-received feedback from the SCAI meeting.

	Dr. Santiago Garcia's Roles at TVT			
Thursday, June 8	Roles - Discussant			
	<b>Session</b> - Emerging Clinical Science: TAVR I: Conduction Abnormalities and Coronary Intervention in TAVR			
Thursday, June 8	Role - Discussant & Lecturer			
	<b>Session</b> - TVT Innovation III: Transcatheter Aortic Valve Replacement & Compassionate Use Experience with J-Valve for Native Aortic Regurgitation: First 30 Cases with a DedicatedTransfemoral System in			
	North America			
	a part of: TVT Innovation III: Transcatheter Aortic Valve Replacement			
	TVT Innovation III: Transcatheter Aortic Valve Replacement			
	TAVRSystems for AR Treatment			
Friday, June 9	Role - Faculty			
	Session - Satellite: Right Valve Right Time – Navitor TAVI Valve			
	Evolution			
Friday, June 9	Role - Presenter			
_	Title - Perspectives of a New Navitor Implanter			
	Title - Case Presentation - The Christ Hospital			
	Session - Satellite: Right Valve Right Time – Navitor TAVI Valve			
	Evolution			



Friday, June 9	Role - Challenging Case Presenter
	Title - First in Man J-Valve Transcatheter Treatment of Native Valve
	Aortic Regurgitation Associated with a Left
	Ventricular Assist Device
	Session - CASES WITH MASTERS IV: Transcatheter Treatment for
	Patients With Challenging Valvular Heart Disease Scenarios   CASES
	WITH
	MASTERS IV: Transcatheter Treatment for Patients With Challenging
	Valvular Heart Disease Scenarios
Friday, June 9	Role - Poster Presenter
	Title - Management Strategies and Prognosis of Patients Ineligible for
	Transcatheter Mitral Valve Replacement
	Session - Emerging Clinical Science: Mitral II - Transcatheter Mitral
	Valve Replacement   Emerging Clinical
	Science: Mitral II - Transcatheter Mitral Valve Replacement
Friday, June 9	Role - Provocateur
	Session - Urgent TAVR for Bioprosthetic Aortic Insufficiency a part of
	SWAC Session 2: Aortic   SWAC Session
Saturday, June 10	Role - Moderator
	Session - TEER Challenging Clinical Cases Part II
Saturday, June 10	Role - Lecturer
	Session - The Essential Aortic ViV TAVR Update: Procedural Strategies
	and Current Clinical Results a part of Case-Based Management of
	Failing Surgical Aortic Valves   Case-Based Management of Failing
	Surgical Aortic Valves
Saturday, June 10	Role - Discussant
	Session - TAVR Leaflet Modification and Challenges of Coronary Re-
	Access Post-TAVR a part of Case With The Masters: TAVR Leaflet
	Modification and Challenges of Coronary Re-Access Post-TAVR

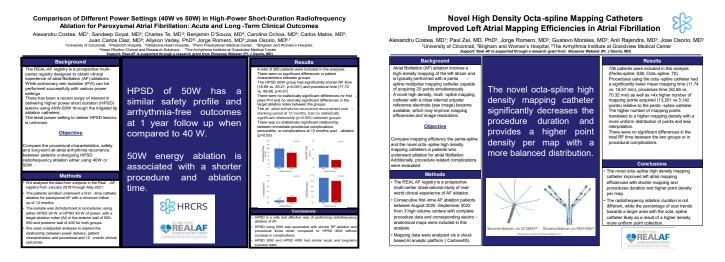
### SCAI Structural Program



Congratulations to Dr. Garcia for well received feedback at the **Contemporary Issues in TAVR** symposium at SCAI 2023.



## Dr. Alexandru Costea's Presentations at Heart Rhythm Clinical and Research Solutions 2023 in New Orleans, LA May 19-21, 2023.



#### Physicians and other staff can now access patient's Research Studies in EPIC!

This will show you what studies a patient is on and all pertinent details. You can see if they are in-screening, contacted, consented, identified, excluded, or screen failed with the reason and any notes related to where the patient is in the screening process.

Steps to Access: Main Epic Button -> Patient Care -> Research Studies -> Select patient

- 1. Click main Epic button in the top right corner (arrow down)
- 2. Go down to Patient Care
- 3. Then select Research Studies
- 4. Select patient

Please make sure that all 3 buttons are checked: Pre Consent, Inactive and Active in the Top Right of the Research Studies box.

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#### The Lindner Research Center Summer Student Internship 2023

#### Mentors



**Dr. Geoffrey Answini** The Christ Hospital Physicians - Heart & Vascular



Dr. Burn Blaxall Precision Medicine



**Dr. Eugene Chung** The Christ Hospital Physicians - Heart & Vascular



**Dr. Santiago Garcia** The Christ Hospital Physicians - Heart & Vascular



Dr. Kari Gorder Cardiovascular Critical Care & Emergency Medicine



**Dr. Wojciech Mazur** The Christ Hospital Physicians - Heart & Vascular



**Dr. Santosh Menon** The Christ Hospital Physicians - Heart & Vascular



Dr. Odayme Quesada Women's Heart Center



Kareem Abou-Amro Mentor: Dr. Odayme Quesada



Samantha Bailey Mentor: Dr. Odayme Quesada



Summer Students

Alex Brandt Mentor: Dr. Eugene Chung



**Jacob Davis** Mentor: Dr. Odayme Quesada



Morgan Gelter Mentor: Dr. Burns Blaxall





Suhani Gupta Mentor: Dr. Eugene Chung



Nick Lipovsek Mentor: Dr. Santhosh Menon



**Deeya Prakesh** Mentor: Dr. Odayme Quesada



Libby Pung Mentor: Dr. Odayme Quesada



**Meg Seshiah** Mentor: Dr. Santiago Garcia



Ben Stamler Mentor: Dr. Kari Gorder



Shoshi Stern Mentor: Dr. Kari Gorder



Jonathan Stokes Mentor: Dr. Geoffrey Answini



Natalie Swope Mentor: Dr. Wojciech Mazur

\*Not Pictured: Tyler Parks, Mentor: Burns Blaxall

## Staff Spotlight



Elric Harrell Clinical Research Assistant Oncology

I'm originally from Baton Rouge, Louisiana. I was raised in Cincinnati, OH and went to Colerain High School. I completed my undergraduate at Mount Saint Joseph University in 2020 during COVID. Being the oldest of six kids isn't easy, but someone had to do it. Some of my interests include reading, history, and spending time with my family. Something that people don't know about me is that I aspire to become the first in my family to attain a Ph.D.

**Reminders** Research Group Meeting July 12, 2023, 6:30-7:30am Microsoft Teams



