

GILL QUARTERLY

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GILL QUARTERLY

WINTER 2020-2021

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FEATURED CLINICAL TRIAL

RELIEVE-HF™ – Patients with heart failure (HF) tend to have high pressure inside the left side of their heart, including the left atrium and the left ventricle, the main pumping chamber of the heart. This often results in shortness of breath, fatigue, and difficulty performing daily activities due to pressure and fluid backup into the lungs. Many patients with heart failure experience repeated hospitalizations, poor quality of life, and a reduced life expectancy.

PI: John Gurley, MD

V-Wave Interatrial Shunt System

V-Wave is a global medical device company dedicated to the treatment of heart failure. The company has developed a minimally invasive, implanted device called the V-Wave Interatrial Shunt for treating patients with HF.

The V-Wave Shunt is an hourglass shaped device that is delivered through a catheter (a flexible plastic tube) inserted in a vein in the groin and implanted permanently across the wall dividing the left and right atria also known as the upper chambers of the heart. The procedure is performed in a hospital under sedation or anesthesia and typically takes less than ninety minutes.

How the Device Works

The V-Wave Interatrial Shunt is designed to reduce excess left atrial and left ventricular pressure. In HF, as pressure builds up, a small volume of blood is 'shunted' from the left to the right atrium through the device, thus relieving the elevated pressure and reducing fluid backup in the lungs.

About the RELIEVE-HF Clinical Trial

V-Wave has approval from the U.S. Food and Drug Administration (FDA) to conduct a large clinical study called the RELIEVE-HF Clinical Trial. The study will



determine the effects of the Interatrial Shunt device, in comparison to optimal conventional therapies, on clinical outcomes that are important to HF patients. These include reducing hospitalizations or emergency room visits due to worsening HF, as well as improving symptoms, exercise capacity, and quality of life.

The study is being performed at many centers around the world. Approximately 500 patients will be enrolled. Your doctor can discuss with you the criteria for inclusion into the study as well as important information about the testing and study procedures and the follow-up visits required.

Are You a Candidate?

You may be eligible for the RELIEVE-HF study if you have:

- Heart failure that causes noticeable symptoms such as shortness of breath, fatigue, or difficulty performing daily activities (defined as New York Heart Class III or ambulatory Class IV HF)

- A hospital admission for HF within the past 12 months, or an elevation in a certain blood test for HF, called BNP or NT-pro-BNP.

For More information contact: Stephanie Morris:
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Phone: 859-323-5366

CURRENTLY ENROLLING CLINICAL TRIALS

BIO LIBRA - AnaLysIs of Both Sex and Device Specific FactoRs on Outcomes in PATients with Non-Ischemic Cardiomyopathy

PI: Aaron Hesselson, MD

Coordinator: Ben Rushing 323-5259

Brief Summary:

This study is designed to evaluate the combined risk of all-cause mortality and treated ventricular tachycardia (VT) or ventricular fibrillation (VF) events by subject sex and by implanted device type. All-cause mortality, VT or VF alone, risk of cardiac death, and sudden cardiac death will be analyzed for the total cohort, as well as by subject sex and by the implanted device type

OPTIMIZER SMART POST - APPROVAL STUDY

PI: Aaron Hesselson, MD

Coordinator: Ben Rushing 323-5259

Brief Summary:

Post-approval study that evaluates data such as cardiac outcomes, quality of life, mortality, and functionality. Long-term data needed to assess complication rates and potential interactions with other implantable devices in the intended patient population. The post-approval study (PAS) protocol designed to address these concerns in a real-world setting.

The PRECISE Protocol: Prospective Randomized Trial of the Optimal Evaluation of Cardiac Symptoms and Revascularization (PRECISE)

PI: Vincent Sorrell, MD

Coordinator: Ben Rushing 323-5259

Brief Summary:

The study will be a prospective, pragmatic, randomized clinical trial of the comparative effectiveness of diagnostic evaluation strategies for stable CAD, to be performed in outpatient settings, including primary

care and cardiology practices.

Women's IschemiA TRial to Reduce Events In Non-ObstRuctive CAD (WARRIOR)

PI: Gretchen Wells, MD

Coordinator: Denise Sparks, RN 218-6713

Brief Summary:

The Ischemia-IMT (Ischemia-Intensive Medical Treatment Reduces Events in Women with Non-Obstructive CAD), subtitle: Women's Ischemia Trial to Reduce Events in Non-Obstructive CAD (WARRIOR) trial is a multicenter, prospective, randomized, blinded outcome evaluation (PROBE design) evaluating intensive statin/ACE-I (or ARB)/aspirin treatment (IMT) vs. usual care (UC) in 4,422 symptomatic women patients with symptoms and/or signs of ischemia but no obstructive CAD. The hypothesis is that IMT will reduce major adverse coronary events (MACE) 20% vs. UC. This study is being conducted to determine whether intensive medication treatment to modify risk factors and vascular function in women patients with coronary arteries showing no flow limit obstruction but with cardiac symptoms (i.e., chest pain, shortness of breath) will reduce the patient's likelihood of dying, having a heart attack, stroke/TIA or being hospitalized for cardiac reasons. The results will provide evidence data necessary to inform future guidelines regarding how best to treat this growing population of patients, and ultimately improve the patient's cardiac health and quality of life and reduce health-care costs.

CLINICAL TRIALS CONTINUED

RELIEVE – HF - REDucing Lung congestIon symptoms using the v-wave shunt in ad-VancEd Heart Failure

PI: John Gurley, MD

Coordinator: Stephanie Morris 323-5366

Brief Summary:

The objective of this study is to provide reasonable assurance of safety and effectiveness of the V-Wave Interatrial Shunt System to improve clinical outcomes in a certain high-risk subset of symptomatic patients suffering from HF.

REVERSE-IT: A Phase 3, Multicenter, Open-Label, Single-Arm Study of PB2452 in Ticagrelor-Treated Patients with Uncontrolled Major or Life-Threatening Bleeding or Requiring Urgent Surgery or Invasive Procedure

PI: Ahmed Abdel- Latif, MD, PhD

Coordinator: Jennifer Isaacs 323-4738

Brief Summary:

The study will demonstrate the reversal of the an-

tiplatelet effects of ticagrelor with IV infusion of PB2452 and the clinical efficacy of PB2452 by assessment of hemostasis in ticagrelor-treated patients with uncontrolled major or life-threatening bleeding or who are undergoing urgent surgery or invasive procedure in an open-label, single-cohort study.

For more information, contact:

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Clinical Research Director – Cardiovascular and Radiology Services

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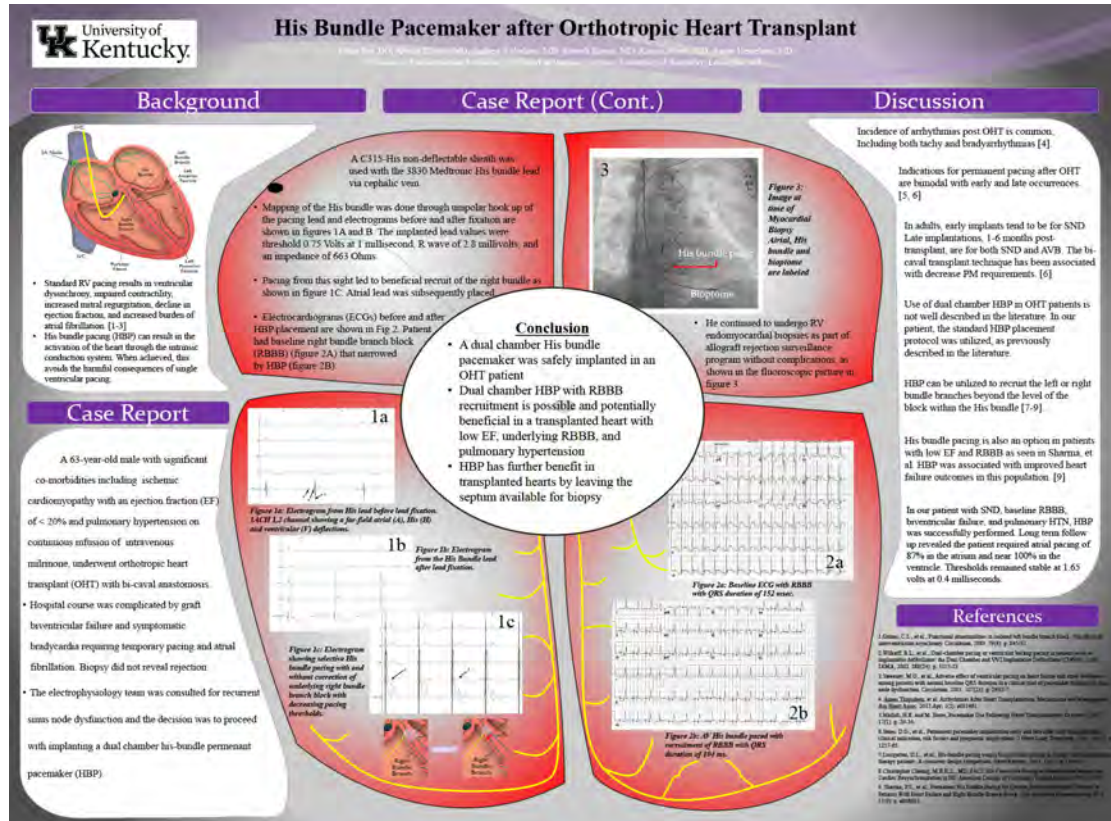


Do You Have Heart Failure?

Consider the RELIEVE-HF Clinical Study of the V-Wave Interatrial Shunt:
A New Investigational Therapy for Heart Failure



FELLOWS NEWS/ACCOMPLISHMENTS KY-ACC POSTERS



Implementation of an Optimal Care Pathway for Chest Pain at a Multidisciplinary Academic Medical Center

Shruti Nanjivadekar, BS, Joshua Duchesne, MD, Joshua Eason, MD, Brian Kaul, MD, Mikiyas Desta, MD, Steve Leung, MD, and Vedant Gupta, MD, FACC
University of Kentucky, Department of Cardiology



Introduction

- Chest pain is the most common reason for ED visit with 8-10 million patient visits annually costing \$10-13 billion.
- Less than 10% of patients with chest pain are diagnosed with an acute coronary syndrome (ACS).
- The HEART score condenses patient information into a simple number that can indicate ACS risk and guide early treatment.
- The current reporting of HEART score and strategies to improve the reporting has not been assessed.

Methods

- This is a retrospective cohort study of adult patients presenting to the University of Kentucky Emergency Department (ED) with chest pain between 6/1/2018 to 6/1/2019.
- The Optimal Care Pathway was instituted on 12/11/2018.
- The pathway was implemented using a dedicated multi-level education plan which included attending physicians, resident physicians and cardiology fellows, and a chest pain journal club which discussed data on the HEART score.
- The patients were divided into 3 groups, pre-intervention, early post-intervention (first 3 months after intervention), and late post-intervention (next 3 months).
- The HEART score documented in the electronic health record was collected if reported.
- The electronic health record was also reviewed and a HEART score was calculated by trained independent reviewers.
- Rates of reporting was compared between the 3 periods using Chi-square value.

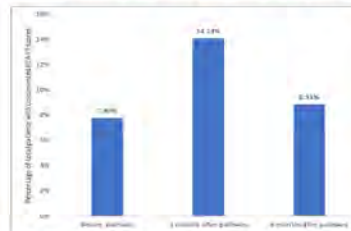


Figure 1: Percentage of HEART score documentation in the Emergency Department increased by 79% in the early phase ($p < 0.0001$), followed by a 36% decline ($p = 0.003$).

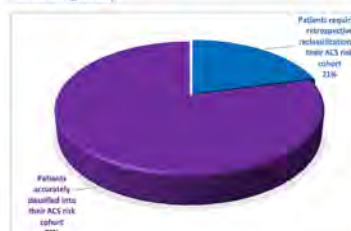


Figure 2: 77% of patients with documented HEART scores were appropriately risk-stratified for ACS, and 23% were retrospectively reclassified into higher or lower risk strata.

Results

- 3245 patients were seen over the study period, 1717 patients prior to intervention, 737 patients in the early post-intervention period, and 791 patients in the late post-intervention period.
- HEART score documentation was 7.9% in the pre-intervention period.
- Reporting of HEART score increasing by 79% to 14.1% ($p < 0.0001$). However, in the late post-intervention period, HEART score reporting decreased by 36% from the early period to 9.4% ($p = 0.003$) (Fig. 1).
- Of the HEART scores documented, 85% were within 1 point of the expert scoring, with 42% exactly matching the investigators' scores.
- 28% of emergency department HEART scores were higher than investigators' scores, and 29% were lower.
- Using cutoffs of ≤ 3 for low risk, 4-6 for intermediate risk, and ≥ 7 for high risk, the discordance would reclassify 21% of the patients (Fig. 2).

Discussion

- Reporting of HEART score is fairly low (9.7%) in the overall cohort.
- The initial 79% increase of HEART score documentation in the emergency department in the first 3 months of pathway implementation, followed by a regression, shows that while our educational interventions were temporarily effective, this method is not sustainable enough to ensure adherence long-term.
- Furthermore, while overall accuracy of ED reported HEART scores was good, 21% resulted in risk reclassification. This highlights a need for a more long-term education programs or other systemic interventions for sustainability.

Authors' Disclosure

Nothing to disclose.

KY-ACC POSTERS

The Impact of Frailty and Malnutrition on In-hospital Outcomes in Patients with Acute Myocardial Infarction

Adham M. Karam, M.D., Elhan Fry, M.D., Vedant Gupta, M.D.
Division of Cardiovascular Medicine, Linda and Jack Cox Heart and Vascular Center, University of Kentucky, Lexington, USA

BACKGROUND

- The prevalence of malnutrition among all hospitalized patients in the US is estimated to be around 40-54%.
- The separate impacts of malnutrition and frailty on early outcomes after myocardial infarction is not well studied.
- We sought to identify the prevalence and outcomes of diagnosed malnutrition, and compared them to frailty among a contemporary cohort of patients with AMI in the United States.

METHODS

- We queried the National Inpatient Sample (NIS) from January 2012 to September 2015 (26,859,889 hospitalizations).
- A frailty index was constructed if patients had 4 or more of the following conditions: diabetes mellitus, congestive heart failure, chronic lung disease, peripheral vascular disease, depression, fluid & electrolyte disorders, chronic kidney disease, anemia, or unintentional weight loss.
- Using complex survey analysis, multivariable models were used to assess for in-hospital mortality, mechanical circulatory support (MCS) use, cardiogenic shock, acute kidney injury (AKI), and length of stay (LOS).
- Statistical significance for p-values was set at < 0.05.
- The Pearson Chi-square test was used to compare categorical variables, while continuous variables were compared with the student's t-test or one-way Analysis of Variance (ANOVA), as appropriate.

RESULTS

Adjusted Odds Ratios for In-hospital Outcomes Based on Nutritional Status and Frailty



RESULTS

- Out of 2,240,425 AMI hospitalizations, 78,095 (3.5%) had diagnosed malnutrition.
- 80,440 (3.6%) had no diagnosis of malnutrition but were frail.
- Malnutrition and frailty were both associated with increased mortality (17.1% vs 7.3 vs 3.9%, $P < 0.001$).
- Malnourished patients were more likely to develop cardiogenic shock, require MCS, and to develop AKI requiring dialysis compared to both frail and well-nourished patients.
- Similar, but less severe trends were seen in frail patients.

CONCLUSION

- Malnourished patients hospitalized with AMI have higher rates of in-hospital mortality, cardiogenic shock, MCS use, and AKI requiring dialysis.
- Frail patients also exhibited an increased risk for adverse in-hospital outcomes.
- Identification of frail and malnourished patients early in their hospital course could result in improved outcomes.
- Further studies should evaluate the role of nutritional interventions in malnourished and frail patients with AMI.

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- Khan, R., and H.M. Krumholz. With Great Power Comes Great Responsibility: Big Data Research From the National Inpatient Sample. *Circulation: Cardiovascular quality and outcomes*, 2017. 10(7): p. e005346.

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Impact and Clinical Outcomes of the Chest Pain Optimal Care Pathway

Joshua Eason DO, Brian Kauh MD, Joshua Duchesne MD, Shruti Naniwadekar, Mikiyas Desta, Vedant Gupta MD
Division of Cardiovascular Medicine, University of Kentucky, Lexington, Kentucky

see blue.
in everything we do.

Introduction

- Chest pain is the most common presentation to the emergency room (ER) with about 8 to 10 million visits and costs up to \$10-13 billion dollars in the US annually.
- As the vast majority of these cases have no evidence of acute myocardial infarction (AMI), rapid rule-in and rule-out diagnostic testing strategies have been trialed in the ER to quickly risk stratify and identify low-risk patients, but fear of early downstream events limits utilization.

Objective

- To assess the impact of our Chest Pain Optimal Care Pathway on 30-day events

Study Design

- Retrospective analysis of adults who presented to UK ER with the primary complaint of non-traumatic chest pain from 6/1/18 to 6/1/19 and were subsequently discharged without receiving any inpatient intervention or testing.
- The Chest Pain Optimal Care Pathway was implemented starting 12/1/18, allowing for about 6 months pre- and post-intervention.

Outcomes

- Primary outcome: Major adverse cardiovascular events (cardiovascular or unknown cause of death, acute MI, or unplanned non-ACS PCI/CABG)
- Secondary outcomes: Planned outpatient interventions, ischemic evaluation, and outpatient follow-up within our system

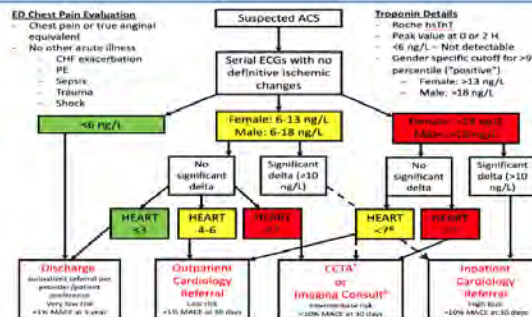


Figure 1. Chest Pain Optimal Care Pathway Algorithm

Impact of Troponin Optimal Care Pathway



Figure 2. Outcomes

Results

- 3759 patients who presented with chest pain during the study period, 1830 pre-intervention and 1929 post-intervention.
- Of these, 1738 had follow-up data in our system, with a significantly higher proportion of patients following up in post-intervention (41.3% vs 50.9%, $p < 0.001$).
- No difference in the primary outcome of MACE at 30 days (0.7% vs 0.9%, $p = ns$).
- No differences in planned outpatient interventions (0% vs 0.3%, $p = ns$), outpatient testing (4.5% vs 4.8%, $p = ns$).

Conclusion

- The introduction of a Chest Pain Optimal Care Pathway at our institution is a safe strategy with a low risk of MACE events at 30 days after being discharged from the ED for chest pain.
- Within 6 months of implementation, preliminary data appears to show that not only did our pathway result in non-inferior outcomes, but it also assisted in helping patients achieve higher rates of outpatient follow-up for further care.

Authors' Disclosure: None

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FELLOWS NEWS AND PUBLICATIONS

FELLOWS MATCH

We are pleased to announce that the following applicants have been matched to the Cardiology Fellows program:

Name	Medical School
Jad Ballout	American University of Beirut
Nakeya Dewaswala	Lokmanya Tilak Municipal Med College
Awa Drame	St George's University
Sara Klinger	West Virginia School of Osteopathic Medicine
Ahmed Noor	Windsor University
Nicole Sbircea	Lincoln Memorial University DeBusk College of Osteopathic Medicine
Saima Shikari-Dossaji	New York Institute of Technology College of Osteopathic Medicine

Publications

Alnabelsi T, Annabathula R, Shelton J, Paranzino M, Faulkner SP, Cook B, Dugan AJ, Nerusu S, Smyth SS, Gupta VA. Predicting in-hospital mortality after an in-hospital cardiac arrest: a multivariate analysis. *Resuscitation Plus*. Volume 4, December 2020, 10003

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Ellison K, Hesselton A, **Ayoub K**, Leung S, Gurley J. Retrieval of an infected leadless pacemaker. *Heart-Rhythm Case Rep*. 2020 Sep 2;6(11):863-866. doi: 10.1016/j.hrcr.2020.08.022. eCollection 2020 Nov.

Gupta VA, **Alnabelsi TS**, Shringi S, Leung SW, Sorrell VL. Cardiovascular Risk After Sepsis: Understanding the Role of Statin Indications and the Impact of Clinical Inertia on Prescribing Patterns. *J Cardiovasc Pharmacol Ther*. 2020 Nov;25(6):541-547. doi: 10.1177/1074248420933395.

Whiteside HL, Moliterno DJ. Coronary interventions among patients with hepatic insufficiency: Encouragement to avoid a jaundiced view. *Catheter Cardiovasc Interv*. 2020 Oct 1;96(4):811-812. doi: 10.1002/ccd.29277.

Fellowship Websites:

Vascular:

<https://surgery.med.uky.edu/surgery-vascular-fellows>

CT Surgery:

<https://surgery.med.uky.edu/surgery-cardiothoracic-surgery-fellowship>

AFFILIATE & OUTREACH NEWS

MERCY HEALTH - LOURDES HOSPITAL

UK HealthCare (UKHC) and Mercy Health – Lourdes Hospital are announcing a new collaboration to expand cardiovascular services in the Paducah area.

As the first hospital in far Western Kentucky to join the UK Gill Heart & Vascular Institute's Gill Affiliate Network, Mercy Health – Lourdes Hospital now offers area residents the benefit of UK HealthCare physicians' expertise in subspecialty cardiovascular services. - ment to expanding access to services and investing in new technology and capabilities to meet the needs of our growing community in efforts to enhance our mission of Making Communities Healthier," said Matt Smith, Clark Regional Medical Center chief executive officer. "We will keep the community informed of the project's progress, and thank you for your patience during the construction process." "Today's announcement, along with the growth of our cardiovascular offerings and new providers, positions Lourdes as the area's leader in heart care," Michael Yungmann, president of Mercy Health – Lourdes Hospital, said. "This collaboration extends UK's impact in our region so that our patients have access to the university's high quality, state-of-the-art emergent cardiovascular care right in our community." Lourdes' already robust cardiovascular services

include a structural heart program that is the first and only in western Kentucky and Southern Illinois to offer transcatheter mitral valve treatment utilizing the MitraClip. "It is thrilling that we are now able to build on these milestones at Lourdes thanks to our affiliation with the prestigious Gill Heart & Vascular Institute," Ashley Britton, Lourdes' director of cardiovascular services, said. "The expansive expertise and care capabilities at the University of Kentucky will go far in providing our regional residents the care they need and deserve."

CRMC has been working diligently to improve the cardiac services offered within the community. The providers and technology within the cardiac cath lab will be able to diagnose and provide treatment for heart blockages and other cardiac conditions without a commute.

Read the full story [here](#).



NEW RESEARCH IN MARFAN SYNDROME

Hip Pain in Patients With Marfan Syndrome

Researchers at the University of Kentucky have received a \$100,000 grant from The Marfan Foundation to assess how patients with Marfan syndrome develop hip pain.

The study will be conducted by Mary Sheppard, an assistant professor of family medicine and surgery in the UK College of Medicine, and Michael Samaan, an assistant professor of biomechanics in the UK College of Education Department of Kinesiology and Health Promotion.

Marfan syndrome is a genetic condition that impacts the body's connective tissue. It most frequently affects the heart, blood vessels, eyes and bones. Diagnostic features can include a dilated aorta; dislocated lens; long arms, legs and fingers; a curved spine; a chest that sinks in or sticks out; flat feet; and an abnormally shaped hip joint, among others.

The cardiovascular impacts of having Marfan syndrome can be significant, and have been the focus of the majority of prior research. The

“This combination of potentially weak hip joint musculature and abnormal joint shape can lead to high amounts of hip joint loading during walking, which may cause hip pain and cartilage breakdown,” Sheppard said.

study at UK will be a first-look at the mechanisms involved in the onset of hip joint pain and cartilage degeneration in patients with Marfan syndrome.

Nearly half of patients with Marfan syndrome self-report hip joint pain yet it is highly unrecognized by clinicians.

“This combination of potentially weak hip joint musculature and abnormal joint shape can lead to high amounts of hip joint loading during walking, which may cause hip pain and cartilage breakdown,” Sheppard said.

The research team will take a closer look at how the muscle weakness associated with Marfan syndrome leads to problems with hip joint muscle function, muscle morphology and gait mechanics. The exact association of these factors with the onset of hip joint pain and cartilage degeneration is unknown and of particular interest to the researchers.

“A mechanistic assessment of the effects of Marfan syndrome on the muscles and hip is needed because, although patients with this syndrome have weak quadriceps and hamstring muscles, we do not know whether or not the muscles around the hip joint are affected by the syndrome. Our project will determine how hip joint muscle weakness, size, and amount of fat within the mus-

Patients from Sheppard's clinic who volunteer for the study will have an MRI taken and have their gait analyzed in the UK Biodynamics Laboratory. The strength, size and amount of fat within their hip abductors will be measured, as well as the corresponding effects on their hip joint movement patterns, hip joint pain and cartilage health.

“We will provide an understanding of how the hip joint functions during walking in patients with Marfan syndrome,” Samaan said.

“We will provide an understanding of how the hip joint functions during walking in patients with Marfan syndrome,” Samaan said. “Our hope is that this will allow clinicians to develop treatments that can improve hip muscle function, reduce hip joint pain and reduce the risk of developing hip osteoarthritis in people with Marfan syndrome.”

The researchers expect future studies will help create targeted muscle-based therapies to reduce hip pain in people with Marfan syndrome and related conditions.



The Marfan Foundation is a non-profit organization that works to save lives and improve the quality of life for individuals and families with Marfan, Loeys-Dietz, VEDS and other genetic aortic and vascular conditions through research, education and support.

The grant awarded to Sheppard and the UK team is part of the foundation's 2020 research grant program. The total amount of research funded by this program in 2020 is \$1.4 million. For more information, please visit www.marfan.org.

If you would like to learn more about participating in this study, please call Dr. Mary Sheppard at 859-323-3280.

Drs Sheppard and Samaan in the UK Biodynamics Laboratory.

JING LI ON BUILDING A CAREER IN A NEW COUNTRY, QUALITY IMPROVEMENT AND JUMPING 'OUT OF THE BOX' BY UK VITAL SIGNS DECEMBER 2020

Jing Li came to the United States from her hometown of Tianjin, China, in 2000 with a medical degree in anesthesiology, a master's in clinical research and an anesthesiology residency, all completed at Tianjin Medical University. Because of the expense of obtaining a U.S. medical license and lack of interest in repeating another required residency, she pursued her passion for research.

After completing a second master's in computer and information science at the University of Alabama at Birmingham, Li began working in medical research at the UAB. Three years later, she was recruited by the Alabama Quality Improvement Organization, a contractor for the Centers for Medicare and Medicaid Services seeking to improve quality of care in a variety of service settings.

Since then, Li has become an expert in quality improvement. During a stint at Northwestern University in Chicago, she worked with Mark Williams, MD, MHM, FACP, UK HealthCare's current chief quality and transformation officer. Together, they worked to expand three quality improvement projects to more than 60 hospitals across Illinois. When Williams was recruited by UK HealthCare to direct the Center for Health Services Research, he asked Li to help him develop

Jing Li, MD, DrPH, MS, Associate Professor of Internal Medicine/Cardiovascular Medicine and co-director of the Center for Health Services Research

the program. Since coming to UK HealthCare in January 2014, she has overseen many quality-improvement research projects and received major funding from several prestigious organizations, including the National Institutes of Health, Patient-Centered Outcomes Research Institute, and the CMS.

VS: If you could go back five or 10 years in your career, what would you say to your younger self?

JL: People think having a mentor during their education and training is important. I would say if it is not more, it will be equally important to find a mentor at your work, especially for people just starting. A lot of times, for people coming out of school, the education they receive is quite broad. [You need] to have somebody work with you to figure out what you're really passionate about, and also help you to develop a plan for yourself.

VS: What is one work or life experience that you appreciate for the lessons you learned?

JL: The first project I did at Alabama QIO under CMS contract, I was told [that] we were required to reduce pressure ulcers at nursing homes. I did my homework and I pulled the data to see what worked at other places, but after three facilities told me "No, that won't work," I went to my manager at that time. My manager told me, "You told them, '[You] need to do better; this is what you should do.' You need to spend the time, understand their situation, and

then work with them together." So I gradually learned this skill, and I would say that's the lifetime lesson for me.

VS: How do you foster self-growth outside of work?

JL: I do a lot of self-reflection. If I cannot do it on a daily basis, I at least use the weekend to think about what happened in the past week and anything I really did well and should continue to do, and anything I feel like I could do better or do a different way. Sometimes I will talk with my friends and my mentors at UK and outside of UK to ask their opinion and share some thoughts with them. And I like having a new project where I can push myself to learn new knowledge and skills.

VS: What is the most courageous thing you have done?

JL: It's a pretty bold decision to move to another country. At that time, I had no idea how my career would be. I came alone and did not know anyone. I usually go back [to China] every year [to visit family]. This year the pandemic stopped everything. The good part right now is that with technology you can see family and so that helps. Also, I would say changing the job from UAB to Alabama QIO. I made a decision considering my interests and my future career, and it was not an easy decision. As a foreign person, we have this Visa limitation, so changing jobs is not easy and reduces the time for you to apply for permanent residency status.



On a trip to China, Jing Li visited a tea-leaf farm owned by a friend in Suzhou, where she learned the process of picking and preparing the leaves to be used in making tea.

VS: What was the hardest part about moving to the United States?

JL: We started to learn English in my generation when I was in elementary school. We have six years in elementary school, so starting in year five, we started learning English, and then through middle school, high school and college. But I got here and I still didn't know how to talk to people. It's a little scary. Can people understand me, or am I saying the right words? When you talk with people, what topics are appropriate and what are not? After a little bit, you start knowing people, and people are really nice, and they know you come from another country; a lot of times they help you.

VS: What was most exciting about moving to the United States?

JL: It's a different learning style regarding the overall education. You are told those are the required courses and then the others you feel free to choose whatever you want. In the education system back in China, all the courses are prescribed and

all planned. Even when I was in medical school, there were not many optional classes. In the U.S., suddenly you have freedom to choose what you learn; I would say that's amazing.

VS: What inspires you most in life?

JL: When I started my internship and residency back in China, I worked at the largest hospital in my hometown. Even back then it had over 1,000 beds, and a lot of outstanding professionals worked there. I heard amazing stories about those people, [how] they built up the program with a very poor infrastructure, and how hard they worked and what type of research they did. You feel like you'll never be able to reach them, and then when you got an opportunity to be on rounds with them, you saw how they interacted with patients, how they interacted with colleagues and how they mentored trainees. They are human beings, and they do not consider themselves as heroes. That made me feel like I wanted to be one of those people; I wanted to be able to achieve the same level of accomplishments and always try to be helpful to others.

"If you are lucky, you enjoy what you are doing. But there may be 80% of your job you enjoy and then there is 20% you don't. I just think about why I'm doing it, and I think about the people I work with, and most importantly about the difference we can make through what we do."

VS: Who is your role model?

JL: My older sister. I am amazed about her perseverance and resilience. She suffered severe burn damage at work soon after high school, so she didn't go to college. This required her to tolerate severe pain during the recovery, and she never complained. Amazingly she completed an associate degree during her recovery time. She is always a hard worker and always cares about family. Unfortunately, she was diagnosed with lymphoma last year and underwent intensive chemotherapy. But she maintains her optimism and focuses on what she can do and the good parts about life.

VS: What are your strategies for dealing with stress and difficult experiences at work?

JL: If you are lucky, you enjoy what you are doing. But there may be 80% of your job you enjoy and then there is 20% you don't.

JING LI CONTINUED

just think about why I'm doing it, and I think about the people I work with, and most importantly about the difference we can make through what we do. Other times I will talk with my mentors for I guidance. Sometimes I will purposely jump out of the box: I do not want to talk about it; I do not want to think about it. Just leave it maybe for several days and then later come back and try to look at it more from a third-person perspective and reassess the situation to see if there is anything I can do.

VS: What do you enjoy doing outside of work?

JL: I'm more like an introverted person, and I'm OK establishing partnerships, relationships and leading projects, but I need my downtime. Most of the time I drink tea. I collect teapots, and so my kind of tea ceremony time, that's my downtime to regain energy. [My favorite tea] depends on the different seasons and on the day. There is one type of clay, and it's only available in a small town in China and it can help make the tea flavor better.

Over time that teapot also absorbs the tea flavor. [It] needs to be one type of tea for one teapot; you can't mix them together. When I do all these types of things, it requires me to slow down and be in focus on what I'm doing, and I purely immerse myself in the moment.

I also talk with my friends, and then I like cooking. [My favorite dish is] a stir fry. I do not use a recipe, so I just kind of see what type of meat or seafood and what type of vegetables I have in my fridge. Then I will just be creative and do the combination by myself.

VS: What do the Living DIRECT (diversity, innovation, respect, compassion, teamwork) values mean to you in your own words?

JL: How I connect those together: diverse and innovative [people] can accomplish the most when they demonstrate the respect and the compassion for each other and their colleagues. A lot of times this respect and compassion is part of the requirement to be a team and to conduct teamwork and be innovative and generate good results.



During a tour of Suzhou, China, Jing Li visited a teapot store owned by a friend, who taught her the basics of making the clay teapots that she enjoys collecting.

NEW FACULTY



Gbolahan O. Ogunbayo, MD
Assistant Professor of Medicine

Residency: Rochester General Hospital, NY
Cardiology Fellowship: University of Kentucky
Interventional Fellowship: University of Kentucky



Yuri Boyechko, MD
Assistant Professor of Medicine

Residency: University of Kentucky
Cardiology Fellowship: University of Tennessee Chattanooga



Amit Arbune, MD, MHA, FACC
Assistant Professor of Medicine

Residency: North East Ohio Medical University
Cardiology Fellowship: Case Western Reserve University
ACI Fellowship: Yale University

Recording



WELCOME TO THE GILL HEART & VASCULAR INSTITUTE AFFILIATE NETWORK MEETING

OCTOBER 28 - 30



This year's Gill Heart and Vascular Institute Affiliate Network annual meeting was held October 28-October 30. Despite moving to a virtual format, over 100 individuals attended the event. The conference featured a keynote presentation from The Advisory Board as well as several first-time presentations, including Common Themes in Cardiovascular Litigation and How to Mitigate Risk. In addition, representatives from MedAxiom and Apex Innovations, companies whose services will soon be available to all Gill affiliates, provided an overview of the benefits and services they offer. UK's own marketing development manager, Laura Baker, co-presented the session, Making the Most of Marketing Your Gill Heart Affiliation, with Many Prather, Director of Marketing and Communications at Gill Affiliate, Lake Cumberland Regional Hospital. Gill

Affiliate Network Medical Director, Dr. Rick McClure, stated, "With over 18 hospitals, the Gill Affiliate Network now spans from far eastern Kentucky to far western Kentucky. Converting the meeting to a virtual format allowed for greater participation from all Network members and enhanced the opportunity for collaboration and networking among members."

To see more photos from the meeting search [Twitter](#) for #GAN2020.

OCTOBER GAN ANNUAL MEETING



The Gill Heart & Vascular Institute Affiliate Network works with members to enhance access to high-quality cardiovascular care by partnering with hospital members to provide the right care in the right place at the right time.

AFFILIATE PARTNERS

Clark Regional Medical Center
Winchester, KY

Ephraim McDowell Regional Medical Center*
Danville, KY

Frankfort Regional Medical Center
Frankfort, KY

Georgetown Community Hospital
Georgetown, KY

Harlan ARH Hospital
Harlan, KY

Harrison Memorial Hospital
Cynthiana, KY

Hazard ARH Regional Medical Center
Hazard, KY

Highlands Heart & Vascular
Prestonsburg, KY

Lake Cumberland Regional Medical Center
Somerset, KY

Manchester Memorial Hospital
Manchester, KY

Mary Breckenridge ARH Hospital
Hyden, KY

McDowell ARH Hospital
McDowell, KY

Mercy Health - Lourdes Hospital
Paducah, KY

Middlesboro ARH Hospital
Middlesboro, KY

Owensboro Health Regional Hospital
Owensboro, KY

Norton Healthcare
Louisville, KY

Tug Valley ARH
South Williamson, KY

Whitesburg ARH Hospital
Whitesburg, KY

For additional information about the Gill Affiliate Network, please contact Rebecca Craft at rebecca.craft@uky.edu or (859) 285-8083.



The Patient and Family Advisory Committee was inspired to create a cookbook of heart-healthy, recipes to help patients and families with new cardiac diagnoses as they adjust their lifestyles.

National Level

Eleftherios Xenos, Medical Director for the Midwest Vascular Collaborative
Vicki Gatz, Chair of the Vascular Technology Examination Assessment Committee
Susan Smyth, President Association of University Cardiologists
Vincent Sorrell, Associate Editor JASE
Alan Daugherty, Editor in Chief, ATVB
David Moliterno, MD, Editor in Chief, JACC: Cardiovascular Interventions

American Society of Echocardiography

Vincent Sorrell, Board of Directors
Majd Makhoul, Committee Member
Bryana Levitan, Research Council

Kentucky Chapter of the American College of Cardiology

Khaled Ziada, MD, Governor
Susan Smyth, MD, Immediate Past Governor
Gretchen Wells, MD, PhD, Secretary/Treasurer
Steve Leung, MD, Annual Scientific Meeting Committee Chair
Tracy Macaulay, PharmD, Councilor
Majd Makhoul, MD, Councilor
Matthew Sousa, MD, FIT Liaison
Susan Smyth, MD, PhD, Honorable Maestro Award

New programs

Cardiovascular Research Priority Area
 Cardio-oncology program
 Cardiac amyloidosis clinic

[UK Researchers Identify COVID-19 Blood Clotting Cause](#)

In Memorial, Thomas F Whayne, Jr, MD

DECEMBER YEAR IN REVIEW

US News Best Regional Hospital

High Performing in: Aortic Valve Surgery, Heart Failure, and Heart Bypass Surgery

By the numbers

- \$4.4 million in research funding as principle investigators
- 226 publications
- 35 active clinical trials
- 18 affiliate partners
- 10 outreach sites, including a new Frankfort adult congenital heart disease and structural heart services
- 600 hours of clinical and community education

Accreditations

Intersocietal Accreditation Commission (IAC)

- Echocardiography
- Nuclear cardiology
- Vascular testing

American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR)

Patient Experience Award – top 25% nationally

- Heart Station
- Cardiac Rehab
- CT Surgery
- 6 North

Awards

Gretchen Wells, American Heart Association's Council on Clinical Cardiology 2020 Women in Cardiology Mentoring Award

Thomas Tribble, Saha Award

Wally Whiteheart, NHLBI Outstanding Researcher

Jing Li, Robert Wood Johnson Foundation Research award

Gbolahan Ogunbayo, Alpha Omega Alpha

Amber Bach, MJ Dickson Quality Nursing Care Award

Hillary Nolan, the Karen Sexton Firestarter Award

Sara Smith, 2020 Nightingale Preceptor Award

Aaron Greer, 2020 CVICU RN Clinical Excellence Award

CV-RPA NEWS

GAME CHANGER THERAPY FOR HF PATIENTS

University prioritizes cardiovascular research to benefit Kentuckians across the Commonwealth

LEXINGTON, Ky. (Oct. 27, 2020) — Dr. Emma Birks, UK HealthCare's heart failure section chief, is working on a new treatment therapy that recovers the hearts of some patients with advanced-stage chronic heart failure and ultimately cut down the number of heart transplants needed.

Birks' study, "REmission from Stage D Heart Failure: RESTAGE-HF," is featured in the publication *Circulation*.

The multicenter study, involving 40 patients from six high-profile medical centers across the United States, tested myocardial recovery using a cardiovascular treatment tool called ventricular assist devices (LVADs).



LVADs are typically used in end-stage heart failure patients as a therapy of last resort, most often as a bridge to transplant or destination therapy in patients considered to have failed medical therapy for advanced chronic heart failure.

Birks' team has found that instead of using LVADs as a temporary solution, of sorts, it can be used in combination with aggressive medical therapy and regular testing of underlying myocardial function, to promote recovery of the patient's own heart, which ultimately can result in the patient recovering and the LVAD being removed.

"This could be a game-changer with very positive implications," Birks said. "Not only can patients resume a normal quality of life and avoid the need for immunosuppressant drugs associated with transplant surgery, it also frees up a donor heart that can be used for patients with greater needs."

Previously, the rate at which this occurs is reported as only 1-2% in the national LVAD registry, but Birks said that's only because few medical centers prospectively test or look for evidence of recovery, and often heart

failure medications are not continued or optimized after LVAD implantation. "We have come up with a way to more effectively use a device that is already widely used and available, by using it as a platform to add a drug regime designed to improve their heart function."

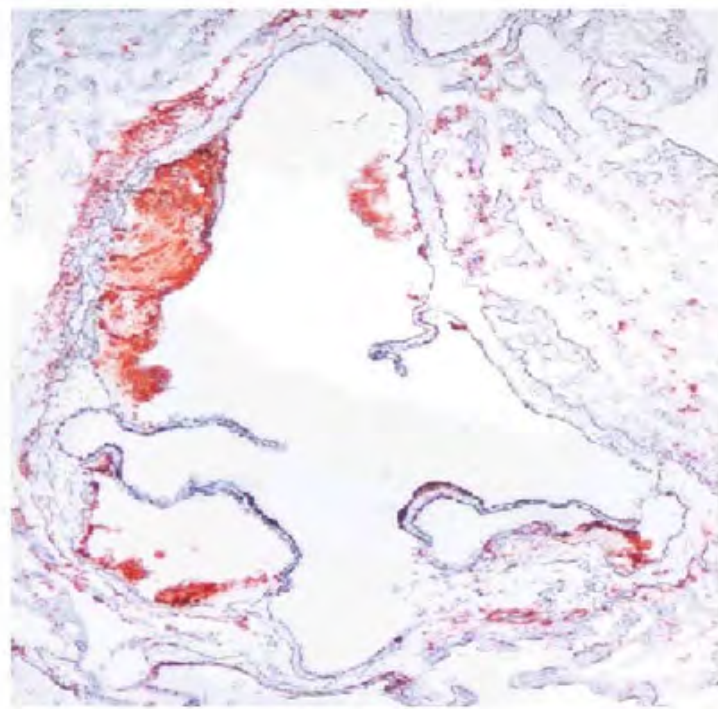
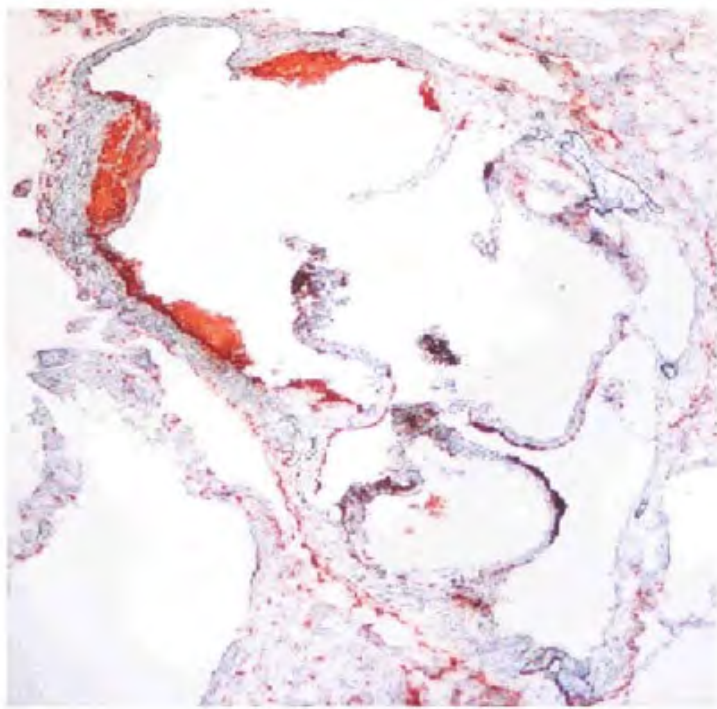
Of the 40 patients receiving the pump as a bridge to transplant or as destination therapy, 40% of them achieved the highest end goal - to live free from mechanical support and heart transplantation one year after an LVAD explant (device removed). More than 50% of the patients were explanted overall. "This is significant because the RESTAGE-HF protocol was reproducible with explants in all six participating sites," Birks said. "We hope this will result in implementation of this strategy in other LVAD centers with broader application."

Birks plans to focus on using the LVAD as a platform to induce myocardial recovery using this protocol as a "Stage 1" base that centers could more broadly adopt.

"We have come up with a way to more effectively use a device that is already widely used and available, by using it as a platform to add a drug regime designed to improve their heart function."

Emma Birks, MD

*Emma Jane Birks, MD
Section Chief Heart Failure,
Department of Cardiovascular
Medicine*



RESEARCH FEATURE DISRUPTION OF THE CIRCADIAN SYSTEM

[Circadian disruption with constant light exposure exacerbates atherosclerosis in male ApolipoproteinE-deficient mice.](#) Chalfant, JM, Howatt DA, **Tannock, LR, Daugherty A, Pendergast JS.** *Sci Rep.* 2020 Jun 18;10(1):9920. doi: 10.1038/s41598-020-66834-9.

Disruption of the circadian system caused by disordered exposure to light is pervasive in modern society and increases the risk of cardiovascular disease. The mechanisms by which this happens are largely unknown.

What they did: In this study, we determined the effects of light-induced circadian disruption on atherosclerosis in ApoE^{-/-} mice. We induced severe disruption of circadian rhythms by exposing ApoE^{-/-} mice to constant light for 12 weeks.

What they found: Constant light exposure exacerbated atherosclerosis in male, but not female, ApoE^{-/-} mice. Male ApoE^{-/-} mice exposed to constant light had increased serum cholesterol concentrations due to increased VLDL/LDL fractions.

Why it matters: Taken together, these data suggest that exacerbated dyslipidemia may mediate atherosclerotic lesion formation caused by constant light exposure.

Visit : <https://www.research.uky.edu/research-priorities-initiative-cardiovascular-diseases/cardiovascular-diseases> for more information.

Please visit: <https://redcap.uky.edu/redcap/surveys/?s=W4WY8DEHEH> to join the CV-RPA.



Ahmed Abdel-Latif

Lysophosphatidic Acid Mediates Cardiac Inflammation After Acute Infarction

National Heart Lung and Blood Institute

08/01/17-07/31/22

Doug Andres

RIT1-Mediated Protection Following Traumatic Brain Injury

National Institute of Neurological Disorders & Stroke

02/15/2018-01/31/23

G-protein Signaling Reduces Neurodegeneration and Promotes Recovery of Synaptic Strength following Traumatic Brain Injury

KY Spinal Cord and Head Injury Research Trust

01/15/17-01/14/21

RIT1 as Novel Driver Oncogene in Lung Adenocarcinoma

KY Lung Cancer Research Fund

07/01/16-06/30/21

An Innovative Therapeutic Approach to Treat Cardiomyopathy

Army Medical Research and Materiel Command

07/01/20-06/30/23

Donna Arnett

Genomewide Association Study of Lipid Response to Fenofibrate and Dietary Fat

National Heart Lung and Blood Institute

12/01/07-02/28/21

Ken Campbell

Multiscale Modeling of Inherited Cardiomyopathies and Therapeutic Interventions

National Heart Lung and Blood Institute

08/03/17-07/31/22

Length-Dependent Activation in Human Myocardium

National Heart Lung and Blood Institute

09/15/20- 07/31/24

Dual Filament Control of Myocardial Power and Hemodynamics

University of Missouri

08/25/20- 07/31/24

Computer Modeling of Myosin Binding Protein C and its Effect on Cardiac Contraction

Case Western Reserve

04/01/19-03/31/23

Thick-Filament Regulation In Human Heart Failure

Washington State University

07/01/19-06/30/22

CRCNS: Multi-Scale Models of Proprioceptive Encoding for Sensorimotor Control

Emory University

09/16/16-05/31/2021

Lisa Cassis

Center of Research in Obesity and Cardiovascular Disease COBRE

Core A: Admin

Core National Institute of General Medical Sciences

09/08/08-07/31/23

Supplemental Environmental Project Compliance Assistance Tools and Services

KY Department of Environmental Protection

07/01/07-12/31/21

EPSCoR Administrative

KY Economic Development Cab

02/01/19-06/30/22

RESEARCH FUNDING CONTINUED

Healthy Kentucky Research Building
Fit-up for Vascular Research
Office of the Director
09/23/19-10/31/21

Sex Differences in Angiotensin-Induced Vascular Diseases
National Heart Lung and Blood Institute
03/21/12-05/31/21

Richard Charnigo

Almost-Smooth Nonparametric Regression and Pattern Recognition
12/14/16-11/13/20

Alan Daugherty

University of Kentucky- Baylor College of Medicine Aortopathy Research Center
American Heart Association
04/01/18-03/31/22

Adventitial-Medial Interactions in Thoracic Aortic Diseases
American Heart Association
06/01/16- 05/31/21

Macrophage Migration Inhibitory Factor and Urinary Pain
Lexington Biomedical Research Institute
07/01/19-06/30/23

Brian Delisle

Transcriptional Regulation of KCNH2
National Heart Lung and Blood Institute
03/08/19-02/28/23

Circadian Clock Regulation of Myocardial Ion Channel Expression and Function
University of Florida
09/01/20- 05/31/21

Tbx3-regulated Alternative RNA Processing in Cardiac Conduction System Development
Geisinger Health System
04/15/16- 03/31/21

Florin Despa

The Amylin Dyshomeostasis Hypothesis of Vascular Contributions to Cognitive Impairment and Dementia (VCID)
National Institute of Neurological Disorders & Stroke
04/01/20-03/31/25

Programing Amylin Secretion to Slow Brain Aging - An Animal Model
National Institute of Aging
09/15/17-04/30/22

Role of Systemic Amylin Dyshomeostasis in Alzheimer's Disease
National Institute on Aging
09/15/16- 05/31/21

Ming Gong

Targeting Timing of Food Intake as a Novel Strategy against Disruption of Blood Pressure Circadian Rhythm in Diabetes
National Heart Lung and Blood Institute
01/15/19-10/31/22

A Novel Mechanism by which Smooth Muscle BMAL1 Regulates IL-6 and Sexual Dimorphism of Abdominal Aortic Aneurysm
National Heart Lung and Blood Institute
08/20/18-07/31/22

Scott Gordon

The Role of High Density Lipoprotein Associated Protease Inhibitor Activity in Protection Against Atherosclerosis.
National Heart Lung and Blood Institute
08/20/18-07/31/21

Protease Activity in Atherosclerotic Plaque Formation and Protection by Novel HDL-targeting Protease Inhibitors
Medical Foundation
12/01/18-11/30/20

High Density Lipoprotein Targeting Protease Inhibitors for Preservation of Lung Function
Alpha One Foundation Inc.
07/01/19-12/31/20

Gregory Graf

Contributions of hepatic and intestinal pathways to cholesterol excretion
National Institute Diabetes & Digestive & Kidney
09/13/17-07/31/22

RESEARCH FUNDING CONTINUED

Bernhard Henning

Nutrition and Superfund Chemical Toxicity
National Institute of Environmental Health Sciences
04/01/97-01/31/25

Brian Jackson

Graduate Research Fellowship Program
National Science Foundation
08/01/18-07/31/23

Jing Li

Project MISSION: Developing a multicomponent, Multilevel Implementation Strategy for Syncope
OptImalCare thrOUGH eNgagement
National Heart Lung and Blood Institute
08/15/18-07/31/21

Xiangnan Li

Mechanism of Adrenal Insufficiency as A Risk Factor for Sepsis
National Institute of General Medical Sciences
09/01/17-08/31/21

Synthetic HDL a Potential Sepsis Therapy
National Institute of General Medical Sciences
11/01/15-11/30/21

Zhenyu Li

Inflammasome Activation Triggers Systemic Coagulation in Sepsis
National Heart Lung and Blood Institute
05/15/19-04/30/23

A Novel Mechanism of Immunosuppression in Sepsis: Depletion of Monocytes and Macrophages
National Institute of General Medical Sciences
09/20/19-06/30/23

Heart-Platelet Crosstalk: JNK, AFib, and Thrombogenesis
Rush University Medical Center
05/15/19-02/28/23

Analia Loria

Effect of Early Life Stress on Obesity-Induced Hypertension in Mice
National Heart Lung and Blood Institute
12/01/17-11/30/22

Fat Nerve Recording in Mice
American Physiological Society
10/01/19-07/31/21

Hong Lu

Atherosclerosis Mechanisms: Angiotensin II Production and Action
National Heart Lung and Blood Institute
05/01/18-03/31/22

Andrew Morris

Define the Twist-ATX-LPAR1 Signaling Axis in Promoting Obesity-Associated Triple Negative Breast
Cancer Army Medical Research and Materiel Command
04/15/16-04/14/21

Anniston Community Health Survey: Follow-up Study and Dioxin Analyses
National Cancer Institute
05/01/19-04/30/21

Debra Moser

Rural Intervention for Caregivers' Heart Health (RICHH)
National Institute of Nursing Research
09/26/16-06/30/21

Online Cognitive Behavioral Therapy for Depressive Symptoms in Rural Coronary Heart Disease Patients
Patient Centered Outcomes Research Institute
10/01/2020 to 09/30/2024

Gia Mudd-Martin

Corazón de la Familia (Heart of the Family)
National Institute of Nursing Research
03/02/17-01/31/22

Heart of the Family: A Cardiovascular Disease and Type 2 Diabetes Risk Reduction Intervention in High-Risk Rural Families
National Institute of Nursing Research
09/07/20- 06/30/25

Timothy Mullett

Using Biomarkers and Imaging in Fungal Regions to Improve Lung Cancer
Diagnosis Vanderbilt University
04/01/19-03/31/21

Kentucky Lung Cancer Survivorship Program
Bristol Myers Squibb Foundation Incorporated
09/01/14- 02/28/21

RESEARCH FUNDING CONTINUED

Mariana Nikolova-Karakashian
Ceramide and Acute Phase Proteins
Elevation During Aging
National Institute on Aging
08/01/02-05/31/23

Jonathan Satin
Monomeric G-Proteins and Cardio-
protection from Heart Failure
National Heart Lung and Blood
Institute
09/01/17- 08/31/21

An Innovative Therapeutic Approach
to Treat Cardiomyopathy
Army Medical Research and Materiel
Command
07/01/20- 6/30/23

Nancy Schoenberg
Community to Clinic Navigation to
Improve Diabetes Outcomes
National Institute Diabetes & Digestive & Kidney
08/01/17-07/31/22

Implementing an Evidence-Based
mHealth Diet and Activity Intervention: Make Better Choices 2 for Rural
Appalachians
National Heart Lung and Blood
Institute
08/01/20- 04/30/25

Susan Smyth
Lipid Phosphate Phosphatase 3 as a
Novel Atherosclerosis Suppressor
National Heart Lung and Blood
Institute
04/01/15-03/31/21

NRSA Training Core (Kentucky
Center for Clinical and Translational
Science)
National Center for Advancing
Translational Sciences
08/15/16-05/31/21

Venkateswaran Subramanian
Calpains and Abdominal Aortic
Aneurysms
National Heart Lung and Blood
Institute
08/10/17-07/31/21

Ryan Temel
TRAF6 Nanoimmunotherapy to
Resolve Plaque Inflammation
Mount Sinai
08/15/18-06/30/21

Targeting MicroRNA-33 To Reduce
Intracranial Atherosclerosis and
Other Neurovascular Hallmarks of
Vascular Cognitive Impairment and
Dementia
National Institute of Neurological
Disorders & Stroke
04/01/19-03/31/21

Therapeutic Targeting of Metabolic
microRNAs as a New Treatment
Paradigm for NASH
Aalborg University
01/01/19-12/31/24

Dongfang Wang
Development of a Paracorporeal
Pump-Integrated Artificial Lung for
Transport of Warfighters with Acute
Respiratory Distress Syndrome
(ARDS)
Army Medical Research and Materiel
Command
08/15/19 -08/14/22

SBIR: Development of a TransApical
to Aorta Double Lumen Cannula for
a Neonate LVAD
W-Z Biotech LLC
04/01/19-07/31/21

Shuxia Wang
Thrombospondin 1 in obesity associ-
ated inflammation and insulin resis-
tance National Institute Diabetes
& Digestive & Kidney
08/20/17-05/31/21

Christopher Mark Waters
Biophysical Mechanisms of Hyper-
oxia-Induced Lung injury
National Heart Lung and Blood
Institute
04/15/20- 03/31/24

ASK1 and Ventilator-Induced Lung
Injury
National Heart Lung and Blood
Institute
12/15/16-11/30/20

Regulation and Function of IL33
During Neonatal RSV Infection
Louisiana
State University
05/05/18-07/31/21

Nancy Webb
Serum Amyloid A, Inflammasome
Activation, and Abdominal Aortic
Aneurysms
National Heart Lung and Blood
Institute
01/01/17-12/31/21

RESEARCH FUNDING CONTINUED

NRSA T32: Pharmacology and
Nutritional Sciences: Multidisci-
plinary Approaches for Metabolic
Disease National Institute Diabe-
tes & Digestive & Kidney
08/15/00-07/31/21

Jonathan Wenk

Force Validated Heart Valve Sur-
gical Planning Tool
University of Arkansas
09/01/19-08/31/22

Sidney Whiteheart

Platelet Exocytosis and Endocyto-
sis in Thrombosis and Immunity
National Heart Lung and Blood
Institute
04/01/20-03/31/28

Jeremy Wood

Protein S Anticoagulant Activity:
Biochemical Mechanisms and
Structural
Studies National Heart Lung and
Blood Institute
09/15/15-03/31/21

SEMINARS AND JOURNAL CLUBS

* Please note if these seminars are still occurring, they will be online only. Check website for details.

Cardiovascular Seminar Series

Fridays at 8:00 am

This forum brings to campus prominent external speakers and provides presentations by UK faculty to ensure their research expertise is widely known.

<https://cvrc.med.uky.edu/cvrc-current-seminar-schedule>

Cardiovascular Journal Club

Tuesdays at 8:00 am

Presenters in this forum discuss specific citations including basis for this publication's selection, strengths and weaknesses, from the perspective as if he/she were the original reviewer. For more information contact:

Greg Graf, Ph.D. or Ryan Temel, Ph.D.

<https://cvrc.med.uky.edu/cvrc-current-journal-club-schedule>

Blood Cell Journal Club

4th Friday of each month at 4:00 pm

The journal club was started a number of years ago in an effort to provide a focal point for the hemostasis community at UK. The focus is usually on platelets but they also discuss papers on Coagulation and Immune responses.

<https://cvrc.med.uky.edu/cvrc-blood-cell-journal-club-2018>

PUBLICATIONS

OCTOBER-DECEMBER

Abo-Aly M, George B, Shokri E, Chelvarajan L, El-Helw M, Smyth SS, **Abdel-Latif A**, Ziada K. Cangrelor in addition to standard therapy reduces cardiac damage and inflammatory markers in patients with ST-segment elevation myocardial infarction. *J Thromb Thrombolysis*. 2020 Nov 30. doi: 10.1007/s11239-020-02345-8.

Ai AL, **McMullen CA**, **Smyth SS**. Preoperative Optimism Related to Low Anxiety in Patients 1 Month After Open Heart Surgery. *J Nerv Ment Dis*. 2020 Dec;208(12):966-973. doi: 10.1097/NMD.0000000000001236.

Ai AL, **Smyth SS**. Depression After Open Heart Surgery: Influences of Optimism, Sex, and Event-Related Medical Factors. *J Nerv Ment Dis*. 2020 Dec 11. doi: 10.1097/NMD.0000000000001285.

Al-Darraj A, Donahue RR, Tripathi H, Peng H, **Levitan BM**, Chelvarajan L, Haydar D, Gao E, Henson D, Gensel JC, Feola DJ, **Venditto VJ**, **Abdel-Latif A**. Liposomal delivery of azithromycin enhances its immunotherapeutic efficacy and reduces toxicity in myocardial infarction. *Sci Rep*. 2020 Oct 6;10(1):16596. doi: 10.1038/s41598-020-73593-0.

Alnabelsi T, **Annabathula R**, **Shelton J**, Paranzino M, Faulkner SP, Cook B, Dugan AJ, Nerusu S, **Smyth SS**, **Gupta VA**. Predicting in-hospital mortality after an in-hospital cardiac arrest: a multivariate analysis. *Resuscitation Plus*. Volume 4, December 2020, 100039.

AlSiraj Y, Thatcher SE, Blalock E, Saintilnord WN, **Daugherty A**, **Lu HS**, Luo W, Shen YH, LeMaire SA, Arnold AP, **Cassis LA**. Monosomy X in Female Mice Influences the Regional Formation and Augments the Severity of Angiotensin II-Induced Aortopathies. *Arterioscler Thromb Vasc Biol*. 2020 Oct 15:ATVBA-HA120314407.

Badia D, Hillard B, **Ritchie C**, Miller MD, **Orr N**, **Tyagi S**. Ureteral Arterial Fistula - A Role for Open Operation in the 21st Century. *Ann Vasc Surg*. 2020 Dec 14:S0890-5096(20)31020-7. doi: 10.1016/j.avsg.2020.10.032.

Beavers CJ, Wayne NB. Osocimab: A Novel Agent in Preventing Venous Thromboembolism. *J Cardiovasc Pharmacol*. 2020 Oct 1. doi: 10.1097/FJC.0000000000000921.

Birks EJ, Drakos SG, Patel SR, Lowes BD, Selzman CH, Starling RC, Trivedi J, *et al*. A Prospective Multicentre Study of Myocardial Recovery Using Left Ventricular Assist Devices (Remission from Stage D Heart Failure: RESTAGE-HF): Medium Term and Primary Endpoint Results. *Circulation*. 2020 Oct 26. doi: 10.1161/CIRCULATIONAHA.120.046415.

Bohnen JD, **George BC**, **Zwischenberger JB**, Kendrick DE, **Meyerson SL**, Schuller MC, Fryer JP, *et al*. Trainee Autonomy in Minimally Invasive General Surgery in the United States: Establishing a National Benchmark. *J Surg Educ*. 2020 Nov-Dec;77(6):e52-e62. doi: 10.1016/j.jsurg.2020.07.033.

Bonaroti AR, Edmunds RW, DeCoster RC, Liao JY, **Sekela ME**, Vasconez HC. Cardioplastic Approach to Omental Flap Coverage for Severe Aortic Root Infections in the Opioid Era. *Plast Reconstr Surg Glob Open*. 2020 Oct 28;8(10):e3197. doi: 10.1097/GOX.0000000000003197.

Bryan DS, Ferguson MK; members of the Delphi Lobectomy Cooperative (**Meyerson SL**). Consensus for Thoracoscopic Left Upper Lobectomy-Essential Components and Targets for Simulation. *Ann Thorac Surg*. 2020 Oct 27:S0003-4975(20)31739-2. doi: 10.1016/j.athoracsur.2020.06.152.

Chalfant JM, Howatt DA, **Tannock LR**, **Daugherty A**, Pendergast JS. Circadian disruption with constant light exposure exacerbates atherosclerosis in male Apolipoprotein E-deficient mice. *Scientific Reports* 2020 10(1): 9920.

Chung ML, Lee SJ, Son YJ, Miller JL, King RB. Depressive Symptom Trajectories in Family Caregivers of Stroke Survivors During First Year of Caregiving. *J Cardiovasc Nurs*. 2020 Nov 25. doi: 10.1097/JCN.0000000000000773.

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PUBLICATIONS CONTINUED

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UPCOMING 2021 EVENTS

Aortic Symposium- Date March TBD

Heart Walk- May 8

Nurses Week- May 6-12

Cardiology Fellows Graduation- May 14

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