Welcome to the Augusta
University Medical Center
Cardiology Fellowship

Program



Wael Al Jaroudi PD

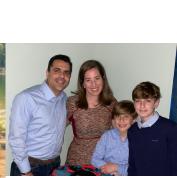
- MD from AUBMC
- Residency Duke; Cardiology Fellowship UAB; CMR fellowship: Duke
- Worked at Cleveland Clinic, Ohio
- Moved back to AUBMC as CV Fellowship Director. Did my EMBA
- Came to Augusta University- MCG in 2021
- Enjoy outdoor activities (biking, kayaking, picnic)
- Still bad in golf
- Soccer and basketball dad













Evan Hiner APD

- Michigander
- Residency and Fellowship at Michigan State University "Go Green, Go white"
- Advanced Heart Failure and Transplant at UIC Advocate Christ Medical Center
- Joined MCG/AU 2021
- Obsessed with Medical Jeopardy
- Interests outside work: Outdoors, tennis, golf, fishing, working out











Kim Ritchie PC

- From Arlington, TX
- Bachelor of Arts at Texas Tech University
- 21 kids two biological (Jordan & Graham), one in-law (Piper), 18 Fellows (proud of every one!)
- Favorite Color: Aqua
- Interests outside of work: All kinds of music, travelling, kayaking, bicycling, reading, anything lake or beach-related





Lisa Dyke (Chief Fellow)

- From all over the place!
- Massive Office fan, EDM lover, true crime/serial killer fan
- Heading to the University of Massachusetts for IC fellowship
- Favorite color: blue (but in reality, ANYTHING BRIGHT AND NEON!)
- Former D1 tennis player (not as good anymore!)
- Interests outside of work: my family and friends, my dog JJ, video games, going to EDM festivals and watching/playing sports



Sean Harrell (Chief Fellow)

- "From" Augusta
- Residency, Chief Residency, and Fellowship at AU/MCG
- Heading to Loyola in Chicago for IC and Structural Fellowship
- Favorite Color: Blue
- Roundabout/Circuitous path to Medicine/Cardiology/IC/Structural Always happy to discuss/guidance
- Interests outside of Cardiology: My Family! (Katie, Owen-5, Jack-2, Baby Boy #3- happily accepting name suggestions, and Cooper).



A little about AU/MCG

- MCG was the first medical school established in Georgia
- 5 fellows per year, 15 fellows total
 - o 1 Interventional cardiology fellow per year
 - o 1 EP fellow per year (total of 2)
- Level 1 trauma center, certified stroke center, Large STEMI/PCI center
- LVAD program
- New CVICU
- 2 Subfellowships offered at this time (IC and EP)



Graduates of MCG

- Spencer King: MCG alumni
- Rebecca Napier: HF specialist at University of South Carolina School of Medicine in Columbia
- Uzoma Ibebuogu: Interventional-Adult congenital. Cedar-Sinai then University of Tennessee
- Syed Shumile Zaidi: Chief of Cardiology at University of Maryland Medical Center
- Garrison Morgan: Director of Structural Heart Disease at MUSC
- Ruchit Shah: Electrophysiologist at UAB
- Guillermo Pineda: Interventional Cardiologist at University of South Carolina School of Medicine
- Gyanendra Sharma: Director of Echo at AUMC
- Vishal Arora: IC Fellowship Director at AUMC
- Haitham Hreibe: Chief of EP at AUMC

Cardiology rotations/services provided

- Cardiac Catheterization at the main hospital and at the VA
 - O Advanced cases including Brachytherapy, shockwave, high-risk PCI, rotational atherectomy
 - O Unprotected LM PCI with impella support
- EP (ablation, devices, watchman)
- Structural heart/PFO/ASD/TAVR/MitraClip/VSD
- ECHO (the only accredited lab in the region in all 3: TTE, S/E and TEE)
- Nuclear
- CT/MRI
- CVICU
- Advanced Heart Failure/LVAD/Cardiomems
- Floor/ED/ICU consults
- Research
- Night float system



More services provided!!!

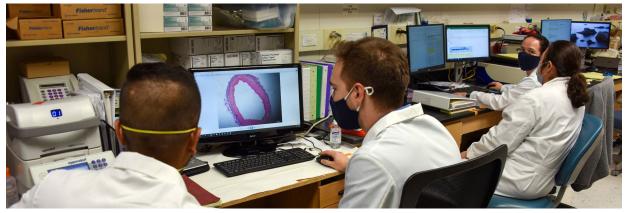
- Cardio-obstretics clinic
- Cardio-oncology clinic
- Preventative cardiology
- Advanced cardiac imaging (2 new Siemens CMR machines), cardiac CT and CAC scoring screening
- PERT (PE response team)
- Pulmonary embolism clinic
- Vascular clinic
- Heart and Brain clinic (PFO/stroke)
- Sleep clinic
- We offer diverse treatment for all patients, with and without insurance, Veterans, inmates (ASMP), we take referrals from outside clinics and hospital (Lake Oconee, Aiken, Sandersville, etc)
- You will be able to get Level 2 in Echo and Nuclear imaging with opportunities to get level 1 in CMR and CT (possibly level 2 if you want to specialize in imaging)

Research

- The <u>Carnegie Classification of Institutions of Higher Education</u> recently announced Augusta University has received a <u>"high research activity"</u> ranking, otherwise known as an "R2" designation, in the 2021 classification update.
- In the "critical" funding from the National Institutes of Health, MCG at Augusta University went from \$52.7 million in 2019 to \$65.2 million this year, a 19.1% increase and the overall research funding went from \$84.8 million to \$104.8 millions
- Drs. <u>Lynn Hedrick</u> and <u>Klaus Ley</u>, immunologist and Vascular biologists from the <u>La Jolla Institute for</u> <u>Immunology</u> in California have joined AU-MCG as <u>Georgia Research Alliance Eminent Scholars</u>, to start the new <u>Transdisciplinary Research Initiative in Inflammaging and Brain Aging</u>
- The <u>National Institutes of Health</u> (NIH) has awarded <u>Georgia Institute of Technology</u>, <u>Emory University</u> and <u>Medical College of Georgia</u> (MCG) a grant to partner on a Nanomedicine Development Center that will focus on DNA damage repair
- Promising research for genetic disorders by using gene editing

Basic Research Vascular Biology Center





Basic Research Focus Areas

- Obesity-related cardiovascular disease
- Abdominal aortic aneurysms
- Atherosclerosis
- Saphenous vein bypass graft disease
- Epigenetics of cardiovascular disease
- Inflammation/atypical chemokine receptors





Basic Research Recent Publications

The Journal of Clinical Investigation

RESEARCH ARTICLE

Histone deacetylase 9 promotes endothelialmesenchymal transition and an unfavorable atherosclerotic plaque phenotype

Laura Lecce, Yang Xu, Bhargavi V'Gangula, Nirupama Chandel, Venu Pothula, Axelle Caudrillier, Maria Paola Santini, Valentina d'Escamard. Delaine K. Ceholski. Przemek A. Gorski. Lijiang Ma. 3 Simon Koplev. Martin Mæng Bjørklund. Iohan L.M. Biörkegren. 3.6 Manfred Boehm. 7 Iacob Fog Bentzon. 4.5 Valentin Fuster. 1.5 Ha Won Kim. 8 Neal L. Weintraub. 8 Andrew H. Baker.² Emily Bernstein.⁹ and Jason C. Kovacic^{1,10,11}

¹Cardiovascular Research Institute, Icahn School of Medicine at Mount Sinai, New York, New York, USA. ²Centre for Cardiovascular Science, University of Edinburgh, Edinburgh, United Kingdom. ³Department of Genetics and Genomic Sciences. Icahn School of Medicine at Mount Sinai, New York, New York, USA. 4Department of Clinical Medicine, Heart Diseases, Aarhus University, Aarhus, Denmark. 5Centro Nacional de Investigaciones Cardiovasculares (CNIC), Madrid, Spain. Entegrated Cardio Metabolic Centre, Department of Medicine, Karolinska Institutet, Karolinska Universitetssjukhuset, Huddinge, Sweden, "Laboratory of Cardiovascular Regenerative Medicine, Translational Vascular Medicine Branch, National Heart Lung and Blood Institute, NIH, Bethesda, Maryland, USA, "Department of Medicine," Cardiology Division and Vascular Biology Center, Medical College of Georgia at Augusta University, Augusta, Georgia, USA. 9Departments of Oncological Sciences and Dermatology, Icahn School of Medicine at Mount Sinai, New York, New York, USA. 10 Victor Chang Cardiac Research Institute, Darlinghurst, New South Wales, Australia, 11 St. Vincent's Clinical School, University of New South Wales, Sydney, Australia

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RESEARCH ARTICLE



Endothelial AMPKα1/PRKAA1 exacerbates inflammation in HFD-fed mice

Qiuhua Yang¹ | Qian Ma^{1,2} | Jiean Xu^{1,2} | Zhiping Liu^{1,3} | Xiaoxiao Mao^{1,2} Yaqi Zhou² | Yongfeng Cai² | Qingen Da⁴ | Mei Hong² | Neal L. Weintraub¹ David J. Fulton¹ | Eric J. Belin de Chantemèle¹ |

¹Vascular Biology Center, Department of Cellular Biology and Anatomy, Medical College of Georgia, Augusta University, Augusta, Georgia, USA

²State Key Laboratory of Chemical Oncogenomics, Key Laboratory of Chemical Genomics, Peking University, Shenzhen, China

³Guangdong Province Key Laboratory of Pharmacodynamic Constituents of Traditional Chinese Medicine and New Drugs Research, College of Pharmacy, Jinan University, Guangzhou, China

⁴Department of Cardiovascular Surgery, Peking University Shenzhen Hospital, Shenzhen, China

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Research Article

Role of prostaglandin D₂ receptors in the pathogenesis of abdominal aortic aneurysm formation

Neal L. Weintraub^{1,2,*}, Andra L. Blomkalns^{3,*,†}, Mourad Ogbi^{1,2}, Tetsuo Horimatsu^{1,2}, Tyler W. Benson^{1,2}, Yuging Huo^{2,4}, David J. Fulton^{2,5}, Gautam Agarwal⁶, Richard Lee⁶, Michael A. Winkler⁷, Lufei Young⁸, Ken Fujise⁹, Avirup Guha¹⁰, Tohru Fukai^{1,2}, Masuko Ushio-Fukai^{1,2}, Xiaochun Long^{1,2}, Brian H. Annex^{1,2} and Ha Won Kim^{1,2}

Department of Medicine, College of Nursing at Augusta University, Augusta, GA, U.S.A.; Vascular Biology Center, Medical College of Georgia, College of Nursing at Augusta University, Augusta, GA, U.S.A.: Department of Emergency Medicine, University of Cincinnati College of Medicine, Cincinnati, OH, U.S.A.: Cellular Biology and Anatomy, College of Nursing at Augusta University, Augusta, GA, U.S.A.; 5 Pharmacology and Toxicology, College of Nursing at Augusta University, Augusta, GA, U.S.A.; 6 Surgery, College of Nursing at Augusta University, Augusta, GA, U.SA.: 7Rediology, College of Nursing at Augusta University, Augusta, GA, U.S.A.: 8Physiological and Technological Nursing, College of Nursing at Augusta University, Augusta, CA, U.S.A.; Division of Cardiology, Haborview Medical Center, University of Washington, Seattle, WA, U.S.A.; Herrington Heart and Vescular Institute, Case Western Reserve University School of Medicine, Cleveland, OH, U.S.A.

Correspondence: Neal L. Weintraub (nweintraub@augusta.edu) or Ha Won Kim (hkim3@augusta.edu)

Population Science Research Cardio-Oncology







Research Focus Areas

- Prostate Cancer Disparities
- Cardiovascular Outcomes in Patients with Cancer
- Social Determinants of Health

MCG receives \$2.84 million to study cancer and heart disease

Medical College of Georgia is one of four institutions in the country selected to help study the correlation between cancer and heart disease. The American Heart Association gave \$11 million to four different institutions, and MCG got \$2.84 million of it.

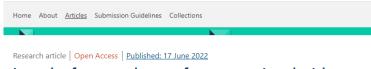


Recent Publications and Productivity

European Heart Journal



BMC Cardiovascular Disorders



Length of stay and cost of care associated with admissions for atrial fibrillation among patients with cancer

Avirup Guha, Anubhav Jain, Ankita Agganwal, Amit K. Dey, Sourbha Dani, Sarju Ganatra, Francis E.

Marchlinski, Daniel Addison & Michael G. Fradley

✓

BMC Cardiovascular Disorders 22, Article number: 272 (2022) | Cite this article

665 Accesses 6 Altmetric Metrics



Research

Randomized clinical trials

AEGIS- II

Principal Investigator: Vishal Arora MD, MBA

• A Phase 3, Multicenter, Double-blind, Randomized, Placebo-controlled, Parallel-group Study to Investigate the Efficacy and Safety of CSL112 in Subjects With Acute Coronary Syndrome

HI- PEITHO

Principal Investigator: Vishal Arora MD, MBA

• A Randomized Trial of Ultrasound-facilitated, Catheter-directed, Low-dose Fibrinolysis Versus Anticoagulation for Acute Intermediate-high Risk Pulmonary Embolism: The Higher-risk Pulmonary Embolism Thrombolysis Study

Clinical Research: Georgia Prevention Institute

- Cardiovascular function in cancer patients
- Hypertension
- Inflammation
- Obesity



Dr. Ryan Harris



Fellow Development

- You will learn how to be a teacher and a leader, be an administrator, provide community service and service to other hospitals
- Medical school offers opportunity to learn how to be a teacher/academic (robust course and training)
- Participate in patient safety measures, root-cause analysis
- Opportunity to get an MBA for free
- We have a fellowship fund ('Miller Fund')from a grant given by a former alumni that is can be accessed by fellows for further educational activities (National conferences, books, materials, board courses, research, educational opportunities)
- \$1200/year in educational funds that can be used for any educational source/boards/travel, etc.



Faculty development

- Ongoing faculty development (teaching, administrative, clinical and research) to ensure all faculty are adequately trained to provide best teaching for the fellows
- Constant recruitment of faculty to enhance expertise and opportunities for fellows
- Research funds for faculty and opportunity to involve fellows and train them

Educational Activities

- Faculty led lectures, fellow led lectures
- Multiple faculty members with many teaching awards
- Kimmerling conference- annual Cardiovascular conference held at MCG
- Kiawah annual conference (started by Dr. Berman, former chief of cardiology)
- Device reps provide free resources for fellows courses, educational items
- First 2 months of fellowship is a fellow's "Boot Camp" which provides the building blocks for learning throughout fellowship
 - O No weekend calls/"hard rotations" for first 2 months until 1st years take their medicine boards







A Typical Week (Didactics/Conference)

- Monday AM: EKG (Dr. Javaheri)
- Monday PM: Interventional Conference (Dr. Arora and Dr. Sharkawi)
- Tuesday AM: Vascular conference (optional); M&M (once a month); EP journal club (once a month)
- Tuesday PM: Medicine Grand Rounds
- Wednesday AM (twice/month): EKG Review (Dr. Javaheri)
- Wednesday PM: Imaging Conference
- Thursday AM: HEART/valve Conference (Multidisciplinary-cardiology-CTS)
- Thursday PM: ACC Curriculum + LUNCH!!
- Friday AM: Cardiology Grand Rounds (Fellow will present once/year; external speakers)
- Friday PM: Echoboard Curriculum

Perks about our program

- Working in a larger fellowship means larger support group through the next phase in your journey
- Supportive faculty who encourage and support research activities, provide mentorships, and help establish career goals
- Can obtain an MBA through AU for free
- The research department is a well respected research facility with Dr. Weintraub (Chief of cardiology) receiving many NIH grants for research
- Great work/life balance and access to a diverse range of illnesses, patient population, and EARLY hands-on experience in procedures

Fellow's Room

- Nice! New!
- Bed! Sheets/Pillows
- Two large flat screen TV's
- Lockers
- Fridge, Coffee Maker
- Impromptu Teaching



Living in Augusta

- Evans, GA was voted best place to live in 2020 by Money Magazine
 - Evans is about 15 minutes from the hospital
- Most fellows live in Evans/martinez, some live in North Augusta, SC
- Cost of living is very reasonable and all within 20 minutes to the hospital
- Family Friendly!



Things to do in Augusta

- THE MASTERS!!!!
- Augusta is located along the Savannah River, there is plenty of kayaking, paddleboarding, and river boating available
- The Green Jackets (Minor League Baseball team)
- The Augusta Saturday Farmer's Market
- Top Golf
- 2 hour drive to Savannah, Atlanta, Charlotte, Hilton Head

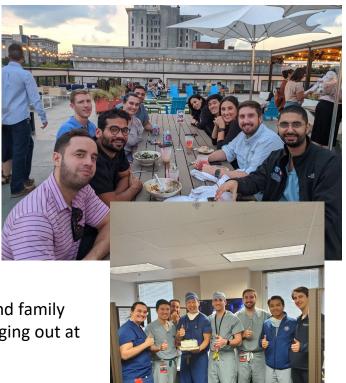






Fellow Life





- Being a large program comes with a sense of real camaraderie and family
- We spend weekends going to the movies, bars, cookouts, or hanging out at each other's houses
- We work hard, but we also have a great work life balance
- We hope you will love your interview experience and will consider MCG for your cardiology fellowship!





