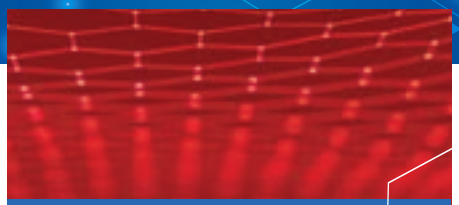
American Heart Association.

CONNECTIONS

SERVING SCIENTIFIC COUNCILS 2022 Volume 1

Scientific Sessions



Late-Breaking Science Presented at Scientific Sessions Reveals Results That Can Inform Your Clinical Practice

Manesh Patel
MD, FAHA
Chair, Committee on Scientific Sessions Program

Here's a recap of findings from late-breaking science presented at Scientific Sessions 2021. For detailed information on the seven sessions, visit **ahajournals.org/doi/10.1161/CIR.0000000000001041**.

New Drugs and New Drug Indications in Cardiovascular Disease

The study revealed:

- Daily aspirin was shown not to protect against dementia.
- No benefit from early P2Y12 inhibitors in noncritically ill patients hospitalized with COVID-19.
- Novel ticagrelor reversal agent shows benefit in Phase 3 interim analysis.
- Oral factor XIa inhibitor beats enoxaparin in Phase 2 anticoagulation trial.

Fish Oil and Cholesterol: Recipes for CVD Prevention?

Investigators revealed findings on fish oil and COVID-19 and the cholesterol-lowering potential of MK-0616, the first oral PCSK9 inhibitor. They found:

- Icosapent ethyl did not statistically significantly reduce the rate of COVID-related hospitalization or death in COVID-19 patients, compared to placebo.
- MK-0616, the first oral PCSK9 inhibitor, reduced LDL-C in subjects with hypercholesterolemia.

Building on the Foundation of Treatment: Advances in Heart Failure Therapy

Researchers found:

- Positive cardiac, QoL and renal outcomes for empagliflozin in the largest HFpEF trial to date.
- SGLT2 inhibitors benefit both HFpEF and HFrEF.
- Empagliflozin is safe and effective in heart failure across the range of ejection fractions.
- Neutral overall trial but positive results for stem cell transplants on non-fatal myocardial infraction, stroke and cardiac death.

Information Overload: Striving to Improve Care Delivery Through Digital Health and Automated Data

The study revealed that:

- Clinician knowledge of heart failure patient risk prognostic information during hospitalization did not significantly improve patient outcomes.
- Wearables may enable large-scale identification of undiagnosed atrial fibrillation.
- Growing body of evidence suggests caffeine does not seem to trigger increased AF, but alcohol does in symptomatic AF patients.

Hypertension: Local, Global and Pandemic Impacts

The session revealed that:

- Hypertension is a global problem irrespective of income levels.

(continued on page 3)

(continued from page 1)

- Remote care can improve blood pressure and lipid levels with in-person visits across a population of more than 10,000 patients.
- COVID-19 reduced clinic visits and blood pressure control in patients with hypertension.
- Community lay persons with minimal training effectively control hypertension in rural China.

Valves, Veins and New Viewpoints in Cardiothoracic Surgery

Investigators in four trials revealed findings to impact the treatment of patients with severe aortic stenosis, acute coronary syndromes, mitral valve regurgitation and those undergoing coronary bypass grafting. They found:

- Early surgical aortic valve replacement can be considered a safe option for low-risk patients with severe asymptomatic aortic stenosis and normal left ventricular function.
- Coronary artery bypass graft (CABG) surgery two to three days after the cessation of Ticagrelor did not increase the risk of perioperative bleeding.
- VEST, a novel device, may possibly help increase the longevity of vein grafts.
- Concomitant tricuspid valve repair during mitral valve surgery reduced the progression of tricuspid regurgitation.

Prevention to Intervention in Atrial Arrhythmias

Investigators in four trials revealed findings to impact the treatment of patients with atrial fibrillation and common cardiac arrhythmias. They found:

- The anticoagulants, dabigatran and warfarin, did not impact cognitive outcomes in patients with AF and atrial flutter.
- Coffee consumption did not increase the risk of *supraventricular tachycardia* arrhythmias.
- Posterior left pericardiotomy reduced postoperative AF after cardiac surgery.
- Left atrial appendage exclusion is safe but was not superior to standard ablation treatment.

From the COC Chair

Our word for 2022...Diversity

Tracy Y. Wang
MD, FAHA
Chair,
Council Operations
Committee

Did everyone enjoy Scientific Sessions? This was one of the years when my clinical service duties coincided with Sessions, and normally that would mean that I would have to catch up via the news. But thanks to the virtual option this year, I was privileged to both participate in some of the latest breaking science and enjoy the latest and greatest straight from the horse's mouth! Many thanks to the leadership and hard work of Manesh Patel, Amit Khera, our CSSP volunteers, and AHA staff, Sessions delivered cutting edge cardiovascular and cerebrovascular science.

Over the last 5 years, our membership has diversified significantly. In the last year, 34% of members are women, only 41% are of white race, and 3% and 4% self-reported Black race and Hispanic ethnicity, respectively. One of the AHA's goals is to increase the workforce of cardiovascular clinicians and researchers from diverse backgrounds that are actively engaged in addressing the needs of all communities. When we look at leaders of the 150 or so scientific council committees across the AHA, >50% were women, 7% were Black and 7% were Hispanic in the last year, which means we still have work to do to diversify the leadership pipeline so that this panel reflects the community that AHA serves. This work needs to pervade all levels of the organization, from ensuring that diversity is visible in our speakers and representatives, to developing partnerships with local institutions and communities to build well supported career development tracks for less well-represented members. One thing you can do is to keep your Professional Heart Daily profile and interest areas updated. The AHA continues to make significant investments in training, research funding, and infrastructure building to ensure diversity and inclusion. We welcome ideas from all of you on how to achieve this important goal.

Having just celebrated the holidays, I hope you were able to find time to show some love to and be loved by the people around you. As always, I want to thank you for all you have done for our community in the last year, and I look forward to a fantastic 2022.

American Heart Association®

Spotlight Series

Schedule A Presentation Today!

Complimentary CE presentations, delivered by AHA experts at hospital grand rounds nationwide, in person or virtually, covering the newest, evidence-based measures to prevent cardiovascular disease, the #1 killer of men and women in the US.

Who: Physicians, nurses, pharmacists and other health care professionals.

When: You decide. We seek 45 days of lead time but will try to fulfill your request based on speaker availability.

Where: Anyplace you hold a hospital grand rounds type session.

Available Series:

Improving Outcomes for Patients with Atrial Fibrillation

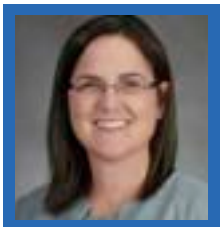
Atrial Fibrillation (AFib) is the most common form of arrhythmia in the United States. Participants in this course, supported by an independent medical educational grant from Sanofi US, will be educated on the application of current guidelines and medical evidence in the management of Atrial Fibrillation as well as research findings in antiarrhythmic therapy and early rhythm-control. Earn CE and ABIM MOC credit.

Unmet Needs in Hypertension Treatment Options

Hypertension increases with age and treatment-resistant hypertension exists within the US population. Participants in this course, supported by an independent medical educational grant from Medtronic, will learn about treatment and management options for patients with resistant hypertensive, how to address health care disparities i n treatment and management, and shared decision-making strategies to improve health equity. Earn CE and ABIM MOC credit.

Schedule A Presentation Today!
http://spotlight.heart.org

ISC 2022: A New Era for Stroke Science and Brain Health



Louise McCullough
MD, PhD, FAHA
Chair, International Stroke Conference 2022 Program Committee

This is an unprecedented time in the field of cerebrovascular disease and brain health; the stroke landscape is evolving at an ever-increasing rate. COVID has also impacted us in all areas, including how we provide medical care and our understanding of its effects on the brain and cerebral vasculature. Learn about all the latest exciting advances in cerebrovascular science and receive the most up to date stroke and brain health education by being a part of the International Stroke Conference (ISC) – uniting the world in stroke science. The 2022 conference will take place February 9 – 11, both virtually and in-person in exhilarating New Orleans, Louisiana. On behalf of the American Stroke Association, a division of the American Heart Association, and the Stroke Council Program Committee, we warmly welcome you to join us. The program emphasizes basic, clinical and translational sciences as they evolve toward a more complete understanding of stroke pathophysiology with the overall goal of developing more effective prevention and treatment. Stroke systems of care, the newest clinical trials, quality and outcomes are also key parts of the conference.

The International Stroke Conference is the world's premier meeting dedicated to the science and treatment of cerebrovascular disease. It provides unique opportunities to meet and network with colleagues from around the world with wide-ranging research interests and expertise in stroke prevention, diagnosis, treatment, and rehabilitation. We are truly dedicated to the international nature of this conference with science, attendees, presenters, and faculty coming from all corners of the world and a myriad of exhibitors displaying engaging new stroke products and services. We are planning many new forums to bring you the best science, clinical information, educational, and networking opportunities both virtually and in-person. From forming multiple, life-long collaborations with the best minds in the profession to hearing late-breaking trial results to the exceptional education and science, if you are involved in the stroke medical profession, ISC is an essential meeting.

The 2022 program offers three separate pre-conference symposia: the State-of-the-Science Stroke Nursing Symposium; the ISC Pre-Conference Symposium: Stroke in the Lab World, focusing on emerging topics in basic and pre-clinical stroke studies; and the ISC Pre-Conference Symposium: HEADS-UP: Health Equity and Actionable Disparities in Stroke: Understanding and Problem-solving. The main conference will include compelling invited symposia; rousing debates; provocative oral scientific abstract presentations; intriguing scientific abstract posters; and special lectures on recent advances and state-of-the-science technologies. This premier conference is intended for adult and pediatric neurologists; neurosurgeons; neuroradiologists and interventional radiologists; physiatrists; endovascular specialists; emergency medicine specialists; primary care physicians; hospitalists; nurses and nurse practitioners; rehabilitation specialists; physical, occupational, and speech therapists; pharmacists; and all levels of trainees. Additionally, the ISC is just as much of a home for basic scientists, clinical scientists, stroke program coordinators, policy makers and public health officials who work in the stroke field.

Stimulating symposia, debates and abstract presentations will focus on numerous topics from 17 stroke-related categories. Sessions in clinical categories will center on neuro-endovascular treatment; risk factors and prevention; cerebrovascular systems of care; imaging; acute non-endovascular treatment; non-acute large vessel disease from veins to artery; in-hospital care, from the ICU to discharge; clinical rehabilitation and recovery; and health services, quality improvement, and patient-centered outcomes. Sessions in basic science categories focus on translational and basic science. Further specialized topics include pediatric cerebrovascular disease; intracerebral hemorrhage; cerebrovascular nursing; advanced practice providers and therapists; aneurysms and vascular malformations; subarachnoid hemorrhage; and ongoing clinical trials.

In addition to unparalleled education, you will have the opportunity to connect with thousands of cerebrovascular research and practice experts from around the globe. Join us for specialized online networking groups. Decide the area that interests you most, click a link, and find yourself in direct online conversations with leaders in the stroke field. Who knows what partnerships could result from these informal chats; perhaps we will see the science these collaborations result in at one of our future International Stroke Conferences.

Please join us for the incomparable International Stroke Conference 2022, either in-person in vibrant New Orleans, Louisiana or as an online virtual meeting, and be a part of this outstanding and illuminating experience. We look forward to seeing you in February.

We're here to help!

Contact AHA Member Services for any questions about your membership benefits:

(800) 787-8984 (inside U.S.)

(301) 223-2307 (outside U.S.)

ahacustomerservice@lww.com

Councils Recognize Award Winners at Sessions 2021

The American Heart Association's Scientific Councils offer many opportunities for collaboration and knowledge transfer with other scientists and healthcare professionals through their awards and lectures, council committees, and the AHA's journals.

Congratulations to the following awardees as recognized by the Scientific Councils at the Quality of Care and Outcomes Research Scientific Sessions 2021, Resuscitation Science Symposium 2021, and Scientific Sessions 2021!

3CPR

Scientific Sessions 2021

Dickinson W. Richards Memorial Lecture
Mark Robert Nicolls, MD

Kenneth D. Bloch Memorial Lecture
Jane A. Leopold, MD, FAHA

3CPR Best Abstract Award
Victoria Toro, PhD

Cournand and Comroe Early Career Investigator Award
WINNER: Sasha Z. Prisco, MD, PhD

Finalists:
Megan Griffiths, MD
Tsukasa Shimauchi, MD, PhD
Tomoyoshi Tamura, MD, PhD
Lianghui Zhang, MD, PhD

3CPR Junior Investigator Travel Grant
Rajarajan A. Thandavarayan, M. Pharm, PhD
Asif Razee, MS
Somanshu Banerjee, PhD
Wenzhuo Ma, MD, PhD
Jia-Rong Jheng, PhD
Tetsuro Yokokawa, MD, PhD
Hyunbum Kim, PhD
Xue D. Manz, MSc

Resuscitation Science Symposium 2021

Ian G. Jacobs Award for International Group Collaboration to Advance Resuscitation Science
Comprehensive Registry of Intensive Care for OHCA Survival Study (the CRITICAL Study)
Represented by Taku Iwami, MD, PhD

Resuscitation Champion Award
Mary M. Newman, MS

Lifetime Achievement Award in Resuscitation Science
Kazuo Okada, PhD

Max Harry Weill Award for Resuscitation Science
Takahiro Nakashima, MD, PhD

Best of the Best Abstract Awards
James M. Gray, MD
Jing Li, MD
Mitsuaki Nishikimi
Gitte Linderoth, MD

ReSS Early Career Investigator Awards
Afrah Abdul Wahid Ali, MBBS
Tomoaki Aoki, MD, PhD
Matthew Barajas, MD
Frederick Brown, MD
Alexis Cole, BS
Ruben Crespo, MD, PhD
Yusuke Endo, DVM, PhD
Katharyn L Flickinger MS
R. Angel Garcia, DO
Brian Haskins, BSC
Toshihiro Hatakeyama, MD
Ryan Huebinger, MD
Changshin Kang, MD, PhD
Shaveta Khosla, PhD, MPH
Shengyuan (David) Luo, MBBS
Aurora Magliocca, MD, PhD
Oscar Mitchell, MD
Sivagowry Moerk, MD, PhD student
Ziad Nehme, PhD
Norihiro Nishioka, MD
Masashi Okubo, MD, MS
Matthew Potter, BSC
HoGul Song, MD
Kazuya Tateishi, MD
Andy T. Tran, DO

3CPR Emergency Medical Services (EMS) Travel Grant
Matthew Cox, NRP
Naila Francies, EMS Specialist
Crystal Hardin EMTP, BLS
Scott A. Hatcher, FF-Paramedic
Marsha K. Knight, AAS, NRP, MCCP

ATVB

ATVB Distinguished Achievement Award in Arteriosclerosis
Rama Natarajan, PhD, FAHA

George Lyman Duff Memorial Lecture
Karin Bornfeldt, PhD, FAHA

Russell Ross Memorial Lectureship in Vascular Biology
Denisa D. Wagner, PhD, FAHA

Sol Sherry Distinguished Lecture in Thrombosis
Alisa S. Wolberg, PhD, FAHA

ATVB Early Career Award for Outstanding Research
Xun Wu, PhD

Special Recognition Award in Arteriosclerosis
Francine K. Welty, MD, PhD, FAHA

Special Recognition Award in Thrombosis
Marvin T. Nieman, PhD

Special Recognition Award in Vascular Biology
Ryan E. Temel, PhD

Elaine W. Raines Early Career Investigator Award
WINNER: Henry S. Cheng, PhD

Finalists:
Mark C. Blaser, PhD
Fang Li, PhD
Tanmay Mathur, MS

ATVB Scientific Sessions Travel Grant for Early Career Investigators
Huijuan Dou, PhD
Yen-Lin Chen, PhD
Kaveeta Kaw
Md Torikul Islam
Soheil Saeedi, PharmD, PhD
Joel James, PhD
Colin Evans, PhD
J. Andres Pulgarin, PhD, MSc
Cali Corbett
Chuan Wang, PhD
Vadym Buncha, MS
Dong Oh Kang, MD, PhD
Tuantuan Zhao, PhD
Zachary T. Martin, MS
Chongyang Zhang, MS

BCVS

BCVS Distinguished Achievement Award
Ronglih Liao, PhD, FAHA

George E. Brown Memorial Lecture
Rong Tian, MD, PhD, FAHA

Thomas Smith Memorial Lecture
Christine E. Seidman, MD, FAHA

Louis N. and Arnold M. Katz Basic Science Research Prize for Early Career Investigators
WINNER: Paul Cheng, MD, PhD

Finalists:
David Y. Chiang, MD, PhD
Barbara Gonzalez Teran, PhD
Yuri Kim, MD, PhD

Melvin L. Marcus Early Career Investigator Award in Cardiovascular Sciences
WINNER: Jason D. Roh, MD, MHS

Finalists:
Daniel J. Blackwell, PhD
Toshiyuki Ko, MD, PhD
Yang Zhou, PhD
Han Zhu, MD

BCVS Abstract Travel Grant
Ehsan Ataei Ataabadi, Pharm D.
Reza Avaz, PhD
Alessandra Ciullo, PhD
Anis Hanna, MD
Pooja Joshi, PhD
Hoai Huong Le
Chun Liu, PhD

Louisa Mezache
Hanan Qasim, B. Pharm

BCVS International Travel Grant
Hideyuki Hakui, MD

BCVS Underrepresented Racial and Ethnic Groups Travel Grant
Jonathan J. Herrera, MS

CLCD

CLCD Distinguished Achievement Award
Ileana L. Piña, MD, MPH, FAHA

Laennec Master Clinician Award
Julia H. Indik, MD, PhD, FAHA

James B. Herrick Award for Outstanding Achievement in Clinical Cardiology
Alice K. Jacobs, MD, FAHA

Laennec Clinician Educator Lecture
N.A. Mark Estes, III, MD, FAHA

Women in Cardiology Mentoring Award
Lorrel E. Brown Toft, MD

Laennec Fellow in Training (FIT) Clinician Award
WINNER: Vanessa Blumer, MD

Finalists:
Charlotte Andersson, MD, PhD, FAHA
Lee Bockus, MD, PhD
Megan M. McLaughlin, MD, MPH
Inbar Raber, MD

Samuel A. Levine Early Career Clinical Investigator Award
WINNER: James P. MacNamara, MD, MSc

Finalists:
Neel M. Butala, MD, MBA
Shaan Khurshid, MD, MPH
Ambarish Pandey, MD, MSCS

CLCD Underrepresented Racial and Ethnic Groups Travel Grant
Kelechi Weze, MD, DrPH

CVRI

Charles T. Dotter Memorial Lecture
Suresh Vedantham, MD

Melvin Judkins Early Career Clinical Investigator Award
WINNER: Matthew K. Burrage, MBBS

Finalists:
Amrit Chowdhary, MBBS, MSc, MRCP
Hashrul N. Rashid, MBBS (Hons), MRCP (UK)
Valery L. Turner, MD
William Watson, MBBChir

CVRI Early Career Investigator Travel Grant
Sonia Shah, MD
Humayra Afrin, MBBS

CVSA

William W. L. Glenn Lecture
Ralph J. Damiano, Jr., MD, FAHA

CVSA Surgery & Anesthesiology Mentoring Award
Linda Shore-Lesserson, MD, FAHA

CVSA Resident Prize
WINNER: Makoto Hibino, MD, MPH, PhD

Finalist: Yujiro Yokoyama, MD

Vivien Thomas Early Career Investigator Award
WINNER: Yuanjia Zhu, MD, MS

Finalist: Awais Ashfaq, MS

CVSN

CVSN Distinguished Achievement Award
Nancy T. Artinian, PhD, RN, FAHA

Katharine A. Lembright Award and Lecture
Anna Strömberg, PhD, RN, FAHA

Kathleen A. Dracup Distinguished Lecture Exemplary Career in Mentoring Award
Christopher S. Lee, PhD, RN, FAHA

Clinical Article of the Year Award
Anne M. Fink, PhD, RN, FAHA

Excellence in Clinical Practice Award
Wendy Dusenbury, RN, DNP, FNP-BC, AGACNP-BC, ANVP-BC, FAHA

Marie Cowan Promising Early Career Investigator Award
Billy A. Caceres, PhD, RN, FAHA

Mathy Mezey Excellence in Aging Award
Ruth M. Masterson Creber, PhD, MSc, BSN, FAHA

Research Article of the Year Award
Salah Al-Zaiti, PhD, RN, ANP-BC, FAHA

Stroke Article of the Year Award
Gianluca Pucciarelli, PhD, MSN, RN, FAHA

CVSN Best Abstract Award
Yashika Sharma, MSN, RN

Martha N. Hill Early Career Investigator Award
WINNER: Martha Abshire Saylor, PhD, RN

Finalist: Angela Durante, PhD, MSN, RN

CVSN Early Career Investigator Travel Grant
Karina Kraevsky-Phillips, MA, BSN, RN
Amy Jo Lisanti, PhD, RN, CCNS
Sabrina Mangal, PhD, RN
Sijia Wei, RN, PHN

CVSN Underrepresented Racial and Ethnic Groups Travel Grant
Latesha K. Harris, BSN, RN

EPI

EPI Distinguished Achievement Award
Daniel T. Lackland, DrPH, FAHA

Ancel Keys Memorial Lecturer
David C. Goff, Jr., MD, PhD, FAHA

GPM and EPI Mid-Career Research Award and Lecture
Naveen L. Pereira, MD, FAHA

Elizabeth Barrett-Connor Research Award for Early Career Investigators in Training
WINNER: Utibe R. Essien, MD, MPH

Finalists:
Avirup Guha, MBBS, MPH
Nicholas Marston, MD, MPH
Amgad Mentias, MD, MS
Nilay S. Shah, MD, MPH

GPM

GPM Medal of Honor
Patrick T. Ellinor, MD, PhD, FAHA

GPM Mentoring Award
David M. Herrington, MD, MHS, FAHA

GPM and EPI Mid-Career Research Award and Lecture
Naveen L. Pereira, MD, FAHA

Genomic and Precision Medicine Early Career Investigator Award
WINNER: Michael G. Levin, MD

Finalists:
Kevin A. Friede, MD
Kazuo Miyazawa, MD, PhD
Seyedeh Maryam Zekavat, MD, PhD

GPM Abstract Travel Grant
Rachel E.T. Bentley
Jordan Jousma
Kritika Singh

Lifestyle and Cardiometabolic Health

Robert I. Levy Memorial Lecturer
Penny M. Kris-Etherton, PhD, FAHA

Lifestyle and Cardiometabolic Health Early Career Investigator Award
WINNER:
Evangelos K. Oikonomou, MD, DPhil

Finalists:
Yoriko Heianza, PhD, MS, RD
Matthew W. Segar, MD, MS

PVD

Jay D. Coffman Early Career Investigator Award
WINNER: Jordan K. Schaefer, MD

FINALIST: Mohsin Chowdhury, MD

PVD Fit Travel Grants
Tara A. Holder, MD
Jemma Perks, MSc

QCOR

Council on Quality of Care and Outcomes Research Outstanding Lifetime Achievement Award
Frederick A. Masoudi, MD, MSPH, FAHA

QCOR Early Career Investigator Abstract Award
WINNER: Dennie Kim

Finalists:
Jordan B. Strom, MD
Theresa Anderson, MD

Chetan Huded, MD
Veer Sangha

QCOR Conference Early Career Investigator Travel Grant
Kristie Harris, PhD
Dhairya Jarsania, MD
Brian Zenger

STROKE

Stroke Council Award and Lecture
Bruce Ovbiagele, MD, MSc, MAS, MBA, MLS, FAHA

Stroke Article of the Year Award
Gianluca Pucciarelli, PhD, MSN, RN, FAHA

YOUNG HEARTS

Young Hearts Distinguished Achievement Award
Pedro J. del Nido, MD, FAHA

Young Hearts Meritorious Achievement Award
Charles I. Berul, MD, FAHA

Helen B. Taussig Memorial Lecture
Roberta G. Williams, MD, FAHA

William J. Rashkind Memorial Lecture
Rochelle P. Walensky, MD, MPH

Outstanding Research Awards in Pediatric Cardiology
Andrea Z. Beaton, MD, FAHA
Caren S. Goldberg, MD
Stephanie Santana, MD

Young Hearts Early Career Investigator Award
WINNER: Mansi Gaitonde, MD
Finalist: Amee M. Bigelow, MD, MS

Young Hearts Abstract Travel Grant
Sudeep D. Sunthankar, MD
David W. Bearl, MD, MA

The Paul Dudley White International Scholar Awards:
Top Abstracts at 2021 Scientific Meetings

The Paul Dudley White International Scholar Award (PDW) was given to the authors with the highest ranked scientific abstract from each country accepted for presentation at an AHA scientific meeting.

The award is named for Paul Dudley White, one of the founders of the American Heart Association who was also a champion for global cardiovascular health strategies. The work of these teams reflects Dr. White's vision for global excellence in cardiovascular science and medicine.

Basic Cardiovascular Science Scientific Sessions 2021

Australia

Anida Velagic, Jasmin Chendi Li, Chengxue Helena Qin, Mandy Li, Minh Deo, Sarah A. Marshall, Owen L. Woodman, John D. Horowitz, Barbara K. Kemp-Harper, Rebecca H. Ritchie

Brazil

Dinaldo Cavalcanti Oliveira, Edivaldo Mendes Filho, Mariana Barros, Carolina Oliveira, Joao Vitor Cabral, Esmeralci Ferreira

Canada

Weiang Yan, Alireza Rafieerad, Abhay D. Srivastava, Keshav Narayan Alagarsamy, Rakesh C. Arora, Sanjiv Dhingra

Chile

Magda C. Diaz, Raúl Flores-Vergara, Ivonne Olmedo, Zully Pedrozo

China

Mingge Ding, Feng Fu, Rui Shi

China

Qin Fu, Rui Xu, Jing Fu

Denmark

Urmas Roostalu, Louise Thisted, Claudia Correia, Karin Jennbacken, Maria Wagberg, Franziska Wichern, Martin Madsen, Chen Zhang, Jacob Lercke Skytte, Henrik H. Hansen, Nora Elisabeth Zois, Niels Vrang, Jacob Jelsing, Qing Dong Wang

France

Lu Liu, Adrien Georges, Nabila Bouatia-Naji

Germany

Eric Schoger, Kim Rosa, Cheila Rocha, Mareike Jassyk, Shirin Doroudgar, Oliver Mueller, Lukas Cyganek, Wolfram H. Zimmermann, Laura C. Zelarayan

India

Hitarthi Vyas, Ranjitsinh Devkar

Indonesia

Hadyanto Lim, Umar Zein, Ilham Hariaji

Italy

Gaia Spinetti, Benedetta Maria Bonora, Maria Teresa Palano, Gianluca Testa, Gian Paolo Fadini, Elena Sangalli, Fabiana Madotto, Giuseppe Persico, Francesca Casciaro, Rosa Vono, Ornella Colpani, Francesco Scavello, Roberta Cappellari, Patrizia Orlando, Franco Carnelli, Andrea Berardi, Stefano De Servi, Angela Raucci, Pasquale Abete, Marco Giorgio, Paolo Madeddu

Japan

Kana Shimizu, Masafumi Funamoto, Yoichi Sunagawa, Yasufumi Katanasaka, Yusuke Miyazaki, Noriyuki Murai, Satoshi Shimizu, Koji Hasegawa, Tatsuya Morimoto

Netherlands

Jessica Bos, Serwet Demirdas, Rosan Lechner, Eline Overwater, Suzanne Alsters, Marieke Baars, Annette Baas, Özlem Baysal, Lisa van den Bersselaar, Saskia van der Crabben, Eelco Dulfer, Noor Giesbertz, Appollonia Helderman-van den Enden, Yvonne Hilhorst-Hofstee, Marlies Kempers, Fenne Komdeur, Bart Loeys, Daniëlle Majoor-Krakauer, Charlotte Ockeloen, Peter van Tintelen, Marsha Voorendt, Nicol Voermans, Alessandra Maugeri, Ingrid van de Laar, Arjan Houweling

Poland

Edyta Dzialo, Marcin Czepiel, Maciej Siedlar, Gabriela Kania, Przemyslaw Blyszczuk

Republic of Korea

Dong-im Cho, Yong Sook Kim, Youngkeun Ahn

Spain

Alvaro Macias, Andrés González-Guerra, Ana I. Moreno-Manuel, Francisco M. Cruz, Nieves García-Quintáns, Lilian K. Gutiérrez, Marta Roche-Molina, Francisco J. Bermúdez-Jiménez, Vicente Andrés, Maria L. Vera-Pedrosa, Isabel Martínez-Carrascoso, Juan A. Bernal, José Jalife

United Arab Emirates

Syeda Kiran Shahzadi, Rizwan Qaisar, Firdos Ahmad

United Kingdom

Christopher Toepfer, Yiangos Psaras, Francesca Margara, Manuel Schmid, Violetta Steeples, Julia Daher Carneiro Marsiglia, Amanda Garfinkel, Giuliana Repetti, Bueno-Orovio Alfonso, Blanca Rodriguez, Jonathan Seidman, Christine E. Seidman

United States

Tsunehisa Yamamoto, Kirill Batmanov, Elizabeth Pruzinsky, Yang Xiao, Swapnil V. Shewale, Kendra McDaid, Teresa C. Leone, Santosh K. Maurya, E. Douglas D. Lewandowski, Daniel P. Kelly

EPI|Lifestyle Scientific Sessions 2021

Australia

Kathy Trieu, Saiuj Bhat, Zhaoli Dai, Karin Leander, Bruna Gigante, Frank Qian, Andres Ardisson Korat, Qi Sun, Xiongfei Pan, Federica Laguzzi, Tommy Cederholm, Ulf De Faire, Mai-Lis Hellenius, Jason H. Wu, Ulf Risérus, Matti Marklund

Brazil

Mauro F. Mediano, Yejin Mok, Josef Coresh, Anna Kucharska-Newton, Priya Palta, Kamakshi Lakshminarayan, Wayne D. Rosamond, Kunihiro Matsushita, Silvia Koton

Canada

Sarah O'Connor, Claudia Blais, Jacinthe Leclerc, Denis Hamel, Marjolaine Dubé, Paul Poirier

Finland

Andrew O. Agbaje, Alan R. Barker, Tomi-Pekka Tuomainen

France

Bamba Gaye, Helen Hergault, Frederique Thomas, Stephanie Khoury, Nicolas Danchin, Marina Kvaskoff, Erin Michos, Xavier Jouven

Germany

Bernhard Haring, Rebecca Hunt, JoAnn Manson, Michael J. Lamonte, Liviu Klein, Matthew A. Allison, Robert A. Wild, Robert B. Wallace, Aladdin Shadyab, Khadijah Breathett,

Charles B. Eaton, Sylvia W. Wassertheil-Smoller III, Daichi Shimbo

India

Deepak R. Nair, Abhyuday Chauhan, Dhananjay Vaidya

Italy

Marialaura Bonaccio, Simona Costanzo, Augusto F. Di Castelnuovo, Alessandro Gialluisi, Amalia De Curtis, Mariarosaria Persichillo, Claudio Tabolacci, Chiara Cerletti, Maria Benedetta Donati, Giovanni De Gaetano, Licia Iacoviello

Japan

Yukiko Imai, Masaru Sakurai, Nakagawa Hideaki, Aya Hirata, Yoshitaka Murakami, Sachiko Tanaka, Yutaka Kiyohara, Toshiharu Ninomiya, Shizukiyo Ishikawa, Shigeyuki Saitoh, Fujiko Irie, Toshimi Sairenchi, Masahiko Kiyama, Katsuyuki Miura, Hirotsugu Ueshima, Tomonori Okamura

Netherlands

Carolina Ochoa-Rosales, Niels van der Schaft, Kim V. Braun, Frederick Ho, Fanny Petermann, Jill Pell, Mohammad A. Ikram, Carlos Celis-Morales, Trudy Voortman

Republic of Korea

Jooyoung Moon, Hanna Moon

Spain

Mercedes Sotos-Prieto, Songzhu Zhao, David Kline, Guy Brock, Holly Gooding, Josiemer Mattei, Fernando Rodriguez-Artalejo, Yuan I. Min, Eric B. Rimm, Katherine L. Tucker, Joshua J. Joseph

Taiwan

Gen-Min Lin

United Kingdom

Joshua Elliott, Matthew Whitaker, Barbara Bodinier, Paul Elliott, Ioanna Tzoulaki, Marc Chadeau-Hyam

United States

Christopher C. Moore, Kelly R. Evenson, Eric J. Shiroma Jr., Annie G. Howard, Carmen C. Cuthbertson, Julie E. Buring, I-Min Lee

United States

Fenglei Wang, Megu Y. Baden, Jun Li, Marta Guasch-Ferré, Yanping Li, Yi Wan, Shilpa N. Bhupathiraju, Deirdre K. Tobias, Clary Clish, Lorelei A. Mucci, A. Heather Eliassen, Karen Costenbader, Elizabeth W. Karlson, Alberto Ascherio, Eric B. Rimm, JoAnn E. Manson, Liming Liang, Frank Hu

Hypertension Scientific Sessions 2021

Argentina

Mariano Duarte, Facundo Pelorosso, Liliana N. Nicolosi, M. Victoria Salgado, Analía Aquieri, Javier Coyle, Maria C. Rubio, Rodolfo P. Rothlin

Australia

Liang Xie, Rikeish R. Muralitharan, Evany Dinakis, Michael Eugene Nakai, Hamdi Jama, Alex Cheng Guan Peh, Caroline Ang, Madeleine Paterson, Ekaterina Salimova, Remy Robert, Charles Mackay, Francine Z. Marques

Austria

Olivia Nonn, Olivia Debnath, Daniela S. Valdes, Cornelius Fischer, Kerim Secener, Sebastian Tiesmeyer, Naveed Ishaque, Katja Sallinger, Amin El-Heliebi, Anne Staff, Dominik N. Mueller, Ralf Dechend, Martin Gauster, Florian Herse

Bangladesh

Juwel Rana, Rakibul Islam

Brazil

Lisete C. Michelini, Vanessa B. Candido, Alexandre Ceroni, Alison Colquhoun

Canada

Brandon G. Shokoples, Kevin Comeau, Akinori Higaki, Antoine Caillon, Pierre Paradis, Ernesto L. Schiffrin

China

Hao Zhou, Yinchuan Lai, Weijie Chen, Yanping Xu, Hang Liu, Yidan Li, Yuehui Yin Sr.

China

Yan Liu, Qiaobing Sun, Yixiao Zhao, Yinong Jiang

Denmark

Igor M. Souza Silva, Kenneth Kjærgaard, Robson A. Santos, Thiago Verano-Braga, Tore B. Stage, Ulrike M. Steckelings

Finland

Mounir Ould Setti, Ari Voutilainen, Behnam Tajik, Leo Niskanen, Tomi-Pekka Tuomainen

France

Caroline Desmetz, Mohammed Mimouni, Solene Darlet, Bernard F. Jover, Laura Jeanson, Marie-Pierre Blanchard, Anne-Dominique Lajoix,

Germany

Ellen G. Avery, Marieluise Kirchner, Sabrina Y. Geisberger, Tine V. Karlsen, Alejandro Yarritu, Sarah Kedziora, Andras Maifeld, Bruning Ulrike, Hendrik Bartolomaeus, Theda U. Bartolomaeus, Moritz I. Wimmer, Robert Klopfleisch, Jennifer A. Kirwan, Stefan Kempa, Philipp Mertins, Helge Wiig, Dominik N. Mueller

Greece

Elias Sanidas, Dimitrios Papadopoulos, Marina Mantzourani, Maria Velliou, Theocharis Anastasiou, Anastasia Fotsali, John Barbetseas

India

Auxzilia Preethi K, Sushmaa Chandralekha J.S, Durairaj Sekar

India

Aditi Sudhir Vaishnav, Sudhir N. Vaishnav

Indonesia

Mochammad Sja'bani, Lucky Aziza Bawazier, Fredie Irijanto, Zulaela Zulaela, Agus Widiatmoko, Abdul Kholiq, Yasuhiko Tomino

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Martina Chiriacò, Luca Sacchetta, Giovanna Forotti, Simone Leonetti, Lorenzo Nesti, Stefano Taddei, Andrea Natali, Anna Solini, Domenico Tricò

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Ghadir Amin, Nada Habeichi, Rana Ghali, George W. Booz, Ziad Mallat, Fouad A. Zouein

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Daan C. van Dorst, Katrina M. Mirabito Colafella, Leni van Doorn, Richard van Veghel, Ingrid M. Garrelds, Ron H. Mathijssen, A. H. Danser, Jorie Versmissen

Norway

Arleen Aune, Marina Kokorina, Marianne Grytaas, Ester Kringeland, Helga Midtbø, Kristian Løvås, Eva Gerdts

Qatar

Ashraf E. Ahmed, Bara Al-Qudah, Mohammed Alamin, Cheikh Aboolmaaly, Mohamed Shariff

Russian Federation

Maria Evsevyeva, Michail Eremin, Maria Rostovtseva, Ilona Galkova, Victoria Kudrjavtseva, Irina Gachkova

Saudi Arabia

Zahra Abuzaid Jr., Sara Almuslem, Farah Aleisa

Spain

Anna Oliveras, Susana Vazquez, Isabel Galceran, Alberto Goday, Maria Vera, Maria José Soler, David Benaiges, Marta Crespo, Julio Pascual, Marta Riera

Ukraine

Viktoriia Krotova, Tetyana Khomazyuk

United Kingdom

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United Kingdom

Jithin Kuriakose, Augusto C. Montezano, Rheure Lopes, Angie YY Sin, Delyth Graham, George Baillie, Rhian M. Touyz

United States

Denise C. Cornelius, Xi Wang, Olivia K. Travis, Corbin A. Shields, G. Ann Tardo, Chelsea Giachelli, Christopher W. Nutter, Olive G. Cooper, Jan M. Williams

International Stroke Conference 2021

Argentina

Ivan Lylyk, Pedro Nicolas Lylyk, Javier Lundquist, Esteban Scrivano, Nicolas Perez, Rene Guillermo Viso, Bleise D. Carlos, Celina Ciardi, Gaston Granillo, Daniel Murad Sampaio, Rodolfo Nella Castro, Laura Caballero, Juan Jose Cirio, Pedro Lylyk Sr.

Australia

Zien Zhou, Candice Delcourt, Chao Xia, Sohei Yoshimura, Cheryl Carcel, Takako Torii-Yoshimura, Shoujiang You, Alejandra Malavera, Xiaoying Chen, Maree Hackett, Mark Woodward, John Chalmers, Jianrong Xu, Thompson G. Robinson, Mark W. Parsons, Andrew M. Demchuk, Richard I. Lindley, Grant Mair, Joanna M. Wardlaw, Craig S. Anderson

Belgium

Anke Wouters, David Robben, Soren Christensen, Henk Marquering, Yvo Roos, Robert Van V. Oostenbrugge, Wim Van Zwam, Diederik W. Dippel, Charles Bernardus Majoie, Aad Van Der Lugt, Maarten G. Lansberg, Gregory W. Albers, Paul Suetens, Robin Lemmens

Brazil

Alice S. Oliveira, Moises C. Dantas, Pedro Antonio A. Jesus, Daniel S. Farias, Bruno M. Almeida, Caio S. Santos, Camila R. Blumetti, Carolina D. Faria, Caroline C. Costa, Daniela P. Fernandes, Gabriela Q. Fonseca, Isabelle Jacqueline Weber Oliveira, Joao P. Pinto, Jamary Oliveira-Filho

Canada

Suraya Meghji, Alicia Hilderley, Adam Kirton, Helen Carlson

China

Xiaojing Shi, Longlong Luo, Zhijun Zhang, Yaohui Tang, Guo-Yuan Yang

Colombia

Natalia Valencia-Enciso, Mónica Ortiz-Pereira, Maria P. Zafra-Sierra, Laura Alejandra Espinel Gomez, Hernán F. Bayona

Costa Rica

Virginia Pujol-Lereis, Alan Flores, Antonio Arauz, Carlos Abanto-Argomedo, Pablo Amaya, Hernán Bayona, Pablo Bonardo, Luis Diaz-Escobar, Maia Gomez-Schneider, Fernando Góngora-Rivera, Pablo M. Lavados, Carolina León, Adriana Luraschi, Juan Manuel Márquez-Romero, Sheila C. Martins, Victor Hugo Navia, Angelica Ruiz-Franco, Miguel Ángel Vences, María Cristina Zurrú, Miguel A. Barboza, Sebastián F. Ameriso

Czech Republic

Michal Bar, Martin Čabal, Ondrej Volny, Petr Jaššo, David Holeš, Daniel Vaclavik

Finland

Antti Sajanti, Séan Lyne, Romuald Girard, Janek Frantzen, Tomi Rantamaki, Liro Heino, Ying Cao, Cassiano Diniz, Yan Li, Riikka Takala, Jussi Posti, Susanna Roine, Fredrika Koskimaki, Melissa Rahi, Jaakko Rinne, Eero Castren, Janne Koskimaki

France

François Zhu, Bertrand Lapergue, Serge Bracard, René Anxionnat, Benjamin Gory

Germany

Timo Siepmann, Annahita Sedghi, Erik Simon, Simon Winzer, Jessica Barlinn, Katja De With, Lutz Mirow, Martin Wolz, Thomas Gruenewald, Percy Schroettner, Simone Von Bonin, Lars-Peder Pallesen, Bernhard Rosengarten, Joerg Schubert, Tobias Lohmann, Jochen Machetanz, Peter Spieth, Thea Koch, Stefan Bornstein, Heinz Reichmann, Volker Puetz, Kristian Barlinn

Ghana

Mayowa Owolabi, Fred S. Sarfo, Onoja Akpa, Joshua Akinyemi, Albert Akpalu, Kolawole Wahab, Reginald Obiako, Morenikeji Komolafe, Lukman Owolabi, Godwin Osaigbovo, Rufus Olusola Akinyemi, Bruce Ovbiagele

Hong Kong

Wai Chi Polly LI, Doris Yu

Hungary

Mate Gyimesi, Adam Horvath, Demeter Turos, Mate Penzes, Csilla Kurdi, Mihaly Kovacs, András Málnási-Csizmadia

India

Pitchaiah Mandava, Ajay Hegde, Onkarappa Sandesh, Girish Menon

Israel

Silvia Koton, James Russell Pike, Michelle C. Johansen, David Knopman, Kamakshi Lakshminarayan, Thomas Mosley Jr., Shalom Patole, Wayne D. Rosamond, Andrea L. Schneider, A. Richey Sharrett, Lisa M. Wruck, Josef Coresh, Rebecca F. Gottesman

Japan

Takeshi Yoshimoto

Mexico

Marlene Alejandra Rodríguez Barragán, Jessica Cantillo Negrete, Paul Carrillo Mora, Rubén Cariño Escobar, Jimena Quinzaños Fresnedo, Claudia Hernández Arenas

Netherlands

Manon Kappelhof, Agnetha Bruggeman, Josje Brouwer, Nerea Arrarte Terreros, Praneeta R. Konduri, Jeroen E. Markenstein, René van den Berg, Marieke E. Sprengers, Wim H. van Zwam, Christiaan van der Leij Ido van den Wijngaard, Diederik W. Dippel, Charles Bernardus Majoie, Henk Marquering

New Zealand

Anna Ranta, Stephanie Thompson, Alan Davis, P. Alan Barber, John Fink, John Gommans, Dominique A. Cadilhac, Matire Harwood, Harry McNaughton, Ginny Abernethy, Jackie Girvan, Valery Lvovitch Feigin, Hayley Denison, Marine Corbin, William Levack, Andrew Wilson, Jeroen Douwes

Norway

Eva Birgitte Aamodt, Till Schellhorn, Liana Apostolova, Diana O. Svaldi, Eddie Stage, Paige E. Logan, Apoorva B. Sanjay, Ingvild Saltvedt, Mona K. Beyer

Qatar

Adnan Khan, Saadat Kamran, Patrick De Boever, Nele Gerrits, Maher Saqqur, Ioannis N. Petropoulos, Georgios Ponirakis, Naveed Akhtar, Ashfaq Shuaib, Rayaz Malik

Republic of Korea

Dong Hoon Shin, Jaehun Jung, Gi Hwan Bae

Singapore

Sherry Hsueh Yi Young, Rita Sim, Christine Yu, Xiaoxi Yan, Deidre A. De Silva, Bibhas Chakraborty, David B. Matchar

Spain
Alan Flores, Laia Seró, Xavier Ustrell, Anna Pellisé, Manuel Gomez Choco, Jaume Viñas, Ernest Palomeras, Jurek Krupinski, Natalia Más, Dolores Cocho, Francisco Purroy, Jose Zaragoza-Brunet, Pedro Cardona, Joaquin Serena, Marc Ribó, Victor Obach, Marta Rubiera, Natalia Perez de la Ossa

Sweden
Charith Cooray, Thomas Gu, Allan J. Fox, Elias Johansson

Switzerland
Mitsouko van Assche, Elisabeth Dirren, Alexia Bourgeois, Andreas Kleinschmidt, Jonas Richiardi, Emmanuel Carrera

Taiwan
Szu-Ju Chen, Hsin-Hsi Tsai, Li-Kai Tsai, Ya-Fang Chen, Sung-Chun Tang, Jiann Shing Jeng

Thailand
Yongchai Nilanont, Karuna Shukij, Waitayaporn Pengtong, Mananchaya Kongmuangpuk, Kanokkarn Wongmayurachat, Gustavo Saposnik, Kittiya Nittayaboon, Pornchai Chanyagorn, Yodchanan Wongsawat, Ronnachai Sirovetnukul, Tipa Chakorn, Sattha Riyapan, Chitapa Kaweeta, Songkram Chotik-Anuchit, Anchalee Churoj, Trongtam Tongdee, Siriraj Hosp, Saowalak Hunnangkul, Ploypailin Thabmontian, Cherdchai Nopmaneejumruslers, Visit Vamvanij

Turkey
Ethem M. Arsava, Dogan Dinc Oge, Ozge Berna Gultekin-Zaim, Ekim Gumeler, Jeong-Min Kim, Kwang-Yeol Park, Kader Karli Oguz, Mehmet Akif Topcuoglu

United Kingdom
Maryna V. Basalay, Marlene Wiart, Fabien Chauveau, Chloe Dumot, Christelle Leon, Camille Amaz, Radu Bolbos, Diana Cash, Eugene Kim, Laura Mechtouff, Tae-Hee Cho, Norbert Nighoghossian, Sean Michael Davidson, Michel Ovize, Derek M. Yellon

United States
Deepak L. Bhatt, Philippe Gabriel Steg, Michael Miller, Eliot A. Brinton, Terry A. Jacobson, Steven Ketchum, Rebecca Juliano, Lisa Jiao, Ralph Doyle, Craig Granowitz, Jean-Claude Tardif, John Gregson, C. Michael Gibson, Megan C. Leary, Christie M. Ballantyne

Quality of Care and Outcomes Research Scientific Sessions 2021

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Linh Thi Ngo, Anand N. Ganesan, Billingsley Kaambwa, Richard Woodman, Karen Hay, Isuru Ranasinghe

Canada
Christian Vincelette, Philippe Voizard, François Martin Carrier, Sokoloff Catalina

China
Danwei Zhang, Jianyu Qu, Zhe Zheng

Denmark
Anders B. Damholt, Nina Loen, Sara Engel, Anne Haaber, Anja Wellejus, Filip K. Knop

France
Fabrice Pottier, Charles Groizard, Grégory Briche, Nicolas Haraczaj, Maxime Garnier, Vinciane Loones, Anna Ozguler, Michel Baer, Geraldine Baer, Thomas Loeb

Israel
Igal Iancu, Boris Draznin

Republic of Korea
Young Woo Kim, Junhong Kim, Hyeong Jun Lee, Joon Sang Lee

United Arab Emirates
Yosef Manla, Amani Khalouf, Maria-Fernanda Bonilla, Mohammed Khalil, Wael Almahmeed, Feras Bader, Firas Al Badarin

United Kingdom
Lydia Spurr, Hui-leng Tan, Ruth Wakeman, Michelle Chatwin, Anita Simonds

United States
R. Angel Garcia, John Spertus, Philip Jones, Daniel B. Mark, Jonathan D. Newman, Sripal Bangalore, William E. Boden II, Gregg W. Stone, Harmony Reynolds, Judith S. Hochman, David J. Maron

United States
R. Angel Garcia, Scott D. Rothenberger, Bea H. Belnap, Philip Jones, Bruce L. Rollman, John Spertus

United States
Andrew Ward, Fatima Rodriguez, Donghyun Lee, Sanchit Gad, Robert Beetel, Robert A. Harrington, Salim S. Virani, John Rumsfeld, Rajesh Dash

Resuscitation Science Symposium 2021

Australia
Ziad Nehme, Emily Andrew, Jocasta Ball, Karen Louise Smith

Brazil
Fabricio Furtado, Manoel Canesin, Rodrigo Gonçalves, Dirceu Almeida, Iran Gonçalves Jr., Sergio Timerman

Canada
Mahbod Rahimi, Paul Dorian, Sheldon Cheskes, Gerald Lebovic, Steve Lin

China
Min Yang, Hui Li, Wu Jiatian, Hua Tianfeng

Colombia
Camilo L. Sandoval, Jose Julio Gutiérrez, Mikel Leturiondo, Koldo Redondo, Bilbao, Spain; James K. Russell, Mohamud R. Daya, Sofia Ruiz De Gauna

Czech Republic
Daniel Rob

Denmark
Martin A. Meyer, Mette Bjerre, Sebastian Wiberg, Johannes Grand, Anna Sina P. Meyer, Laust E. Obling, Jesper Kjaergaard, Christian Hassager

France
Renaud Tissier, Yael Levy, Alice Hutin, Nicolas Polge, Fanny Lidouren, Matthias Kohlhauer, Rocio Fernandez Para, Pierre-Louis Leger, Guillaume Debaty, Keith G. Lurie, Lionel Lamhaut, Bijan Ghaleh

Ireland
Eithne Heffernan, Dylan Keegan, Jenny Mc Sharry, Tomas Barry, Andrew Murphy, David Menzies, Cathal O'Donnell, Siobhan Masterson

Italy
Aurora Magliocca, Carlo Perego, Francesca Motta, Giulia Merigo, Francesca M. Fumagalli, Edoardo Micotti, Roberto Latini, Giuseppe Ristagno

Japan
Aya Katasako, Shoji Kawakami, Hidenobu Koga, Kenichi Kitahara, Keiichiro Komiya, Komei Mizokami, Tetsuhisa Yamada, Nobutoshi Miura, Shujiro Inoue

Norway
Eirik Unneland, Anders Norvik, Shaun McGovern, David Buckler, Unai Irusta, Abhishek Bhardwaj, Elisabete Aramendi,Trond Nordseth, Benjamin Abella, Dana P. Edelson, Jan Terje Kvaloy, Eirik Skogvoll

Republic of Korea
Hogul Song, Yeonho You, Changshin Kang, Jung Soo Park

Singapore
Cherylyn Hui Xin Toh, Shir Lynn Lim, Yazid Muhammad, Nur Shahidah, Qin Xiang Ng, Andrew Ho, Shalini Arulanandam, Benjamin Sieu-Hon Leong, Alexander White, Marcus E. Ong

Switzerland
Evelien Cools, Marie Meyer, Tomasz Darocha, Monika Brodmann Maeder, Peter Mair, Beat Walpoth

Taiwan
Tsung-Chien Lu, Eric H. Chou, Chih-Hung Wang, Amir Mostafavi, Mario Tovar, John Garrett, Toral Bhakta, Chu-Lin Tsai, Matthew H.M. Ma

United Kingdom
Nadia Akawi, Antonio Checa, Ioannis Akoumianakis, Shakil Farid, Vivek Srivastava, George Krasopoulos, Keith M. Channon, Craig Wheelock, Signe Sørensen Torekov, Charalambos Antoniades

United States
James M. Gray, Tia T. Raymond, Dianne L. Atkins, Ken Tegtmeyer, Dana Erika Niles, Vinay M. Nadkarni, Maya Dewan

Viet Nam
Chinh Quoc Luong, Son Ngoc Do, Dung Thi Pham, My Ha Nguyen, Tra Thanh Ton, Quoc Trong Ai Hoang, Dat Tuan Nguyen, Thao Thi Ngoc Pham, Hanh Trong Hoang, Dai Quoc Khuong, Quan Huu Nguyen, Tuan Anh Nguyen, Tung Thanh Tran, Long Duc Vu, Chi Van Nguyen, Bryan Francis McNally, Marcus Eng Ong, Anh Dat Nguyen

Scientific Sessions 2021

Argentina
Ettorino Di Tommaso, Lauren K. Dixon, Arnaldo Dimagli, Shubhra Sinha, Manraj Sandhu, Gianni Angelini, Benedetto Umberto

Australia
Edmond Wong, John Z. Xie, Kevin Rajakariar, Kevin Masman, Joris Mekel, Voltaire Nadurata

Austria
Attila Kiss, Eylem Acar, Zsuzsann Kovács, Simon Watzinger, Fanni Márványkövi, Gergő Szűcs, Andrea Siska, Imre Földesi, András Kriston, Ferenc Kovács, Péter Horváth, Bence Kővári, Gábor Cseri, Tamás Csont, Márta Sárközy, Bruno K. Podesser

Bangladesh
Juwel Rana, Townim Faisal Chowdhury, Shafin Rahman, John Oldroyd, Rakibul Islam

Barbados
Natasha Sobers, Shelly-ann Forde, Ian Hambleton, Ashley Henry, Nicolette Roachford, Abigail Robinson, Martinette Forde, Rudolph Delice, Angela M. Rose

Belgium
Stijn Van Bruggen, Kimberly Martinod, Thilo Witsch, Liesbeth Frederix, Paolo Carai, Jore Van Wauwe

Benin
Gwladys Gbaguidi, Audrey Kaboure, Corine Houehanou, Salimanou Amidou, Victor Aboyans

Brazil
Fernanda Marcelina Silva, Luana Giatti, Luisa C. Brant, Maria de Fatima Haueisen Sander Diniz, Sandhi Maria Barreto

Canada
Victoria Toro, Yann Grobs, Olivier Boucherat, Sandra Martineau, Francois Potus, Sebastien Bonnet, Valerie Nadeau, Eve Tremblay

China
Haiming Yang, Yueqing Wang, Meng Xiao, Yuxuan Zhao, Mingyu Song, Huan Yu, Chunxiao Liao, Yuanjie Pang, Canqing Yu, Wenjing Gao, Shengxu Li, Tao Huang, Jun Lv, Wei Chen, Lu Qi, Liming Li, Dianjianyi Sun

Colombia
Ramon Medina, Frida T. Manrique, Diana Vargas Vergara, Lorena González Russi, Julian Forero, Jorge Fajardo, Juan José Diaztagle, Josep Brugada, Alejandro Olaya, Andrés Díaz, Hector M. Medina

Czech Republic
Peter Wohlfahrt, Vojtech Melenovsky, Vendula Novosadova, Dominik Jenca, Jolana Mrazkova, Marek Sramko, Michael Zelizko, Martin Kotrc, Ashkan Zareie, Carlos Eduardo Madureira Trufen, Jan Pitha, Vera Adamkova, Josef Kautzner Petr Jarolim

Denmark
Alex Hoerby Christensen, Christoffer Vissing, Sofie Villumsen, Adrian Pietersen, Jacob Tfelt-hansen, Thomas Jensen, Morten Olesen, Steen Pehrson, Finn L. Henriksen, Niels Sandgaard, Kasper Iversen, Henrik Jensen, Henning Bundgaard

Denmark
Kristoffer Grundtvig Skaarup, Mats H. Lassen, Niklas Dyrby Dyrby Johansen, Morten Sengeløv, Flemming J. Olsen, Gorm Boje Boje Jensen, Peter Schnohr, Amil M. Shah, Scott D. Solomon, Rasmus Mogelvang, Tor Biering-Sørensen

Dominican Republic
Grisel Canahuate, Amparo Taveras Hiraldo, Eleana Rivera, Saray Perez, Miguel Arias

Egypt
Omneya A. Kandil, Karam R. Motawea, Merna M. Aboelenein, Jaffer Shah

Ethiopia
Lemlem Demisse, Bekele Alemayehu, Adamu Addissie, Rebecca Gary

Finland
Jouko Nurkkala, Anni Kauko, Hannele Laivuori, Saarela Tanja, Jaakko Tyrmi, Susan Cheng, Jenni Aittokallio, Teemu Niiranen

France
Christian Spaulding, Caroline Hauw-Berlemont, Lionel Lamhaut, Jean-Luc Diehl, Christophe Andreotti, Olivier Varenne, Pierre Leroux, Jean Baptiste Lascarrou, Patrice Guerin, Eric Roupie, Cedric Daubin, Farzin Beygui, Aurelie Vilfaillot, Sophie Glippa, Juliette Djadi-Prat, Gilles Chatellier, Alain Cariou

Germany
Lars Saemann, Matthias Kohl, Gábor Veres, Sevil Korkmaz-Icoez, Matthias Karck, Andreas Simm, Folker Wenzel, Gabor Szabo

Germany
Jes-Niels Boeckel, Maximilian Nicolas Moebius-Winkler, Marion Müller, Sabine Rebs, Nicole Eger, Laura Schoppe, Rewatti Tappu, Karoline Elizabeth Kokot, Jasmin Marga Kneuer, Susanne Gaul, Diana Martins Bordalo, Alain Lai, Jan Haas, Mahsa Ghanbari, Philipp Drewe-Boss, Martin Liss, Hugo A. Katus, Uwe Ohler, Michael Gotthardt, Ulrich Laufs, Katrin Streckfuß-Bömeke Benjamin Meder

Ghana
Soziema J. S. Salia, Elizabeth Mostofsky, Suruchi Gupta, Laura L. Lehman, Shweta R. Motiwala, Murray A. Murray Mittleman

Greece
Nikolaos Anousakis-Vlachochristou, Manolis Mavroidis, Dimitra Athanasiadou, Aimilia Varela, Manousos Makridakis, Maria Katsa, Antigoni Miliou, Lali Dimitra, Karina Carneiro, Antonia Vlahou, Nikolaos Thomaidis, Constantinos D. Anagnostopoulos, Dennis V. Cokkinos, Costas Tsioufis, Konstantinos Toutouzas

Hong Kong
David Mondaca Ruff, Daniels Konja, Sandeep Singh, Yu Wang

Hungary
Balint K. Lakatos, Marton Tokodi, Alexandra Fabian, Zsuzsanna Ladanyi, Hajnalka Vágó, Liliána Szabó, Nora Sydo, Emese Csulak, Orsolya Kiss, Máté Babity, Anna Reka R. Kiss, Zsofia Gregor, Andrea Szűcs, Béla Merkely, Attila Kovacs

India
Rajesh Rajput, J.C. Mohan, J.P.S. Sawhney, Jamshed Dalal, Mullasari Sankardas, Hardik Vasnawala, Amit Kumar

Indonesia
Olivia Handayani

Indonesia
Raditya Dewangga, Kevin Winston, Lazuardi Gayu Ilhami, Suci Indriani, Taofan Siddiq, Suko Adiarto

Iraq
Israa Fadhil Yaseen, Hasan Ali Farhan

Ireland
Ning Ge, Min Liu, Janusz Krawczyk, Veronica Mcinerney, Joseph Galvin, Deirdre Ward, Catherine McGorrian, Timothy O'Brien, Sanbing Shen, Terence W. Prendiville

Islamic Republic of Iran
Abdolkarim Mahrooz, Ahad Alizadeh, Omeh Farveh Khosravi-Asrami, Neda Mohmmadi, Adele Bahar

Israel
Gal Tsaban, Hilmi Alnsasra, Ala Abu-Dogosh, Itai Weissberg, Yael Golan, Orit Barrett, Roi Westreich, Enis Aboalhasan, Sapir Coll; Joseph Azuri, Ariel Hammerman, Ronen Arbel

Italy
Benedetto Del Forno, Mariangela D'Ovidio, Davide Carino, Elisabetta Lapenna, Alessandro Verzini, Guido Ascione, Luigi Pinnarelli, Marina Davoli, Alessandro Castiglioni, Francesco Maisano, Ottavio Alfieri, Michele De Bonis

Japan
Risa Ramadhiani, Koji Ikeda, Kazuya Miyagawa, Gusti Rizky Teguh Ryanto, Naoki Tamada, Yoko Suzuki, Ken-Ichi Hirata, Noriaki Emoto

Kuwait
Abbas Altamimi, Nida Khan, Surya K. Aedma, Karanrajsinh Raol, Abdur Raheem, Shubhi Jain, Sowmya Madireddy, Nawal Ali, Rizwan Rabbani, Jigisha Rakholiya, Preeti Malik, Urvish K. Patel, Suveenkrishna Pothuru

Lebanon
Aya M.J. Al-Saidi, Samaya Abdallah, Safaa Hammoud, Nahed Mougharbil, Ahmed El-Yazbi

Luxembourg
Ana Carolina Sauer Liberato, Merritt Raitt, Ignatius G. Zarraga, Karen MacMurdy, Cynthia M. Dougherty

Malaysia
Wan Azman Wan Ahmad, Muhamad Ali SK SK Abdul Kader, Noel Thomas Ross, Ahmad Wazi Ramli, Azmee Mohd Ghazi, Hamat Hamdi Che Hassan, Chuey Yan Lee, Mayuresh Fegade, Hafisyatul Aiza Zainal Abidin, Dharmaraj Karthikesan, Nor Hanim Mohd Amin, Tiong Kiam Ong, Kauthaman A. Mahendran, Tamil Selvan Muthusamy, Drkahar Ghapar

Malta
Mark Abela, Jessica Debattista, Jeanesse Scerri, Kentaro Yamagata, Felice Tiziana, Melanie Roberta Zammit Burg, Mark Adrian Sammut, Robert George Xuereb, Victor Grech, Christian Scerri, Lorenzo I. Monserrat, Michael Papadakis

Mexico
Mary Alvarez, Adolfo Virgen-Ortiz, Alejandrina Rodriguez-Hernandez, Adriana Ceballos-Gutiérrez, Alejandro Figueroa-Gutiérrez, Felipa Andrade, Enrique Sánchez-Pastor

Netherlands
Jeroen N. Wessels, Jari de Rover, Jessie Van Wezenbeek, J. Tim Marcus, Lilian J. Meijboom, Harm J. Bogaard, Anton Vonk Noordegraaf, Gustav J. Strijkers, Berend E. Westerhof, Frances S. De Man

Norway
Thomas Andersen, Dennis W. Nilsen, Heidi Grundt, Harry Staines, Thor Ueland, Pal Aukrust, Frederic P.T. Kontny

Pakistan
Muhammad Memon, Asad Ali Siddiqui, Emaan Amin, Fahd Niaz Shaikh, Mohammad Khan, Rami Doukky, Richard Krasuski

Philippines
Vikash Jaiswal, Prachi Sharma, Gaurav Chaudhary, Basant Kumar Gupta, Abhishek Singh, Ayush Shukla, Monika Bhandari, Akhil Kumar Sharma, Pravesh Vishwakarma, Akshyaya Pradhan, Sharad Chandra, Rishi Sethi, Sudhanshu Dwivedi

Poland
Michal Orczykowski, Marcin Kowalski, Valay K. Parikh, Piotr Urbanek, Bodalski Robert, Pawel Derejko, Grzegorz Warminski, Andrzej Hasiec, Krzysztof Dubowski, Andrzej Glowniak, Radoslaw Sierpinski, Filip Urbanski, Maria Bilinska, Lukasz Szumowski

Portugal
Mickael Henriques, Ryan Gouveia e Melo, André Peixoto, Ruy Fernandes e Fernandes, Augusto Almeida Ministro, João Leitão, Daniel Caldeira, Luís Mendes Pedro

Qatar
Ayman Al Haj Zen, Dorota Nawrot, Lutfiye Yildiz Ozer

Republic of Korea
Hokyou Lee, Yuichiro Yano, Norrina Allen, Yu Rang Park, Dong-Wook Kim, Sungha Park, Eun Jig Lee, Donald Lloyd-Jones, Hyeon Chang Kim

Romania
Ioan A. Gutiu Sr., Anton I. Gutiu

Russian Federation
Vladimir N. Melnikov

Saudi Arabia
Ahmed M. Nahari, Leslie L. Davis, Debra Wallace, Stephanie Pickett, Paul G. Davis, Thomas McCoy

Saudi Arabia
Ibrahim M. Salman, Omar Z. Ameer, Sarah F. Hassan, Sheridan McMurray, Arun Sridhar, Yee-Hsee Hsieh, Stephen J. Lewis

Singapore
Angela S. Koh, Jie Jun Wong, Jien Sze Ho, Louis L.Y. Teo, Hai Ning Wee, Kee Voon Chua, Jianhong Ching, Fei Gao, Swee Yaw Tan, Ru San Tan, Jean Paul Kovalik

Slovenia
Gregor Poglajen, Neža Žorž, Ema Ajda Gomezelj, Ana Milovanovic, Sabina Frljak, Bojan Vrtovec

South Africa
Taariq Mogamat Salie, Jing Yang, Carlos Ramirez Medina, Nophar Geifman, Liesl J. Zuhlke, Simon Frain, Anthony Whetton, Bernard Keavney, Mark E. Engel

Spain
Maria Cespon-Fernandez, Sergio Raposeiras-Roubin, Emad Abu-Assi, Tamara Fernandez-Sanz, Isabel Muñoz-Pousa, Maria Melendo-Viu, Pilar Cabanas-Grandio, Andrés Íñiguez-Romo

Sri Lanka

Parackrama Karunathilake, Prabhashini Kumarihamy, Sujeewa Gunaratne, Dammika Ranasinghe, Charith Bandara, Udaya Ralapanawa

Sweden

Alexis Hofherr, Catarina A. M. Nilsson, Dinko Rekic, Jane Knöchel, Ronald Goldwater, David Han, Jorge Kusnir, J. Scott Overcash, Michael Waters, Alexander White, Eva Hurt-Camejo, Linda Wernevik, Rikard Isaksson, Yanfeng Wang, Sanjay Bhanot, Kristina Ryden-Bergsten, Michael Koren, Bjorn C L Carlsson

Switzerland

Svetlana A. Didichenko, Jacqueline Adam, Alexey V. Navdaev, Mae Wong, Monther Alhamdoosh, Moritz Saxenhofer, Elena Velkoska, Samuel D. Wright

Switzerland

Soheil Saeedi, Gergely Karsai, Giovanni G. Camici, Thomas F. Lüscher, Beer H. Jürg

Taiwan

Chien-Yi Hsu, Hung-Yu Chang, Ying-Hsiang Lee

Thailand

Chayodom Maneechote, Thawatchai Khuanjing, Benjamin Ongnok, Apiwan Arinno, Nanthip Prathumsap, Busarin Arunsak, Sasiwan Kerdphoo, Siriporn Chattipakorn, Nipon Chattipakorn

Turkey

Mehmet Agirbasli, Rabia Korkmaz, Ferruh K. Isman

Uganda

Jafesi Pulle, Hadija Nalubwama, Jenifer Atala, Rebecca Namara, Rachel Sarnacki, Emma Ndagire, Andrea Beaton, Craig A. Sable, David Watkins, Emmy Okello

United Arab Emirates

Alaa Al Amiry, Brian Maguire

United Kingdom

Jack Williams, Anju Paudyal, Michelle Stewart, Pedro Cutillas, Roger D. Cox, Andrew Tinker, Lou Metherell

United States

Yuan Ma, F. J. He, Qi Sun, Changzheng Yuan, Lyanne M. Kieneker, Gary C. Curhan, Graham A. MacGregor, Stephan J.L. Bakker, Norman Campbell, Molin Wang, Eric B. Rimm, Joann Manson, Walter Willett, Albert Hofman, Ron T. Gansevoort, Nancy R. Cook, Frank B. Hu

United States

Fenglei Wang, Megu Y. Baden, Kathryn M. Rexrode, Frank B. Hu

United States

Kyla Lara-Breitinger, Jose Medina Inojosa, Zhuo Li, Sarka Kunzova, Amir Lerman, Stephen Kopecky, Francisco Lopez-Jimenez

United States

Xun Wu, Ziyi Wang, Jianting Shi, Fang Li, Young Joo Yang, Rebecca M. Moore, Margot K. Chirikjian, Ira A. Tabas, Ai Yamamoto, Hanrui Zhang

Uzbekistan

Amayak Kevorkov, Ergashali Tursunov

Viet Nam

Thach N. Nguyen, Thanh N.P. Huynh, Thoa Le, Minh Anh Le, Thu Q. Nguyen, Chuong T. Le, Loc Vu, Minh H.N. Le, Dung T. Ho, Gianluca Rigatelli, Ernest Talarico, Jr., Marco Zuin, Hung N. Pham, Thinh Cao, Nghia T. Nguyen

Vascular Discovery: From Genes to Medicine Scientific Sessions 2021

Australia

Bikash Manandhar, Elvis Pandzic, Nandan Deshpande, Sing-Young Chen, Valerie C. Wasinger, Maaike Kockx, Elias Glaros, Kwok Leung Ong, Shane Thomas, Marc Wilkins, Renee Whan, Blake J. Cochran, Kerry Anne Rye

Brazil

Jessyca Michelon Barbosa, Carlos A. Corsi, Fabíola L Mestriner, Carolina D. Mesquita, Ariel E. Couto, Lígia C. Campos, Vinícius F. Dugaich, Maria Cecília Jordani, Edwaldo E. Joviliano, Paulo Roberto B. Évora, Katarzyna Polonis, Maurício S. Ribeiro, Christiane Becari

Canada

Adil Rasheed, Hailey Wyatt, Taylor Dennison, My-anh Nguyen, Sabrina Robichaud, Michele Geoffrion, Adir Baxi, Richard Lee, Mireille I. Ouimet, Katey J. Rayner

China

Haoyu Wang, Kefei Dou

Germany

Lukas Bischoff, Jessica Pauli, Lars Maegdefessel

Japan

Maki Tsujita, Hiroshi Takase, Natsuko Kumamoto, Shinya Ugawa, Yoshito Furuie, Motonari Tsubaki

Mexico

Javier E. Anaya-Ayala, Luis A. Medina, Ana T. Verduzco-Vazquez, Carlos Bravo-Reyna, Ricardo Martinez-Martinez, Carlos A. Hinojosa

Netherlands

Myrthe E. Reiche, Oom Pattarabajinard, Aditi Upadhye, Kikkie Poels, Claudia van Tiel, Stephen G. Malin, Christoph J. Binder, Norbert Gerdes, Christian Weber, Dorothee Atzler, Coleen A. McNamara, Esther Lutgens

New Zealand

Morgane Brunton-OSullivan, Ana Holley, Bijia Shi, Scott Harding, Peter Larsen

Russian Federation

Maria Evsevyeva, Michail Eremin, Oxana Sergeeva, Maria Rostovtseva, Evgeny Shchetinin, Victoria Kudrjavtseva

Sweden

Melody Chemaly, Bianca Esmee Suur, Hong Jin, Anders Malarstig, Ljubica Matic

United Kingdom

Georgios Kremastiotis, Raimondo Ascione, Jason L. Johnson, Sarah J. George

United States

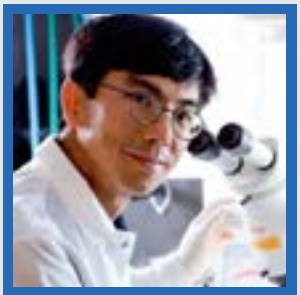
Clint Miller, Adam W. Turner, Sheng-en Hu, Jose E. Verdezoto Mosquera, Wei Feng Ma, Chani J. Hodonsky, Doris Wong, Gaelle E. Auguste, Katia Sol-Church, Emily Farber, Soumya Kundu, Anshul B. Kundaje, Nicolas G. Lopez, Lijiang Ma, Saikat Ghosh, Suna Onengut-Gumuscu, Euan A. Ashley, Thomas Quertermous, Aloke Finn, Nick J. Leeper, Jason C. Kovacic, Johan L.M. Bjorkegren, Chongzhi Zang

AHA's 2021 Distinguished Scientists

The American Heart Association designates the Distinguished Scientist award to AHA Professional Members who have significantly advanced the understanding of cardiovascular, stroke or brain health. The 2021 awardees were recognized at Scientific Sessions, joining the ranks of other eminent professionals.

Elizabeth M. McNally
MD, PhD, FAHA

Elizabeth J Ward Chair, Director for Genetic Medicine and Starz! Academy
Feinberg School of Medicine
Northwestern University
Chicago, IL



Eng H. Lo
PhD, FAHA

Professor
Harvard Medical School
Neurology and Radiology
Charlestown, MA

Kathryn J. Moore
PhD, FAHA

Jean and David Blechman Professor of Cardiology
New York University Grossman School of Medicine
Cardiology
New York, NY

Italo Biaggioni
MD, FAHA

Professor of Medicine and Pharmacology
Vanderbilt University
Nashville, TN

Vasan S. Ramachandran
MD, FAHA

Professor of Medicine & Epidemiology
Boston University School of Medicine
Boston, MA

Ernesto L. Schiffrin
MD, PhD, FAHA

Physician-in-Chief and Vice Chair (Research)
Sir Mortimer B. Davis
Jewish General Hospital
McGill University
Montreal, CAN

Please join us in congratulating the 2021 Distinguished Scientists.

2021 Distinguished Scientist Lecturer

The Distinguished Scientist Lecture was created in 2006 to provide greater prominence to the Distinguished Scientist awards program. Each year, a Distinguished Scientist is selected to give the Distinguished Scientist Lecture at Scientific Sessions. The lecturer is selected by the Distinguished Scientist Selection Committee from the roster of previously elected Distinguished Scientists. Topics rotate annually between areas related to basic science, clinical science and population science. The selected lecturer is asked to focus their presentation on exciting new directions in scientific areas of cardiovascular, stroke, and brain health.

Robert J. Lefkowitz
MD, FAHA

Duke University Medical School

Durham, NC

Dr. Lefkowitz is the James B. Duke Professor of Medicine and Professor of Biochemistry and Chemistry at Duke University. He has been an Investigator of the Howard Hughes Medical Institute since 1976. Lefkowitz was born on April 15, 1943, in The Bronx, New York.

After graduating from the Bronx High School of Science in 1959, he attended Columbia College from which he received a bachelor of arts in chemistry in 1962.

He graduated from Columbia University College of Physicians and Surgeons in 1966 with an M.D. Degree. After serving an internship and one year of general medical residency at Columbia Presbyterian Medical Center, he served as Clinical and Research Associate at the National Institutes of Health as a Commissioned Officer in the United States Public Health Service from 1968 to 1970. Upon completing his medical residency and cardiology fellowship in 1973 at the Massachusetts General Hospital in Boston he joined the faculty at Duke.

Lefkowitz studies receptor biology and signal transduction and is most well-known for his detailed characterizations of the sequence, structure and function of the β-adrenergic and related

receptors and for the discovery and characterization of the two families of proteins which regulate them, the G protein-coupled receptor (GPCR) kinases and β-arrestins.

Today, as many as 30 percent of all prescription drugs are designed to "fit" like keys into the similarly structured locks of Lefkowitz' receptors-everything from anti-histamines to ulcer drugs to beta blockers that help relieve hypertension, angina and coronary disease.

He has been elected to both the National Academy of Sciences and National Academy of Medicine as well as the American Academy of Arts and Sciences. Amongst many awards he has received the Gairdner Foundation International Award, the American Heart Association's Basic Research Prize and its Research Achievement Award, the Albany Medical Center Prize in Medicine, the Shaw Prize in Life Science and Medicine, the National Medal of Science and the Nobel Prize in Chemistry in 2012, a prize he shared with his former trainee Dr. Brian Kobilka.

Welcome New 2021 American Heart Association Fellows

Election as a Fellow of the American Heart Association recognizes the recipient's scientific accomplishments, volunteer leadership and service. Earning the FAHA credential demonstrates to colleagues and patients that the recipient has been welcomed into one of the world's most eminent organizations of cardiovascular and stroke professionals. Please join us as we celebrate the accomplishments of the new 2021 Fellows of the American Heart Association (FAHA).

3CPR

Anne-Marie Guerguerian, MD, PhD, FAHA
James M. Horowitz, MD, FAHA
Naomi Kondo Nakagawa, MSc, PhD, FAHA
Robert M. Sutton, MD, MSCE, FAHA
Justin R. Walzl, RN, BSN, MSN, FAHA
Carolyn M. Zelop, MD, FAHA

ATVB

Po-Yuan Chang, MD, PhD, FAHA
Gabriel T. Faz, MD, FAHA
Julie Freed, MD, PhD, FAHA
Kapil Kapoor, MD, PhD, FAHA
Gregory A. Payne, MD, PhD, FAHA
Miao Wang, PhD, FAHA

BCVS

Sangita Choudhury, BSc, MSc, PhD, FAHA
Anindita Das, PhD, FAHA
Hiranmoy Das, PhD, FAHA
Dominic Del Re, PhD, FAHA
Morten O. Jensen, MD, PhD, FAHA
Deok-Ho Kim, PhD, FAHA
Jonathan A. Kirk, PhD, FAHA
Nitish R. Mahapatra, PhD, FAHA
Shouji Matsushima, MD, PhD, FAHA
Liming Pei, PhD, FAHA
Enkhsaikhan Purevjav, MD, PhD, FAHA
Sebastiano Sciarretta, MD, PhD, FAHA
Markus Wallner, MD, PhD, FAHA
Leo Q. Wan, PhD, FAHA
Zhao Wang, PhD, FAHA

CLCD

Sandra Chaparro, MD, FAHA
Geoffrey W. Cho, MD, FAHA
Paul Dobesh, PharmD, FAHA
Andreas O. Doesch, MD, FAHA
Eman A. Hamad, MD, FAHA
Tevfik F. Ismail, MBBS, PhD, FAHA
Viet T. Le, PA-C, MPAS, FAHA
Mitchell Psotka, MD, PhD, FAHA
Odayme Quesada, MD, MHS, FAHA
Garima Sharma, MD, FAHA
Kamal O. Shemisa, MD, FAHA
Shashank S. Sinha, MD, MSc, FAHA
Jennifer T. Thibodeau, MD, MSCS, FAHA
Saraschandra Vallabhajosyula, MD, MSc, FAHA
Vlad G. Zaha, MD, PhD, FAHA

CVRI

Jeremy R. Burt, MD, FAHA

CVSA

Mario F. L. Gaudino, MD, PhD, MSCE, FAHA

CVSN

Brittany Butts, PhD, RN, FAHA
Nicolle W. Davis, PhD, RN, SCRN, ASC-BC, FAHA
Quin E. Denfeld, PhD, RN, FAHA
Shannon Halloway, PhD, RN, FAHA
Jennifer L. Miller, PhD, MSNEd, RN, FAHA
Kari D. Moore, MSN, RN, APRN, AGACNP-BC, FAHA
Susan E. Wilson, DNP, MSN, RN, ANP-BC, FAHA

EPI

Kristen L. Knutson, PhD, FAHA
Nathalie Moise, MD, MS, FAHA
Connie W. Tsao, MD, MPH, FAHA
Kara Whitaker, PhD, MPH, FAHA

GPM

Wesley T. Abplanalp, PhD, FAHA
Mete Civelek, PhD, FAHA
Jasmine A. Luzum, PharmD, PhD, FAHA
Nathan R. Tucker, PhD, FAHA

Hypertension

Dave Dixon, PharmD, FAHA
Vesna D. Garovic, MD, PhD, FAHA
Yuan Lu, ScD, FAHA
Junie P. Warrington, PhD, FAHA

KCVD

Nicole M. Bhave, MD, FAHA
Clintoria R. Williams, PhD, FAHA

Lifestyle

Nathaniel D. M. Jenkins, PhD, FAHA
Stephen P. Juraschek, MD, PhD, FAHA

PVD

Eri Fukaya, MD, PhD, FAHA
Raghu Kolluri, MD, MS, FAHA
Eric Secemsky, MD, MSc, FAHA

QCOR

Imo A. Ebong, MD, MS, FAHA
Louise Morgan, MSN, CPHQ, FAHA
Raja K. Mutharasan, MD, FAHA
Celina M. Yong, MD, MSc, MBA, FAHA

Stroke

Kimon Bekelis, MD, FAHA
Andrew P. Carlson, MD, FAHA
Alicia C. Castonguay, PhD, FAHA
Chandril Chugh, MD, FAHA
Hugo Cuellar-Saenz, MD, PhD, MBA, FAHA
Matthew J. Durand, PhD, FAHA
Mark Etherton, MD, PhD, FAHA
Kimberly Gannon, MD, PhD, FAHA
Gillian L. Gordon Perue, MBBS, DM, DABPN, FAHA
Karen Greenberg, DO, FAHA
Marc W. Halterman, MD, PhD, FAHA
Koto Ishida, MD, FAHA
Pascal Jabbour, MD, FAHA
Amanda L. Jagolino-Cole, MD, FAHA
Mouhammad A. Jumaa, MD, FAHA
Ramanathan Kadirvel, PhD, FAHA
Hooman Kamel, MD, MS, FAHA
Masato Kanazawa, MD, PhD, FAHA
Joseph Kwan, MPhil, MD, FAHA
Jessica D. Lee, MD, FAHA
Brian Mac Grory, MBBCh, BAO, FAHA
Prachi Mehndiratta, MBBS, FAHA
Eva A. Mistry, MBBS, FAHA
Krishna Nalleballe, MD, FAHA
Raul Nogueira, MD, FAHA
Gary A. Rosenberg, MD, FAHA
Matthew S. Schrag, MD, PhD, FAHA
Siddharth Sehgal, MD, FAHA
Sandi G. Shaw, RN, MBA, ASC-BC, FAHA
Timo Siepmann, MD, PhD, FAHA
Varsha Singh, MSN, DNP, APN, FAHA
Burton J. Tabaac, MD, FAHA
Kay Sin Tan, MBBS, FAHA
Matthew S. Tenser, MD, ScM, FAHA
Stavropoula Tjoumakaris, MD, FAHA
Syed F. Zaidi, MD, FAHA
Ramin Zand, MD, MPH, FAHA

Young Hearts

Lindsay R. Freud, MD, FAHA
Shuping Ge, MD, FAHA
Yuli Kim, MD, FAHA
Ashwin K. Lal, MD, FAHA
Chad Y. Mao, MD, FAHA
Mark D. Norris, MD, MS, FAHA
Amy L. Peterson, MD, MS, FAHA
Nelangi Pinto, MD, FAHA
Hirofumi Saiki, MD, PhD, FAHA
Adriana Tremoulet, MD, MAS, FAHA

Congratulations to the

Council on Clinical Cardiology (CLCD)

for winning the *inaugural*

Council Challenge

held as part of Scientific Sessions 2021

Thank you to our hosts Drs. Tracy Wang and Robert Harrington for their entertaining repartee and never-ending list of family friendly jokes. And to all our participants, your efforts were valiant, your trash talking was a surprise, and you kept the competition close until the final question and answer. You put up a good fight, but CLCD managed to eke out the victory. So, congratulations CLCD. Take note, the clock on your bragging rights is already ticking.

The gauntlet has now been thrown.

Who will dethrone the champion in 2022? You've got 10 months to study up.

Bring your Professional Heart Daily profile up to date!

Update your preferences, communities, contact info and other details on your dashboard. Selecting your community will automatically bring you the latest science, news and discussions related to your interests. Login at **professional.heart.org.**

DID YOU KNOW?

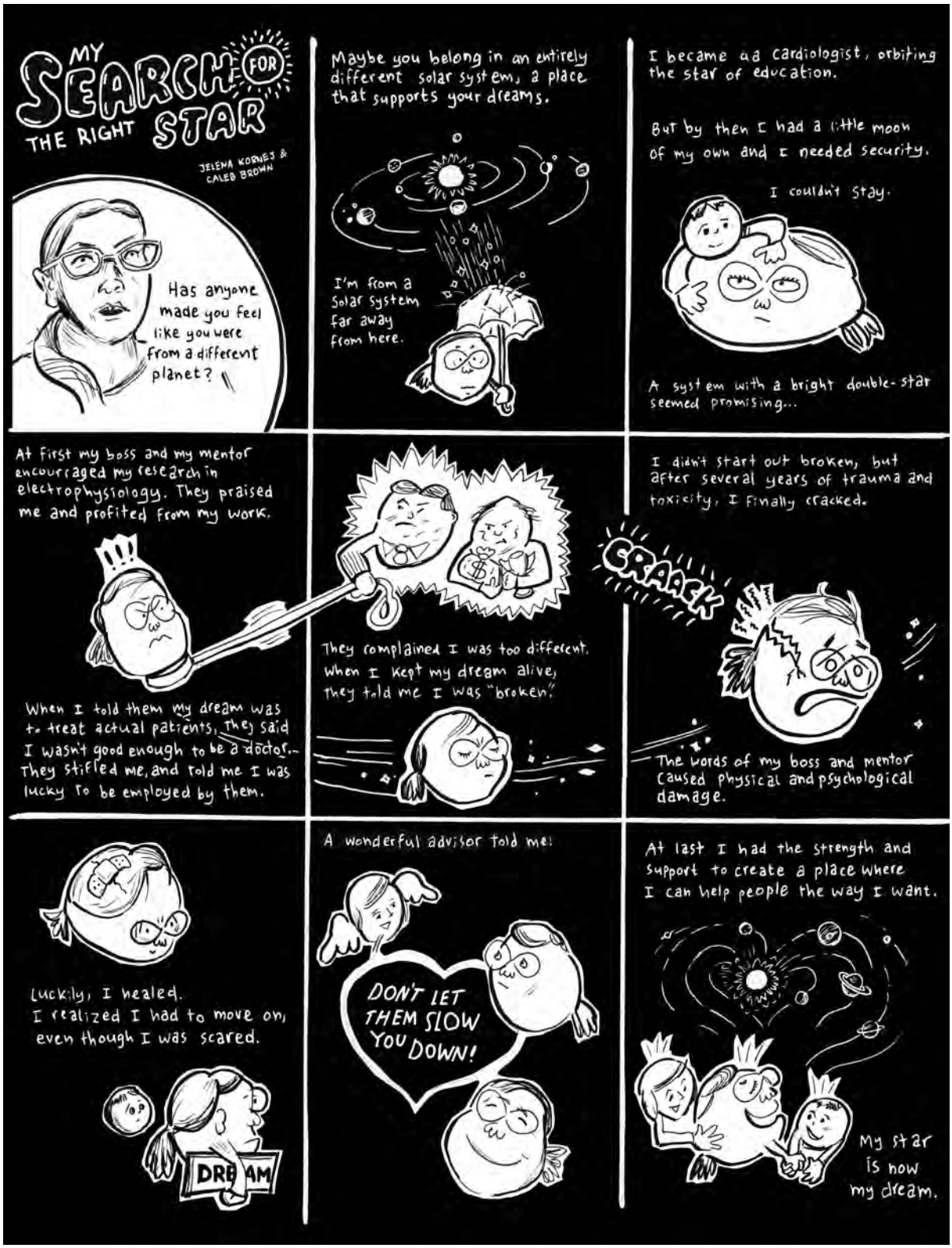
AHA Professional Members can apply for research funding.

Over $100 million awarded ANNUALLY.

Learn more.

Graphic Medicine as a Communications Tool

AHA has piloted a series of Graphic Medicine stories archived as "Comix from the Heart." In partnership with a graphic design firm, we co-hosted a workshop of storytellers from our patients, staff and professional members paired with artists and illustrators as a proof of concept—"How Graphic Medicine can be a powerful communications tool between patients and providers, providers and patients and between professionals". This well-established medium is a highly regarded technique for increased engagement. We hope to expand this pilot into a series of workshops with many AHA audiences, including our professional membership. A link to more about the project can be found **here**. Please contact Kristi Durazo, Office of Health equity (**Kristi.j.durazo@heart.org**) for more information.



artist: Caleb Brown; storyteller: Jelena Kornej

Facing Our Biases

Aubrey J. Grant, MD

Cardiovascular Disease Fellow

Georgetown University/
Washington Hospital Center

AHA has a long-standing commitment and decades-long work in support of equitable health and well-being for all.

Opinions in this article are those of the author.

Chest pain, nausea, and vomiting; this was the chief complaint of a disheveled middle-aged Black woman as she presented to her local emergency department. When she was brought in via emergency medical services (EMS), the patient was uncomfortable, complaining of pain, and restless. She had a history of homelessness, inappropriate IV drug and alcohol use, and was known as a "frequent flier" in the emergency room. EMS initially assessed that her chest pain appeared non-cardiac and provided supportive care while en route to the hospital. She was then triaged, and an emergency provider took over her management.

The patient continued to have chest pain and nausea while in the emergency department. Considering her history, the medical team agreed with the EMS assessment and thought her symptoms were atypical for a cardiac etiology but recognized the utility of basic cardiac screening. Her EKG showed very subtle ST-segment elevations in her inferior leads, as well as faint reciprocal changes. High sensitivity troponin revealed a relatively low level enzyme leak, and the patient remained in observation with supportive care for her nausea and pain.

After hours in the emergency department, a repeat EKG assessment showed that her ST-segment elevation continued to evolve and become more pronounced. The patient continued to endorse chest discomfort despite pain medications and ultimately cardiology was consulted. As a third-year general cardiology fellow nearing the end of my formal training, I was the on-call fellow that night for the cardiac intensive care unit. Considering her abnormal EKG, continued symptoms, and modest troponin elevation, the patient was urgently taken to the cardiac catheterization lab. The interventional team found an acute lesion of her proximal right coronary artery. Unfortunately, she became unstable, requiring mechanical support for ongoing acute cardiogenic shock.

Diagnostic error and medical delays are often the result of cognitive bias. Several types of bias exist and it is crucial that we reflect on these instances of error. The question is, what type of bias led to this poor outcome? Would it have made a difference if the patient had no history of drug and alcohol use or homelessness? Would her acute myocardial infarction have been treated faster if she were an affluent white man? Was she a victim of implicit bias?

Implicit bias refers to the attitudes or stereotypes that affect our understanding, actions and decisions in an unconscious manner. These biases are activated involuntarily, without an individual's awareness or intentional control. Implicit bias is ubiquitous. We all have unique lived experiences that affect our perceptions. These varied, learned perceptions affect how we view the world and interact with others. Further, the COVID-19 pandemic has stretched our clinical workforce beyond imagination. Oftentimes, in these moments of overload, we rely on our experience and bias to guide our judgment. Unfortunately, this mental shortcut can lead to grave mistakes.

While the effects of implicit bias in medicine are clear, it is also clear that implicit bias is malleable. As health professionals, we are responsible for understanding and acknowledging our areas of bias. Once we recognize our own internal biases, there are several validated approaches for mitigating that bias. These include stereotype replacement, counter-stereotypic imaging, individuation, perspective-taking, and increasing opportunities for contact with individuals from different groups.[1] Further, our current models for teaching implicit bias to medical students and trainees are sparse and outdated. New research must be conducted to find more innovative techniques for managing implicit bias. By leveraging technology, we can make strides in reducing the biases affecting healthcare inequities. The American Heart Association is founded upon the guiding principle of ensuring equitable health for all, thus, it is essential that we come together as a community of healthcare leaders to address bias in medicine.

1 Byrne A, Tanesini A. Instilling new habits: addressing implicit bias in healthcare professionals. *Adv Health Sci Educ Theory Pract*. 2015 Dec;20(5):1255-62. doi: 10.1007/s10459-015-9600-6. Epub 2015 Mar 15. PMID: 25771742.

Research Operations

Health Equity Research Network on Maternal Health Coming Soon

The AHA announced at Scientific Sessions 2021 a $20 million commitment to establish the second Health Equity Research Network. The new network will address the unacceptable reality of the disproportionately high maternal mortality rate for Black women – a tragedy that also impacts their babies. Because heart and vascular issues account for about half of these deaths, the AHA is uniquely positioned to address this critical issue. More details to come soon on this major initiative at **professional.heart.org/FundingOpportunities**.

AHA Participates in Nation's Largest Funding Collaborative to Advance Equity in Biomedicine

$12.1M Awarded to 22 Medical Schools

In collaboration with the American Heart Association, the Burroughs Wellcome Fund, John Templeton Foundation, Rita Allen Foundation, and Walder Foundation, the Doris Duke Charitable Foundation (DDCF) has announced the 2021 COVID-19 Fund to Retain Clinical Scientists recipients, providing awards of $500,000 each to U.S. medical schools and their affiliated hospitals across 17 states. The awards will support at least 250 biomedical early-career faculty.

The 22 recipient institutions will use the funds to deploy supportive programs that provide eligible faculty who are experiencing periods of caregiving crisis with supplemental support for their research, such as hiring administrative personnel, statisticians and technicians, among other uses. These vital supports will allow hundreds of brilliant contributors to scientific discovery to keep their important work on track while directly tending to the needs of their families.

To learn more about the COVID-19 Fund to Retain Clinical Scientists and recipient institutions, visit the **Doris Duke Charitable Foundation**'s website.

Submit Your Transformational Project Award Proposal

Deadline is Wednesday, February 16, 2022

Proposals are being accepted for AHA **Transformational Project Awards**. This mechanism funds highly innovative, high-impact projects that build on work in progress that could ultimately lead to critical discoveries or major advancements that will accelerate the AHA's mission. Research deemed innovative may be built around an emerging paradigm, approaching an existing problem from a new perspective, or exhibit other uniquely creative qualities. Successful proposals are likely to be building on strong preliminary data supportive of the hypothesis.

Candidate must be an AHA Professional Member, hold a post-baccalaureate Ph.D. degree or equivalent, or a doctoral-level clinical degree, or a Ph.D. in nursing, public health, or other clinical health science. This program places no limit on eligibility based on career stage, academic rank, or discipline. It requires only evidence of a faculty/staff position above the rank of trainee/postdoctoral fellow at a qualified institution.

Awards will commence on July 1, 2022, for a period of three years, at $100,000 per year.

For questions, please email **apply@heart.org** or call (214) 360-6107 (option 1).

Join the scientific conversations on Twitter!
Follow **@AHAMeetings** **@AHAScience**

Launch of AHA Lifelong Learning Center "Tweetorials"

The American Heart Association is offering health professionals another way to stay up to date on treating COVID-19 patients, one tweet at a time.

Early this year, AHA's Lifelong Learning Center will launch the first of eight "Tweetorials," threads of 18 to 23 tweets containing the latest science-based educational content about the novel coronavirus linked together on the social media platform Twitter.

"Tweetorials leverage the global reach of social media to reach professionals, including those unfamiliar with the Lifelong Learning Center, who are used to learning through social media, podcasts and webinars," said Dr. Jayne Morgan, Executive Director of the COVID-19 task force for Piedmont HealthCare Corp. in Atlanta.

"AHA is reaching people where they are, providing reliable, timely information with the device they already have in their hand," said Dr. Morgan, who is also an AHA Tweetorial faculty member.

The COVID-19 Tweetorial campaign is supported by an educational grant from Pfizer. It's designed to inform clinicians about the short- and long-term impact of COVID-19, key steps in the viral life cycle, underlying medical conditions that increase risk of severe illness from COVID-19, and therapeutic implications. Curriculum was developed by a panel of volunteer health care professionals.

Each Tweetorial episode will be up to 30 minutes long and include interactive individual tweets that may feature text and images, videos, figures and tables, links to references, and additional tools and resources. The format includes evaluative polling, step-by-step examples of diagnostic clues, and opportunities for questions and feedback.

Dr. Nicholas Hendren, an internal medicine specialist and heart transplant fellow at UT Southwestern in Dallas, said social media's immediacy and broad reach provide a valuable new forum. "Something that was cutting edge six months ago may not be the best choice to manage a patient today," said Dr. Hendren, who is also a Tweetorial faculty member.

The Twitter format is also a draw for time-pressured health care professionals, Dr. Hendren added.

"Time is the one thing you can't create more of," he said. "Having the ability to compress the information into 5- to 10-minute bite-size pieces allows you to professionally grow every day while allowing you a little more flexibility to continue to balance your work life."

Dr. Patricia Chico, a family medicine specialist at Alliance Medical Center in Windsor, California, said the Tweetorial storytelling style helps practitioners keep up with COVID-19 developments.

"With something like COVID, where information is flowing in daily, it's really important to have ways to disseminate information quickly so it can be implemented into practice," said Dr. Chico, a faculty member for the project. "Everyone has their own way of learning, and Tweetorials really expands options for people so we can reach them wherever they are and whatever they're doing."

A new Tweetorial episode will be released every few weeks through May through AHA's **@AHAScience** Twitter account. After reviewing a Tweetorial episode, health care professionals may claim a half-hour (0.5) of CME credit by taking a post-test on the Lifelong Learning Center and up to 4 CME credits for the entire series. The content will also be available on the Lifelong Learning Center site (**learn.heart.org**) by searching "Tweetorials."

Paid Undergraduate Summer Internships!

Through the American Heart Association's Supporting Undergraduate Research Experience (SURE) Scholars Program, mentored 8- to 10-week summer research experiences are available for students from ethnic racial groups under-represented in science, and those who identify as LGBTQ+. Current AHA awardees serve as mentors!

Undergraduates may apply to train at *Boston University*, *Northwestern University*, *Stanford University*, and *Vanderbilt University*. **Details at AHA SURE Scholars Program**.

ACP and AHA Name Editor in Chief and Deputy Editor for *Annals of Internal Medicine: Clinical Cases*

New digital, peer-reviewed journal will publish clinical case reports in a wide range of medical specialties

The American College of Physicians (ACP) and the American Heart Association (AHA) announce the senior editorial leadership of the new digital, open access, peer-reviewed journal, *Annals of Internal Medicine: Clinical Cases (AIMCC)*. Gustavo R. Heudebert, MD, MACP, will serve as editor in chief, and Daniel P. Morin, MD, MPH, FACC, FHRS, as deputy editor. *AIMCC* is a joint publication of the American College of Physicians and the American Heart Association.

As editor in chief, Dr. Heudebert will lead all aspects of the editorial strategic direction for the new journal. He will draw on his experience and knowledge as a physician and educator to create a journal with broad appeal to a diverse clinical audience.

Dr. Heudebert comes to *AIMCC* with a rich background in internal medicine and scientific publishing. He completed his medical training at the Universidad Peruana Cayetano Heredia in Lima, Peru, before completing his residency at Henry Ford Hospital in Detroit, followed by a general internal medicine fellowship at the Medical College of Wisconsin. After working at both the Medical College of Wisconsin and the University of Texas Southwestern, he joined the faculty at the University of Alabama (UAB), where he is one of the School of Medicine's most acclaimed clinician educators.

In addition to his current role as professor emeritus of general internal medicine, he served as the dean of the Montgomery regional campus, associate dean for Graduate Medical Education and program director of the Internal Medicine Residency program at UAB's Heersink School of Medicine. Dr. Heudebert was one of the Inaugural co-deputy editors of the Clinical Cases section of the *Journal of General Internal Medicine*.

"We are excited to launch *AIMCC* with Dr. Heudebert at the helm," said Darilyn V. Moyer, MD, FACP, chief executive officer and executive vice president of ACP. "As an expert diagnostician with a background in scientific publishing, he will develop a compelling journal for clinicians in a broad range of specialties."

As deputy editor, Dr. Morin will work closely with Dr. Heudebert on all editorial aspects of the new journal. He is currently director of cardiovascular research and professor of medicine at the Ochsner Clinical School of the University of Queensland School of Medicine in New Orleans, Louisiana.

Dr. Morin earned his Doctor of Medicine from the University of Massachusetts Medical School, and his Master of Public Health from the Harvard University School of Public Health. He completed his internal medicine internship and residency at Tufts New England Medical Center in Boston and cardiovascular and cardiac electrophysiology fellowships at New York Presbyterian Hospital - Weill Cornell Medical Center in New York City. He has served as online editor for *Heart Rhythm*, as guest editor for *Progress in Cardiovascular Disease*, and he is senior consulting editor for *Circulation: Arrhythmia and Electrophysiology*, an AHA scientific journal.

"Dr. Morin has impressive clinical and editorial experience, and he recognizes the value of case reports to clinicians," said Eldrin F. Lewis, MD, MPH, FAHA, chair of the AHA's Scientific Publishing Committee. "Dr. Morin's expertise in both internal medicine and cardiovascular disease and his enthusiasm for the subject matter will ensure *AIMCC* features cases that inspire clinicians in their patient care."

AIMCC will publish bimonthly online. Submissions are now being received. Link to the journal's website for more information: **acpjournals.org/journal/aimcc**.

Faceted Search Offered for Guidelines, Statements

Faceted search is now available for **guidelines and statements** on Professional Heart Daily. Users can select one or more filters to narrow results. Please **contact us** if you have questions about faceted search or other suggestions for the website.

AHAFITnews
EDUCATION > INVOLVEMENT > CAREER GROWTH > LEADERSHIP

This article is part of the AHAFIT News. AHAFIT News is a quarterly newsletter created by AHA FITs for FITs. You can find the latest issue at **bit.ly/AHAFITNEWS** or scan this QR code.

Virtual Cardiovascular Disease Fellowship Recruitment: Looking Back to Inform the Future

Nosheen Reza
MD

Assistant Professor Medicine

University of Pennsylvania

We are heading into the home stretch of the second year of virtual interviews for cardiovascular disease fellowship, and it is remarkable to think about how dramatically fellowship programs have transformed their recruitment practices to accommodate our remote world. In September 2020, Drs. **Kathryn Berlacher**, **John McPherson**, **Nadeen Faza**, and **I** anticipated some of the challenges of and proposed potential solutions for an unprecedented fully virtual recruitment season in **our manuscript published in *JACC: Case Reports***. We emphasized the importance of ensuring authentic interactions between applicants and fellows on interview days, remaining mindful of the unique challenges that applicants have endured as frontline clinicians during the COVID-19 pandemic, and embedding structures to mitigate bias and promote equity in the application, interview, and selection processes. So, what lessons are we taking forward into the 2021 recruitment season?

With the transition to virtual interviews, a primary concern of applicants and educators was "application bloat" or "interview hoarding" — a significant increase in the number of applications submitted by individual applicants and therefore to each individual program. Data from the Association of American Medical Colleges Electronic Residency Application Service shows us that the number of applicants to Cardiovascular Disease fellowship continued to rise in 2020 with 353 individuals who applied to U.S. MD-granting public schools, 280 applicants to U.S. MD-granting private schools, 189 applicants to U.S. DO-granting schools, 771 applicants to international programs, and 1 applicant to a Canadian program. Approximately 30% of applicants in 2020 were women, which is essentially unchanged from 2016. The proportion of White applicants increased to 42% in 2020, from 38% in 2019, while the proportions of Black or African American; Asian; Hispanic, Latino, or of Spanish origin; Native Hawaiian or other Pacific Islander; American Indian or Alaska Native applicants remained essentially the same. As expected, the number of to which programs each applicant applied increased with the average numbers of applications per applicant reaching their highest numbers in 5 years — 51.5 applications per those applying to U.S. MD-granting public schools, 46.2 per those applying to U.S. MD-granting private schools, 62.4 per those applying to U.S. DO-granting schools, 105.1 per those applying to international programs, and 82.0 per those applying to Canadian programs. Anecdotally, program directors have reported similar or better match outcomes compared to pre-COVID-19 years with more applicants from diverse backgrounds. These trends will certainly be of interest again this year, and this highlights the need for cardiology-specific data to guide the future of virtual recruitment and to ensure equity.

While we await objective assessments of the virtual cardiovascular disease interview process, we have learned that creating structures to help prepare applicants for the virtual interview format through a mock interview can improve their preparedness, comfort, and confidence. **My colleagues and I presented our work on this topic at an international scientific congress earlier this year** and found that mock interviews are effective tools in preparing residents applying to cardiovascular medicine fellowship and provide an opportunity for mentorship of traditionally underrepresented populations in cardiology including women, foreign medical graduates, and non-White applicants. We are further evaluating these findings with an expanded mock interview initiative this year.

Finally, we have learned how to successfully leverage technology to create inventive resources for virtual recruitment. Many programs have revamped their websites, also often incorporating video testimonials from current fellows and **engaging on social media**, to highlight unique aspects of their training programs. Programs often reformatted the standard interview-day informational presentations into asynchronous materials that applicants could review on their own time, reserving the interview day itself for meaningful one-on-one interactions between applicants and faculty and applicants and fellows. The financial and time commitments required to interview for fellowship have also been dramatically reduced, contributing to a reimagined applicant-centered process.

While many uncertainties regarding the COVID-19 pandemic remain, we are hopeful that a return to some degree of in-person academic activity will occur in 2022. Given the anecdotal success of the virtual recruitment process to date, we are looking forward to seeing how the cardiovascular education community and graduate medical education governing bodies reach consensus on the process for the 2022 fellowship recruitment season.

DID YOU KNOW?

AHA Professional Members can search for or post a position on our Job Resources Tool.

Learn more.

The Heart of Research: Real-world Data Analysis Tools for Real-world Problems

For too long, researchers have been limited by outdated and out-of-reach expensive methods and tools for data science.

Instead of plodding along in silos, researchers need to be able to bring their data together in fast, reliable, easy-to-use workspaces

With the Precision Medicine Platform (PMP), researchers can collaborate with local or global colleagues, share the largest data sets, and have access to the tools they need to find fast, accurate answers to the toughest questions in minutes rather than months or years.

Because the PMP is designed for ease of use and efficiency, researchers spend their time on analysis that will take minutes or days, instead of spending weeks and months crunching numbers and writing code before they can even get to analyzing data.

Built to handle any type of data and any type of analysis—from medical research to finance— the PMP will help drive innovation from finding new patterns in public health to training deep-learning algorithms.

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American Heart Association.
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AI technique developed for highly accurate screening for congenital heart disease in second trimester

The Problem

Congenital heart disease (CHD) is the most common birth defect. Fetal screening ultrasound can detect 90% of complex CHD but, in practice, sensitivity is as low as 30%.

The Solution

Researchers used the Precision Medicine Platform to analyze 107,823 images from 1326 echocardiograms, then trained an ensemble of neural networks to identify recommended cardiac views and distinguish between normal hearts and complex CHD. Applied to guideline-recommended imaging, ensemble learning models could significantly improve detection of fetal CHD, a critical and global diagnostic challenge. Read the study **here**.

Results from recent studies

Large Data Sets

Internal test sets involved 4108 fetal scans (>4.4 million images).

Accurate Results

Model sensitivity was comparable to that of clinicians and remained robust on outside-hospital and lower-quality images.

96%

Improved Diagnostics

The AI model detected CHD with 96% specificity, a significant improvement against prior screening practices.

Contact us to learn more:
pmp@heart.org

precision.heart.org

American Heart Association®
Precision Medicine Platform

We're taking care of the details so you can take care of the science

What is the Precision Medicine Platform?

A cloud-based research data analysis platform that provides secure, private workspaces equipped with tools for machine learning, artificial intelligence, and data analysis. The platform provides an environment where global teams can collaborate seamlessly, accessing the power of cloud computing from their laptops.

The Precision Medicine Platform centralizes data for teams to easily and quickly search, analyze, and share harmonized data. With flexible choices for software and ready-to-run data analytics tools, the Precision Medicine Platform brings the data to the user to accelerate discovery.

Why cloud computing?

- Avoid costs of owning your own IT and data center infrastructure.
- Pay only for what you use, only when you use it.
- Powerful computational abilities without purchasing new hardware.
- Analytical tools included in cost.
- On-demand computing power: applications, storage, processing power.
- Securely store and analyze data.
- Synchronize data across users and devices.

How does it work?

When research teams use our platform, they get their research done faster and better.

- ✓ HIPAA compliant and FedRAMP certified
- ✓ Powered by Amazon Web Services
- ✓ Easy to search across orthogonal data sets
- ✓ Many publicly accessible data sets available for use or bring your own data sets
- ✓ COVID-19 CVD and GWTG datasets available through the platform
- ✓ Data set owners control agreements and permissions
- ✓ Pre-installed, standard tools and packages are assigned to every workspace: Available analysis tools include R, Python, SAS, and more
- ✓ Technical and analytical support from our Data Science Team available as an option

With the Precision Medicine Platform, you can log in with a wimpy laptop and do supercomputing with your team around the world.

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precision.heart.org

International Knowledge Sharing to Advance Global CV Health

Dhruv S. Kazi
MD, MSc, MS, FAHA

Associate Director, Richard A. and Susan F. Smith Center for Outcomes Research in Cardiology

Director, Cardiac Critical Care Unit, Beth Israel Deaconess Medical Center

Associate Professor, Harvard Medical School

Dear Colleagues

This is an unprecedented time in all our lives, personally and professionally. The cardiovascular impact of COVID is clear, already straining healthcare systems around the world. Yet the growing threat of noncommunicable diseases, specifically cardiovascular diseases – remains. If we don't continue our work to advance treatment and knowledge around cardiovascular diseases, the weight of those additional conditions will not only affect the health and wellness of people around the world, it could become just the nudge that cripples already delicate healthcare systems. This challenge demands faster and more diverse scientific collaboration.

As Science Co-Chair of the American Heart Association International Committee, we are busier than ever – working with our colleagues around the world to advance healthcare-strengthening programs like Get With The Guidelines, hospital certification and emergency cardiovascular care life support training that directly impact patient care. These programs that now save lives every day emerged from a process of science-sharing between colleagues in more than 100 countries.

As the global leader in cardiovascular science and programs, the American Heart Association is in demand for our technical advice to ministries of health, large healthcare systems and partner organizations. But we, as scientists, have still more to learn about the intricacies of cardiovascular conditions being explored outside the United States: How do you best identify a potential for stroke in a rural village in India? What can studying hypertension treatment in low-income urban settings tell us about the need for variations in treatment plans? How can we challenge and improve inequality to best harness the power of women as leaders of their family's health?

These past few months, our AHA international professional members and many of my colleagues on the International Committee have been honored to participate in the conferences and meetings with leading cardiovascular societies across Europe, Israel, United Arab Emirates, Italy, Latin America, Japan and China on wide-ranging topics like secondary prevention, future therapeutic strategies, and the effects of cardiovascular disease across the life course.

We are looking for new ideas and different voices for these opportunities to expand and diversify our topic areas, study subjects and context. Please contact Melanie Turner, Science and Program Director, AHA International (**melanie.turner@heart.org**) if you are interested in joining us on this journey.

I hope you will join me in impacting healthcare around the world and serving as a relentless force for longer, healthier lives.

Getting Involved in State Advocacy

The American Heart Association works to achieve population-wide, public health outcomes by shaping public policy to address today's ongoing cardiovascular health challenges, including ensuring access to care, ending tobacco use, improving the food and physical environments, protecting funding for core public health programs, and eliminating health disparities. We focus our attention on levels of government, and now is a particularly good time to focus on what is about to happen in states around the country.

There will be 46 states that will be in legislative session beginning in January of 2022 and during those sessions, over 30,000 pieces of legislation will be introduced that could have an impact on health policy. Most states will be in session for only a few short months and during that time we need constituents to help us shape that policy – to be a voice to build strong public support for the health of all people and all communities.

Specific policies that we work to advance include:

- Expanding Medicaid in the twelve states that have yet to expand and ensuring all individuals whose pregnancies are covered by Medicaid can keep their Medicaid coverage for at least one year postpartum
- Supporting SNAP benefits at the market for the purchase of healthy food and expansion of healthy school meals in schools for all
- Eliminating the sale of flavored tobacco products including menthol and electronic cigarettes and raising tobacco excise taxes
- Requiring all 911 telecommunicators that provide dispatch for emergency medical conditions be trained in the delivery of high-quality telephone CPR
- Creating heart attack and stroke facility designation and developing and implementing EMS transport protocols.

If you want to make a difference in your state through public policy in 2022, please join our ***You're the Cure* grassroots network** or email **advocate@yourethecure.org** to be connected with your state staff partner.

New Heart Clinical Trial to Shine Light on Early Atrial Fibrillation Treatment

Until now, scientific research about treatment for the most common type of heart arrythmia, **atrial fibrillation (AFib)**, has primarily focused on patients with already established cases of the condition.

CHANGE AFib, a new pragmatic clinical trial, will determine whether early treatment with the antiarrhythmic drug dronedarone improves cardiovascular and long-term outcomes in patients presenting to the hospital with first-detected AFib.

The trial represents a collaboration between the American Heart Association and the Duke Clinical Research Institute (DCRI, with support from Sanofi US.

"Although several clinical trials have addressed the optimal treatment strategy for patients with symptomatic and recurrent atrial fibrillation, we do not yet have evidence on the best early treatment plan for those who have just been diagnosed with first-detected cases," said Jonathan Piccini, M.D., M.H.S., American Heart Association volunteer, cardiac electrophysiologist and associate professor of medicine at Duke University/DCRI and principal investigator for the trial. "CHANGE AFib seeks to fill this gap in evidence and determine whether we can better deliver early treatment to help improve long-term outcomes in patients with first-detected atrial fibrillation."

Council Highlights from Scientific Sessions 2021

CONNECTING WITH THE CHAIR

Sébastien Bonnet
PhD, FAHA

We are pleased to report a summary of Council on Cardiopulmonary, Critical Care, Perioperative and Resuscitation (3CPR) activities during the exciting Scientific Sessions and Resuscitation Science Symposium of 2021. As usual, our council provided really amazing talks, presentations and posters at the virtual event. Once again thanks to Paul Yu, MD, PhD, FAHA, and his team for putting together this wonderful 3CPR program together.

The 3CPR Speed Mentoring session returned for a second year in its online format, with distinguished mentors including Joseph Loscalzo, MD, PhD, FAHA, Roxane Paulin, PhD, Stephen Chan, MD, PhD, FAHA, Soni Pullamsetti, PhD, Harm Bogaard, MD, PhD, FAHA, Steeve Provencher, MD, Jane Leopold, MD, FAHA, Elena Goncharova, PhD, Sébastien Bonnet, PhD, FAHA, Jason Rose, MD, MBA, and Frances de Man, PhD, sharing their tips and guidance on navigating a successful career in basic, translational or clinical investigation. Once again this was a great success.

A main event session, "Long-Term COVID-19: Cardiopulmonary and Translational Science" reviewed emerging evidence and clinical recommendations for managing the cardiopulmonary and pro-thrombotic risks and sequelae of SARS-CoV-2 infection in an engaging case-based format.

For the Kenneth D. Bloch Memorial Lecture in Vascular Biology, Dr. Leopold presented her work on G6PD and aldosterone in pulmonary vascular biology and right ventricular (RV) function, and exciting developments from the PVDOMICS study sponsored by the NIH, in a session that included other cutting-edge findings on single cell transcriptomics, epigenetic and metabolic targets in HFpEF, PAH, and RV dysfunction. A pro/con debate highlighted progress and controversies in the interventional, surgical and medical strategies for CTEPH disease.

The Dickinson W. Richards Memorial Lecture was presented by Mark Nicolls, MD, who presented his seminal work on immune dysregulation and inflammation in pulmonary arterial hypertension, culminating in two recent clinical trials testing this hypothesis.

The Cournand and Comroe Early Career Investigator Award competition featured five finalists from an all-time high number of excellent submissions, presenting on topics ranging from single cell approaches to circulating immune effector cell populations in cardiac arrest, the role of PARP1-PKM2 in right ventricular dysfunction, a novel biomarker panel predicting outcomes in pulmonary hypertension, and a promising therapeutic approach to alleviating lung vascular injury in COVID-19 infection. The winner was Sasha Prisco, MD, PhD, presenting on the impact of intermittent fasting on right ventricular function in preclinical pulmonary hypertension.

Finally, the winner of the best abstract award was Victoria Toro from Quebec City Canada, in which she demonstrated with her mentor Francois Potus, PhD, the close relationship between BMPR2 mutation breast cancer and pulmonary hypertension.

Council Highlights from Resuscitation symposium 2021

The Resuscitation Science Symposium (ReSS) began Nov. 12 with the Young Investigator Networking Event where Marina del Rios, MD, gave an inspirational talk entitled "A Roadmap for Equity in Resuscitation Outcomes." This year, 24 young investigator awardees were joined at this event by early career and senior scientists to make for a robust networking evening. Opening night programming also included the annual AHA/Japanese Circulation Society Special Session, which focused upon discussions of patient-tailored resuscitation strategies. Notable live plenaries included "Updates in Post-arrest Targeted Temperature Management," "New Directions in Intra-arrest Management," "Survivorship – Current Needs and Knowledge Gaps," and a session on "Special Circumstances in Resuscitation." The "Year in Review" session featured Lance Becker, MD, FAHA, and Dianne Atkins, MD, FAHA, discussing the best articles in adult and pediatric resuscitation, respectively. The annual "Women in Resuscitation" event was a success with Betsy Hunt, MD, PhD, MPH, presenting essential tools to promote a healthy career in academia. ReSS awards were presented to Dr. Kazuo Okada, MD, PhD, (Lifetime Achievement Award in Resuscitation), The Comprehensive Registry of Intensive care for OCHA Survival Study Group (Ian G. Jacobs Award for International Group Collaboration) and Mary M. Newman (Resuscitation Science Champion Award). Takahiro Nakashima, MD, PhD, was awarded the Max Harry Weil Award for Resuscitation Science for his work "Machine Learning Model for Predicting Out-of-Hospital Cardiac Arrests Using Meteorological and Chronological Data." The program ended with the presentation of the "Best of the Best" Abstracts. Finally, we offer a very special thank you to Benjamin Abella, MD, MPhil, FAHA, in his last year as programming chair, for his many years of dedication and service. Dr. Abella will be honored in Chicago at ReSS 2022.

By the time this newsletter arrives in 2022, I sincerely hope that the worst is behind us, and we are slowly and carefully moving back to a "normalcy." Despite the splendid programming, one big thing we missed sorely is the personal interaction and networking opportunities that make AHA meetings very special. This year's Sessions and Resuscitation Science Symposium will be in Chicago. I encourage you to make plans to attend and hope we can meet in person in November 2022. ■

Want to get involved with the AHA?

Help us identify opportunities for you by telling us your volunteer interests at professional.heart.org/volunteerform.

Synopsis 3CPR AHA Scientific Sessions 2021

Paul B. Yu
MD, PhD, FAHA

The Cournand and Comroe Early Career Investigator Award competition featured five finalists from an all-time high number of excellent submissions, presenting on topics ranging from single cell approaches to circulating immune effector cell populations in cardiac arrest, the role of PARP1-PKM2 in right ventricular dysfunction, a novel biomarker panel predicting outcomes in pulmonary hypertension, and a promising therapeutic approach to alleviating lung vascular injury in COVID-19 infection. The winner was Sasha Prisco, MD, PhD, presenting on the impact of intermittent fasting on right ventricular function in preclinical pulmonary hypertension. The 3CPR Speed Mentoring session returned for a second year in its online format, with distinguished mentors including Joseph Loscalzo, MD, PhD, FAHA, Roxane Paulin, PhD, Stephen Chan, MD, PhD, FAHA, Soni Pullamsetti, PhD, Harm Bogaard, MD, PhD, FAHA, Steeve Provencher, MD, Jane Leopold, MD, FAHA, Elena Goncharova, PhD, Sébastien Bonnet, PhD, FAHA Jason Rose, MD, MBA, and Frances de Man, PhD sharing their tips and guidance on navigating a successful career in basic, translational or clinical investigation. A main event session, "Long-Term COVID-19: Cardiopulmonary and Translational Science" reviewed emerging evidence and clinical recommendations for managing the cardiopulmonary and pro-thrombotic risks and sequelae of SARS-CoV-2 infection in an engaging case-based format. For the Kenneth D. Bloch Memorial Lecture in Vascular Biology, Dr. Leopold presented her work on G6PD and aldosterone in pulmonary vascular biology and right ventricular (RV) function, and exciting developments from the PVDOMICS study sponsored by the National Institutes of Health, in a session that included other cutting-edge findings on single cell transcriptomics, epigenetic and metabolic targets in HFpEF, PAH, and RV dysfunction. A pro/con debate highlighted progress and controversies in the interventional, surgical and medical strategies for CTEPH disease. The Dickinson W. Richards Memorial Lecture was presented by Mark Nicolls, MD, who presented his seminal work on immune dysregulation and inflammation in pulmonary arterial hypertension, culminating in two recent clinical trials testing this hypothesis. ■

It's Time to Change the Goalposts

CONNECTING WITH THE CHAIR

Kerry-Anne Rye
PhD, FAHA

To most of us the frequently quoted saying "be careful what you wish for" sounds a note of caution. I still remember with enormous clarity the first time someone said this to me. I was a very junior postdoctoral fellow at the time and happened to mention in passing to a much more senior, and clearly wiser, colleague that time seemed to be passing by very slowly. This throw away comment turned what had started out as a casual conversation into a detailed discussion about why wanting time to pass more quickly was an extremely bad idea. While I may not have fully understood the implications of that conversation all those years ago, I certainly do now that I am older, and hopefully wiser.

However, over the past 20+ months "being careful what you wish for" has taken on an entirely new meaning for most of us. Top of my contemporary "wish list" is to be able to travel from Australia to the United States to spend time with family, friends and colleagues. Now that the international borders are finally opening up, that is exactly what I am planning to do and, as far as I'm concerned, it can't happen soon enough. It would seem that it takes a pandemic for many of us to re-evaluate exactly what it is that we wish for. At the moment, I can't think of anything I would rather do than be able to celebrate the achievements of the aforementioned family, friends and colleagues face to face instead of with another Zoom meeting.

The most amazing thing of all is that despite the challenges of the last 20+ months there is an enormous amount to celebrate, especially for members of the ATVB Council. Despite not having had any face-to-face contact for almost two years, membership of this council is booming and, all things being equal, we will have an opportunity to celebrate our collective achievements at the *Vascular Discovery*: From Genes to Medicine Scientific Sessions 2022 in Seattle, May 12-14. This will be a particularly important event for all of our new early career members who have not previously had the opportunity to attend a major meeting. The program committee for *Vascular Discovery* 2022, which is being ably led by Katey Rayner, PhD, (Chair) and Kathleen Martin, PhD, (Vice-Chair), has been hard at work for many months creating exciting sessions that cover a range of topics and are specifically tailored to have broad appeal to the entire Council on Arteriosclerosis, Thrombosis and Vascular Biology (ATVB) community. There will undoubtedly be something for everyone at *Vascular Discovery* 2022, with sessions ranging from human population studies, genetics and genomics through to new insights into mechanistic aspects of atherosclerosis, platelet function and immunity as well as the cardiovascular sequelae of SARS-CoV-2 coronavirus infections. If you have not already done so make sure you register for what is going to be a really exciting meeting that is now only a few weeks away.

Other exciting ATVB Council news and cause for celebration relates to the achievements of several of our members. Kathryn Moore, PhD, FAHA, a former Chair and long-time member of this council, was named as the AHA 2021 Distinguished Scientist in Arteriosclerosis, Thrombosis and Vascular Biology at Scientific Sessions 2021 in November. Dr. Moore has had an amazing 2021 as she was also elected to the National Academy of Sciences in recognition of her contribution to the understanding of the pathogenesis of cardiovascular and cardiometabolic disease. Huge congratulations to Dr. Moore on these outstanding successes.

Kathryn Moore
PhD, FAHA

Congratulations are also in order for Dr. Rayner (Chair of the *Vascular Discovery* Program Committee, Past Chair of the ATVB Council Early Career Committee and the recipient of numerous AHA awards including the Page Young Investigator Award in 2012 (now named the Irvine H. Page Junior Faculty Research Award) and the Daniel Steinberg Early Career Investigator Award in 2019) and Kiran Musunuru, MD, PhD, FAHA, (senior consulting Editor and former Editor-in-Chief of *Circulation: Genomic and Precision Medicine* and the driving force behind the highly welcome Modern Scientific Statements from AHA taskforce) that were both recipients of the AHA 2021 Joseph A. Vita Award, once again at Sessions.

Katey Rayner
PhD

Kiran Musunuru
MD, PhD, FAHA

Council membership declined slightly during the early stages of the pandemic, but is now almost back to pre-COVID levels and expected to increase further this year thanks to the in-person *Vascular Discovery* 2022 meeting in Seattle. Maintaining membership of the council at as high a level as possible is extremely important for ensuring that we go from strength to strength after the recent disruptions. Council leadership will be working very hard to ensure that we retain all of the new members that have joined this year. The reason why retention is so important is that income from membership dues and meeting registration underpins the benefits we can offer, including travel grants and prizes for early career investigators and support of the recipients of our named awards. Strong membership is also critically important for ensuring that we are able to support our extremely well attended events at *Vascular Discovery* and Sessions. While many of these events, such as the Poster Sessions at *Vascular Discovery* and the Women's Leadership Committee Luncheon at Sessions may be a little different to what we had before COVID arrived, they continue to be critically important for building our professional networks and providing invaluable opportunities for generating new ideas and sharing discoveries with colleagues.

Other news that is worthy of attention includes the new AHA initiative from the council Operations Committee that has led to the formation of a Diversity subcommittee. The overarching mission of this committee is to increase and retain diversity in the workforce and in AHA leadership. This is an incredibly important initiative, and one that has already been at the front and center of ATVB Council activities for several years. The ATVB Diversity Committee, which is chaired by Francine Welty, MD, PhD, FAHA, has recently undergone a major expansion in the scope of its activities. Under Dr. Welty's leadership, the ATVB Council Diversity Committee is expanding a series of extremely important initiatives, including the development of a program that is targeted towards reducing bias and increasing inclusion of underrepresented groups in all aspects of ATVB Council activities. This is likely to have a highly positive impact on the visibility of the council activities both nationally and internationally and will generate opportunities to identify and implement solutions that will reduce social and health related disparities in areas where such reforms are urgently needed. As well as working towards these important goals, the Diversity committee is also developing a program for mentoring of underrepresented minorities and STEM groups which is likely to further increase the council membership base.

The ATVB Early Career Committee has also been extremely active since my last report. With Cynthia St Hilaire, PhD, FAHA, as Chair, this committee has been working tirelessly on a range of activities to ensure that we maintain engagement with early career members. These activities include regular Webinars on important topics such as how to consolidate and accelerate your career in the post-COVID era. The webinars will be continuing throughout the year (in March, July and September 2022) and are "not to be missed" events for early career ATVB Council members. Early career members should also check the *Vascular Discovery* 2022 website regularly (**professional.heart.org/en/meetings/vascular-discovery-from-genes-to-medicine/programming**) for program updates from this committee, including Roundtable and workshop sessions.

Finally, I want to remind all council members that there will be a call for applications for new Fellows of the American Heart Association (FAHA) coming up in July. In addition to providing an opportunity to engage more broadly with the ATVB community, becoming a FAHA offers several benefits including reduced registration for Scientific Sessions and *Vascular Discovery* and on-line access to AHA journals. The eligibility criteria are listed on the website (**professional.heart.org/en/partners/fellow-of-aha**). The application process is very straightforward but feel free to reach out to me, or to other members of the leadership team, should you need assistance with any aspects of the process.

In wrapping up this contribution I would like to thank all ATVB Council members for their ongoing support and I am really looking forward to finally seeing you all in Seattle in May for *Vascular Discovery* 2022. ■

Reflecting on Tremendous Progress

CONNECTING WITH THE CHAIR

Elizabeth McNally
MD, PhD, FAHA

As we look forward to spring and summer, we have the chance to reflect back on the last half year and the tremendous progress in basic cardiovascular sciences. Scientific Sessions 2021 converted to a virtual format but was nonetheless and exciting opportunity to hear exciting new science and to connect with colleagues in a virtual format.

Call to Action to Support CV Science

Life has not been normal for the last two years, and the global pandemic has created both challenges and opportunities for scientific discovery, especially for scientists who rely on in-person laboratory experimentation. As Chair of the Council on Basic Cardiovascular Sciences (BCVS), I was honored to take a lead role in drafting "Impact of the COVID-19 Pandemic on Cardiovascular Science: Anticipating Problems and Potential Solutions: A Presidential Advisory From the American Heart Association." (**ahajournals.org/doi/10.1161/CIR.0000000000001027**)

In this document, cardiovascular scientists across the basic, translational, clinical and population research spectrum identified how the pandemic is affecting cardiovascular science. We highlight the AHA's efforts to support early career scientists by providing "cost extension" awards to holders of AHA Career Development Awards. We also called on the National Institutes of Health and other funding agencies to address the needs of early career scientists who have been especially challenged balancing the needs of building laboratories while often having young children and other caregiving responsibilities.

A welcome sign of recovery is the return of several AHA research grant programs from hiatus. This includes Career Development Awards, AHA Institutional Research Enhancement Awards, Collaborative Sciences Award, and Established Investigator Awards. In addition, the AHA Strategically Funded Research award opportunities continue with new focus on engaging diverse participants into cardiovascular research. AHA, along with other funders, also provided institutional awards to support and retain clinical scientists who have been impacted by caregiving responsibilities.

AHA is also planning several activities to focus on mid-career researchers. This includes having mid-career representatives to each council, bridge funding awards for K to R, and R to R support, editorial board opportunities as well as other career development enhancements. At all stages of career development, there is renewed focus on creating and supporting a diverse pipeline of scientists.

BCVS and you

BCVS includes nearly 5,000 scientists with a strong pipeline of students/trainees and early career scientists. We include members from nearly every state in the United States and members from several countries, including Japan, China, Canada, Germany, the United Kingdom, Australia, Colombia and Italy. We strive for inclusive membership, and the BCVS welcomes our international colleagues as a premier council for scientific exchange and collaboration.

Circulation Research continues to be the preeminent journal for basic and translational cardiovascular and stroke research community. Jane Freedman, MD, FAHA, (Chief of Cardiology, Vanderbilt University) is the Editor-in-Chief, and under her leadership, *Circulation Research* continues to be the place to publish high impact, rigorous research, while promoting inclusivity, quality and integrity. Under Dr. Freedman's leadership, *Circulation Research* boasts an impressive impact factor (17.37). The journal plans for exciting compendia in 2022 including on Women and Cardiovascular Disease, Stroke and Neurocognitive Impairment, and Fundamental Models of Cardiovascular Disease. There are also planned reviews on Pulmonary Vascular Disease and Right Ventricular Heart Failure, as well as on Platelets, Immunity and Inflammation.

If you want to be more involved in your BCVS, please contact anyone on the BCVS Leadership Committee . We are always looking for volunteers for our many council activities.

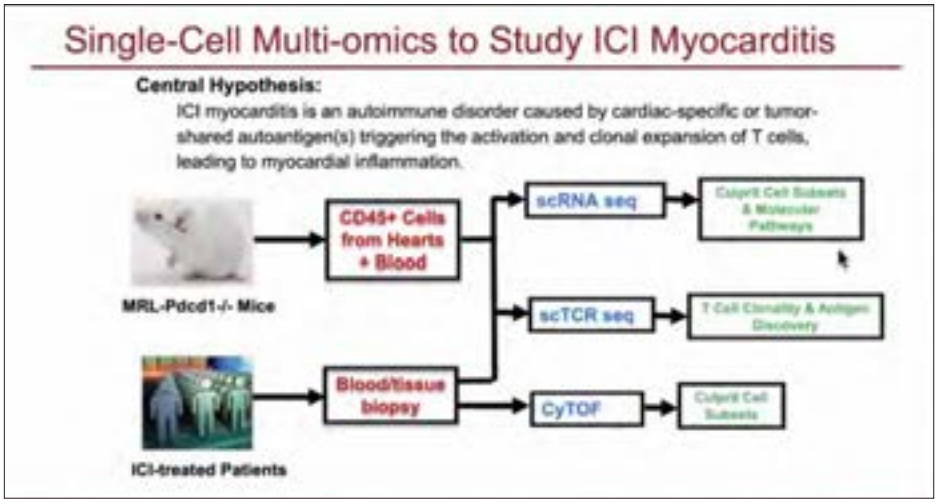
Highlights from Scientific Sessions in 2021

BCVS hosts two prestigious competitions for early career scientists. The winner of the Louis N. and Arnold M. Katz Basic Research Prize was Paul Cheng, MD, PhD, from Stanford University School of Medicine. We congratulate Dr. Cheng and the finalists Dr. David Y. Chiang, MD, PhD, Bárbara González Terán, PhD, and Yuri Kim, MD, PhD.

The Melvin L. Marcus Early Career Investigator Award winner was Jason D. Roh, MD, from Massachusetts General Hospital. We congratulate Dr. Roh and finalists Daniel Blackwell, PhD, Toshiyuki Ko, MD, PhD, Yang Zhou, PhD, and Han Zhu, MD.

Highlights from Sessions *continued*

Because of the virtual nature of Sessions, BCVS hosted a live event for the Katz and Marcus finalists to give a preview of their work, enabling participants to learn more about the remarkable advances made by these next generation amazing investigators.



The BCVS Early Career Committee was active throughout Sessions. One well-attended live event included Strategies for Career Success by Highly Effective Scientists. This session covered topics such as how to get your first grant, leading an effective team, balancing work and family, effective collaboration and networking, and publishing high impact papers. The session was attended by many early career and some established scientists because we can all learn new things! Susmita Sahoo, PhD (Mt. Sinai) and Patricia Nguyen, MD (Stanford University) served as moderators.

Upcoming Events in 2022

The BCVS Early Career Virtual Seminar Series, a series of Zoom events are planned for 2022.

2021-2022 BCVS Early Career Virtual Seminar Series

- **How to Pick Up Yourself After Failure** (Late January, 2022)
  Organized by Susmita Sahoo, Sarah Schumacher
  Stories from high profile scientists on their greatest failure and how they recovered
- **Finding The Right Career Path** (April, 2022)
  Organized by Chen Gao, Kevin Alexander
  Panelist representatives from academia, industry, government and with breakout
- **Women in Science: Stories of Success and Tips for Others** (June, 2022)
  Organized by Rebecca Levit, Nicole Purcell
  Panel of high-profile female scientists discussing their career wins
- **How to Speak Effectively in Public** (September, 2022)
  Organized by David Barefield, Federica Accornero
  Panelists including professor of communication, private speaking coach, leaders of departments

We look forward to the Basic Cardiovascular Sciences Scientific Sessions 2022, scheduled July 25-28 in Chicago. The keynote speaker will be Leslie Leinwand, PhD, FAHA, (University of Colorado Boulder) who was awarded the 2021 Eugene Braunwald Academic Mentorship Award at Sessions. Submit your abstract and we hope to see you there in person!

Be safe!

Announcing our James B. Herrick Award Winner

CONNECTING WITH THE CHAIR

Kristen K. Patton
MD, FAHA

The Council on Clinical Cardiology (CLCD) sponsors the James B. Herrick Award to honor a physician whose scientific achievements have contributed profoundly to the advancement and practice of clinical cardiology. It is conferred annually during the Council on Clinical Cardiology (CLCD) Annual Dinner and Business Meeting during Scientific Sessions. The 2021 Herrick Award went this year to Alice K. Jacobs, MD, FAHA, from Boston University Medical Center.

Alice K. Jacobs
MD, FAHA

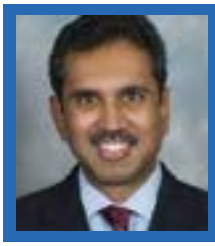
Dr. Jacobs's career has been dedicated to improving coronary revascularization strategies and sex-based differences in ischemic heart disease. She served as the Boston University Director of the Cardiac Catheterization Laboratories and Interventional Cardiology for 20 years until 2011. She is currently Vice Chair for Clinical Affairs and maintains an active clinical practice.

Dr. Jacobs's contributions to the AHA and its mission are vast. She led the AHA's Mission: Lifeline, a community-based, national initiative to develop systems of care for ST-segment elevation myocardial infarction (STEMI) patients and to increase the number of patients with timely access to primary percutaneous coronary intervention. Dr. Jacobs served as president of the American Heart Association in 2004-05 and as president of the Association of University Cardiologists in 2011. She is a past chair of the ACC/AHA Task Force on Practice Guidelines, which is now the Joint Committee on Clinical Practice Guidelines. During her tenure, the guidelines process and methodology evolved to include formal systematic evidence reviews, inclusion of patient representatives and lay members on guideline committees, incorporation of an Evidence Grading Tool, and further enhancements to the Class of Recommendation/Level of Evidence schema.

During a virtual version of the annual CLCD meeting, Dr. Jacobs presented the 2021 Herrick Lecture entitled "Reperfusion Therapy to Salvage Myocardium: The Journey from Concept to Cath Lab to Every Community." It was a tour de force reviewing two decades of advancement in STEMI systems of care to improve acute coronary reperfusion. Dr. Jacobs highlighted that in 2004, 30% of eligible STEMI patients did not receive reperfusion therapy, <90-minute time to treatment was achieved in the minority of patients, and transfer time to PCI centers was unacceptably long. Through integration of pre-hospital ECG and destination protocols, treat and transfer approaches, and measurement and feedback — captured in the "Mission: Lifeline" program — STEMI processes and outcomes have improved markedly across the United States and now globally. Mission: Lifeline has now expanded to include Out-of-Hospital Cardiac Arrest and Stroke systems of care. These concepts are nicely captured in the "Systems of Care for ST-Segment-Elevation Myocardial Infarction: A Policy Statement From the American Heart Association," which was chaired by Dr. Jacobs (*Circulation*. 2021 11 16; 144(20):e310-e327.).

One of Dr. Herrick's (1861-1954) most significant contributions was his classic paper on "Clinical Features of Sudden Obstruction of the Coronary Arteries," published in 1912. As such, Dr. Jacobs's lifetime of work could not be more fitting for the award. ■

CVRI Highlights from Scientific Sessions 2021



CONNECTING WITH THE CHAIR

Gautham Reddy
MD, MPH

Welcome to CVRI's winter *Connections* update. I hope everyone is staying safe and healthy! I want to update everyone on what our council has been doing.

The Scientific Sessions 2021 took place as a virtual experience Nov. 13-15. The format allowed interaction, live chats and more time to navigate the event. Best of all, if you missed the live program, you could still take part. A large portion of the content – including imaging sessions – is available on demand until 10/31/22.

One of the highlights included the Early Career Bootcamp at Scientific Sessions.

In addition, attendees had the opportunity to attend roundtable discussions with leading imaging experts or to present an abstract at the Melvin Judkins Early Career Clinical Investigator Award competition or after the Charles T. Dotter Memorial Lecture.

Every year CVRI acknowledges the contributions of Melvin Judkins, MD, to our field. This year we had five exciting presentations from early career investigators. I would like to congratulate each of them for their hard work.

CVRI - Melvin Judkins Early Career Clinical Investigator Award

Winner: Matthew K. Burrage, MBBS
University of Oxford
Abstract: Myocardial energetic impairment is the basis for reduced cardiac reserve and exercise-induced pulmonary congestion in HFpEF

Finalists

Valery L. Turner, MD
Stanford University School of Medicine
Abstract: Reduced Pulmonary Artery Distensibility: A Predictor of Persistent Pulmonary Hypertension and 2-year Mortality post-Transcathete

William Watson, MBBChir
University of Oxford
Abstract: Challenging the Dogma: Increasing cardiac fatty acid rather than glucose utilisation improves cardiac function in severe non-isc

Hashrul N. Rashid, MBBS (Hons), MRCP (UK)
Monash Health
Abstract: The impact of hypo-attenuated leaflet thickening on valvular haemodynamics and structural valve deterioration following TAVR

Amrit Chowdhary, MBBS, MRCP
University of Leeds
Abstract: Coronary microvascular dysfunction is detectable in type 2 diabetes only in the presence of obesity

Every year, we celebrate the contribution of Charles T. Dotter, MD, the father of interventional radiology. This year Charles T. Dotter Memorial Lecture was delivered by Suresh Vedantham, MD, from Washington University. Please mark your calendar for Scientific Sessions 2022, which will be held in Chicago, Nov 5-7. We hope to see you then! I want to thank the council leadership, members, and the AHA staff for all their help. I wish everyone a happy and safe new year.

Focus on Membership and Engagement

CONNECTING WITH THE CHAIR

Pavan Atluri
MD, FAHA

It is my pleasure to provide you with an exciting report from the Council on Cardiovascular Surgery and Anesthesia (CVSA).

Unfortunately, it appears that all facets of our lives have been affected by the COVID pandemic. As we are all well aware, this also affected our ability to gather in person as a community. While we were all disappointed to have to miss another in-person opportunity to connect at Scientific Sessions 2021, the virtual meeting was a wonderful opportunity to interact with the larger organization. CVSA had a very strong presence at this year's Sessions, showcased by four strong and impactful surgical talks comprising the late breaking clinical trials session on the first day of the meeting. Topics ranged from coronary disease to complex decision making in valvular heart disease with numerous prospective, multicenter trials.

The CVSA scientific program was once again highly impactful with both invited lectures and submitted abstracts. The early career committee put together another highly successful career development session which was highly attended as a live web meeting. One of the highlights of the CVSA program was the William W. L. Glenn Lecture. This year's lecturer, Ralph Damiano, MD, FAHA, Evarts A Graham Professor of Surgery, and Chief of Cardiothoracic Surgery at the Washington University School of Medicine, delivered a world-class presentation on atrial fibrillation. Additionally, as has been seen in previous years we received numerous excellent submissions for both the resident award competition as well as the prestigious Vivien Thomas Early Career Investigator Award. It is wonderful to see the energy and drive for clinical and translational research that is so evident within our community. I strongly encourage all of you involved in research to encourage your trainees to consider applying for these awards and travel grants in the future. This is a first-rate, prestigious opportunity to present research amongst a high-level, broad-based cardiovascular community. Perhaps more than any of our other organizations, the AHA allows the interaction amongst all aspects of cardiovascular science and hence the ability to have a wide-reaching impact and recognition.

To that end, I am very excited by the rapidly growing diversity that we have witnessed within our council with respect to international membership, gender, race, and level of training. The CVSA scientific program is a testament to this growth, providing access to wide diversity of speakers that enable us to put together a first-rate and thought-provoking program. We are striving to continue to raise the bar as we plan future activities and Scientific Sessions 2022, schedule for Nov. 5-7 in Chicago. Planning for Sessions is already underway, so please submit your ideas.

Along parallel lines, we have similarly incorporated these aspects into the leadership council of the CVSA – having incorporated both medical student representatives as well as residents into the leadership body. It is vital that we continue to involve our young members so that we can ensure a bright future for our council, medical specialty, , and organization in order to minimize the morbidity and mortality associated with cardiovascular disease. I encourage you to get your trainees and residents involved early within CVSA, and make them aware of the numerous opportunities for members at all stages of their career.

Several of our esteemed members have recently been honored by AHA. Joseph Woo, MD, FAHA, the Norman Shumway Professor of Surgery and Chair of Cardiothoracic Surgery at Stanford University, was awarded the prestigious AHA Clinical Research Prize. This award is presented to recognize an individual who is making outstanding contributions to the advancement of cardiovascular science and who currently heads an outstanding cardiovascular clinical research laboratory. Additionally, Linda Shore-Lesserson, MD, FAHA, Vice Chair of CVSA, was awarded the CVSA Surgery and Mentoring Award. This award recognizes senior scientists who have a record of providing exceptional support for scientists in cardiothoracic and vascular surgery or anesthesiology.

Our council continues to push forward with many initiatives aligned with AHA. For the past two years we have been highly focused on enhancing CVSA involvement in scientific statements and collaborations. As such, significant focus has been provided by CVSA's Education and Publication Committee, led by Dr. Shore-Lesserson and Mario Gaudino, MD, FAHA. Thanks to the activities of this committee, we have seen numerous publications including: Mechanical Complications in the Current Era of Acute Myocardial Infarction (Joint CLCD Acute Care Committee and CVSA – June 2021) and Considerations for Risk Reduction of Perioperative Stroke in Adult Patients Undergoing Cardiac and Thoracic Aortic Operation (CVSA and Stroke Council – August 2020). We currently have an additional six active statements underway with numerous others in consideration. There are certainly multiple other areas of investigation that deserve CVSA involvement. Please reach out to either myself, Dr. Shore-Lesserson, or Dr. Gaudino if there are any areas of particular interest that you would like to propose.

For the next 12 months, I will be very focused on increasing surgical involvement within the AHA at all levels. We will maintain focus on enhancing membership, increasing opportunities for surgeons to impact cardiovascular care within the AHA, and enhancing mentorship and career development of our early career members. Consider joining CVSA and/or encouraging your colleagues to join and make an impact on global cardiovascular health through involvement in the AHA.

It is extremely impressive how successful AHA has been with regards to public health advocacy, research funding, and fund raising even through the challenges of the pandemic. I am very excited to be a Fellow of the American Heart Association, as I hope you are/will be. The future of CVSA is extremely promising for making an impact on cardiovascular health and career development. It is my sincere hope that you share my enthusiasm and will continue to support the activities of our council. I look forward to seeing you all at the Sessions in Chicago.

Congratulations to Our Award Winners

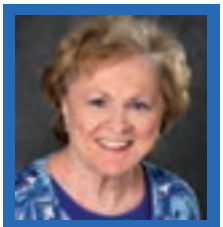
CONNECTING WITH THE CHAIR

Terrie Black
DNP, MBA, FAHA

Scientific Sessions 2021 was a huge success! The session "AHA 2024 Impact Goal: Role for Nursing and Nurses" by speakers from the Council on Cardiovascular and Stroke Nursing (CVSN) set the stage for the many nursing presentations and posters addressing cardiovascular health, equity, disparities and nursing care of cardiovascular patients and caregivers across the lifespan. One of the favorite sessions expressed by attendees was the "Fireside Chat" with nursing legends Kathleen Dracup, PhD, RN, FAHA, and Martha Hill, PhD, RN, FAHA. We must wait until next year to connect in person, so mark your calendars for Scientific Sessions 2022, Nov. 5-7, in Chicago.

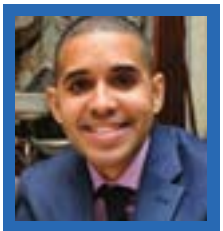
There is much excitement and activity within our council as we have much to celebrate as evidenced by the CVSN awards announced at Sessions. Please join me in congratulating the awardees as well as our new FAHAs.

CVSN Distinguished Achievement Award



Nancy Artinian
PhD, RN, FAHA
Michigan State University College of Nursing

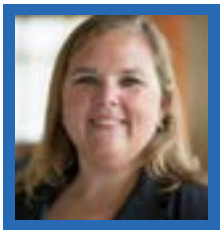
Marie Cowan Promising Early Career Investigator Award



2020 Katharine A. Lembright Award and Lecture

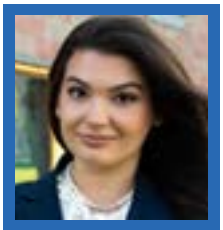
Martha N. Hill New Investigator Award

Award sponsored by Johns Hopkins University School of Nursing and Emory University's Nell Hodgson Woodruff School of Nursing



Martha N. Hill New Investigator Award Finalist

Award sponsored by Johns Hopkins University School of Nursing and Emory University's Nell Hodgson Woodruff School of Nursing



2021 Katharine A. Lembright Award and Lecture

Kathleen A. Dracup Distinguished Lecture and Exemplary Career in Mentoring Award

Stroke Article of the Year Award

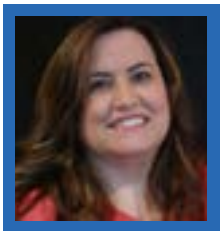
Award sponsored by AHA Stroke Council

Clinical Article of the Year Award

Award sponsored by Journal of Cardiovascular Nursing

Excellence in Clinical Practice Award

Award sponsored by Preventive Cardiovascular Nurses Association (PCNA)



Mathy Mezey Excellence in Aging Award

Award sponsored by Rory Meyers College of Nursing, New York University

Research Article of the Year Award

Award sponsored by Journal of Cardiovascular Nursing

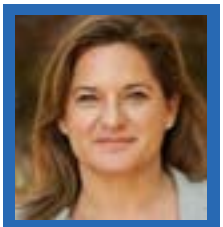
CVSN Best Abstract Award

Yashika Sharma, RN, MSN,Columbia University

CVSN Underrepresented Racial and Ethnic Groups Travel Grant

Latesha K. Harris, RN, University of North Carolina at Chapel Hill

From the Grassroots to Capitol Hill, Slow but Steady Progress



Karen Larimer
PhD, ACNP-BC, FAHA

On the national level our incredible advocacy staff and volunteers made big strides in securing federal funding for cardiovascular disease initiatives directed at prevention and treatment. As part of the $3.5 trillion Budget Reconciliation Bill, $16 billion will be focused on pandemic preparedness. This creates funding to address all facets of identifying and mitigating the impact of the next pandemic. An additional, $7 billion is going to state, territorial, and local health departments to support core public health infrastructure activities.

An exciting new initiative was also funded ($3 billion); the new Advanced Projects Agency for Health (ARPA-H). ARPA-H will be modeled after the Defense Advanced Research Projects Agency (DARPA), which was responsible for the creation of the internet, GPS technology and mNRA technology used in the COVID vaccine. The new agency will be housed in the NIH to leverage its biomedical expertise and to support its core mission. ARPA-H's will pursue bold, high-risk, high-reward research that is not being addressed by the NIH because of its traditional focus on basic science and not embraced by industry because of profit driven structures. Having wide autonomy will allow the agency to pursue aggressive goals and milestones.

The Centers for Disease Control and Prevention also saw a funding boost of $2.7 billion that included $1 billion for a new, flexible funding stream for public health infrastructure. However, it falls short of what the AHA was advocating for; $10 billion for the CDC and a tripling of the budget for the Chronic Disease Center over the next few years. Unfortunately, President Biden's budget freezes most chronic disease programs at current levels.

In addition to the Chronic Disease Center proposal, the AHA is seeking increases for the CDC Division for Heart Disease and Stroke Prevention ($160 million); Division on Nutrition, Physical Activity, and Obesity ($125 million to expand the program nationwide from 16 states); WISEWOMAN ($46.7 million to expand the program from 27 states to the entire nation); and Million Hearts ($10 million to frontload the success of the next five-year phase of this national initiative).

Policy and funding on the national level continues to be a front on which AHA continues to battle. However, some of the greatest "wins" have been on the local level. This type of work can only be accomplished with volunteers like you and me to make the calls, send the emails, have the meetings, tweet the tweets.

You can continue to help by joining *You're the Cure* by texting "CURE" to 46839 or by responding to *You're the Cure* action alerts as they arrive in your email inboxes. You can also request a meeting in your lawmakers' district offices in support of increased National Institutes of Health and CDC funding. This would be an excellent opportunity to share stories about how inadequate funding for NIH is adversely impacting your research, your lab, or your community. ■

Congratulations... (continued)

CVSN Early Career Investigator Travel Grants

Karina Kraevsky-Phillips, RN, University of Pittsburgh School of Nursing

Amy Jo Lisanti, PhD, RN, University of Pennsylvania

Sabrina Mangal, PhD, RN, Weill Cornell Medicine

Sijia Wei, PhD, RN, Duke University School of Nursing

The following individuals were selected as Fellows of the American Heart Association conferred by CVSN:

Spring 2021

Quin Denfield, PhD, RN

Nicolle Davis, PhD, RN, SCRN, ASC-BC

Fall 2021

Brittany Butts, PhD, RN, FAHA

Shannon Halloway, PhD, RN, FAHA

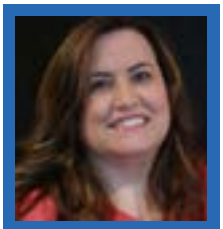
Jennifer L. Miller, PhD, RN, FAHA

Kari D. Moore, RN, APRN, A GACNP-BC, FAHA

Susan E. Wilson, DNP, RN, ANP-BC, FAHA

Congratulations to award recipients and those who achieved becoming a Fellow. It is astonishing the amazing work being done by CVSN members in cardiovascular and stroke nursing – both in research and in clinical practice. I urge each and every one of you to please consider nominating yourself or a colleague for the many CVSN awards available within our council! ■

Report on the State-of-the-Science Stroke Nursing Symposium



Wendy Dusenbury
PhD, DNP, FNP-BC, AGACNP-BC, ANVP-BC, FAHA
University of Tennessee Health Science Center

The State-of-the-Science Stroke Nursing Symposium and the International Stroke Conference 2022, scheduled Feb. 8-11 in New Orleans, provides nurses with exciting learning and networking opportunities. The State-of-the Science Stroke Nursing Symposium will begin with three plenary sessions in the morning that included "Burnout in the Workplace," "Nursing in Transitions," and "Social Inequities: Diversity in Nursing Science." The afternoon symposium will include of three moderated concurrent sessions; Nursing Across the Continuum, Acute Care, and Stroke Program Optimization. Attendees from invited presenters on topics to include: Virtual Care, Secondary Prevention, Missed Care, Quality Issues in the Endovascular Suite, and Continuing Research Efforts During a Pandemic along with the presentation of 12 oral abstracts. The International Stroke Conference is the world's largest meeting dedicated to the science and treatment of cerebrovascular disease and is expected to draw more than 1,500 educational presentations offering nurses the opportunity to engage with leaders from around the globe. The cutting-edge stroke research presentations are expected to attract a wide range of healthcare professional and provide a robust networking opportunity. ■

Early Career Corner

The Cardiovascular and Stroke Nursing Council was busy again this year hosting several early career sessions during the 2021 Virtual Scientific Sessions. Kelly Wierenga, PhD, RN, FAHA, Corrine Jurgens, PhD, RN, FAHA, and Shirley Moore, PhD, RN, FAHA, participated in a panel on "Building Resilience Across the Career Trajectory." The winner of the Martha N. Hill Early Career Investigator Award, Martha Abshire Saylor, PhD, RN, presented her research, "Multilevel Correlates of Received Social Support Among Heart Transplant Recipients in the International Bright Study: A Secondary Analysis." Additionally, "Turning a Tornado Into a Pirouette: Surviving in the Era of COVID" addressed the challenges early career faculty faced during the COVID-19 pandemic and innovative strategies for handling the many disruptions to cardiovascular programs of research. A full listing of CVSN Award recipients is listed in the Chair's Message. We look forward to seeing you at next year's early career programming at Scientific Sessions 2022 in Chicago, Nov. 5-7! ■

Now More Than Ever

As the SARS-CoV-2 and COVID-19 pandemic continues with the Delta and Omicron variants, the importance of the field of epidemiology to global health continues to be underscored in our daily lives. The ongoing pandemic has emphasized global health equity issues that are at the core of the AHA's 2024 goal. The Council on Epidemiology and Prevention remains committed to playing a critical part in AHA's mission to advance cardiovascular health for all, including identifying and removing barriers to health care access and quality. With this lens, the council has begun a process of strategic planning focusing on four specific domains. These include 1) research areas that are complementary and inclusive, 2) training that prepares the next generation of cardiovascular health scientists, 3) partnerships that expand the reach of council into multidisciplinary fields and 4) advancing the communication of the council's impact on global health.

This past fall at the virtual Scientific Sessions 2021, the council was heavily involved in a live broadcast symposium entitled "Cardiovascular Health After 10 Years: What Have We Learned and What Is the Future?" This special session was moderated by AHA President and former council chair Don Lloyd-Jones, MD, FAHA, David Goff, MD, PhD, FAHA (former council chair), and Holly Gooding, MD. This forward-thinking symposium featured presentations by council members Darwin Labarthe, MD, PhD, FAHA, Joshua Bundy, PhD, MPH, Bamba Gaye, PhD, Norrina Allen, PhD, MPH, FAHA, Amanda Perak, MD, FAHA, LaPrincess Brewer, MD, MPH, and Wayne Rosamond, PhD, FAHA. Also at Sessions, the Ancel Keys Memorial Lecture was given by council member Dr. Goff; Daniel Lackland DPH, FAHA, received the EPI Distinguished Achievement Award. The Elizabeth Barrett-Connor Research Award for Early Career Investigators was won by Utibe Essien, MD, MPH, from the University of Pittsburgh. Finalists for the award included Nicholas Marston, MD, MPH,from Brigham and Women's Hospital, Nilay Shah, MD, MPH, from Northwestern University Feinberg School of Medicine, Amgad Mentias, MD, from the Cleveland Clinic, and Avirup Guha, MD, MPH, from Case Western Reserve University.

The council is eagerly looking forward to the planned in-person annual meeting in conjunction with the Council on Lifestyle and Cardiometabolic Health this March in Chicago. ■

GPM's Highlights from Scientific Sessions 2021

CONNECTING WITH THE CHAIR

Carolyn Ho
MD, FAHA

The Council on Genomic and Precision Medicine (GPM) had another successful virtual Scientific Sessions 2021 in November. As in prior years, the scientific programming highlighted recent advances in the area of cardiovascular genetics and precision medicine. The Early Career Committee, chaired by Jennie Lin, MD, FAHA, organized a two-part session, "Single-Cell RNA Sequencing: Introduction to Analysis" and "Single-Cell Transcriptomics: a Flipped Classroom Experience in Data Analysis." The flipped-classroom workshops introduced the concepts behind single-cell RNA sequencing (scRNA-seq), a technology that has recently revolutionized basic and translational science across disciplines. The second session provided an introduction to single-cell RNA sequencing (scRNA-seq) data analysis. Presenters included: Dr. Lin; Anwar Chahal, MD, PhD, MRCP; Amelia Weber Hall, PhD; Nathan Tucker, PhD, FAHA; Wesley T. Abplanalp, PhD, FAHA; Mete Civelek, PhD, FAHA; Niels Voigt, MD, FAHA,; and Mark Benson, MD, PhD.

Another well received session in the genetics and genomics community was "Best Science in Cardiovascular Genetics and Genomics: Building Blocks to Better Outcomes," presented by Abhishek Joshi, BM BCh, MRCP, PhD; Sarah Parker, PhD, Rajat Gupta, MD; and Susan Cheng, MD, MPH, FAHA. "Diversity in Genetics: Who We Are and How We Got Here" was another well received session that discussed key issues around the potential role of genetics in diverse populations from a historical perspective to looking forward to the future. Speakers included Lauren A. Eberly, MD, MPH; Alanna Morris, MD, FAHA; Donna K. Arnett, PhD, MSPH, FAHA; and Sarah Cuddy, MB BCh.

Early Career Investigator Award Competition

GPM held its annual Early Career Investigator Award competition. The finalists were Seyedeh Maryam Zekavat (MD/PhD student); Michael Levin, MD; Kevin Friede, MD; and Kazuo Miyazawa, MD, PhD. Dr. Levin was selected as the winner for his research titled, "Trans-Ancestry Multivariate Genome-Wide Analysis Highlights the Role of Common Genetic Variation in Cardiac Structure, Function, and Heart Failure-Related Traits."

GPM Medal of Honor

Winners of GPM's awards were announced during the Fall Leadership Committee Meeting. We were delighted to present the council's Medal of Honor to Patrick T. Ellinor, MD, PhD. This award recognizes a scientist who has made substantial contributions to the field of genetics, functional genomics, and/or precision medicine. Dr. Ellinor is a cardiologist in the Cardiac Arrhythmia Service at the Massachusetts General Hospital Heart Center. His research work has focused on identifying the molecular basis of atrial fibrillation.

GPM Mentoring Award

We were also thrilled to present David M. Herrington, MD, MHS, FAHA, with the GPM Mentoring Award. This award exemplifies an unprecedented commitment to moving the field of science forward, including mentoring well-trained and well-rounded individuals with a passion for science. Dr. Herrington, a cardiologist at Wake Forest Baptist Health, focuses on congestive heart failure, cystic angiomatosis and familial hypercholesterolemia.

GPM and EPI Mid-Career Research Award and Lecture

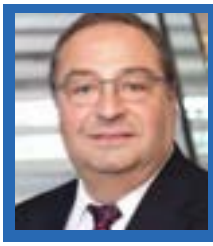
This year's GPM/EPI Mid-Career Research Award and Lecture was presented to Naveen Pereira, MD, FAHA. Dr. Pereira is a cardiologist and internist at Mayo Clinic. His research interests include treatment of end-stage heart failure, antibody-mediated rejection in heart transplant, cardiac allograft hypertrophy, functional genomics and pharmacogenomics.

FAHA

GPM was honored to announce four new FAHAs for 2021: Wesley T. Abplanalp, PhD, FAHA; Mete Civelek, PhD, FAHA; Jasmine A Luzum, PharmD, PhD, FAHA; and Nathan R. Tucker, PhD, FAHA.

We are very grateful to our council members and committee leaders for their contributions to a successful and innovative virtual Sessions. We look forward to re-convening in person next year in Chicago, for Scientific Sessions 2022, Nov. 5-7. As always, we encourage you to follow us at our Twitter handle **@GenPrecisionMed**, or visit our council page, **professional.heart.org/gpmcouncil**.

Looking Forward to Seeing You in San Diego



CONNECTING WITH THE CHAIR

Curt Sigmund
PhD, FAHA

Now that Hypertension Scientific Sessions 2021 has passed, I reflect on the fact that by September 2022, when we reconvene in San Diego for Hypertension Scientific Sessions 2022, three years will have elapsed since we were all together. There have been so many changes to the way we conduct science over the past 18 months that it is hard for me to remember pre-pandemic conferences – hundreds of people huddled closely together listening to cutting edge science, discussing a poster, or enjoying each other's company in a networking meeting late in the evening over an adult beverage. Despite (or in spite of) this, we are now starting to make plans for being together in San Diego, Sept. 7-10. I hope we will have learned some important lessons from the past two years. First, we are continuing our unwavering commitment to providing as many opportunities as possible for oral and poster presentations for pre- and post-doctoral trainees and early career scientists. We will continue to support the Trainee Advisory Committee (TAC) in programming sessions "by trainees for trainees." We also are planning to continue what we hope will be a new tradition for the conference, an opening keynote lecture from a Nobel Laureate. I don't know if that lecture will be in person or virtual. Hopefully, we will have information to unveil in the next *Connections* newsletter. We are also dedicating conference space in our Recent Advances Program to the newly funded **AHA RESTORE Network** – Addressing Social Determinants of Health to Prevent Hypertension, an eight-institution collaboration with the AHA designed to reduce racial inequities in cardiovascular disease outcomes by translating evidence-based HTN prevention interventions into community settings. We believe the inclusion of what is learned by this research network will be essential for every basic and clinical researcher and every practitioner at our conference. Have a safe and enjoyable holiday season.

Trainee Advocacy Committee Report

Brandi M. Wynne
PhD, MS, FAHA

This was a great year for both trainees and early career researchers at the 75th conference of the Council on Hypertension (Hypertension), which was also held in a virtual format, similar to 2020. However, this year there was a special and targeted focus on early career researchers throughout the virtual program. For this, we'd like to thank Curt Sigmund, PhD, FAHA, programming and the rest of the council leadership for helping to make sure that trainees and early career researchers received a spotlight. I'd also like to thank the members of the TAC, who for the first time, had a prominent role in developing and programming for these sessions.

Although we all are hoping for a future with in-person meetings, this year's virtual format allowed for discussion with speakers and we are pleased to report that our early career cohort was especially engaged. Highlights of this meeting include our Hypertension Early Career Oral Awards session, which included the top three clinical and basic science abstracts. A huge thanks to Hypertension's Editor-in-Chief, Anna Dominiczak, MD, FAHA, for completely supporting this year's award. Our award winner for this session was John Henry Dasinger, PhD, from Medical College of Georgia at Augusta University. We also received outstanding applications for the Stephanie Watts Career Development Award, with three finalists who presented their "elevator pitch" presentations. This award is sponsored by Data Sciences International (DSI) and supports new investigators with a complete telemetry system. This year's winner was Jing Wu, PhD, from Medical College of Wisconsin. A huge congratulations to all the finalists and winners of this year's meeting. We featured these winners in a video chat that was sent out right after the meeting. If you missed this, we encourage you to take a moment and watch the video; it highlights the award winners and you'll get to hear how these awards will impact their future research programs.

New for this year, we were excited to have a concurrent early career researcher-focused track each day with oral presentations and that included top-scored abstracts from new investigators. Selected high impact presentations were also featured as oral presentations in council awards sessions. Also new was a session to promote and highlight the council's junior faculty – the Junior Faculty Showcase. This year has been difficult for many, but we recognize the hardship on trainees and early career researchers. This year's CHAMP was completely virtual with two concurrent sessions, with one focusing on industry and the other academia. Stay tuned for a re-imagined CHAMP in 2022. We hope that this new programming has helped highlight their research.

Lastly, thank you again to council leadership and support staff, TAC members, as well as all the judges who helped to make this year's meeting a success. And special 'thank you' to Stephanie Watts, PhD, FAHA, for her continued support of the TAC. We are grateful for DSI and Hypertension in their continuing support of the TAC and look forward to an even better 2022.

Membership Report

Keisa W. Mathis
PhD, FAHA

Please encourage your colleagues to join the Council on Hypertension. Partnership with our council provides valuable opportunities including:

- Discounted publication charges for accepted articles in the Journal of the American Heart Association (JAHA)
- Savings on registration for the annual Hypertension Scientific Sessions and other AHA meetings/ conferences
- Complimentary or discounted courses through the Lifelong Learning Center
- Notification of research funding opportunities and waiver of grant application fees
- Access to all 11 AHA/ASA scientific journals online

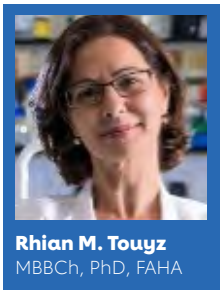
Consider applying for Fellowship in the American Heart Association (FAHA). Fellowship status recognizes an individual's outstanding contributions in basic, clinical, or epidemiological hypertension research and their volunteer leadership and service to the AHA. If you are interested in becoming a Fellow of the Council on Hypertension, the nomination process is simple. Please see the information on preparing and submitting your FAHA application under the Fellowship tab at professional.heart.org/ hypertensioncouncil or contact me at **keisa.mathis@unthsc.edu** for details. The next deadline to submit your application for Hypertension FAHA is July 10. ■

Message From the Editor

Annet Kirabo
DVM, PhD, FAHA

Thanks very much for your dedication and support for our council. If you would like to get more involved with the Council on Hypertension, please visit **professional.heart.org** and complete the Science Volunteer Form linked on your dashboard or by visiting **professional.heart.org/volunteerform**. Other opportunities include participation in the AHA Go Red for Women campaign, and the Heart Walk.

Hypertension Journal Report



Rhian M. Touyz
MBBCh, PhD, FAHA

As the new editor-in-chief of *Hypertension*, I am delighted to share with you some of the exciting new initiatives that the editorial team is planning for the journal. I am extremely fortunate to be working with an outstanding team of editors currently including Deputy Editor, David Harrison, MD, FAHA, and Associate Editors, Michael Bader, PhD, Gregory Fink, PhD, FAHA, Garry Jennings, MD, FAHA, S. Ananth Karumanchi, MD, Lilach Lerman, MD, PhD, FAHA, Jane Reckelhoff, PhD, FAHA, Aletta Schutte, PhD, Ji-Guang Wang, MD, PhD, and Paul Whelton, MD; and staff in the Editorial Office including Trudie Meyer, Renata Gill and Emily LeGrand. We are committed to building on the strong foundations of the journal and will ensure that *Hypertension* is the go-to journal for the very best research in the field. We hope that you will join us in our excitement for some new initiatives including educational programs/webinars, "grand rounds," early career internships, library of images amongst many other exciting activities yet to be named.

Clinical-Pathological Conferences Cases

During the 2021 Hypertension Scientific Sessions, *Hypertension* saw an excellent turnout for our virtual CPC session via the Sessions platform, Juno. The virtual nature allowed participants to easily join from all over the world. We are looking forward to potentially hosting upcoming CPC sessions in 2022 during the European Society of Hypertension, June 17-20, and the International Society of Hypertension in Oct. 12-16. Please join us!

Join the scientific conversations on Twitter!

Follow

@AHAMeetings

@AHAScience

Top Papers in Hypertension

Please help us in congratulating the Awardees of the 2020 *Hypertension* Top Papers. The Awards reflect the top papers that were published in *Hypertension* in 2020 in each category Basic, Clinical and Population Science. The awards were presented during the Hypertension Scientific Sessions 2021.

Strength in our Collaborations

We all hope that this year will treat us better than the previous two and life will be back to normal. Two major meetings with a high level of involvement by members of the Council on the Kidney in Cardiovascular Disease (KCVD), Scientific Sessions 2021 and the American Society of Nephrology (ASN) Kidney Week, were held in a virtual format in November. Sessions included several cutting-edge symposiums, which were jointly curated by KCVD and the Council on Hypertension. This is another example of the excellent collaboration between these two councils. KCVD proudly co-sponsored the Donald W. Seldin Young Investigator Award with the ASN. The recipient, Krzysztof Kiryluk, MD, from Columbia University, gave a presentation at the plenary session of the Kidney Week 2021. Furthermore, the KCVD Early Career Committee, led by Anna Jovanovich, MD, organized the 10th Annual Young Investigator Symposium preceding the ASN meeting, which was very well attended. The 2021 keynote speaker was Robert S. Hoover, MD, FAHA, from Tulane University. He gave an inspiring keynote lecture about non-traditional paths to a research career. Two junior researchers, Daria Golosova, MD, PhD, and Riyaz Mohamed, PhD, gave talks about their projects, which are supported by the AHA. We were thrilled by the enthusiasm for sharing knowledge and disseminating recent findings in a virtual environment. However, we are all eager to have live in-person events again. We also want to remind you about the Hypertension Scientific Sessions 2022, to be held Sept. 7–10, in San Diego. This is a premier meeting focused on hypertension. The first conference was held in 1946, making it one of the oldest, if not the oldest, meetings organized by the AHA. There will be no late abstract submissions this year. Keep this in mind and submit your abstracts in time. Please also nominate your colleagues for various KCVD and Hypertension awards.

As described above, the Sessions and ASN Kidney Week are the two biggest meetings, bringing together many KCVD members. Not surprisingly, members of the KCVD Council, which stands for the **K**idney in **C**ardio**V**ascular **D**isease, tried to bring their interests in the heart and kidney together. As a result of this effort, the KCVD Council established the Heart/Kidney Webinar Series. The objectives for the first seminar, which had a great line of panelists, such as Dr. Eugene Braunwald, MD, FAHA, Robert Harrington, MD, FAHA, Glenn Chertow, MD, MPH, FAHA, Katherine Tuttle, MD, Vivek Bhalla, MD, FAHA, and myself, were to underscore chronic kidney disease (CKD) as a major risk factor for cardiovascular disease and to contextualize the significance of the newer cardiorenal protective therapies, particularly SGLT2i. This seminar was organized and moderated by the Vice-Chair of KCVD, Janani Rangaswami, MD, FAHA. It was exceptionally well-received, and a second webinar – focused on coronary artery disease in patients with kidney disease – was held Jan. 26. We hope that this new Heart/Kidney Webinar Series will be a link between cardiology and nephrology. We also want to remind you to renew your AHA membership, and do not forget to select the KCVD as your Council, even if the kidney is not your only area of interest! ■

Race and Genetic Ancestry in Estimation of Renal Function Leads to reduced Access to Kidney Transplantation

Debbie L Cohen
MD

I am a new member of the Council on the Kidney in Cardiovascular Disease (KCVD) and a Professor of Medicine in the Renal Division at the University of Pennsylvania. I have been involved in the Chronic Renal Insufficiency Cohort (CRIC) study for many years and would like to highlight the importance of this study and the contribution the study has made to clinical and translational research as well as improving patient outcomes. CRIC is a multicenter prospective observational study funded by the NIDDK since 2003. The initial phase recruited 3,612 racially and ethnically diverse patients between 2003 and 2007 from seven geographically diverse clinical centers in the United States. Participants were between 21 and 74 years of age and had estimated glomerular filtration rate (eGFR) of 20 to 70 mL/min/1.73 m2. A second phase of recruitment occurred between 2013 and 2015 with recruitment of 1,560 additional patients with either eGFR between 45 and 70 mL/min/1.73 m2 or with more preserved kidney function with eGFR between 61 and 70 mL/min/1.73 m2 and proteinuria. The study has been described as the "Kidney" equivalent of the Framingham Heart Study (PMID: 5572576) with longitudinal observation of the natural history of chronic kidney disease (CKD). Patients with CKD have an increased risk of cardiovascular disease and stroke compared to the general population and most deaths in people with CKD are attributable to cardiovascular disease. Patient outcomes in CKD are greatly improved after receiving a kidney transplant. The CRIC study has published over 250 manuscripts and has 114 current and completed funded ancillary studies and has made an enormous contribution to our understanding of kidney disease.

It has been a privilege to be an investigator in the CRIC study and to be part of an important contribution understanding the natural history of chronic kidney disease. I would like to specifically highlight a recent publication "Race, Genetic Ancestry, and Estimating Kidney Function in CKD" authored by Dr. Chi-yuan Hsu et al that has been very relevant and newsworthy (PMID: 34554660). For the past 20 years eGFR equations have included serum creatinine, age, sex and race classified as Black or non-Black. Due to evidence of disparities in health and healthcare delivery in African American communities, race based eGFR equations have been shown to result in higher eGFR determinations in African Americans that has likely negatively impacted their access particularly to renal transplantation. Our publication included 1,248 participants from the CRIC study who had undergone direct measurement of GFR through urinary 125I-iothalamate clearance (PMID: 22658574). Data collected included race as reported by the participant, genetic ancestry markers, and serum creatinine, serum cystatin C, and 24-hour urinary creatinine levels. Using the prior formulations of eGFR equations, the study showed that in participants who identified as Black, a model that omitted race resulted in greater underestimation and lower accuracy of eGFR. The incorporation of genetic ancestry data instead of race resulted in similar estimates of the GFR and was more accurate. The inclusion of non-GFR determinants of the serum creatinine level (e.g., body-composition metrics and urinary excretion of creatinine) that differed according to race reported by the participants and genetic ancestry did not eliminate the misclassification introduced by removing race (or ancestry) from serum creatinine-based GFR estimating equations. However, when GFR was estimated using cystatin C, incorporation of race or ancestry was not necessary to achieve similar estimates in Black participants. To summarize the use of serum creatinine to estimate GFR without race (or genetic ancestry) introduced systematic misclassification that could not be eliminated even when numerous non-GFR determinants of the serum creatinine level were accounted for. The use of cystatin C to estimate GFR generated similar results as iothalamate GFR while eliminating the negative consequences of the current race-based approaches. The National Kidney Foundation (NKF) and American Society of Nephrology (ASN) established a task force in 2020 to reassess the inclusion of race in the estimation of GFR in the United States and a recent statement from the task force recommends the use of a new non race based calculation of GFR 2021 CKD EPI creatinine equation (PMID: 34554658) to try and limit the racial disparities in access to care and transplantation that exist in the United States (**kidney.org/news/nkf-and-asn-release-new-way-to-diagnose-kidney-diseases**). The task force also recommended increased use of cystatin C combined with serum creatinine to confirm assessment of GFR or kidney function. This raises a lot of unanswered questions and controversies but based on these recommendations our own hospital system will now start reporting non-race based GFRs in an effort to improve access for African American patients to kidney transplantation. ■

A Chronic Renal Insufficiency Cohort (CRIC) Study Team

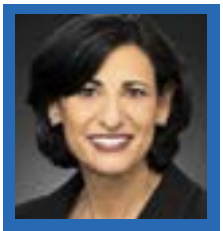
Congratulations to Our Award Winners

CONNECTING WITH THE CHAIR

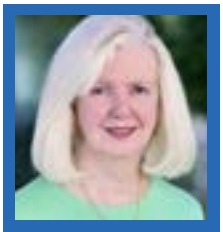
Shelley D. Miyamoto
MD, FAHA

I would like to start by acknowledging Sara Pasquali, MD, FAHA, and Catherine Krawczeski, MD, FAHA, for their leadership of the Council on Lifelong Congenital Heart Disease and Heart Health in the Young (Young Hearts) Scientific Sessions Programs (CSSP) Committee. This year was especially challenging for CSSP as due to evolution of the COVID-19 pandemic the decision to transition from a hybrid meeting, to an entirely virtual meeting had to be made. Drs. Pasquali and Krawczeski worked tirelessly and advocated strongly for Young Hearts content to be included in the live programming, and in the end both the live and on-demand content from the Young Hearts council was outstanding. So, thank you Drs. Pasquali and Krawczeski, and all members of the Young Hearts CSSP committee.

The two named lectures at Scientific Sessions 2021 included the William J. Rashkind Memorial Lecture, which was a recorded message from Rochelle Walensky, MD, MPH, Director of the CDC, and the Helen B. Taussig Memorial Lecture, which was given live by Roberta Williams, MD, FAHA, Professor, University of Southern California and Children's Hospital Los Angeles. Dr. Walensky emphasized the importance of a strong public health infrastructure and the value of accurate and effective scientific messaging. Dr. Williams gave an outstanding talk that covered her journey through the field of pediatric cardiology, describing the amazing advancements and progress that have been made over the past few decades. Importantly, she challenged all of us to take full advantage of the new technologies and opportunities available to us in order to continue to improve the lives of children with heart disease.



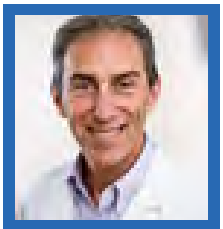
Rochelle Walensky
MD, MPH



Roberta Williams
MD, FAHA

I would like to congratulate Pedro del Nido, MD, FAHA, from Boston Children's Hospital for receiving the Young Hearts Distinguished Achievement Award. This award recognizes individuals who have made major scientific contributions to a scientific council at the AHA, and who have made substantial professional contributions to the field represented by the council. Dr. del Nido certainly is well deserving of this award and he continues to make important contributions aimed at improving out-comes for patients with congenital heart disease. Charles Berul, MD, FAHA, Professor, Children's National Heart Institute was awarded the Young Hearts Meritorious Achievement Award. This award recognizes a person whose achievements have made a significant impact in the field of congenital heart disease and heart health in the young and have helped to further the mission of the council. Dr. Berul has contributed to important advancements in care for children with heart rhythm abnormalities and remains an active member of Young Hearts.

Pedro del Nido
MD, FAHA



Charles Berul
MD, FAHA

One of the highlights of Sessions is the opportunity to learn about the top science in our field. In 2021, there were three recipients of the Outstanding Research Awards in Pediatric Cardiology, Andrea Beaton, MD, FAHA (Children's National Heart Institute), Caren Goldberg, MD (University of Michigan), and Stephanie Santana, MD (Medical University of South Carolina). Dr. Beaton presented results from a randomized controlled trial of secondary antibiotic prophylaxis for latent rheumatic heart disease; Dr. Goldberg presented findings on the impact of shunt type on ventricular function and outcomes in adolescent survivors with single right ventricle congenital heart disease; and Dr. Santana presented her findings related to the influence of an adverse maternal fetal environment on cardiovascular heart disease outcomes, demonstrating that this is in part responsible for the disparate outcomes seen in Hispanic and Non-Hispanic Black infants. If you didn't have a chance to attend this session, I would encourage you to read the published abstracts on these important works in *Circulation*.

There were two Young Hearts Early Career Investigator Award Finalists in 2021, Aimee Bigelow, MD (The Ohio State University) and Mansi Gaitonde, MD (UT Southwestern). Dr. Bigelow's work involved study of the effect of isosorbide dinitrate on exercise tolerance, venous pressure, and liver stiffness in patients with Fontan circulation, while Dr. Gaitonde presented results from her study comparing prenatal diagnosis rates and fetal cardiac morphometry for neonates requiring simple vs complex coarctation of the aorta repair. The winner of the award this year was Dr. Mansi Gaitonde.

The 2021 Young Hearts Abstract Travel Grant Award winners were Sudeep Sunthankar, MD, and David Bearl, MD, both from Vanderbilt University. And finally, new FAHAs in 2021 include Mark D. Norris, MD, MS, FAHA (University of Michigan), Amy L. Peterson, MD, MS, FAHA (University of Wisconsin School of Medicine), Hirofumi Saiki, MD, PhD, FAHA (Iwate Medical University), Adriana Tremoulet, MD, MAS, FAHA (University of California, San Diego) Lindsey Freud, MD FAHA (The Hospital for Sick Children), Shuping Ge, MD, FAHA (Geisinger Commonwealth School of Medicine), Yuli Kim, MD, FAHA (Penn Medicine and Children's Hospital of Philadelphia), Ashwin Lal, MD, FAHA (University of Utah), Chad Mao, MD, FAHA (Children's Healthcare of Atlanta), and Nelangi Pinto, MD, FAHA (University of Utah). Congratulations to all and hopefully we can meet in person for Sessions in 2022!

Early Career Corner

Tarek Alsaied
MD

Pediatric Cardiology and Advanced Cardiac Imager

UPMC Children's Hospital of Pittsburgh

University of Pittsburgh

@AlsaiedTarek

As an early career pediatric cardiologist, I had the pleasure to attend the American Heart Association Scientific Sessions 2021, which was held virtually. The Council on Lifelong Congenital Heart Disease and Heart Health in the Young (Young Hearts) put together a program that was full of cutting-edge science with a lot of focus on sessions that are helpful to early career cardiologists. I had the pleasure to attend the session titled "Leveling the Playing Field: Mentorship and Sponsorship to Promote Early Careers in Pediatric Cardiology." The session started with a terrific presentation by Kiona Allen, MD, from Lurie Children's Hospital titled "Fighting the Dark Side." Dr. Allen discussed imposter syndrome and implicit bias. Imposter syndrome is the intense feelings that achievements and opportunities are under deserved resulting in undervaluing one's contributions and falsely attributing accomplishments to luck. While imposter syndrome likely has multifactorial origins, institutionalized racism and gender bias likely play a major role. Awareness of the bias against your gender, race or religion might lead you to work harder and to hold yourself to higher standards. Thus, addressing imposter syndrome at the workplace goes hand in hand with addressing implicit bias. Implicit bias is having typical stereotypes for different races, genders or religions. This bias results in depriving certain minorities from opportunities at work unless they behave in certain ways to appease the majority which is called "code switching." This bias also results in microaggression with subtle putdowns and indirect insults on a daily basis resulting in frustrations and anger. Dr. Allen encouraged all of us to recognize these stereotypes and think carefully about our actions. She also invited people in leadership to be mindful about these stereotypes and to embrace diversity for the sake of a better workforce. Two wonderful presentations from Catherine Krawczeski, MD, FAHA, the Division Chief of Pediatric Cardiology at Nationwide Children's Hospital and Antonio Cabrera, MD, FAHA, the Division Chief of Pediatric Cardiology at University of Utah addressed leadership topics especially at the time of the unprecedented COVID-19 pandemic. The leaders started by introducing the concept that we are all leaders in some capacity and are responsible for the people we lead. These leader responsibilities include personal, clinical and career mentorship responsibilities. Some tips in leadership and advice given by Drs. Krawczeski and Cabrera include: Be a role model, lead by example, identify an excellent network, give young leaders opportunities to lead, be compassionate with people you lead, and think outside the box when possible. The final speaker was Carissa Baker-Smith, MD, MPH, FAHA, from Nemours Children's Hospital-Wilmington. The presentation was about sponsorship and was terrific. A sponsor may help your path to promotion, provide leadership opportunities, and high-profile speaking opportunities. She mentioned some steps that will set up anyone to be sponsored. The first step is to know what you want and let your work shine. The second step is to find a person with institutional influence as a mentor and build a trusting relationship. When an opportunity arises, accept it and deliver. For an early career cardiologist to be sponsored, you should know what you want, deliver on promises, and make your brand strong. The sponsor will expect trust, loyalty, responsibility, self-direction, and strong skill sets. In summary, sponsorship is focused on career advancement, predicated on power, and concentrated on execution of opportunities that will be benefit the sponsor, the person being sponsored and likely the institution. I thank the speakers for these wonderful, aspirational, and enlightening talks. I certainly will reflect on these points and take many to my daily practices. ■

Communications Chair Report

David Werho
MD

Pediatric Cardiac Intensivist

UC San Diego, Rady Children's Hospital

@DWerho

Despite the switch from in-person to virtual, Scientific Sessions 2021 certainly included a robust platform for networking and learning about our past to inform the present and future of our field. I had the honor of social media moderation for the session "Lessons Learned from Pioneers in Congenital Heart Disease," which featured several leaders in pediatric cardiology and cardiac surgery honoring the contributions made to our field by some of the pioneers and greats and how they will forever shape the care of children with cardiovascular disease. Some of these contributions include the impact of Paul Weinberg, MD, on how to train the future generation and value the importance of cardiac morphology, contributions from Thomas Kulik, MD, to the way we practice cardiac critical care and evaluate clinical care in the future, the advocacy of Brenda Armstrong, MD, and recognition of the importance of diversity in our teams and how it may improve the care of our patients, the influence of Aldo Castaneda, MD, PhD, on the field of congenital heart surgery and how surgeons can inspire their teams, the recognition by Jacqueline Noonan, MD, of the connection that dysmorphism has with cardiac anomalies and how this informed how we evaluate the genome's impact on individual patients today, and the impact of William Norwood, MD, PhD on the way we care for patients with complex and single ventricle heart disease and forever changed the foundation of our field.

A last-minute addition to the live programming, a "Coffee Chat" session set up by Kiona Allen, MD, entitled "Blazing the Trail with Pioneers and Trailblazers in Pediatric Cardiology" included a diverse panel of various pediatric cardiologists including

(continued on page 55)

Our Engagement is Our Strength

There has been much new activity since the last Council on Nutrition and Cardiometabolic Health (Lifestyle) Connections report. Progress in ongoing initiatives and new proposals make these several months especially exciting. I report to the council membership about topics that pertain to our council that were discussed in the Lifestyle Leadership Committee as well as in SACC, both of which met in November 2021.

Lifestyle is a very active council, in fact the most active among all councils in expert communication with media, and committees on health policy and prevention. We are in the top group of councils, along with the Council on Cardiopulmonary, Critical Care, Perioperative and Resuscitation, and Council on Stroke, in developing scientific statements. This reflects the wide interest in health professionals and the lay public in the topics we study and work with, and the enthusiasm of the membership.

Lifestyle Council Awards

Robert Levy Memorial Lecture

I am very pleased to recognize our immediate past chair, Penny Kris-Etherton, PhD, RD, FAHA, who was chosen to give the Robert Levy Memorial Lecture, an annual honor that recognizes the research and prevention activities to lower risk of cardiovascular disease.

Dr. Levy was Director of the National Heart, Lung and Blood Institute from 1975 to 1981. His research was on effects of diet and drug treatments on lipid metabolism to prevent and reverse atherosclerosis. Dr. Levy and his colleagues Donald Fredrickson, MD, and Robert S. Lees, MD, devised the first clinical classification system and treatment guidelines for the hyperlipidemias, established in a 5-part review in 1965 in New England Journal of Medicine. Dr. Levy founded a network of lipid research centers that greatly improved the diagnosis and management of lipid disorders, served as a model for all primary care, and managed the first primary prevention trial of lowering cholesterol that demonstrated effectiveness in preventing cardiovascular events.

Dr. Kris-Etherton, as you know well, is Evan Pugh University Professor of Nutritional Sciences in the Department of Nutritional Sciences at Penn State University where she has served on the faculty since 1979. She is widely recognized as an authority on effects of foods, nutrients, and dietary patterns on plasma lipoproteins and many emerging risk factors for cardiovascular disease. This year, Dr. Kris-Etherton led two writing groups that produced guidance on Strategies for Promoting a Healthy Lifestyle Throughout Life: Pillars of CVD Health; and Strategies for Promoting a Healthy Lifestyle Throughout Life: Different Population Groups. Stemming from this work on the scientific advisories, her award lecture focused on the application of her and other's research on primary prevention of cardiovascular disease by improvements in lifestyle.

Lifestyle Award Competition

The Lifestyle Award Competition recognizes outstanding research by early career members. There were 3 recipients: Evangelos Oikonomou, MD, DPhil (Yale), Matthew Segar, MD (Texas Heart Institute), and Yoriko Heianza, PhD (Tulane).

Dr. Oikonomou presented his findings on modeling large blood pressure reduction trials like SPRINT and ACCORD to yield individualized hazard ratios for risk of cardiovascular events for standard compared with intensive blood pressure reduction. Certain phenotypic characteristics in an individual predicted greater benefit from intensive treatment and others favored standard treatment.

Dr. Segar studied natriuretic peptide added to a clinical risk score for better risk prediction in those with dysglycemia. He used heart failure as the outcome. He found that adding natriuretic peptide level improved the C-index for heart failure, an improvement that was not uniform across levels of heart failure risk, improving risk prediction mainly in those with low risk scores.

Dr. Heianza studied change in circulating micro-RNA375 as an indicator of response in lifestyle interventions. miRNA375 is islet-specific and regulates insulin secretion in the context of insulin resistance. It is a biomarker for obesity, fatty liver, and cardiovascular disease. The result was that miRNA375 level increased after a low-fat or Mediterranean diet, and those increases were correlated with decreases in body weight, visceral adipose tissue, and liver fat.

I congratulate Drs. Oikanomou, Segar, and Heianza for their intriguing findings, and look forward to their publication.

Dietary Guidance to Improve Cardiovascular Health – A Scientific Statement from the AHA.

Published in *Circulation* Nov. 3, 2021, and presented 10 days later in a main event at Scientific Sessions 2021. Alice Lichtenstein, DSc, FAHA, was the chair of the writing group, and Maya Vadiveloo, PhD, RD, and Lawrence Appel, MD, MPH, FAHA, were co-chairs. They and their co-authors extended the current trend toward dietary guidance based on dietary patterns rather than nutrient targets, and simplifying the guiding statements.

Life's Simple Seven

Anne Thorndike, MD, MPH, FAHA, is leading a working group on revising Life's Simple Seven. In particular, there is much ongoing discussion on replacing the word, "Simple," to reflect the level of effort it does take in effecting lifestyle improvement.

Strategically Focused Research Network (SFRN)

A new procedure has been devised for applying for and selecting proposals for new SFRNs. Proposals will be developed in the councils and one will be submitted to the SFRN review committee. Since SFRNs provide impetus for multi-center collaboration, highlighted by the AHA, and are well-funded, competition is expected to be intense. I hope that Lifestyle will submit a proposal to the SFRN committee. Please inquire with Melvin Templeton,

Council Manager, if you would like to pursue an idea for a new SFRN.

Health Equity Network

As far as Lifestyle-related projects go, AHA has just established a Health Equity Network on the Prevention of Hypertension. This is a core component of AHA's commitment of $100 million of new research programming directed toward health inequities and structural racism.

Mid-career challenges

For early career members, the emphasis in encouraging participation and fostering professional development has brought more younger colleagues into the AHA, and gratifyingly has seen their involvement in all activities including writing science statements, guideline development, membership, and the clinical committees such as obesity and physical activity. However, both at the council and AHA levels, recognition is growing that the AHA has a role in the career progress of mid-career members as well. This may include new directions for a mid-career person, and avoiding burn-out. If you are interested in working in this area, please contact Melvin Templeton, Council Manager.

AHA President and CEO reports:

Emphasis on the 10 Commitments: Of special note are Access to Care via Medicaid expansion, targeting industries, improving diversity within the AHA journals and in the AHA workplace; and above all, all activities are based on science, which is the core of AHA.

Fiscal Year 2021, ending June 30, was an excellent year in fund raising, generating a record $1 billion in revenue. And in the first quarter of 2022, revenue increased by 27% – another record. Much of the AHA's revenue is via activities at the local level as well as direct contributions. This indicates that members have recognized the acute need to support the AHA mission of research, communication, and advocacy in the midst of the pandemic, and contributed with special generosity.

Cardiovascular Health Initiatives

Telemedicine

The Leona M. and Harry B. Helmsley Charitable Trust has funded $1.35 million for telemedicine. The AHA is charged with acquiring and operating the American Board of Telemedicine. Telemedicine may be a useful modality to improve and sustain prevention, and a topic for our council's work.

Periodic Table of Foods

The Rockefeller Foundation is funding the development of a "Periodic Table" of Food Initiative, for which the AHA will serve as the Managing Secretariat. Applications may include biomarker identification for foods and dietary patterns, and personalization of risk assessment. Goals include generating first generation analytical database that include nutrients and other related biochemicals. These goals connect with the new Dietary Biomarkers of Disease Consortium funded by NIDDK and USDA; and the NIH Common Fund's Nutrition for Precision Health, powered by the All of Us Research Program, start date March 15-16, 2022.

Tobacco Endgame – 2035

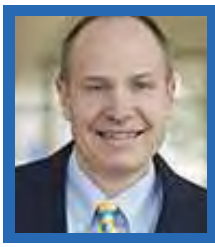
Keith Churchwell, MD, FAHA, presented goals to reduce prevalence of tobacco use to <5%; and to reduce quantitatively nicotine use to less than the dependence level. Policy research is currently under development in collaboration with Bonnie Herzog of Goldman-Sachs, and includes health equity from reduction of tobacco use, delivery systems that reduce exposure such as E-Vapor, and issues that go beyond tobacco such as botanicals. ■

Communications Chair Report *(continued from page 53)*

Shelley Miyamoto, MD, FAHA, Bruce Gelb, MD, Catherine Krawczeski, MD, FAHA, Mary McBride, MD, Antonio Cabrera, MD, FAHA, Meryl Cohen, MD, FAHA, Eric Graham, MD, FAHA, Carissa Baker-Smith, MD, FAHA, and others. This session fostered a great deal of discussion and expansion of the themes that were weaved throughout the meeting, particularly in the Early Career sessions and Pioneers session. These discussions included advice about mentorship, sponsorship, leadership, niche-finding, balance, well-being, additional formalized training, coaching, and much more.

All in all, Sessions was a great taste of what AHA has to offer those in the field of pediatric cardiology, particularly those in their early career or in need of connections and mentorship that may not always be readily available locally. These are obviously apparent now during a worldwide pandemic, but I believe that these opportunities and resources remain crucially important to any developing academic pediatric cardiologist and will only continue to grow as we get back to in-person. A key opportunity to develop your career is by getting involved in AHA activities. For opportunities to contribute to the AHA Young Hearts Connections, please contact me at dwerho@rchsd.org. ■

Looking Forward to Seeing You in Person



CONNECTING WITH THE CHAIR

Peter Henke
MD, FAHA

We hope your holidays were wonderful and that you had a safe time away from work. Several important things to note from the Council on Peripheral Vascular Disease (PVD). First, despite the limitation of the virtual meeting format, the ability to view "on demand" sessions are convenient. This is particularly true with increased clinical responsibilities that many are dealing with. Many clinical staff are working extra hard this season due to the unfortunate COVID surge and staffing issues, and the flu season roaring back. I recommend the following if you have not already seen these talks and sessions, including and not limited to: Frontiers-in-Vascular Disease: COVID-19-and-Coagulopathy-Trailblazing-Pathways-to-Prevention-and-Treatment, which featured focused state of the art talks and potential targets for therapies. Two early career sessions included: "Tool Kit for Early Career Vascular Specialists" and "Venous and Lymphatic Disease: Starting Your Career and Finding Your Niche." There were several sessions on pulmonary embolism including "An Embarrassment of Riches and Paucity of Data: The Challenges of Integrating Novel Device Therapies Into Algorithms for Pulmonary Embolism." Both events were well attended during the meeting, and if you did not view them then, please consider doing so before the on-demand sessions end. Relevant to the new AHA initiatives included the cardiovascular seminar entitled "Racial Disparities in PAD". Other highlights from Sessions include the Jay D. Coffman Early Career Investigator Award winner Jordan K. Schaefer, MD, and the PVD FIT travel awards to Tara Holder, MD, and Jemma Perks.

Another talk not to miss if you have not already viewed it includes the presidential talk by Donald Lloyd-Jones, MD, FAHA, which is about 20 minutes. This talk is packed with great ideas related to the implementation of Life's Simple 7 and going earlier in the prevention – to prenatal – for the next big step forward to reducing cardiovascular morbidity and mortality. This is certainly relevant for PVD patients, with many of the procedures that we do are to fix what is broken, rather than preventing the disease in the first place. Moreover, emphasizing Life's Simple 7 to our PVD patients should be with every clinic visit.

Recognition of poverty as an epidemic, with inequity of all phases of care is highly relevant to the patients we treat, perhaps best exemplified by those with PAD. For example, the underserved and underrepresented minority patients have significantly increased amputation rates, in part due to not receiving proper exams, screening, cardioprotective medications and for those with critical limb threatening ischemia, revascularization procedures. The AHA has recognized this and has put major resources behind initiatives related to disparities. I encourage PVD members to apply for research grants in issues around disparities; indeed, a new strategically focused research network (SFRN) entitled 'Science of Diversity in Clinical Trials', focuses on how to better recruit and identify under-represented patient populations in clinical research.

The PAD summit leadership of Amy Pollack, MD, FAHA, Aruna Pradhan, MD, MPH, FAHA, and Naomi Hamburg, MD, MS, continues to make progress with the six major focus areas that came out of the PAD summit, and the summary document will hopefully be fully complete within the next month or so, with the manuscript to follow early this year. Thereafter, fund raising, and non-cost intensive initiatives will begin. I would encourage any PVD member interested to volunteer for these initiatives as they roll out. More specifics on this will follow in the coming months. The PAD summit is broadly inclusive, and the more active participants the better for this worthy effort.

One of the initiatives this year PVD will be increasing our membership. The COVID shutdown, lack of in-person meetings, and other stressors have made recruitment more difficult and led to attrition. Please let your colleagues and trainees know of the benefits of the AHA, and to list their primary council as PVD. We are broad and inclusive, and represent a large group of physicians, researchers, nurses, advanced practice providers and others. The opportunities to network and apply for a large pool of funding is just one of the membership benefits. Karen Ho, MD, from Northwestern University, is our membership lead. Please send any questions or ideas to her at **kho1@nm.org**, and I appreciate the committee's hard work in this.

Lastly, we are looking forward to the in-person Vascular Discovery: From Genes to Medicine Scientific Sessions 2022, with our close council ATVB. More details and registration information can be found here: **professional.heart.org/vasculardiscoverysessions**. This is always an excellent meeting for networking between clinical, translational, and basic science. Stay tuned as the abstract submission cite will open soon. Please follow us at PVD Twitter account (**@CouncilPvd**)

American Heart Association.

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Congratulations to Our Award Winners

CONNECTING WITH THE CHAIR

Pam Peterson
MD, MPH, FAHA

We were all disappointed to have the Scientific Sessions 2021 and adjunct Quality of Care and Outcomes Research (QCOR) 2022 Scientific Sessions transition to a virtual platform in the face of surges in COVID. However, as discussed in this issue, the meeting was a success, with terrific sessions and research presentations. A special thanks to Umesh Khot, MD, (Chair of QCOR Specialty Conference Program Planning Committee) and Emily O'Brien, PhD (Vice Chair) for all their work in making the pivot to the virtual platform. I would also like to acknowledge Dr. O'Brien as our first female Vice Chair of the Program Planning Committee! As always, a particular focus for QCOR is on young investigators. Special thanks to Kori Zachrison, MD, FAHA, and Madeline Sterling, MD, MPH, for leading the Early Career Investigator Award session. The research and presentations were fantastic, and I hope motivation for all early career investigators.

The QCOR Council was pleased to honor Fred Masoudi, MD, MPH, FAHA, with the QCOR Lifetime Achievement Award. Harlan Krumholz, MD, FAHA provided a summary of the numerous and amazing contributions Dr. Masoudi has made to quality of care and outcomes research over his career. In his remarks, Dr. Masoudi focused on the importance of community and giving and receiving grace. His words were heart felt by all, and the sentiment was recognized as what QCOR embodies.

The awards session ended with moderated networking over Zoom. While not the same as face-to-face discussion, I enjoyed learning about others on the call and having the opportunity to connect. Thanks to Dr. Khot for moderating. I am happy that we will be having our spring meeting in person. Although I remain cautiously optimistic, hopeful that the winter does not see a rise in the next COVID variant. I know that being able to connect in person will be energizing for the QCOR community. Reflecting on the last two years of virtual meetings, I believe we also need more frequent opportunities, even if virtual, to stay connected. I'm looking forward to seeing everyone in the spring. ■

QCOR Contributes to Success of Scientific Sessions

Peter W. Groeneveld
MD, FAHA
QCOR Lead and Population Science Co-Chair, Committee on Scientific Sessions Planning

AHA's Council on Quality of Care and Outcomes Research (QCOR) sponsored a terrific array of oral abstract presentations, posters, and cardiovascular sessions at the recently completed Scientific Sessions 2021. Top-scoring scientific abstracts were presented in two outstanding oral abstract presentations. In the first of these sessions, entitled "Social Factors Driving Health Status and Health Care Outcomes," researchers presented findings showing the importance of such factors as race/ethnicity, neighborhood cohesion, and food inadequacy on cardiovascular disease risk and health care outcomes. In the second session, "Health Policy, the Costs of Care, and International Comparisons," investigators reported their findings on safety-net hospital and post-acute-care outcomes, the cost-effectiveness of atrial fibrillation screening using wearable devices, the effect of community factors on hospital readmissions after cardiac disease acute hospitalization, and the financial hardship caused by medical bills. It was very gratifying to have several young investigators present their work in these sessions, including fellows-in-training, medical students, and graduate students. QCOR research presentations at Sessions also included a remarkable series of high-quality rapid-fire poster presentations, as well as "standard" (virtual) posters. In total, 120 QCOR scientific abstracts were presented at Sessions, with a large proportion being presented by early career investigators — many of whom were presenting at the annual meeting for the first time. The innovativeness and quality of the science was extraordinarily high; this work represents the very best outcomes and quality research in cardiovascular medicine.

In addition to the outstanding science, QCOR also hosted several cutting-edge cardiovascular seminars on topics such as health care disparities, eliminating low-value care, COVID-19's impact on cardiovascular care delivery, an update on new cardiovascular care guidelines, real-life challenges in implementing quality improvement programs, and understanding bundled payments for care. In addition, two excellent early-career seminars focused on the research methods of disparities/equity research, as well as the challenges of developing an academic career in the midst of the COVID pandemic. In summary, we were thrilled to have such a successful and impactful meeting—and with most presentations still available "on-demand" on the Sessions website, we encourage registrants who have yet to view this outstanding content to log on and watch. On behalf of my fellow QCOR representatives on the Committee on Scientific Sessions Planning, Umesh Khot, MD, (Cleveland Clinic) and Madeleine Sterling, MD, MPH, (Weill-Cornell), we thank our many speakers and poster participants, and we look forward to seeing everyone in person at Scientific Sessions 2022, scheduled Nov. 5-7 in Chicago! ■

Quality of Care and Outcomes Research Early Career Committee at 2021 AHA Scientific Sessions

Kori S. Zachrison
MD, FAHA
Chair, QCOR Early Career Committee

The Council on Quality of Care and Outcomes Research (QCOR) Early Career Committee held our annual Early Career Investigator Award session at Scientific Sessions 2021. We were excited to have received a number of very high-quality submissions for the competition. From these, five semi-finalists and five finalists were identified. The semi-finalists presented their work in a moderated poster session, and the finalists gave oral abstract presentation in a live session. Each finalist presentation was accompanied by a discussion from a content expert in the field. The content and methodological approaches included in these presentations was impressive and spanned the breadth of QCOR's mission. Four expert judges attended the live session and read the finalists' associated manuscripts in advance – based on the quality of the work and of the presentation, the judges selected our winner: **Dennie Kim, PhD,** of the University of Virginia. We would like to give special thanks to our judges: **Donald Likosky, MD, FAHA, Colleen McIlvennan, PhD, DNP, FAHA, Puja Parikh, MD, MPH, FAHA,** and **Jason Wasfy, MD,** and to our expert discussants: **Dana Edelson, MD, FAHA, Oanh Nguyen, MD, Pamela Peterson, MD, MPH, FAHA, Mike Thompson, PhD,** and **Muthu Vaduganathan, MD, MPH**. And we would especially like to congratulate all of the semi-finalists, finalists, and winner:

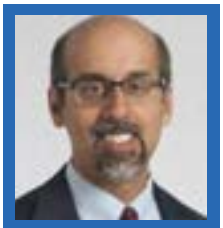
Semi-Finalists:

Zahra Aryan, MD
Darae Ko, MD
Neil M Kalwani, MD
Yosef Manla, MD

Finalists:

Theresa Anderson, MD
Chetan Huded, MD
Dennie Kim, PhD (winner)
Jordan Strom, MD
Veer Sangha ■

QCOR's Cutting-edge Topics at Sessions

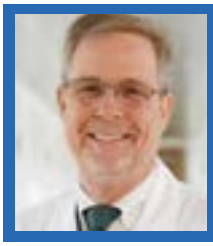


Umesh Khot
MD
Chair, 2021 QCOR Planning Committee

Emily C. O'Brien
PhD
Vice-Chair, 2021 QCOR Planning Committee

The Quality of Care and Outcomes Research Meeting (QCOR) 2021at Scientific Sessions 2021 showcased the cutting-edge work of outstanding QCOR scientists and stimulated dynamic conversations about the most pressing issues facing the field today. The first session, led by the editorial board of *Circulation: Cardiovascular Quality and Outcomes*, described current challenges in the publication process with a focus on how we can think creatively about solutions. Highlights included the role of social media for extending the reach of AHA scientific statements and how to best ensure the principles of diversity, equity, and inclusion are integrated into publication innovations. The second session on global cardiovascular outcomes made the case for the urgent need for a global community of cardiovascular quality and outcomes researchers, beginning with several success stories illustrating the use of both observational and randomized data to improve outcomes. Speakers underscored the many informatics challenges that come up in doing this work and future directions for integrating data to support evidence-based practice. The third session featured a discussion on state of the art in mHealth for cardiovascular disease, noting advances in mobile phone data analysis and how mHealth can bridge the digital divide. This session was particularly timely given the ongoing movement to empower patients to be in the driver's seat of their health through these mobile technologies. The fourth session on Quality of Care and Outcomes during COVID-19 noted the many ways pandemic has changed the way we deliver care and do research, spotlighting the recent innovations that are most promising for improving care the future. Speakers also challenged us to think about COVID-19 as a catalyst to address longstanding disparities in cardiovascular care delivery. We wrapped up with our Awards and Moderated Networking session, starting off with the announcement of the Early Career Investigator Award winner. Congratulations to Dennie Kim, PhD, from the University of Virginia! The session continued with powerful reflections from QCOR 2021 Outstanding Lifetime Achievement awardee Frederick A. Masoudi, MD, MPH, FAHA, who shared wisdom about overcoming adversity while providing grace to ourselves and others. We ended with a virtual networking session where we got to know new colleagues and connect with old friends. While we missed seeing one another face-to-face this fall, we look forward to reconnecting at the Quality of Care and Outcomes Research 2022 Scientific Sessions, scheduled May 13-14 in Reston, Virginia! ■

Stroke Council Looks Beyond COVID



CONNECTING WITH THE CHAIR

Patrick Lyden
MD, FAHA

Our top priority this year—besides getting back to meeting in-person—is to improve the diversity and equity on all subcommittees and task forces for the Council on Stroke. I invite every one of you to contact me directly with any nominations who are women or members of a traditionally underrepresented demographic group. I and Sepideh Amin-Hanjani, MD, FAHA, (Vice Chair of the Stroke Council) pledge to work hard on promoting diversity and equity on Stroke. You may also contact me through Professional Heart Daily and register your interest, your background, and your experience. We live in perilous times — we need you now more than ever in service of our research and clinical community.

I would like to call your attention to a growing literature on the role of thrombolysis in a thrombectomy world. Many thrombectomy advocates have called for an end to thrombolysis — systems of care should be re-organized, they say, to bypass stroke centers in favor of thrombectomy centers. I think it's important to point out that a minority of acute stroke patients who access Emergency Medical Systems prove out to have a large vessel occlusion. These patients should be treated with thrombolysis, and they will benefit. Some of them may need to be transported to a Comprehensive Stroke Center for thrombectomy, but a majority will not, and will receive their thrombolytic that much sooner after stroke onset. The topic is complex, I admit, and I urge you to keep abreast of the latest research in Stroke, our journal, and at the upcoming ISC 2022.

The American Heart Association has been piloting enhanced collaboration with the World Stroke Organization, which is now led by our own Mark Fisher, MD, FAHA. Leaders from both organizations are meeting monthly, and during the last World Stroke Congress, held virtually Oct. 28-29, the American Stroke Association co-sponsored a Joint Session on Stroke Prevention. Excellent talks were presented by Dawn Kleindorfer, MD, (US), Abhijeet Dhoble, MD, (US), Jong Kim, PhD, (Korea) and Amy Towfighi, MD, FAHA (US) and I co-moderated with Gloria Ekeng, RN, (Nigeria). The Joint Session proved a great success, and more programming will follow.

The ASA, under the leadership of former *Stroke* Editor-in-Chief Dr. Fisher, has co-sponsored the Stroke Academic Industry Roundtable (STAIR) since its inception. The most recent STARI XI produced several landmark reports, all printed in *Stroke* in 2021. A critical appraisal to the "Outer Limits of Reperfusion Therapy," authored by Larry Wechsler, MD, FAHA, addressed the treatment needs of patients who present outside the normal established guidelines, such as treatment time window, for recanalization therapy. Jeff Saver, MD, FAHA, led a writing group that defined the standard nomenclature for the modified Rankin scale, a paper that will prove fundamental to future clinical trials. Bruce Campbell, MBBS led a group that defined a roadmap for defining optimal stroke imaging at primary stroke centers. I led a writing group that tried to describe a paradigm shift in how we look at cerebroprotective studies, especially in the preclinical realm. These STAIR XI reports are all available from *Stroke Journal*, online at **ahajournals.org/journal/str**.

Please mark your calendars for ISC 2022!

This year, we return to an in-person conference, Feb. 9-11 in New Orleans. The conference will comprise in-person and virtual sessions and new abstract categories: COVID, brain health, neuro-endovascular, advanced practice providers and translational basic science. Keep up with all the latest news and register to attend at **strokeconference.org**.

Numerous special awards and lectures will be part of the ISC 2022 program. These awards recognize the tremendous science achievements and contributions of council members to international stroke science and clinical care:

- Presidential Address (Donald Lloyd-Jones, MD, FAHA, Northwestern University)
- Thomas Willis Lecture (for basic scientists)
- William M. Feinberg Award for Excellence in Clinical Stroke
- Outstanding Stroke Research Mentor Award
- David G. Sherman Lecture, recognizing lifetime achievements in the stroke field.

Finally, there will be seven abstract-based awards presented in various categories including multiple Junior Investigator Travel and Minority Grant awards. Information can be found online for all awards at **strokeconference.org/awardsandlectures**.

The important work of the council could not be accomplished without committees and their chairs who commitment selfless hours to advancing the mission of the AHA/ASA. The following are the 2021-22 Stroke Council Committee Chairs:

- **Brain Health:** Philip Gorelick, MD, MPH, FAHA
- **Early Career:** Nicole Gonzales, MD
- **Emergency Neurovascular Care:** Charles Wira, MD, FAHA
- **Interprofessional Health:** Michelle L. Nelson, PhD
- **Nominating:** Peter Panagos, MD, FAHA
- **Membership and Communications:** Tanya N. Turan, MD, FAHA
- **Minority Affairs:** Hugo Aparicio, MD, MPH
- **Neurovascular Intervention:** Sepideh Amin-Hanjani, MD, FAHA
- **Performance Measures Oversight:** Koto Ishida, MD, FAHA
- **Professional Education:** Charles Kircher, MD, FAHA
- **Quality and Outcomes:** Irene L. Katzan, MD, FAHA
- **Rehabilitation and Recovery:** Richard D. Zorowitz, MD, FAHA
- **Scientific and Clinical Education Lifelong Learning:** Enrique C. Leira, MD, FAHA
- **Scientific Statement Oversight:** Joseph P. Broderick, MD, FAHA
- **Telestroke:** Marcella Wozniak, MD, PhD