FRAME OF REFERENCE

On My Mind
Calcium Rules
Cecilia Hidalgo, PhD

Point/Counterpoint
Treat the Patient, Not the Angiogram
J. Aaron Grantham, MD

Percutaneous Coronary Interventions for Chronic Total Occlusions: As the Technology Expands, Our Responsibilities Increase
Theodore A. Bass, MD

ORIGINAL RESEARCH ARTICLES

Risk of Heart Failure With Preserved Ejection Fraction in Older Women After Contemporary Radiotherapy for Breast Cancer
Hirofumi Saiki, MD, PhD; Ivy A. Petersen, MD; Christopher G. Scott, MS; Kent R. Bailey, PhD; Shannon M. Dunlay, MD, MS; Randi R. Finley, CMD, RTT; Kathryn J. Rudyk, MD; MPH; Elizabeth Yan, MD; Margaret M. Redfield, MD

Detailed Echocardiographic Phenotyping in Breast Cancer Patients: Associations With Ejection Fraction Decline, Recovery, and Heart Failure Symptoms Over 3 Years of Follow-Up
Hari K. Narayan, MD; Brian Finkelstein, PhD; Benjamin French, PhD; Theodore Piapert, RCVS, David Hyman, BA; Amanda M. Smith, BA, MA; Kenneth B. Margulies, MD; Bonnie Ky, MD, MSCE

Editorial
Good News, Bad News, but Not Fake News
Juan Carlos Plana, MD; Ana Barac, MD, PhD

Evaluation of Cell Therapy on Exercise Performance and Limb Perfusion in Peripheral Artery Disease: The CCTRN PACE Trial (Patients With Intermittent Claudication Injected With ALDH Bright Cells)
Emerson C. Perin, MD, PhD; Michael P. Murphy, MD; Keith L. March, MD, PhD; Roberto Bolli, MD; John Loughran, MD; Phillip C. Yang, MD; Nicholas J. Leeper, MD; Ronald L. Dalman, MD; Jason Alexander, MD; Timothy D. Henry, MD; Jay H. Traverse, MD; Carl J. Pepine, MD; R. David Anderson, MD; Scott Berceli, MD, PhD; James T. Willerson, MD; Raja Muthupillai, PhD; Amir Gahremanpour, MD; Ganesh Raveendran, MD, MPH; Omaida Velasquez, MD; Joshua M. Hare, MD; Ivonne Hernandez Schulman, MD; Vijaykumar S. Kasi, MD, PhD; William R. Hiatt, MD; Bharath Ambale-Venkatesh, PhD; John A. Lima, MD; Doris A. Taylor, PhD; Michelle Resende, PhD; Adrian P. Gee, PhD; April G. Durett, MS; Jeanette Bloom, MBA; Sara Richman, Patricia G'Sell, RN; Shari Williams, RN; Fouzia Khan, MBBS, Ebis Gyang Ross, MD, MS; Michelle R. Santiago, BS; Jeanne Goldman, RT; Dana Leach, DNP; Eileen Handberg, PhD; Benjamin Cheong, MD; Nichole Piece, RN; Darcy DiFede, RN; Barb Bruho-Ding, RN; Emily Caldwell, RN; Judy Bettencourt, MPH; Dejian Lai, PhD; Linda Piller, MD, MPH; Lara Simpson, PhD; Michelle Cohen, MPH; Shelly L. Sayre, MPH; Rachel W. Vojvodic, MPH; Len Moya, MD, PhD; Ray F. Ebert, PhD; Robert D. Simari, MD; Alan T. Hirsh, MD; For the Cardiovascular Cell Therapy Research Network (CCTRN)

Editorial
Every PACE Counts: Learning About Blood Cells and Blood Flow in Peripheral Artery Disease
Rosa Bretón-Romero, PhD; Naomi M. Hamburg, MD, MS

On the Cover: Circulation Doodle
This month’s doodle is in honor of Earth month.
For more information about the doodle, go to http://circ.ahajournals.org/content/circulation-cover-doodle.
ORIGINAL RESEARCH ARTICLES

Predictors of Death in Contemporary Adult Patients With Eisenmenger Syndrome: A Multicenter Study
Aleksander Kempny, MD; Cristel Sørensen Hjortshøj, MD, PhD; Hong Gu, MD, PhD; Wei Li, MD, PhD; Alexander R. Opotowsky, MD; Michael J. Landzberg, MD; Annette Schophuus Jensen, PhD; Lars Sandegaard, MD, DMSc; Mette-Else Estensen, MD, PhD; Ulf Thilen, MD, PhD; Werner Budts, MD; Barbara J. Mulder, PhD, PhD; Ilja Blok, MD; Lidia Tomkiewicz-Pajuk, MD, PhD; Kamil Szostek, MSc; Michele D’Alto, MD, PhD; Giancarlo Scognamiglio, MD; Katja Proksch, MD; Gerhard-Paul Diller, MD, MSc; Konstantinos Dimopoulos, MD, PhD, MSc; Stephen J. Wort, MA, MBBS, PhD; Michael A. Gatzoulis, MD

Editorial
Improving Survival in Patients With Eisenmenger Syndrome: Are We Any Closer?
Richard A. Lange, MD, MBA; M. Elizabeth Brickner, MD

Infarcted Myocardium-Primed Dendritic Cells Improve Remodeling and Cardiac Function After Myocardial Infarction by Modulating the Regulatory T Cell and Macrophage Polarization
Eun Ho Choo, MD; Jun-Ho Lee, MS; Eun-Hye Park, MS; Hyo Eun Park, MS; Nam-Chul Jung, PhD; Tae-Hoon Kim, MD, PhD; Yoon-Seok Koh, MD, PhD; Eunmin Kim, PhD; Ki-Bae Seung, MD, PhD; Cheongsoo Park, PhD; Kwan-Soo Hong, PhD; Kwanyoon Kang, PhD; Jie-Young Song, PhD; Han Geuk Seo, PhD; Dae-Seog Lim, PhD; Kiyuk Chang, MD, PhD

STATE OF THE ART

New Drugs and Devices
Permanent Leadless Cardiac Pacemaker Therapy: A Comprehensive Review
Fleur V.Y. Tjong, MD; Vivek Y. Reddy, MD

CLINICAL STATEMENTS AND GUIDELINES

AHA Science Advisory
Omega-3 Polyunsaturated Fatty Acid (Fish Oil) Supplementation and the Prevention of Clinical Cardiovascular Disease: A Science Advisory From the American Heart Association
David S. Siscovick, MD, MPH, FAHA, Chair; Thomas A. Barringer, MD, FAHA; Amanda M. Fretts, PhD, MPH; Jason H.Y. Wu, PhD, MSc, FAHA; Alice H. Lichtenstein, DSc, FAHA; Rebecca B. Costello, PhD, FAHA; Penny M. Kris-Etherton, PhD, RD, FAHA; Terry A. Jacobson, MD, FAHA; Mary B. Engler, PhD, RN, MS, FAHA; Heather M. Alger, PhD; Lawrence J. Appel, MD, MPH, FAHA; Danush Muzaftarian, MD, DrPH, FAHA; On behalf of the American Heart Association Nutrition Committee of the Council on Lifestyle and Cardiometabolic Health; Council on Epidemiology and Prevention; Council on Cardiovascular Disease in the Young; Council on Cardiovascular and Stroke Nursing; and Council on Clinical Cardiology

CORRESPONDENCE

Research Letter
Daily Total Physical Activity and Incident Cardiovascular Disease in Japanese Men and Women: Japan Public Health Center–Based Prospective Study
Yasuniko Kubota, MD; Hiroyasu Iso, MD, PhD, MPH; Kazumasa Yamagishi, MD, PhD; Nori Sawada, MD, PhD; Shoichiro Tsuchane, MD, PhD; for the JPHC Study Group (Japan Public Health Center)

Response by Motovska et al to Letter Regarding Article, “Prasugrel Versus Ticagrelor in Patients With Acute Myocardial Infarction Treated With Primary Percutaneous Coronary Intervention: Multicenter Randomized PRAGUE-18 Study”
Zuzana Motovska, MD, PhD; Ota Hlinomaz, MD, CSc; Petr Kala, MD, PhD; On behalf of the PRAGUE-18 Investigators

Correspondence
Letter by Lozano et al Regarding Article, “Prasugrel Versus Ticagrelor in Patients With Acute Myocardial Infarction Treated With Primary Percutaneous Coronary Intervention: Multicenter Randomized PRAGUE-18 Study”
Iñigo Lozano, MD, PhD; Juan Rondan, MD, PhD; Jose M. Vegas, MD

Response by Motovska et al to Letter Regarding Article, “Prasugrel Versus Ticagrelor in Patients With Acute Myocardial Infarction Treated With Primary Percutaneous Coronary Intervention: Multicenter Randomized PRAGUE-18 Study”
Zuzana Motovska, MD, PhD; Ota Hlinomaz, MD, CSc; Petr Kala, MD, PhD; On behalf of the PRAGUE-18 Investigators
CORRESPONDENCE

Letter by Brown and Ezekowitz Regarding Article, “Development and Evolution of a Hierarchical Clinical Composite End Point for the Evaluation of Drugs and Devices for Acute and Chronic Heart Failure: A 20-Year Perspective”

Paul M. Brown, MSc; Justin A. Ezekowitz, MBCh, MSc

Response by Packer to Letter Regarding Article, “Development and Evolution of a Hierarchical Clinical Composite End Point for the Evaluation of Drugs and Devices for Acute and Chronic Heart Failure: A 20-Year Perspective”

Milton Packer, MD