



## JAHA: Journal of the American Heart Association

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### Editorials

#### Measuring Cardiovascular Health Over the Life Course: A Lesson From Economics

Kathleen Carey

e008388. DOI: 10.1161/JAHA.117.008388.

#### LRRC10 (Leucine-Rich Repeat Containing Protein 10) and REEP5 (Receptor Accessory Protein 5) as Novel Regulators of Cardiac Excitation-Contraction Coupling Structure and Function

Nipavan Chiamvimonvat and Long-Sheng Song

e008260. DOI: 10.1161/JAHA.117.008260.

#### Observation Versus Inpatient Stay for Heart Failure: Is It Semantics?

Umair Khalid and Anita Deswal

e008263. DOI: 10.1161/JAHA.117.008263.

#### Health Behaviors and Calcific Aortic Valve Disease

Julio A. Lamprea-Montealegre and Catherine M. Otto

e008385. DOI: 10.1161/JAHA.117.008385.

### Original Research

#### Arrhythmia and Electrophysiology

##### Inhibitory Effect of Vascular Endothelial Growth Factor on the Slowly Activating Delayed Rectifier Potassium Current in Guinea Pig Ventricular Myocytes

Zhenhao Lin, Wenlu Xing, Chuanyu Gao, Xianpei Wang, Datun Qi, Guoyou Dai, Wen Zhao, and Ganxin Yan

e007730. DOI: 10.1161/JAHA.117.007730.

##### Use of Direct Oral Anticoagulants in Canadian Primary Care Practice 2010–2015: A Cohort Study From the Canadian Primary Care Sentinel Surveillance Network

Finlay A. McAlister, Scott Garrison, Leanne Kosowan, Justin A. Ezekowitz, and Alexander Singer

e007603. DOI: 10.1161/JAHA.117.007603.

##### Dyslipidemia and Risk of Cardiovascular Events in Patients With Atrial Fibrillation Treated With Oral Anticoagulation Therapy: Insights From the ARISTOTLE (Apixaban for Reduction in Stroke and Other Thromboembolic Events in Atrial Fibrillation) Trial

Tymon Pol, Claes Held, Johan Westerbergh, Johan Lindbäck, John H. Alexander, Marco Alings, Cetin Erol, Shinya Goto, Sigrun Halvorsen, Kurt Huber, Michael Hanna, Renato D. Lopes, Witold Ruzyllo, Christopher B. Granger, and Ziad Hijazi

e007444. DOI: 10.1161/JAHA.117.007444.

##### Programming Cardiac Resynchronization Therapy for Electrical Synchrony: Reaching Beyond Left Bundle Branch Block and Left Ventricular Activation Delay

Niraj Varma, David O'Donnell, Mohammed Bassiouny, Philippe Ritter, Carlo Pappone, Jan Mangual, Daniel Cantillon, Nima Badie, Bernard Thibault, and Brian Wisnoskey

e007489. DOI: 10.1161/JAHA.117.007489.

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## Congenital Heart Disease

### Neighborhood Socioeconomic Status and Outcomes Following the Norwood Procedure: An Analysis of the Pediatric Heart Network Single Ventricle Reconstruction Trial Public Data Set

Emily M. Bucholz, Lynn A. Sleeper, and Jane W. Newburger

e007065. DOI: 10.1161/JAHA.117.007065.

## Coronary Heart Disease

### Inhibiting Integrin $\alpha 5$ Cytoplasmic Domain Signaling Reduces Atherosclerosis and Promotes Arteriogenesis

Madhusudhan Budatha, Jiasheng Zhang, Zhen W. Zhuang, Sanguk Yun, James E. Dahlman, Daniel G. Anderson, and Martin A. Schwartz

e007501. DOI: 10.1161/JAHA.117.007501.

### T-Wave Abnormality as Electrocardiographic Signature of Myocardial Edema in Non-ST-Elevation Acute Coronary Syndromes

Andrea Cardona, Karolina M. Zareba, Haikady N. Nagaraja, Stephen F. Schaal, Orlando P. Simonetti, Giuseppe Ambrosio, and Subha V. Raman

e007118. DOI: 10.1161/JAHA.117.007118.

## Epidemiology

### Comparative Cardiovascular Risk of Abatacept and Tumor Necrosis Factor Inhibitors in Patients With Rheumatoid Arthritis With and Without Diabetes Mellitus: A Multidatabase Cohort Study

Eun Ha Kang, Yinzhu Jin, Gregory Brill, Jennifer Lewey, Elisabetta Patorno, Rishi J. Desai, and Seoyoung C. Kim

e007393. DOI: 10.1161/JAHA.117.007393.

### Reduced Long-Term Risk of Aortic Aneurysm and Aortic Dissection Among Individuals With Type 2 Diabetes Mellitus: A Nationwide Observational Study

Tarik Avdic, Stefan Franzén, Moncef Zarrouk, Stefan Acosta, Peter Nilsson, Anders Gottsäter, Ann-Marie Svensson, Soffia Gudbjörnsdóttir, and Björn Eliasson

e007618. DOI: 10.1161/JAHA.117.007618.

### Comparison of Prevalence, Awareness, Treatment, and Control of Cardiovascular Risk Factors in China and the United States

Yuan Lu, Pei Wang, Tianna Zhou, Jiapeng Lu, Erica S. Spatz, Khurram Nasir, Lixin Jiang, and Harlan M. Krumholz

e007462. DOI: 10.1161/JAHA.117.007462.

### Atrial Fibrillation and Cause-Specific Risks of Pulmonary Embolism and Ischemic Stroke

Erin M. Hald, Ludvig B. Rinde, Maja-Lisa Løchen, Ellisiv B. Mathiesen, Tom Wilsgaard, Inger Njølstad, Sigrid K. Brækkan, and John-Bjarne Hansen

e006502. DOI: 10.1161/JAHA.117.006502.

### Association of Hemoglobin Concentration and Its Change With Cardiovascular and All-Cause Mortality

Gyeongsil Lee, Seulggie Choi, Kyuwoong Kim, Jae-Moon Yun, Joung Sik Son, Su-Min Jeong, Sung Min Kim, and Sang Min Park

e007723. DOI: 10.1161/JAHA.117.007723.

### Hypertensive Disorders of Pregnancy and Offspring Cardiometabolic Health at Midchildhood: Project Viva Findings

Ruby Reetika Tripathi, Sheryl L. Rifas-Shiman, Nicola Hawley, Marie-France Hivert, and Emily Oken

e007426. DOI: 10.1161/JAHA.117.007426.

### Long-Term Outcome of Consecutive Patients With Previous Coronary Bypass Surgery, Treated With Newer-Generation Drug-Eluting Stents

Liefke C. van der Heijden, Marlies M. Kok, Paolo Zocca, Hanim Sen, Marije M. Löwik, Silvia Mariani, Frits H. A. F. de Man, Marc Hartmann, Martin G. Stoel, K. Gert van Houwelingen, J. (Hans) W. Louwerenburg, Gerard C. M. Linssen, Carine J. M. Doggen, Jan G. Grandjean, and Clemens von Birgelen

e007212. DOI: 10.1161/JAHA.117.007212.

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## Cardiovascular Risk and the American Dream: Life Course Observations From the BHS (Bogalusa Heart Study)

Benjamin D. Pollock, Emily W. Harville, Katherine T. Mills, Wan Tang, Wei Chen, and Lydia A. Bazzano  
e007693. DOI: 10.1161/JAHA.117.007693.

### Genetics

#### Liver X Receptor–Binding DNA Motif Associated With Atherosclerosis-Specific DNA Methylation Profiles of *Alu* Elements and Neighboring CpG Islands

Fabiola E. Tristán-Flores, Plinio Guzmán, Melany S. Ortega-Kermedy, Gabriela Cruz-Torres, Carmen de la Rocha, Guillermo A. Silva-Martínez, Dalia Rodríguez-Ríos, Yolanda Alvarado-Caudillo, Gloria Barbosa-Sabanero, Sergi Sayols, Gertrud Lund, and Silvio Zaina  
e007686. DOI: 10.1161/JAHA.117.007686.

#### Pediatric Dilated Cardiomyopathy-Associated *LRRC10* (Leucine-Rich Repeat–Containing 10) Variant Reveals *LRRC10* as an Auxiliary Subunit of Cardiac L-Type $\text{Ca}^{2+}$ Channels

Marites T. Woon, Pamela A. Long, Louise Reilly, Jared M. Evans, Alexis M. Keefe, Martin R. Lea, Carl J. Beglinger, Ravi C. Balijepalli, Youngsook Lee, Timothy M. Olson, and Timothy J. Kamp  
e006428. DOI: 10.1161/JAHA.117.006428.

### Health Services and Outcomes Research

#### Lipid Testing and Statin Dosing After Acute Myocardial Infarction

William T. Wang, Anne Hellkamp, Jacob A. Doll, Laine Thomas, Ann Marie Navar, Gregg C. Fonarow, Howard M. Julien, Eric D. Peterson, and Tracy Y. Wang  
e006460. DOI: 10.1161/JAHA.117.006460.

#### Outcomes of Heart Failure Admissions Under Observation Versus Short Inpatient Stay

Ahmad Masri, Andrew D. Althouse, Jeffrey McKibben, Floyd Thoma, Michael Mathier, Ravi Ramani, Jeffrey Teuteberg, Oscar Marroquin, Joon S. Lee, and Suresh R. Mulukutla  
e007944. DOI: 10.1161/JAHA.117.007944.

### Heart Failure

#### Recombinant Human ADAMTS13 Treatment Improves Myocardial Remodeling and Functionality After Pressure Overload Injury in Mice

Thilo Witsch, Kimberly Martinod, Nicoletta Sorvillo, Irina Portier, Simon F. De Meyer, and Denisa D. Wagner  
e007004. DOI: 10.1161/JAHA.117.007004.

#### REEP5 (Receptor Accessory Protein 5) Acts as a Sarcoplasmic Reticulum Membrane Sculptor to Modulate Cardiac Function

Lei Yao, Duanyang Xie, Li Geng, Dan Shi, Jian Huang, Yufei Wu, Fei Lv, Dandan Liang, Li Li, Yi Liu, Jun Li, and Yi-Han Chen  
e007205. DOI: 10.1161/JAHA.117.007205.

#### Interaction of Body Mass Index on the Association Between N-Terminal-Pro-b-Type Natriuretic Peptide and Morbidity and Mortality in Patients With Acute Heart Failure: Findings From ASCEND-HF (Acute Study of Clinical Effectiveness of Nesiritide in Decompensated Heart Failure)

Ankeet S. Bhatt, Lauren B. Cooper, Andrew P. Ambrosy, Robert M. Clare, Adrian Coles, Emer Joyce, Arun Krishnamoorthy, Javed Butler, G. Michael Felker, Justin A. Ezekowitz, Paul W. Armstrong, Adrian F. Hernandez, Christopher M. O'Connor, and Robert J. Mentz  
e006740. DOI: 10.1161/JAHA.117.006740.

### Hypertension

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Claire Arnaud, Sophie Bouyon, Sylvain Recoquillon, Sandrine Bresseur, Emeline Lemarié, Anne Briançon-Marjollet, Brigitte Gonthier, Marta Toral, Gilles Fauray, M. Carmen Martinez, Ramarosan Andriantsitohaina, and Jean-Louis Pepin  
e007893. DOI: 10.1161/JAHA.117.007893.

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## Evidence for Pressure-Independent Sympathetic Modulation of Central Pulse Wave Velocity

Massimo Nardone, Anthony V. Incognito, and Philip J. Millar

e007971. DOI: 10.1161/JAHA.117.007971.

### Imaging

#### Myocardial Scar Delineation Using Diffusion Tensor Magnetic Resonance Tractography

Choukri Mekkaoui, Marcel P. Jackowski, William J. Kostis, Christian T. Stoeck, Aravinda Thiagalingam, Timothy G. Reese, Vivek Y. Reddy, Jeremy N. Ruskin, Sebastian Kozerke, and David E. Sosnovik

e007834. DOI: 10.1161/JAHA.117.007834.

#### Neuronal PirB Upregulated in Cerebral Ischemia Acts as an Attractive Theranostic Target for Ischemic Stroke

Jie Wang, Ying Zhang, Jing Xia, Tingting Cai, Jiawei Du, Jinpeng Chen, Ping Li, Yuqing Shen, Aifeng Zhang, Bo Fu, Xueren Gao, Fenqin Miao, Jianqiong Zhang, and Gaojun Teng

e007197. DOI: 10.1161/JAHA.117.007197.

#### Combined Assessment of Stress Myocardial Perfusion Cardiovascular Magnetic Resonance and Flow Measurement in the Coronary Sinus Improves Prediction of Functionally Significant Coronary Stenosis Determined by Fractional Flow Reserve in Multivessel Disease

Shiro Nakamori, Hajime Sakuma, Kaoru Dohi, Masaki Ishida, Takashi Tanigawa, Akimasa Yamada, Shinichi Takase, Hiroshi Nakajima, Toshiki Sawai, Jun Masuda, Motonori Nagata, Yasutaka Ichikawa, Kakuya Kitagawa, Eitaro Fujii, Norikazu Yamada, and Masaaki Ito

e007736. DOI: 10.1161/JAHA.117.007736.

### Stroke

#### Targeting Germinal Matrix Hemorrhage-Induced Overexpression of Sodium-Coupled Bicarbonate Exchanger Reduces Posthemorrhagic Hydrocephalus Formation in Neonatal Rats

Qian Li, Yan Ding, Paul Krafft, Weifeng Wan, Feng Yan, Guangyong Wu, Yixin Zhang, Qunling Zhan, and John H. Zhang

e007192. DOI: 10.1161/JAHA.117.007192.

#### Absence of July Phenomenon in Acute Ischemic Stroke Care Quality and Outcomes

Marco Gonzalez-Castellon, Christine Ju, Ying Xian, Adrian Hernandez, Gregg C. Fonarow, Lee Schwamm, Eric E. Smith, Deepak L. Bhatt, Matthew Reeves, and Joshua Z. Willey

e007685. DOI: 10.1161/JAHA.117.007685.

#### Beneficial Effect of Mas Receptor Deficiency on Vascular Cognitive Impairment in the Presence of Angiotensin II Type 2 Receptor

Akinori Higaki, Masaki Mogi, Jun Iwanami, Li-Juan Min, Hui-Yu Bai, Bao-Shuai Shan, Masayoshi Kukida, Toshifumi Yamauchi, Kana Tsukuda, Harumi Kan-no, Shuntaro Ikeda, Jitsuo Higaki, and Masatsugu Horiuchi

e008121. DOI: 10.1161/JAHA.117.008121.

### Valvular Heart Disease

#### Ideal Cardiovascular Health and the Prevalence and Severity of Aortic Stenosis in Elderly Patients

Morten Sengeløv, Susan Cheng, Tor Biering-Sørensen, Kunihiro Matsushita, Suma Konety, Scott D. Solomon, Aaron R. Folsom, and Amil M. Shah

e007234. DOI: 10.1161/JAHA.117.007234.

### Vascular Medicine

#### Arachidonic Acid, but Not Omega-3 Index, Relates to the Prevalence and Progression of Abdominal Aortic Aneurysm in a Population-Based Study of Danish Men

Jes S. Lindholt, Katrine L. Kristensen, Elena Burillo, Diego Martinez-Lopez, Carlos Calvo, Emilio Ros, Jose L. Martín-Ventura, and Aleix Sala-Vila

e007790. DOI: 10.1161/JAHA.117.007790.

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### **Inhibition of 5-Hydroxytryptamine Receptor 2B Reduced Vascular Restenosis and Mitigated the $\beta$ -Arrestin2–Mammalian Target of Rapamycin/p70S6K Pathway**

Yahan Liu, Zhipeng Wang, Jing Li, Yiqian Ban, Guangmei Mao, Man Zhang, Mo Wang, Yan Liu, Beilei Zhao, Qiang Shen, Qingbo Xu, and Nanping Wang

e006810. DOI: 10.1161/JAHA.117.006810.

### **Neopterin Counters Vascular Inflammation and Atherosclerosis**

Remina Shirai, Kengo Sato, Tomoyuki Yamashita, Maho Yamaguchi, Taisuke Okano, Kaho Watanabe-Kominato, Rena Watanabe, Taka-aki Matsuyama, Hatsue Ishibashi-Ueda, Shinji Koba, Youichi Kobayashi, Tsutomu Hirano, and Takuya Watanabe

e007359. DOI: 10.1161/JAHA.117.007359.

## **Contemporary Reviews**

### **Evidence Gaps in the Era of Non–Vitamin K Oral Anticoagulants**

Konstantinos N. Aronis and Elaine M. Hylek

e007338. DOI: 10.1161/JAHA.117.007338.

### **More, More, More: Reducing Thrombosis in Acute Coronary Syndromes Beyond Dual Antiplatelet Therapy—Current Data and Future Directions**

Nikolaos Spinthakis, Mohamed Farag, Bianca Rocca, and Diana A. Gorog

e007754. DOI: 10.1161/JAHA.117.007754.

### **Role of Monocytes in Heart Failure and Atrial Fibrillation**

Farhan Shahid, Gregory Y.H. Lip, and Eduard Shantsila

e007849. DOI: 10.1161/JAHA.117.007849.

## **Corrections**

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e004150. DOI: 10.1161/JAHA.117.004150.

### **Critical Role of Coaptive Strain in Aortic Valve Leaflet Homeostasis: Use of a Novel Flow Culture Bioreactor to Explore Heart Valve Mechanobiology**

e004225. DOI: 10.1161/JAHA.117.004225.

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