



## JAHA: Journal of the American Heart Association

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### Editorials

#### **TxA<sub>2</sub> Receptor-Based Vaccination: A Novel Potential Therapeutic Approach to Limit Thrombosis**

Firdos Ahmad

e009861. DOI: 10.1161/JAHA.118.009861.

#### **Myocardial Infarction With Nonobstructive Coronary Arteries (MINOCA): It's Time to Face Reality!**

Jacqueline E. Tamis-Holland and Hani Jneid

e009635. DOI: 10.1161/JAHA.118.009635.

#### **Alcohol Consumption, Hypertension, and Cardiovascular Health Across the Life Course: There Is No Such Thing as a One-Size-Fits-All Approach**

Steven Bell

e009698. DOI: 10.1161/JAHA.118.009698.

#### **Looking for CO<sub>2</sub>: Exploring the Novel Finding of Low Respiratory Quotient After Cardiac Arrest**

Katherine M. Berg, Michael W. Donnino, and Clifton Callaway

e009500. DOI: 10.1161/JAHA.118.009500.

### Original Research

#### **Arrhythmia and Electrophysiology**

##### **Size Matters: Ryanodine Receptor Cluster Size Affects Arrhythmogenic Sarcoplasmic Reticulum Calcium Release**

Samuel Galice, Yuanfang Xie, Yi Yang, Daisuke Sato, and Donald M. Bers

e008724. DOI: 10.1161/JAHA.118.008724.

##### **Cerebral Protection During Catheter Ablation of Ventricular Tachycardia in Patients With Ischemic Heart Disease**

Christian-Hendrik Heeger, Andreas Metzner, Michael Schlüter, Andreas Rillig, Shibu Mathew, Roland Richard Tilz, Peter Wohlmuth, Maria E. Romero, Renu Virmani, Thomas Fink, Bruno Reissmann, Christine Lemes, Tilman Maurer, Francesco Santoro, Tobias Schmidt, Alexander Ghanem, Christian Frerker, Karl-Heinz Kuck, and Feifan Ouyang

e009005. DOI: 10.1161/JAHA.118.009005.

##### **Continuous ST-Monitoring Function of Implantable Cardioverter Defibrillator Detects Silent Ischemia in Patients With Coronary Artery Disease**

Tetsuya Watanabe, Keiji Hirooka, Yoshio Furukawa, Masanori Yabuki, Akio Hirata, Kazunori Kashiwase, Ryu Shutta, Takanao Mine, Hiroya Mizuno, Toshikazu Tanaka, Takahiro Doi, Akihiro Yoshida, Yuji Okuyama, and Shinsuke Nanto

e009332. DOI: 10.1161/JAHA.118.009332.

### Coronary Heart Disease

#### **Investigation of a Thromboxane A<sub>2</sub> Receptor-Based Vaccine for Managing Thrombogenesis**

Fatima Z. Alshbool, Zubair A. Karim, Enma V. Paez Espinosa, Olivia A. Lin, and Fadi T. Khasawneh

e009139. DOI: 10.1161/JAHA.118.009139.

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**Presentation, Clinical Profile, and Prognosis of Young Patients With Myocardial Infarction With Nonobstructive Coronary Arteries (MINOCA): Results From the VIRGO Study**

Basmah Safdar, Erica S. Spatz, Rachel P. Dreyer, John F. Beltrame, Judith H. Lichtman, John A. Spertus, Harmony R. Reynolds, Mary Geda, Héctor Bueno, James D. Dziura, Harlan M. Krumholz, and Gail D'Onofrio  
e009174. DOI: 10.1161/JAHA.118.009174.

**Predominant Role of Nuclear Versus Membrane Estrogen Receptor  $\alpha$  in Arterial Protection: Implications for Estrogen Receptor  $\alpha$  Modulation in Cardiovascular Prevention/Safety**

Emmanuel Guivarc'h, Mélissa Buscato, Anne-Laure Guihot, Julie Favre, Emilie Vessières, Linda Grimaud, Jamal Wakim, Nada-Joe Melhem, Rana Zahreddine, Marine Adlanmerini, Laurent Loufrani, Claude Knauf, John A. Katzenellenbogen, Benita S. Katzenellenbogen, Jean-Michel Foidart, Pierre Gourdy, Françoise Lenfant, Jean-François Arnal, Daniel Henrion, and Coralie Fontaine  
e008950. DOI: 10.1161/JAHA.118.008950.

**Impact of Angiographic Residual Stenosis on Clinical Outcomes After New-Generation Drug-Eluting Stents Implantation: Insights From a Pooled Analysis of the RESET and NEXT Trials**

Hiroki Watanabe, Takeshi Morimoto, Hiroki Shiomi, Masahiro Natsuaki, Kazuya Kawai, Ken Kozuma, Keiichi Igarashi, Kazushige Kadota, Kengo Tanabe, Yoshihiro Morino, Kiyoshi Hibi, Takashi Akasaka, Mitsuru Abe, Satoru Suwa, Toshiya Muramatsu, Masakazu Kobayashi, Kazuoki Dai, Koichi Nakao, Yasuhiro Tarutani, Kenshi Fujii, and Takeshi Kimura, on behalf of the RESET and NEXT Investigators  
e008718. DOI: 10.1161/JAHA.118.008718.

**Long-Term Mortality of Older Patients With Acute Myocardial Infarction Treated in US Clinical Practice**

Ajar Kochar, Anita Y. Chen, Puza P. Sharma, Neha J. Pagidipati, Gregg C. Fonarow, Patricia A. Cowper, Matthew T. Roe, Eric D. Peterson, and Tracy Y. Wang  
e007230. DOI: 10.1161/JAHA.117.007230.

**Relationship Between Plasma 8-OH-Deoxyguanosine and Cardiovascular Disease and Survival in Type 2 Diabetes Mellitus: Results From the ADVANCE Trial**

Merlin C. Thomas, Mark Woodward, Qiang Li, Raelene Pickering, Christos Tikellis, Neil Poulter, Mark E. Cooper, Michel Marre, Sophia Zoungas, and John Chalmers, on behalf of the ADVANCE Collaborative Group  
e008226. DOI: 10.1161/JAHA.117.008226.

**Epidemiology**

**Association of Circulating Adipokines With Echocardiographic Measures of Cardiac Structure and Function in a Community-Based Cohort**

Beatrice von Jeinsen, Meghan I. Short, Vanessa Xanthakis, Herman Carneiro, Susan Cheng, Gary F. Mitchell, and Ramachandran S. Vasan  
e008997. DOI: 10.1161/JAHA.118.008997.

**Tea Consumption and Longitudinal Change in High-Density Lipoprotein Cholesterol Concentration in Chinese Adults**

Shue Huang, Junjuan Li, Yuntao Wu, Sareh Ranjbar, Aijun Xing, Haiyan Zhao, Yanxiu Wang, Gregory C. Shearer, Le Bao, Alice H. Lichtenstein, Shouling Wu, and Xiang Gao  
e008814. DOI: 10.1161/JAHA.118.008814.

**Effects of Repeated Binge Drinking on Blood Pressure Levels and Other Cardiovascular Health Metrics in Young Adults: National Health and Nutrition Examination Survey, 2011-2014**

Mariann R. Piano, Larisa Burke, Minkyung Kang, and Shane A. Phillips  
e008733. DOI: 10.1161/JAHA.118.008733.

**Metformin and Risk of Hypertension in Taiwanese Patients With Type 2 Diabetes Mellitus**

Chin-Hsiao Tseng  
e008860. DOI: 10.1161/JAHA.118.008860.

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## **Gamifying Accelerometer Use Increases Physical Activity Levels of Sedentary Office Workers**

Allene L. Gremaud, Lucas J. Carr, Jacob E. Simmering, Nicholas J. Evans, James F. Cremer, Alberto M. Segre, Linnea A. Polgreen, and Philip M. Polgreen

e007735. DOI: 10.1161/JAHA.117.007735.

## **Heart Failure**

### **Increased Protein Tyrosine Phosphatase 1B (PTP1B) Activity and Cardiac Insulin Resistance Precede Mitochondrial and Contractile Dysfunction in Pressure-Overloaded Hearts**

T. Dung Nguyen, Michael Schwarzer, Andrea Schreppler, Paulo A. Amorim, Daniel Blum, Claudia Hain, Gloria Faerber, Judith Haendeler, Joachim Altschmied, and Torsten Doenst

e008865. DOI: 10.1161/JAHA.118.008865.

### **Sleep Apnea, the Risk of Developing Heart Failure, and Potential Benefits of Continuous Positive Airway Pressure (CPAP) Therapy**

Anders Holt, Jenny Bjerre, Bochra Zareini, Henning Koch, Philip Tønnesen, Gunnar H. Gislason, Olav W. Nielsen, Morten Schou, and Morten Lamberts

e008684. DOI: 10.1161/JAHA.118.008684.

### **Carboxyl-Terminal Modulator Protein Ameliorates Pathological Cardiac Hypertrophy by Suppressing the Protein Kinase B Signaling Pathway**

Xiaoxiong Liu, Qin Yang, Li-Hua Zhu, Jia Liu, Ke-Qiong Deng, Xue-Yong Zhu, Ye Liu, Jun Gong, Peng Zhang, Shuyan Li, Hao Xia, and Zhi-Gang She

e008654. DOI: 10.1161/JAHA.118.008654.

### **Bioimpedance and New-Onset Heart Failure: A Longitudinal Study of >500 000 Individuals From the General Population**

Daniel Lindholm, Eri Fukaya, Nicholas J. Leeper, and Erik Ingelsson

e008970. DOI: 10.1161/JAHA.118.008970.

## **Hypertension**

### **Intestinal Mineralocorticoid Receptor Contributes to Epithelial Sodium Channel-Mediated Intestinal Sodium Absorption and Blood Pressure Regulation**

Toshifumi Nakamura, Isao Kurihara, Sakiko Kobayashi, Kenichi Yokota, Ayano Murai-Takeda, Yuko Mitsuishi, Mitsuha Morisaki, Nao Kohata, Yosuke Oshima, Yukiko Minami, Hirotaka Shibata, and Hiroshi Itoh

e008259. DOI: 10.1161/JAHA.117.008259.

### **Nocturnal Blood Pressure Is Reduced by a Mandibular Advancement Device for Sleep Apnea in Women: Findings From Secondary Analyses of a Randomized Trial**

Helene Rietz, Karl A. Franklin, Bo Carlberg, Carin Sahlin, and Marie Marklund

e008642. DOI: 10.1161/JAHA.118.008642.

### **Dietary Docosahexaenoic Acid Reduces Oscillatory Wall Shear Stress, Atherosclerosis, and Hypertension, Most Likely Mediated via an IL-1-Mediated Mechanism**

Mabruka A. Alfaidi, Janet Chamberlain, Alexander Rothman, David Crossman, Maria-Cruz Villa-Uriol, Patrick Hadoke, Junxi Wu, Torsten Schenkel, Paul C. Evans, and Sheila E. Francis

e008757. DOI: 10.1161/JAHA.118.008757.

## **Imaging**

### **Prevalence, Predictors, and Prognostic Value of Residual Tricuspid Regurgitation in Patients With Left Ventricular Assist Device**

Koki Nakanishi, Shunichi Homma, Jiho Han, Hiroo Takayama, Paolo C. Colombo, Melana Yuzefpolskaya, Arthur R. Garan, Maryjane A. Farr, Paul Kurlansky, Marco R. Di Tullio, Yoshifumi Naka, and Koji Takeda

e008813. DOI: 10.1161/JAHA.118.008813.

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## Lack of a Tricuspid Regurgitation Doppler Signal and Pulmonary Hypertension by Invasive Measurement

Jared M. O'Leary, Tufik R. Assad, Meng Xu, Eric Farber-Eger, Quinn S. Wells, Anna R. Hemnes, and Evan L. Brittain  
e009362. DOI: 10.1161/JAHA.118.009362.

### Interventional Cardiology

#### Sequential Hybrid Therapy With Pulmonary Endarterectomy and Additional Balloon Pulmonary Angioplasty for Chronic Thromboembolic Pulmonary Hypertension

Kenichi Yanaka, Kazuhiko Nakayama, Toshiro Shinke, Yuto Shinkura, Yu Taniguchi, Hiroto Kinutani, Naoki Tamada, Hiroyuki Onishi, Yasunori Tsuboi, Seimi Satomi-Kobayashi, Hiromasa Otake, Hiroshi Tanaka, Yutaka Okita, Noriaki Emoto, and Ken-ichi Hirata  
e008838. DOI: 10.1161/JAHA.118.008838.

### Kidney in Cardiovascular Disease

#### Extracellular Fluid Excess Is Significantly Associated With Coronary Artery Calcification in Patients With Chronic Kidney Disease

Seohyun Park, Chan Joo Lee, Jong Hyun Jhee, Hae-Ryong Yun, Hyoungnae Kim, Su-Young Jung, Youn Kyung Kee, Chang-Yun Yoon, Jung Tak Park, Hyeon Chang Kim, Seung Hyeok Han, Shin-Wook Kang, Sungha Park, and Tae-Hyun Yoo  
e008935. DOI: 10.1161/JAHA.118.008935.

### Resuscitation Science

#### An Algorithm Based on Deep Learning for Predicting In-Hospital Cardiac Arrest

Joon-myung Kwon, Youngnam Lee, Yeha Lee, Seungwoo Lee, and Jinsik Park  
e008678. DOI: 10.1161/JAHA.118.008678.

#### Dissociated Oxygen Consumption and Carbon Dioxide Production in the Post-Cardiac Arrest Rat: A Novel Metabolic Phenotype

Koichiro Shinozaki, Lance B. Becker, Kota Saeki, Junhwan Kim, Tai Yin, Tong Da, and Joshua W. Lampe  
e007721. DOI: 10.1161/JAHA.117.007721.

#### Delphi Analysis of Science Gaps in the 2015 American Heart Association Cardiac Arrest Guidelines

Ashish R. Panchal, Rebecca E. Cash, Remle P. Crowe, Ryan Coute, David Way, Tom Aufderheide, and Raina M. Merchant  
e008571. DOI: 10.1161/JAHA.118.008571.

### Stroke

#### High-Resolution Imaging of Interaction Between Thrombus and Stent-Retriever in Patients With Acute Ischemic Stroke

Anouchka S. A. Autar, Hajo M. Hund, Sharad A. Ramlal, Daniël Hansen, Geert J. Lycklama à Nijeholt, Bart J. Emmer, Moniek P. M. de Maat, Diederik W. J. Dippel, Aad van der Lugt, Adriaan C. G. M. van Es, and Heleen M. M. van Beusekom, on behalf of the MR CLEAN Registry Investigators  
e008563. DOI: 10.1161/JAHA.118.008563.

#### Increased Left Ventricular Mass Index Is Associated With Compromised White Matter Microstructure Among Older Adults

Elizabeth E. Moore, Dandan Liu, Kimberly R. Pechman, James G. Terry, Sangeeta Nair, Francis E. Cambroner, Susan P. Bell, Katherine A. Gifford, Adam W. Anderson, Timothy J. Hohman, John Jeffrey Carr, and Angela L. Jefferson  
e009041. DOI: 10.1161/JAHA.118.009041.

#### Inhibition of MicroRNA-155 Supports Endothelial Tight Junction Integrity Following Oxygen-Glucose Deprivation

Juan Carlos Pena-Philippides, Amy Sabrina Gardiner, Ernesto Caballero-Garrido, Rong Pan, Yiliang Zhu, and Tamara Roitbak  
e009244. DOI: 10.1161/JAHA.118.009244.

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## Linoleic Acid in Adipose Tissue and Development of Ischemic Stroke: A Danish Case-Cohort Study

Stine Krogh Venø, Christian Sørensen Bork, Marianne Uhre Jakobsen, Søren Lundbye-Christensen, Flemming Winther Bach, Kim Overvad, and Erik Berg Schmidt

e009820. DOI: 10.1161/JAHA.118.009820.

## Valvular Heart Disease

### Discovery of an Experimental Model of Unicuspid Aortic Valve

Robert M. Weiss, Yi Chu, Robert M. Brooks, Donald D. Lund, Justine Cheng, Kathy A. Zimmerman, Melissa K. Kafa, Phanicharan Sistla, Hardik Doshi, Jian Q. Shao, Ramzi N. El Accaoui, Catherine M. Otto, and Donald D. Heistad

e006908. DOI: 10.1161/JAHA.117.006908.

## Vascular Medicine

### Anti-TIM-1 Monoclonal Antibody (RMT1-10) Attenuates Atherosclerosis By Expanding IgM-producing B1a Cells

Hamid Hosseini, Li Yi, Peter Kanellakis, Anh Cao, Christopher Tay, Karlheinz Peter, Alex Bobik, Ban-Hock Toh, and Tin Kyaw

e008447. DOI: 10.1161/JAHA.117.008447.

### High Burden of 30-Day Readmissions After Acute Venous Thromboembolism in the United States

Eric A. Secemsky, Kenneth Rosenfield, Kevin F. Kennedy, Michael Jaff, and Robert W. Yeh

e009047. DOI: 10.1161/JAHA.118.009047.

### Equations for Estimating the Predissected Diameter of the Descending Aorta From Computed Tomographic Images at the Onset of Aortic Dissection

Takashi Yamauchi, Takafumi Masai, Hiroshi Takano, Yukitoshi Shirakawa, Koichi Toda, and Yoshiki Sawa, Osaka Cardiovascular Surgery Research Group (OSCAR)

e009196. DOI: 10.1161/JAHA.118.009196.

### Postural Hyperventilation as a Cause of Postural Tachycardia Syndrome: Increased Systemic Vascular Resistance and Decreased Cardiac Output When Upright in All Postural Tachycardia Syndrome Variants

Julian M. Stewart, Paul Pianosi, Mohamed A. Shaban, Courtney Terilli, Maria Svistunova, Paul Visintainer, and Marvin S. Medow

e008854. DOI: 10.1161/JAHA.118.008854.

## Systematic Review and Meta-analysis

### Infective Endocarditis After Melody Valve Implantation in the Pulmonary Position: A Systematic Review

Mohammad Abdelghani, Martina Nassif, Nico A. Blom, Martijn S. Van Mourik, Bart Straver, David R. Koolbergen, Jolanda Kluin, Jan G. Tijssen, Barbara J. M. Mulder, Berto J. Bouma, and Robbert J. de Winter

e008163. DOI: 10.1161/JAHA.117.008163.

### Sex-Specific Associations Between Alcohol Consumption and Incidence of Hypertension: A Systematic Review and Meta-Analysis of Cohort Studies

Michael Roerecke, Sheldon W. Tobe, Janusz Kaczorowski, Simon L. Bacon, Afshin Vafaei, Omer S. M. Hasan, Rohin J. Krishnan, Amidu O. Raifu, and Jürgen Rehm

e008202. DOI: 10.1161/JAHA.117.008202.

### Systematic Review of Circulating, Biomechanical, and Genetic Markers for the Prediction of Abdominal Aortic Aneurysm Growth and Rupture

Menno E. Groeneveld, Jorn P. Meekel, Sidney M. Rubinstein, Lianne R. Merkesteyn, Geert Jan Tangelder, Willem Wisselink, Maarten Truijers, and Kak Khee Yeung

e007791. DOI: 10.1161/JAHA.117.007791.

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## Contemporary Reviews

### PCSK9 Inhibitors in Lipid Management of Patients With Diabetes Mellitus and High Cardiovascular Risk: A Review

Yehuda Handelsman and Norman E. Lepor

e008953. DOI: 10.1161/JAHA.118.008953.

### Imaging Cardiovascular Calcification

Ying Wang, Michael T. Osborne, Brian Tung, Ming Li, and Yaming Li

e008564. DOI: 10.1161/JAHA.118.008564.

## Meeting Highlights

### Highlights From the American Heart Association's EPI|LIFESTYLE 2018 Scientific Sessions

Bailey M. DeBarmore, Ambarish Pandey, Timothy B. Plante, Bryan Wilner, Deborah Rohm Young, and Anberitha T. Matthews

e009313. DOI: 10.1161/JAHA.118.009313.

## Corrections

### Risk of Stroke or Death Is Associated With the Timing of Carotid Artery Stenting for Symptomatic Carotid Stenosis: A Secondary Data Analysis of the German Statutory Quality Assurance Database

e004256. DOI: 10.1161/JAHA.117.004256.

### Mind the Brain: Stroke Risk in Young Adults With Coarctation of the Aorta

e004209. DOI: 10.1161/JAHA.117.004209.

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