

# Arteriosclerosis, Thrombosis, and Vascular Biology

Volume 29 Number 7 July 2009

Key: VB=Vascular Biology AL=Atherosclerosis/Lipoproteins TH=Thrombosis

## Brief Reviews

- Cardiovascular Molecular Imaging—ATVB In Focus**  
*Zahi A. Fayad* ..... 981
- Molecular Imaging in Atherosclerosis, Thrombosis, and Vascular Inflammation—ATVB In Focus**  
*Robin P. Choudhury, Edward A. Fisher* ..... 983
- Nanotechnology in Medical Imaging: Probe Design and Applications—ATVB In Focus**  
*David P. Cormode, Torjus Skajaa, Zahi A. Fayad, Willem J.M. Mulder* ..... 992
- Iron Oxide Particles for Atheroma Imaging—ATVB In Focus**  
*Tjun Y. Tang, Karin H. Muller, Martin J. Graves, Zhi Y. Li, Stewart R. Walsh, Victoria Young, Umar Sadat, Simon P.S. Howarth, J.H. Gillard* ..... 1001
- Inflammation Imaging in Atherosclerosis—ATVB In Focus**  
*James H.F. Rudd, Fabien Hyafil, Zahi A. Fayad* ..... 1009
- Optical and Multimodality Molecular Imaging: Insights Into Atherosclerosis—ATVB In Focus**  
*Farouc A. Jaffer, Peter Libby, Ralph Weissleder* ..... 1017
- In Vivo Imaging of Stem Cells and Beta Cells Using Direct Cell Labeling and Reporter Gene Methods—ATVB In Focus**  
*Dara L. Kraitchman, Jeff W.M. Bulte* ..... 1025
- Molecular Imaging of Macrophage Cell Death for the Assessment of Plaque Vulnerability—ATVB In Focus**  
*Eduard M. Laufer, Mark H.M. Winkens, Jagat Narula, Leonard Hofstra* ..... 1031

## Integrative Physiology/Experimental Medicine

- ALTH** Disruption of SEMA4D Ameliorates Platelet Hypersensitivity in Dyslipidemia and Confers Protection Against the Development of Atherosclerosis  
*Li Zhu, Timothy J. Stalker, Karen P. Fong, Hong Jiang, Anh Tran, Irene Crichton, Eric K. Lee, Keith B. Neeves, Sean F. Maloney, Hitoshi Kikutani, Atsushi Kumanogoh, Ellen Pure, Scott L. Diamond, Lawrence F. Brass* ..... 1039

ARTERIOSCLEROSIS, THROMBOSIS, AND VASCULAR BIOLOGY (ISSN 1079-5642) is published monthly by Lippincott Williams & Wilkins, at 16522 Hunters Green Parkway, Hagerstown, MD 21740. Business offices are located at 530 Walnut Street, Philadelphia, PA 19106-3621. Production offices are located at 351 West Camden Street, Baltimore, MD 21201-2436. For institutional rates in Japan, contact Igaku-Shoin MYW, Ltd., 3-23-14 Hongo, Bunkyo-ku, Tokyo 113, Japan. Individuals may subscribe for their personal use at the following annual rates: \$217 for members of an American Heart Association scientific council and \$381 for nonmembers; international: \$266 for members of an American Heart Association scientific council and \$451 for nonmembers. Periodicals postage paid at Hagerstown, MD and additional mailing offices. POSTMASTER: Send address changes to ARTERIOSCLEROSIS, THROMBOSIS, AND VASCULAR BIOLOGY, American Heart Association, Lippincott Williams & Wilkins, 12107 Insurance Way, Hagerstown, MD 21740.

<b>AL</b>	<b>Inactivation of the Adenosine A<sub>2A</sub> Receptor Protects Apolipoprotein E-Deficient Mice From Atherosclerosis</b>	
	<i>Huan Wang, Weiyu Zhang, Chuhong Zhu, Christoph Bucher, Bruce R. Blazar, Chunxiang Zhang, Jiang-Fan Chen, Joel Linden, Chaodong Wu, Yuqing Huo</i>	1046
<b>AL</b>	<b>Core2 1-6-N-Glucosaminyltransferase-I Deficiency Protects Injured Arteries From Neointima Formation in ApoE-Deficient Mice</b>	
	<i>Huan Wang, Weiyu Zhang, Rong Tang, Robert P. Hebbel, M. Anna Kowalska, Chunxiang Zhang, Jamey D. Marth, Minoru Fukuda, Chuhong Zhu, Yuqing Huo</i>	1053
<b>VB</b>	<b>Insulin Increases Reendothelialization and Inhibits Cell Migration and Neointimal Growth After Arterial Injury</b>	
	<i>Danna M. Breen, Kalam K. Chan, Jiwanjeet K. Dhaliwall, Michael R. Ward, Nael Al Koudsi, Loretta Lam, Melissa De Souza, Husam Ghanim, Paresh Dandona, Duncan J. Stewart, Michelle P. Bendeck, Adria Giacca</i>	1060
<b>VB</b>	<b>PECAM-1 Is Necessary for Flow-Induced Vascular Remodeling</b>	
	<i>Zhongming Chen, Ellie Tzima</i>	1067
<b>VB</b>	<b>Fibronectin Is an Important Regulator of Flow-Induced Vascular Remodeling</b>	
	<i>Hou-Yu Chiang, Vyacheslav A. Korshunov, Andrew Serour, Feng Shi, Jane Sottile</i>	1074
<b>VB</b>	<b>Reduced Collagen Biosynthesis Is the Hallmark of Cerebral Aneurysm: Contribution of Interleukin-1<math>\beta</math> and Nuclear Factor-<math>\kappa</math>B</b>	
	<i>Tomohiro Aoki, Hiroharu Kataoka, Ryota Ishibashi, Kazuhiko Nozaki, Ryuichi Morishita, Nobuo Hashimoto</i>	1080
<b>TH</b>	<b>Activated Protein C Protects Against Myocardial Ischemia/Reperfusion Injury via Inhibition of Apoptosis and Inflammation</b>	
	<i>Sarah T.B.G. Loubele, C. Arnold Spek, Peter Leenders, René van Oerle, Hella L. Aberson, Karly Hamulyák, Gary Ferrell, Charles T. Esmon, Henri M.H. Spronk, Hugo ten Cate</i>	1087
<b>VB</b>	<b>Preconditioning by Mitochondrial Reactive Oxygen Species Improves the Proangiogenic Potential of Adipose-Derived Cells-Based Therapy</b>	
	<i>Audrey Carrière, Tény G. Ebrahimian, Stéphanie Dehez, Nathalie Augé, Carine Joffre, Mireille André, Samuel Arnal, Micheline Duriez, Corinne Barreau, Emmanuelle Arnaud, Yvette Fernandez, Valérie Planat-Benard, Bernard Lévy, Luc Pénicaud, Jean-Sébastien Silvestre, Louis Casteilla</i>	1093


## Cell Biology/Signaling

<b>VB</b>	<b>Induction and Isolation of Vascular Cells From Human Induced Pluripotent Stem Cells—Brief Report</b>	
	<i>Daisuke Taura, Masakatsu Sone, Koichiro Homma, Naofumi Oyamada, Kazutoshi Takahashi, Naohisa Tamura, Shinya Yamanaka, Kazuwa Nakao</i>	1100
<b>AL</b>	<b>Notch Signaling Induces Osteogenic Differentiation and Mineralization of Vascular Smooth Muscle Cells: Role of Msx2 Gene Induction via Notch-RBP-Jk Signaling</b>	
	<i>Takehisa Shimizu, Toru Tanaka, Tatsuya Iso, Hiroshi Doi, Hiroko Sato, Keiko Kawai-Kowase, Masashi Arai, Masahiko Kurabayashi</i>	1104
<b>VB</b>	<b>Sonic Hedgehog Induces Notch Target Gene Expression in Vascular Smooth Muscle Cells via VEGF-A</b>	
	<i>David Morrow, John P. Cullen, Weimin Liu, Shaunta Guha, Catherine Sweeney, Yvonne A. Birney, Nora Collins, Dermot Walls, Eileen M. Redmond, Paul A. Cahill</i>	1112
<b>VB</b>	<b>Rab GTPase Regulation of VEGFR2 Trafficking and Signaling in Endothelial Cells</b>	
	<i>Helen M. Jopling, Adam F. Odell, Nigel M. Hooper, Ian C. Zachary, John H. Walker, Sreenivasan Ponnambalam</i>	1119
<b>AL</b>	<b>Stimulation of Cell Surface F<sub>1</sub>-ATPase Activity by Apolipoprotein A-I Inhibits Endothelial Cell Apoptosis and Promotes Proliferation</b>	
	<i>Claudia Radojkovic, Annelise Genoux, Véronique Pons, Guillaume Combes, Hugo de Jonge, Eric Champagne, Corinne Rolland, Bertrand Perret, Xavier Collet, François Tercé, Laurent O. Martinez</i>	1125

<b>VB</b> <b>COX-2 Limits Prostanoid Production in Activated HUVECs and Is a Source of PGH<sub>2</sub> for Transcellular Metabolism to PGE<sub>2</sub> by Tumor Cells</b> <i>M. Dolores Salvado, Arántzazu Alfranca, Amelia Escolano, Jesper Z. Haeggström, Juan Miguel Redondo</i> . . . . .	1131	
<b>TH</b> <b>Augmentation of Megakaryocyte Expression of FcγRIIIa by Interferon γ</b> <i>David J. Schneider, Heidi S. Taatjes-Sommer</i> . . . . .	1138	

## Clinical and Population Studies

---

<b>VB</b> <b>Serum Resistin Concentrations and Risk of New Onset Heart Failure in Older Persons: The Health, Aging, and Body Composition (Health ABC) Study</b> <i>Javed Butler, Andreas Kalogeropoulos, Vasiliki Georgiopoulou, Nathalie de Rekeneire, Nicolas Rodondi, Andrew L. Smith, Udo Hoffmann, Alka Kanaya, Anne B. Newman, Stephen B. Kritchevsky, Ramachandran S. Vasan, Peter W.F. Wilson, Tamara B. Harris, for the Health ABC Study</i> . . . . .	1144	
--	------	---

---

2009 ATVB Abstracts Web Site Feature . . . . .  e9

**On the cover:** Molecular Imaging of Cardiovascular Disease.

Instructions to the Authors are available online at <http://atvb.ahajournals.org/misc/infora.shtml>.

 This article contains online supplementary information that is available at <http://www.atvbaha.org>.