

# CONTENTS

VOLUME 114 • NUMBER 8

CONTENTS ..... i

FEATURES ..... v

### PROSPECTS

**Structure and Function of Mycobacterium Glycopeptidolipids From Comparative Genomics Perspective**

*Lei Pang, Xuelian Tian, Weihua Pan, and Jianping Xie. . . . .*1705

ACCEPTED MANUSCRIPT ONLINE 26 FEBRUARY 2013

**Cellular Control of Connective Tissue Matrix Tension**

*Helene M. Langevin, Maiken Nedergaard, and Alan K. Howe . . . . .*1714

ACCEPTED MANUSCRIPT ONLINE 26 FEBRUARY 2013

### ARTICLES

**Dose-Dependent Effects of Nicotine on Proliferation and Differentiation of Human Bone Marrow Stromal Cells and the Antagonistic Action of Vitamin C**

*Yue Shen, Hai-xiao Liu, Xiao-zhou Ying, Shi-zhou Yang, Peng-fei Nie, Shao-wen Cheng, Wei Wang, Xiao-jie Cheng, Lei Peng, and Hua-zi Xu . . . . .*1720

ACCEPTED MANUSCRIPT ONLINE 5 FEBRUARY 2013

**Indinavir and Nelfinavir Inhibit Proximal Insulin Receptor Signaling and Salicylate Abrogates Inhibition: Potential Role of the NFKappa B Pathway**

*Wan Iryani W. Ismail, Judy A. King, Khawar Anwar, and Tahir S. Pillay. . . . .*1729

ACCEPTED MANUSCRIPT ONLINE 5 FEBRUARY 2013

**Specific Route Mapping Visualized With GFP of Single-File Streaming Contralateral and Systemic Metastasis of Lewis Lung Carcinoma Cells Beginning Within Hours of Orthotopic Implantation**

*Babak Rashidi, Abdool R. Moossa, and Robert M. Hoffman. . . . .*1738

ACCEPTED MANUSCRIPT ONLINE 26 FEBRUARY 2013

**Dynamics of Focal Adhesions and Reorganization of F-Actin in VEGF-Stimulated NSCs Under Varying Differentiation States**

*Jingya Lyu, Ya'nan Hu, Xiaojing Xu, and Huanxiang Zhang. . . . .*1744

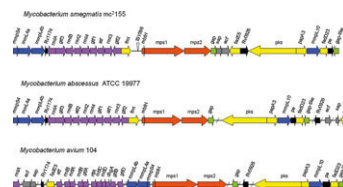
ACCEPTED MANUSCRIPT ONLINE 26 FEBRUARY 2013

**Rapamycin Inhibits BMP-7-Induced Osteogenic and Lipogenic Marker Expressions in Fetal Rat Calvarial Cells**

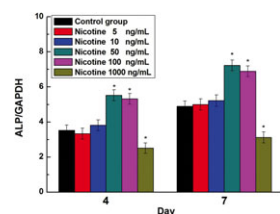
*Lee-Chuan C. Yeh, Xiuyue Ma, Jeffery J. Ford, Martin L. Adamo, and John C. Lee . . .*1760

ACCEPTED MANUSCRIPT ONLINE 26 FEBRUARY 2013

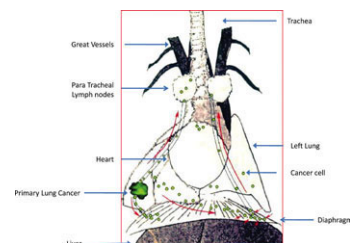
**Cover:** Fibroblasts within whole mouse connective tissue actively respond to static stretching of the tissue by expanding and remodeling their cytoskeleton. The tissue was stretched for two hours ex vivo, then fixed and immunohistochemically stained for  $\beta$ -tubulin (green) and countersigned with DAPI (blue). Cover designed by Priscilla Vazquez.



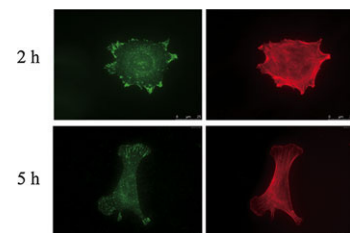
PAGE 1707



PAGE 1725



PAGE 1740



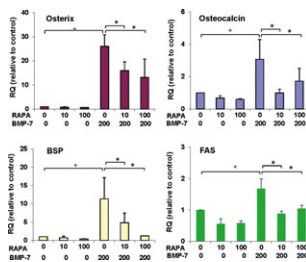
PAGE 1748



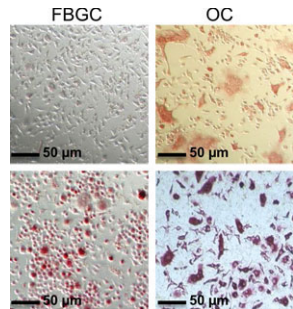
(continued on next page)

# CONTENTS

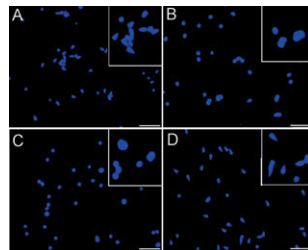
C O N T I N U E D



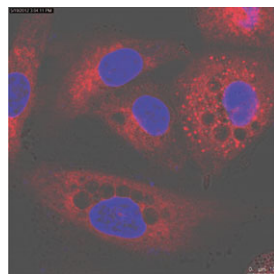
PAGE 1767



PAGE 1774



PAGE 1783



PAGE 1794

Real-time RT-PCR analysis

Pair#	Normal	Tumor	P-value
1		41.89	0.0004
2		7.95	0.0387
3 *		7468.82	0.0003
4		5.38	0.0352
5 *		5.80	0.0009
6 *		74.24	0.0029
7 *		0.11	0.0243
8 *		0.11	0.0232
9		0.06	0.0040
10 *		0.04	0.0001
11		43.07	0.1868
12		1.58	0.0769
13		0.74	0.5275
14		57.63	0.0938

\*=samples used for COBRA  
 Red: upregulated PTPRO in tumor  
 Green: downregulated PTPRO in tumor  
 Blue: no significant changed PTPRO in tumor

PAGE 1813

## Foreign Body Giant Cells and Osteoclasts Are TRAP Positive, Have Podosome-Belts and Both Require OC-STAMP for Cell Fusion

Usman A. Khan, Saeed M. Hashimi, Mahmoud M. Bakr, Mark R. Forwood, and Nigel A. Morrison. . . . .1772  
 ACCEPTED MANUSCRIPT ONLINE 26 FEBRUARY 2013

## Functional Studies of MP62 During Male Chromatin Decondensation in Sea Urchins

Claudio Iribarren, Viviana Hermosilla, Violeta Morin, and Marcia Puchi . . . . .1779  
 ACCEPTED MANUSCRIPT ONLINE 26 FEBRUARY 2013

## The Suppressive Role of p38 MAPK in Cellular Vacuole Formation

Run Chen, Chun-Yan Duan, Shao-Kun Chen, Chun-Yan Zhang, Tao He, Hong Li, You-Ping Liu, and Rong-Yang Dai. . . . .1789  
 ACCEPTED MANUSCRIPT ONLINE 26 FEBRUARY 2013

## Gastrokine 1 Regulates NF-κB Signaling Pathway and Cytokine Expression in Gastric Cancers

Jung Hwan Yoon, Mi La Cho, Yoo Jin Choi, Ji Yeon Back, Mi Kyung Park, Suk Woo Lee, Byung Joon Choi, Hassan Ashktorab, Duane T. Smoot, Suk Woo Nam, Jung Young Lee, and Won Sang Park . . . . .1800  
 ACCEPTED MANUSCRIPT ONLINE 26 FEBRUARY 2013

## Methylation of the PTPRO Gene in Human Hepatocellular Carcinoma and Identification of VCP as Its Substrate

Shu-hao Hsu, Tasneem Motiwala, Satavisha Roy, Rainer Claus, Mufaddal Mustafa, Christoph Plass, Michael A. Freitas, Kalpana Ghoshal, and Samson T. Jacob. . . . .1810  
 ACCEPTED MANUSCRIPT ONLINE 26 FEBRUARY 2013

## Sorafenib Induces Endometrial Carcinoma Apoptosis by Inhibiting Elk-1-Dependent Mcl-1 Transcription and Inducing Akt/GSK3β Dependent Protein Degradation

Nian-Kang Sun, Shang-Lang Huang, Ting-Chang Chang, and Chuck C.-K. Chao. . . . .1819  
 ACCEPTED MANUSCRIPT ONLINE 5 MARCH 2013

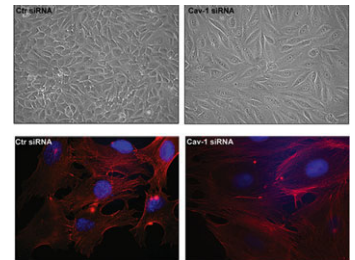
## Cadmium Affects Focal Adhesion Kinase (FAK) in Mesangial Cells: Involvement of CaMK-II and the Actin Cytoskeleton

Grace Choong, Ying Liu, and Douglas M. Templeton . . . . .1832  
 ACCEPTED MANUSCRIPT ONLINE 5 MARCH 2013

**Knock Down of Caveolin-1 Affects Morphological and Functional Hallmarks of Human Endothelial Cells**

*Luca Madaro, Fabrizio Antonangeli, Annarita Favia, Bianca Esposito, Filippo Biamonte, Marina Bouché, Elio Ziparo, Gigliola Sica, Antonio Filippini, and Alessio D'Alessio . . . . .* **1843**  
ACCEPTED MANUSCRIPT ONLINE 5 MARCH 2013

**CONTENTS**  
CONTINUED



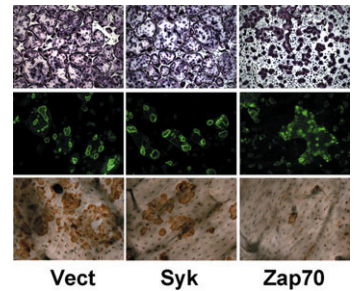
PAGE 1846

**Roles of I(f) and Intracellular Ca<sup>2+</sup> Release in Spontaneous Activity of Ventricular Cardiomyocytes During Murine Embryonic Development**

*Peng Wang, Ming Tang, Linlin Gao, Hongyan Luo, Guoping Wang, Xue Ma, and Yaqi Duan . . . . .* **1852**  
ACCEPTED MANUSCRIPT ONLINE 5 MARCH 2013

**Control of *Fiat* (Factor Inhibiting ATF4-Mediated Transcription) Expression by Sp Family Transcription Factors in Osteoblasts**

*Bahareh Hekmatnejad, Claude Gauthier, and René St-Arnaud . . . . .* **1863**  
ACCEPTED MANUSCRIPT ONLINE 5 MARCH 2013



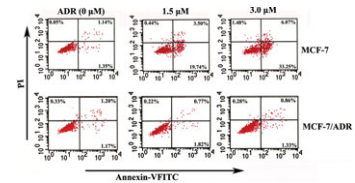
PAGE 1875

**Zap70 Inhibits Syk-Mediated Osteoclast Function**

*Wei Zou, Monica Croke, Tomohiro Fukunaga, Thomas J. Broekelmann, Robert P. Mecham, and Steven L. Teitelbaum . . . . .* **1871**  
ACCEPTED MANUSCRIPT ONLINE 13 MARCH 2013

**Expression and Function of K(ATP) Channels in Normal and Osteoarthritic Human Chondrocytes: Possible Role in Glucose Sensing**

*Ana T. Rufino, Susana C. Rosa, Fernando Judas, Ali Mobasher, M. Celeste Lopes, and Alexandrina F. Mendes . . . . .* **1879**  
ACCEPTED MANUSCRIPT ONLINE 13 MARCH 2013



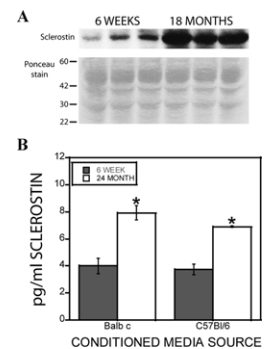
PAGE 1894

**Down-Regulation of c-fos by shRNA Sensitizes Adriamycin-Resistant MCF-7/ADR Cells to Chemotherapeutic Agents Via P-Glycoprotein Inhibition and Apoptosis Augmentation**

*Ruizan Shi, Hongwei Peng, Xiangfei Yuan, Xiuli Zhang, Yanjun Zhang, Dongmei Fan, Xuyi Liu, and Dongsheng Xiong . . . . .* **1890**  
ACCEPTED MANUSCRIPT ONLINE 13 MARCH 2013

**Sclerostin Is Expressed in Osteoclasts From Aged Mice and Reduces Osteoclast-Mediated Stimulation of Mineralization**

*Kuniaki Ota, Patrick Quint, Ming Ruan, Larry Pederson, Jennifer J. Westendorf, Sundeep Khosla, and Merry Jo Oursler . . . . .* **1901**  
ACCEPTED MANUSCRIPT ONLINE 13 MARCH 2013



PAGE 1904

