

CONTENTS

VOLUME 111 • NUMBER 1

CONTENTS i

FEATURES v

PROSPECTS

Antagonistic Interplay Between Mechanical Forces and Glucocorticoids in Bone: A Tale of Kinases

Teresita Bellido 1
PUBLISHED ONLINE 23 APRIL 2010

The Biology and Pathology of Vitamin D Control in Bone

Taison D. Bell, Marie B. Demay, and Sherri-Ann M. Burnett-Bowie 7
PUBLISHED ONLINE 23 APRIL 2010

The IGF-I Regulatory System and Its Impact on Skeletal and Energy Homeostasis

Masanobu Kawai and Clifford J. Rosen 14
PUBLISHED ONLINE 12 MAY 2010

ARTICLES

Fyn Promotes Phosphorylation of Collapsin Response Mediator Protein 1 at Tyrosine 504, a Novel, Isoform-Specific Regulatory Site

Gwen R. Buel, John Rush, and Bryan A. Ballif 20
PUBLISHED ONLINE 23 APRIL 2010

Endothelial Cells Regulate Cardiomyocyte Development From Embryonic Stem Cells

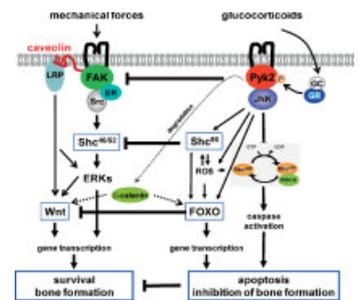
Kang Chen, Hao Bai, Melanie Arzigian, Yong-Xing Gao, Jing Bao, Wen-Shu Wu, Wei-Feng Shen, Liqun Wu, and Zack Z. Wang 29
PUBLISHED ONLINE 12 MAY 2010

Oncostatin M Synergistically Induces CXCL10 and ICAM-1 Expression in IL-1 β -Stimulated-Human Gingival Fibroblasts

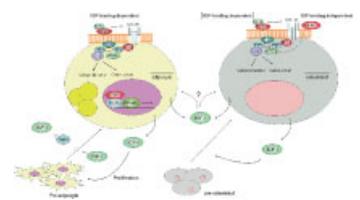
Yoshitaka Hosokawa, Ikuko Hosokawa, Kazumi Ozaki, Hideaki Nakae, and Takashi Matsuo 40
PUBLISHED ONLINE 2 JULY 2010

Chloride Channel ClC-3 Promotion of Osteogenic Differentiation Through Runx2

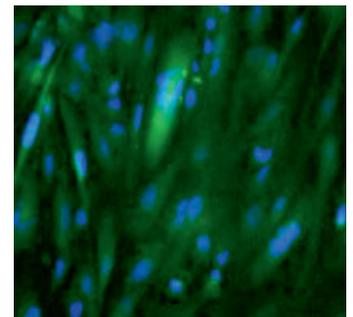
Huan Wang, Yong Mao, Bin Zhang, Tao Wang, Feifei Li, Shanmin Fu, Yang Xue, Ting Yang, Xuan Wen, Yin Ding, and Xiaohong Duan 49
PUBLISHED ONLINE 23 APRIL 2010



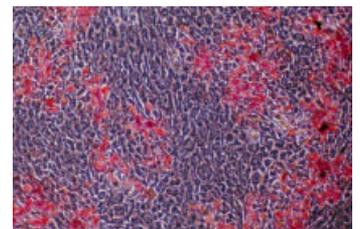
PAGE 4



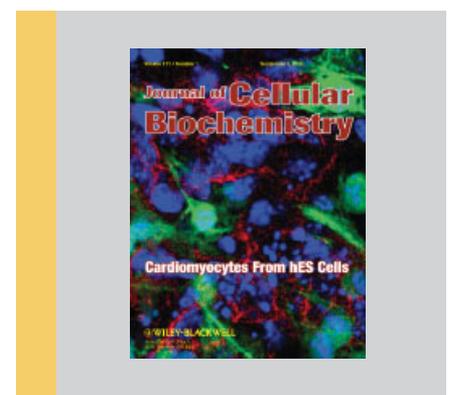
PAGE 15



PAGE 36



PAGE 53



Cover: The cover shows cardiomyogenesis of α MHC-GFP ES cells, carried out in the absence of endostatin. Please see article in this issue by Chen et al, pages 29–39.

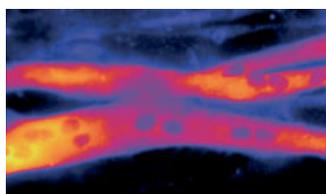
(continued on next page)

CONTENTS

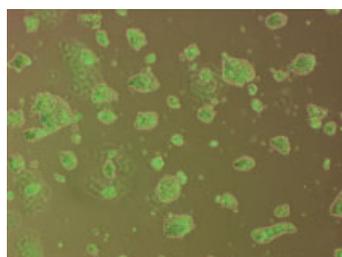
C O N T I N U E D



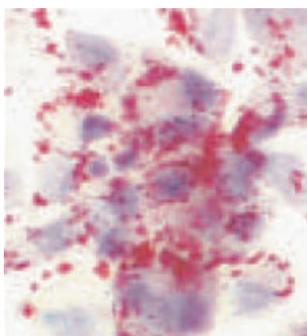
PAGE 63



PAGE 89



PAGE 99



PAGE 106

- Transmembrane 4 L Six Family Member 5 (TM4SF5) Enhances Migration and Invasion of Hepatocytes for Effective Metastasis**
Sin-Ae Lee, Tae You Kim, Tae Kyoung Kwak, Hyeonjung Kim, Semi Kim, Hyo Jeong Lee, Sung-Hoon Kim, Ki Hun Park, Hyun Jeong Kim, Moonjae Cho, and Jung Weon Lee 59
PUBLISHED ONLINE 23 APRIL 2010

- Localization of Nucleophosmin in Nuclear Matrix and Changes in Its Expression During the Differentiation of Human Neuroblastoma Induced by Retinoic Acid**
Song-Lin Shi, Ying Liang, Qi-Fu Li, Qing-Rong Liu, Guang-Jun Jing, San-Ying Wang, Xiu-Yan Zhang, and Fu-Yun Wu 67
PUBLISHED ONLINE 23 APRIL 2010

- Basic FGF Downregulates TSP50 Expression Via the ERK/Sp1 Pathway**
Miao Wang, Yong-Li Bao, Yin Wu, Chun-Lei Yu, Xiang-Ying Meng, Yan-Xin Huang, Ying Sun, Li-Hua Zheng, and Yu-Xin Li 75
PUBLISHED ONLINE 23 APRIL 2010

- Transitions Towards Either Slow-Oxidative or Fast-Glycolytic Phenotype Can Be Induced in the Murine WtT Myogenic Cell Line**
J. Peltzer, G. Carpentier, I. Martelly, J. Courty, and A. Keller 82
PUBLISHED ONLINE 23 APRIL 2010

- Methionine Sulfoxide Reductase A (MsrA) Protects Cultured Mouse Embryonic Stem Cells From H₂O₂-Mediated Oxidative Stress**
Chi Zhang, Pingping Jia, Yuanyuan Jia, Herbert Weissbach, Keith A. Webster, Xupei Huang, Sharon L. Lemanski, Mohan Achary, and Larry F. Lemanski 94
PUBLISHED ONLINE 23 APRIL 2010

- Anti-Atherogenic Effect of Berberine on LXR α -ABCA1-Dependent Cholesterol Efflux in Macrophages**
Tzong-Shyuan Lee, Ching-Chian Pan, Chien-Chung Peng, Yu Ru Kou, Chien-Yu Chen, Li-Chieh Ching, Tsung-Huang Tsai, Shu-Fen Chen, Ping-Chiang Lyu, and Song-Kun Shyue 104
PUBLISHED ONLINE 23 APRIL 2010

- CRTAM: A Molecule Involved in Epithelial Cell Adhesion**
Erika Garay, Genaro Patiño-López, Socorro Islas, Lourdes Alarcón, Elsy Canche-Pool, Ricardo Valle-Rios, Oscar Medina-Contreras, Giovana Granados, Bibiana Chávez-Munguía, Eusebio Juaristi, Vianney Ortiz-Navarrete, and Lorenza González-Mariscal 111
PUBLISHED ONLINE 12 MAY 2010

(continued on next page)

Simulated Microgravity-Induced Epigenetic Changes in Human Lymphocytes

Kamaleshwar P. Singh, Ragini Kumari, and James W. DuMond 123
 PUBLISHED ONLINE 12 MAY 2010

The Increased Expression of Receptor Activator of Nuclear- κ B Ligand (RANKL) of Multiple Myeloma Bone Marrow Stromal Cells Is Inhibited by the Bisphosphonate Ibandronate

Mireya Fernández, Ana M. Pino, Paula Figueroa, and Juan P. Rodríguez 130
 PUBLISHED ONLINE 12 MAY 2010

Involvement of Integrin Up-Regulation in RANKL/RANK Pathway of Chondrosarcomas Migration

Chin-Jung Hsu, Tsang-Yu Lin, Chien-Chung Kuo, Chun-Hao Tsai, Mou-Zen Lin, Horng-Chaung Hsu, Yi-Chin Fong, and Chih-Hsin Tang 138
 PUBLISHED ONLINE 12 MAY 2010

Taiwan Cobra Phospholipase A₂ Elicits Posttranscriptional Up-regulation of ADAM17 in Human Neuroblastoma SK-N-SH Cells

Wen-Hsin Liu, Ku-Chung Chen, Yi-Ling Chiou, Shinne-Ren Lin, and Long-Sen Chang 148
 PUBLISHED ONLINE 12 MAY 2010

Transcriptional and Post-Transcriptional Control of DNA Methyltransferase 3B Is Regulated by Phosphatidylinositol 3 Kinase/Akt Pathway in Human Hepatocellular Carcinoma Cell Lines

Chuanzhong Mei, Lidong Sun, Yonglei Liu, Yong Yang, Xiumei Cai, Mingzhu Liu, Wantong Yao, Can Wang, Xin Li, Liying Wang, Zengxia Li, Yinghong Shi, Shuangjian Qiu, Jia Fan, and Xiliang Zha 158
 PUBLISHED ONLINE 12 MAY 2010

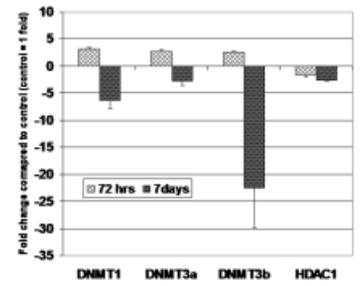
Role of Annexin A6 Isoforms in Catecholamine Secretion by PC12 Cells: Distinct Influence on Calcium Response

Paulina Podrzywalow-Bartnicka, Michalina Kosiorek, Katarzyna Piwocka, Ewa Sikora, Krzysztof Zablocki, and Slawomir Pikula 168
 PUBLISHED ONLINE 12 MAY 2010

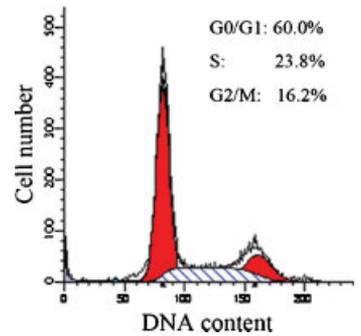
The Expression of Functional Toll-Like Receptor 4 Is Associated With Proliferation and Maintenance of Stem Cell Phenotype in Endothelial Progenitor Cells (EPCs)

Jin He, Zhilin Xiao, Xiaobin Chen, Meifang Chen, Li Fang, Mei Yang, Qingshan Lv, Yuehui Li, Guancheng Li, Jinyue Hu, and Xiumei Xie 179
 PUBLISHED ONLINE 12 MAY 2010

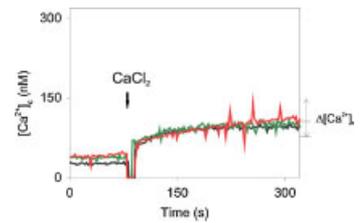
CONTENTS
 C O N T I N U E D



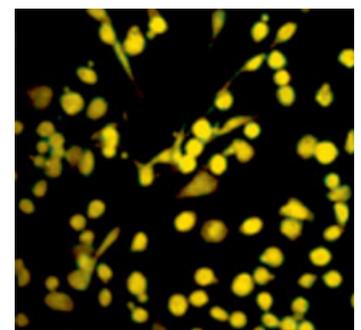
PAGE 127



PAGE 164



PAGE 174

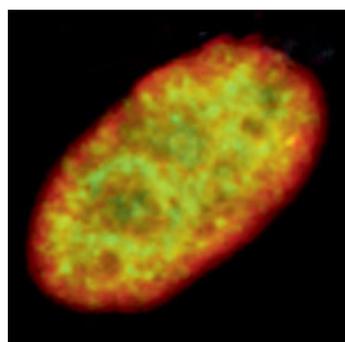


PAGE 182

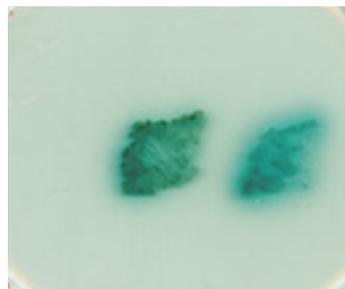
(continued on next page)

CONTENTS

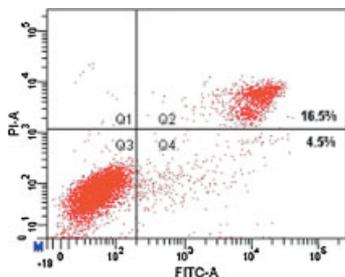
C O N T I N U E D



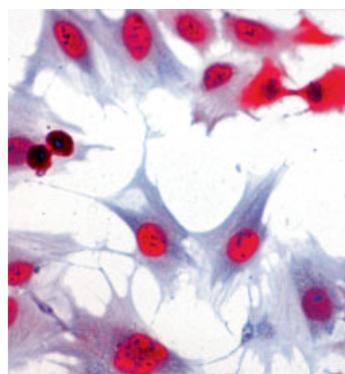
PAGE 191



PAGE 199



PAGE 222



PAGE 243

HTLV-1 Basic Leucine-Zipper Factor, HBZ, Interacts With MafB and Suppresses Transcription Through a Maf Recognition Element
Takayuki Ohshima, Risa Mukai, Norie Nakahara, Jun Matsumoto, Osamu Isono, Yusuke Kobayashi, Satoru Takahashi, and Kunitada Shimotohno **187**
 PUBLISHED ONLINE 12 MAY 2010

Identification of RANBP16 and RANBP17 as Novel Interaction Partners for the bHLH Transcription Factor E12
Jun-Ho Lee, Shengli Zhou, and Cynthia M. Smas **195**
 PUBLISHED ONLINE 12 MAY 2010

EGR1, EGR2, and EGR3 Activate the Expression of Their Coregulator NAB2 Establishing a Negative Feedback Loop in Cells of Neuroectodermal and Epithelial Origin
Joerg Kumbrink, Kathrin H. Kirsch, and Judith P. Johnson **207**
 PUBLISHED ONLINE 12 MAY 2010

PTEN- and p53-Mediated Apoptosis and Cell Cycle Arrest by FTY720 in Gastric Cancer Cells and Nude Mice
Tongsen Zheng, Xianzhi Meng, JiaBei Wang, Xi Chen, Dalong Yin, Yingjian Liang, Xuan Song, Shangha Pan, Hongchi Jiang, and Lianxin Liu **218**
 PUBLISHED ONLINE 12 MAY 2010

RNA-Mediated Gene Silencing of FUT1 and FUT2 Influences Expression and Activities of Bovine and Human Fucosylated Nucleolin and Inhibits Cell Adhesion and Proliferation
Domenico Palumberi, Silvia Aldi, Leonardo Ermini, Marina Ziche, Federica Finetti, Sandra Donnini, and Floriana Rosati **229**
 PUBLISHED ONLINE 12 MAY 2010

Proliferative Arrest of Neural Cells Induces Prion Protein Synthesis, Nanotube Formation, and Cell-to-Cell Contacts
Kohtaro Miyazawa, Kaitlin Emmerling, and Laura Manuelidis **239**
 PUBLISHED ONLINE 5 JULY 2010

ERRATUM

Erratum: Carboxylated N-glycans on RAGE promote S100A12 binding and signaling, in Journal of Cellular Biochemistry, by Srikrishna et al. **248**
 PUBLISHED ONLINE 12 JULY 2010