JOURNAL OF BASIC AND CLINICAL PHYSIOLOGY AND PHARMACOLOGY

EDITOR-IN-CHIEF Michal Horowitz, Jerusalem

EDITORIAL BOARD Kusal Das, Bijapur Marshall Devor, Jerusalem Yoram Epstein, Tel Aviv Elliot S. Gershon, Chicago, IL Abraham Haim, Haifa Menahem Hanani, Mount Scopus Asher Ilani, Jerusalem Ron Kohen, Jerusalem David Lichtstein, Jerusalem Alina Maloyan, San Antonio, TX Raphael Mechoulam, Jerusalem Israel Ringel, Jerusalem Esther Shohami, Jerusalem Haim Sohmer, Jerusalem Toshikazu Yoshikawa, Kyoto Moussa B.H. Youdim, Haifa

DE GRUYTER

ABSTRACTED/INDEXED IN Biological Abstracts, BIOSIS Previews, Celdes, CNKI Scholar (China National Knowledge Infrastucture), CNPIEC, Discovery Service, EMBASE, Google Scholar, J-Gate, Medline, Naviga (Softweco), Primo Central (ExLibris), PubMed, PubsHub, Summon (Serials Solutions/ProQuest), TDOne (TDNet), Science Citation Index Expanded, SCOPUS, WorldCat (OCLC):

The publisher, together with the authors and editors, has taken great pains to ensure that all information presented in this work (programs, applications, amounts, dosages, etc.) reflects the standard of knowledge at the time of publication. Despite careful manuscript preparation and proof correction, errors can nevertheless occur. Authors, editors and publisher disclaim all responsibility for any errors or omissions or liability for the results obtained from use of the information, or parts thereof, contained in this work.

The citation of registered names, trade names, trademarks, etc. in this work does not imply, even in the absence of a specific statement, that such names are exempt from laws and regulations protecting trademarks etc. and therefore free for general use.

ISSN 0792-6885 · e-ISSN 2191-0286

All information regarding notes for contributors, subscriptions, Open access, back volumes and orders is available online at www.degruyter.com/jbcpp

RESPONSIBLE EDITOR

Prof. Michal Horowitz, Department of Physiology, Hebrew University, Hadassah Medical School, Jerusalem 91010, Israel, Tel.: +972 2 6757588, Fax: +972 2 6439736, Email: horowitz@cc.huji.ac.il

JOURNAL MANAGER Heike Jahnke, De Gruyter, Genthiner Straße 13, 10785 Berlin, Germany, Tel.: +49 (0)30 260 05 – 220, Fax: +49 (0)30 260 05 – 325, Email: jbcpp.editorial@degruyter.com

RESPONSIBLE FOR ADVERTISEMENTS Panagiota Herbrand, De Gruyter, Rosenheimer Straße 143, 81671 München, Germany, Tel.: +49 (0)89 769 02 – 394, Fax: +49 (0)89 769 02 – 350, Email: panagiota.herbrand@degruyter.com

© 2013 Walter de Gruyter GmbH & Co. KG, Berlin/Boston

TYPESETTING Compuscript Ltd., Shannon, Ireland

PRINTING AZ Druck und Datentechnik GmbH, Kempten Printed in Germany

Cover Illustration: iStockphoto/Thinkstock



Contents

Review

Laxmi Prabha Singh, Medha Kapoor and Shashi Bala Singh

Heat: not black, not white. It's gray!!! --- 209

Original Articles

Shuchi Bhagi, Swati Srivastava, Soma Sarkar and Shashi Bala Singh

Distribution of performance-related gene polymorphisms (ACTN3 R577X and ACE ID) in different ethnic groups of the Indian Army — 225

Eliyahu Stoupel, Abdonas Tamoshiunas, Richardas Radishauskas, Evgeny Abramson, Gailute Bernotiene and Migle Bacevichiene

Birth month and longevity: birth month of victims of sudden (SCD, \leq 1 h) and rapid (RCD, \leq 24 h) cardiac deaths — 235

Ahmad Reza Ebadian, Mahdi Kadkhodazadeh, Negar Soltanian and Reza Amid

Hyperpolarization-activated cyclic nucleotide-gated 2 (HCN2) polymorphism is associated with chronic inflammatory periodontitis. A cross-sectional study — 241

Prabir Kumar Mukhopadhyay, Avijit Dey, Sanjit Mukherjee and Nirmal Kumar Pradhan The effect of coadministration of α-tocopherol and ascorbic acid on arsenic trioxide-induced testicular toxicity in adult rats — 245

Neven Makram Aziz, Merhan Mamdouh Ragy and Mariana Fathy Gayyed

Effect of acute immobilization stress with or without a heme oxygenase inducer on testicular structure and function in male albino rats — 255

Solomon Umukoro, Itivere Adrian Omogbiya and Taghogho Anthony Eduviere Effect of Jobelyn[®] on intruder- and isolation-induced aggressive behavior in mice — 263 Theodoros Eleftheriadis, Georgios Pissas, Aggeliki Karioti, Georgia Antoniadi, Nikolaos Antoniadis, Vassilios Liakopoulos and Ioannis Stefanidis **Dichloroacetate at therapeutic concentration alters**

glucose metabolism and induces regulatory T-cell differentiation in alloreactive human lymphocytes — 271

Ismail O. Ishola, Olufunsho Awodele, Ibrahim A. Oreagba, Abdulahi A. Murtala and Micah C. Chijioke Antinociceptive, anti-inflammatory and antiulcerogenic activities of ethanol root extract of *Strophanthus hispidus* DC (Apocynaceae) — 277

Mohammad Newaz and Zivar Yousefipour Acrolein-induced inflammatory signaling in vascular smooth muscle cells requires activation of serum response factor (SRF) and NFkB — 287

Tharun Kumar Gadapuram, Josyula Surya Narayana Murthy, Raja Reddy Rajannagari, Vasu Kandati, Pradeep Kumar Choda and Rahul Shukla Nephroprotective activity of *Cocculus hirsutus* leaf extract in 5/6 nephrectomized rat model — 299

Ademola A. Oyagbemi, Temitayo O. Omobowale, Ibraheem O. Azeez, John O. Abiola, Rahamon A.M. Adedokun and Helen O. Nottidge **Toxicological evaluations of methanolic extract** of *Moringa oleifera* leaves in liver and kidney of male Wistar rats — 307

Oluwatosin A. Adaramoye, Olubukola O. Akanni and Ebenezer O. Farombi Nevirapine induces testicular toxicity in Wistar rats: reversal effect of kolaviron (biflavonoid from *Garcinia kola* seeds) — 313

Onyenmechi Johnson Afonne, Igwebuike Victor Onyiaorah and Orish Ebere Orisakwe **Toxicity of Chevron Escravos crude oil and chemical dispersant on guinea pig testicular function — 321**

Itivere Adrian Omogbiya, Solomon Umukoro, Adegbuyi Oladele Aderibigbe and Adewale Ganiyu Bakre Jobelyn® pretreatment ameliorates symptoms of psychosis in experimental models — 331