

DRUG METABOLISM AND PERSONALIZED THERAPY

Drug Metabolism and Personalized Therapy is the official journal of the
European Society of Pharmacogenomics and Personalised Therapy

EDITOR-IN-CHIEF

Adrián LLerena, *Badajoz, Spain*

HONORARY EDITOR

Gérard Siest, *Nancy, France*

EDITORIAL BOARD

Bing Chen, *Shanghai, China*

Marja-Liisa Dahl, *Stockholm, Sweden*

Ferdinand Devinsky, *Bratislava, Slovakia*

Adriano Henney, *Macclesfield, UK*

Rosario D.C. Hirata, *São Paulo, Brazil*

Jaroslav A. Hubacek, *Prague, Czech Republic*

Magnus Ingelman-Sundberg, *Stockholm, Sweden*

Anke Hilse Maitland van der Zee, *Utrecht, The Netherlands*

Vangelis G. Manolopoulos, *Alexandroupolis, Greece*

Janja Marc, *Ljubljana, Slovenia*

Bohuslav Melichar, *Hradec Králové, Czech Republic*

Urs A. Meyer, *Basel, Switzerland*

Wolfgang Sadee, *Columbus, OH, USA*

Maurizio Simmaco, *Rome, Italy*

Miia Turpeinen, *Oulu, Finland*

Ron H.N. van Schaik, *Rotterdam, The Netherlands*

Sophie Visvikis-Siest, *Nancy, France*

Ulrich M. Zanger, *Stuttgart, Germany*

DE GRUYTER



ESPT
European Society of Pharmacogenomics and Personalised Therapy
A Scientific Society for Individualised Medicine

ABSTRACTED/INDEXED IN AIDS and Cancer Research Abstracts, Algology, Mycology & Protozoology (Microbiology Abstracts C), Animal Behavior Abstracts, Bacteriology Abstracts (Microbiology Abstracts B), BIOBASE/CABS, Biological Abstracts, Biological Sciences, BIOSIS Previews, Biotechnology and Bioengineering Abstracts, Biotechnology Research Abstracts, Celdes, CNKI Scholar, CNPIEC, EBSCO Discovery Service, EMBASE, Engineering Research Database, Environmental Science and Pollution Management, Genetics Abstracts, Google Scholar, Industrial and Applied Microbiology Abstracts (Microbiology Abstracts A), INIST Institut de l'Information Scientifique et Technique, International Pharmaceutical Abstracts, J-Gate, Medline, Microsoft Academic Search, Naviga, Neurosciences Abstracts, Nucleic Acids Abstracts, Primo Central (ExLibris), Prou Science Integrity, PubMed, PubsHub, SCOPUS, Summon (Serials Solutions/ProQuest), TDOne (TDNet), Technology Research Database, Toxicology Abstracts, Virology and AIDS Abstracts, 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 of 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 2363-8907 · e-ISSN 2363-8915

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

RESPONSIBLE EDITOR Professor Adrián LLerena, Director CICAB Clinical Research Center-Extremadura University Hospital and Medical School, Badajoz, Spain Tel.: +34 924218040, Email: allerena@unex.es

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: DMPT.editorial@degruyter.com

RESPONSIBLE FOR ADVERTISEMENTS Heiko Schulze, De Gruyter, Genthiner Straße 13, 10785 Berlin, Germany Tel.: +49 (0)30.260 05-358, Fax: +49 (0) 30.260 05-264, Email: anzeigen@degruyter.com

© 2015 Walter de Gruyter GmbH, Berlin/Boston

TYPESETTING Compuscript Ltd., Shannon, Ireland

PRINTING Franz X. Stückle Druck und Verlag e.K., Ettenheim
Printed in Germany

COVER ILLUSTRATION iStockphoto/Thinkstock



Contents

Editorial

Adrián Llerena and Eva M. Peñas-Lledó

Metabolic phenotype prediction from genotyping data: a bottleneck for the implementation of pharmacogenetics in drug development and clinical practice — 143

Reviews in Population Pharmacogenomics

Kim Brosen

Pharmacogenetics of drug oxidation via cytochrome P450 (CYP) in the populations of Denmark, Faroe Islands and Greenland — 147

Ann K. Daly

Pharmacogenetics of drug metabolizing enzymes in the United Kingdom population: review of current knowledge and comparison with selected European populations — 165

Original Articles

Annett Kunze, Birk Poller, Jörg Huwyler and Gian Camenisch

Application of the extended clearance concept classification system (ECCCS) to predict the victim drug-drug interaction potential of statins — 175

Shabnam Delasoud, Dariush Minai-Tehrani and Hamidreza Mollasalehi

Enhancing effect of cimetidine on peroxidase activity of human erythrocyte hemoglobin — 189

Fausto Zaruma-Torres, Ismael Lares-Asseff, Aarón Reyes-Espinoza, Verónica Loera-Castañeda, Isaías Chairez-Hernández, Martha Sosa-Macías, Carlos Galaviz-Hernández and Horacio Almanza-Reyes

Association of *ABCB1*, *ABCC5* and *xanthine oxidase* genetic polymorphisms with methotrexate adverse reactions in Mexican pediatric patients with ALL — 195

Ayorinde Adehin and Oluseye O. Bolaji

Polymorphisms of *CYP1A2* and *CYP2A6* activity: phenotypes and the effect of age and sex in a Nigerian population — 203

Yvain Salinas-Delgado, Carlos Galaviz-Hernández, René García Toral, Carmen A. Ávila Rejón, Miguel A. Reyes-Lopez, Antonio Rojas Martínez, Gerardo Martínez-Aguilar and Martha Sosa-Macías

The D543N polymorphism of the *SLC11A1/NRAMP1* gene is associated with treatment failure in male patients with pulmonary tuberculosis — 211

Online Only: Congress Abstracts

DOI: 10.1515/dmpt-2015-0026

ESPT 3rd Conference: Integration of Pharmacogenomics in clinical decision support, Budapest, October 7–9, 2015 — eA1