

BIOMOLECULAR CONCEPTS

EXECUTIVE EDITOR-IN-CHIEF

Pierre Jolles, Paris, France

EDITOR-IN-CHIEF

Isabelle Mansuy, Zurich, Switzerland

EDITORIAL BOARD

Jesús Avila, Madrid, Spain

Mathieu Bollen, Leuven, Belgium

Valentina Bonetto, Milan, Italy

Enrico Di Cera, St Louis, USA

Hans Jörnvall, Stockholm, Sweden

Eric Jorgensen, Salt Lake City, USA

Eric Lagasse, Pittsburgh, USA

Robert I. Norman, Leicester, United Kingdom

Lorenzo A. Pinna, Padua, Italy

K. Vijay Raghavan, Bangalore, India

Pál Venetianer, Szeged, Hungary

Walter Wahli, Lausanne, Switzerland

DE GRUYTER

ABSTRACTED/INDEXED IN Chemical Abstracts and the CAS databases; EBSCO - Academic Search; Scopus.

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 1868-5021· e-ISSN 1868-503X· CODEN BCI0B8

All information regarding notes for contributors, subscriptions, Open access, back volumes and orders is available online at <http://www.degruyter.com/biomolcon>.

RESPONSIBLE EDITORS Professor Dr. Pierre Jolles, Museum National d'Histoire Naturelle, MCAM, CP54, 63, rue Buffon, F-75005 Paris, France, Email: Pierre.jolles@wanadoo.fr; jolles.pierre@bluewin.ch
Professor Dr. Isabelle Mansuy, Brain Research Institute, University of Zürich, Swiss Federal Institute of Technology Zürich, Winterthurerstrasse 190, CH-8057 Zürich, Switzerland, Email: mansuy@hifo.uzh.ch

JOURNAL MANAGER Dr. Torsten Krüger, De Gruyter, Genthiner Straße 13, 10785 Berlin, Germany, Tel.: +49 (0)30 260 05 – 176, Fax: +49 (0)30 260 05 – 298, Email: biomol.concepts.editorial@degruyter.com

RESPONSIBLE FOR ADVERTISEMENTS Panagiota Herbrand, De Gruyter, Mies-van-der-Rohe-Straße 1, 80807 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, Berlin/Boston

TYPESETTING Compuscript Ltd., Shannon, Ireland

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

COVER ILLUSTRATION

Metallothioneins (MTs) are a family of polymorphic, small cystein-rich proteins with an optimal capacity for metal ion coordination. They take part in a great variety of metal ion-related events, from detoxification to homeostasis, storage and delivery, in all kind of organisms. In mammals, MTs have also been associated with a wide range of stress responses in different pathological processes: tumorigenesis, neurodegeneration and inflammation. The information on both intra- and extracellular interactions of MTs with other proteins is comprehensively reviewed in the article by Atrian and Capdevila on pp. 143–160 in this issue. Especially significant are the identified mammalian MT interactions, since most of them concern partners within the central nervous system (mainly brain), both through physical contact or metal exchange reactions. The image shown on the cover represents the three-dimensional structure and amino acid sequence of the rat Zn_2Cd_5 -MT2 complex (drawn from PDB 4MT2 coordinates), and is a courtesy of Òscar Palacios, member of M. Capdevila's group at the Universitat Autònoma de Barcelona, Spain.



Contents

Reviews

Adam E. Hall, Carly Turnbull and Tamas Dalmay
Y RNAs: recent developments — 103

Nora G. Uberti Manassero, Ivana L. Viola, Elina Welchen
and Daniel H. Gonzalez
**TCP transcription factors: architectures of plant
form — 111**

Roland Reinehr, Annika Sommerfeld and Dieter
Häussinger
**The Src family kinases: distinct functions of c-Src, Yes,
and Fyn in the liver — 129**

Sílvia Atrian and Mercè Capdevila
Metallothionein-protein interactions — 143

Shinji Kamada
**Inhibitor of apoptosis proteins as E3 ligases for ubiquitin
and NEDD8 — 161**

Cassandra B. Saitow, Steven G. Wise, Anthony S. Weiss,
John J. Castellot Jr. and David L. Kaplan
**Elastin biology and tissue engineering with adult
cells — 173**

Tomoki Chiba, Hidetoshi Inoko, Minoru Kimura and
Takehito Sato
Role of nuclear I κ Bs in inflammation regulation — 187

Juan-Francisco Martín, Carlos García-Estrada and Ricardo
V. Ullán
**Transport of substrates into peroxisomes: the paradigm
of β -lactam biosynthetic intermediates — 197**