

DIPEPTIDYL
AMINOPEPTIDASES IN
HEALTH AND DISEASE

ADVANCES IN EXPERIMENTAL MEDICINE AND BIOLOGY

Editorial Board:

NATHAN BACK, *State University of New York at Buffalo*

IRUN R. COHEN, *The Weizmann Institute of Science*

DAVID KRITCHEVSKY, *Wistar Institute*

ABEL LAJTHA, *N. S. Kline Institute for Psychiatric Research*

RODOLFO PAOLETTI, *University of Milan*

Recent Volumes in this Series

Volume 515

NEUROFILIN: From Nervous System to Vascular and Tumor Biology

Edited by Dominique Bagnard

Volume 516

TRIPLE REPEAT DISEASES OF THE NERVOUS SYSTEM

Edited by Lubov T. Timchenko

Volume 517

DOPAMINERGIC NEURON TRANSPLANTATION IN THE WEAVER MOUSE
MODEL OF PARKINSON'S DISEASE

Edited by Lazaros C. Triarhou

Volume 518

ADVANCES IN MALE MEDIATED DEVELOPMENTAL TOXICITY

Edited by Bernard Robaire and Barbara F. Hales

Volume 519

POLYMER DRUGS IN THE CLINICAL STAGE: Advantages and Prospects

Edited by Hiroshi Maeda, Alexander Kabanov, Kazurori Kataoka, and Teruo Okano

Volume 520

CYTOKINES AND AUTOIMMUNE DISEASE

Edited by Pere Santamaria

Volume 521

IMMUNE MECHANISMS IN PAIN AND ANALGESIA

Edited by Halina Machelska and Christoph Stein

Volume 522

NOVEL ANGIOGENIC MECHANISMS: Role of Circulating Progenitor Endothelial Cells

Edited by Nicanor I. Moldovan

Volume 523

ADVANCES IN MODELLING AND CLINICAL APPLICATION OF INTRAVENOUS
ANAESTHESIA

Edited by Jaap Vuyk and Stefan Schraag

Volume 524

DIPEPTIDYL AMINOPEPTIDASES IN HEALTH AND DISEASE

Edited by Martin Hildebrandt, Burghard F. Klapp, Torsten Hoffmann,
and Hans-Ulrich Demuth

A Continuation Order Plan is available for this series. A continuation order will bring delivery of each new volume immediately upon publication. Volumes are billed only upon actual shipment. For further information please contact the publisher.

DIPEPTIDYL AMINOPEPTIDASES IN HEALTH AND DISEASE

Edited by

Martin Hildebrandt, Burghard F. Klapp

*Medical Faculty Charité, Humboldt University Berlin
Berlin, Germany*

Torsten Hoffman and Hans-Ulrich Demuth

*Probiodrug SG
Halle (Saale), Germany*

KLUWER ACADEMIC PUBLISHERS

NEW YORK, BOSTON, DORDRECHT, LONDON, MOSCOW

eBook ISBN: 0-306-47920-6
Print ISBN: 0-306-47717-3

©2004 Kluwer Academic Publishers
New York, Boston, Dordrecht, London, Moscow

Print ©2003 Kluwer Academic/Plenum Publishers
New York

All rights reserved

No part of this eBook may be reproduced or transmitted in any form or by any means, electronic, mechanical, recording, or otherwise, without written consent from the Publisher

Created in the United States of America

Visit Kluwer Online at: <http://kluweronline.com>
and Kluwer's eBookstore at: <http://ebooks.kluweronline.com>

Contributors

Catherine A. Abbott

School of Biological Sciences, Flinders University, GPO Box 2100,
Adelaide SA 5001, Australia

Katerina Ajami

Centenary Institute, Royal Prince Alfred Hospital, Locked Bag No 6,
Newtown, NSW, 2042, Sydney, Australia

Siegfried Ansorge

IMTM, Magdeburg, Germany

Dorit Anthonsen

Biochemistry Laboratory C, IMBG, The Panum Institute, Blegdamsvej 3,
DK-2200 Copenhagen N, Denmark

Petra C. Arck

Department of Internal Medicine/Psychosomatics, Charité Campus Mitte,
Luisenstr. 13A, Berlin, Germany

Marco Arndt

Institute of Experimental Internal Medicine, Otto-von-Guericke University
Magdeburg, Leipziger Strasse 44, D-39120 Magdeburg, Germany

Koen Augustyns

Laboratory of Medical Biochemistry, Dept. of Pharmaceutical Sciences,
University of Antwerp, Universiteitsplein 1 S-6, 2610 Wilrijk, Belgium

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.