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Mechanisms of Dietary Restriction in Aging and Disease

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Interdisciplinary Topics in Gerontology

Vol. 35

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23 figures and 5 tables, 2007

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Library of Congress Cataloging-in-Publication Data
Mechanism of dietary restriction in aging and disease / volume editors, Charles V. Mobbs,
Kelvin Yen, Patrick R. Hof.

p. ; cm – (Interdisciplinary topics in gerontology, ISSN 0074-1132 ;v. 35)

Includes bibliographical references and index.

ISBN-13: 978-3-8055-8170-7 (hardcover : alk. paper)

ISBN-10: 3-8055-8170-X (hardcover : alk. paper)

1. Nutrition disorders in old age. 2. Older people–Nutrition.
I. Mobbs, Charles V. II. Yen, Kelvin. III. Hof, Patrick R. IV. Series.

[DNLM: 1. Caloric Restriction. 2. Longevity–physiology.
3. Aging–physiology. W1 IN679 v.35 2007 / WT.116 M486 2007]
RC620.6.M43 2007
618.97–dc22

2006022533

Bibliographic Indices. This publication is listed in bibliographic services, including Current Contents® and MEDLINE/Index Medicus.

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© Copyright 2007 by S. Karger AG, P.O. Box, CH-4009 Basel (Switzerland)
www.karger.com
Printed in Switzerland on acid-free paper by Reinhardt Druck, Basel
ISSN 0074-1132
ISBN-10: 3-8055-8170-X
ISBN-13: 978-3-8055-8170-7

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Preface

This volume arose from a program announcement made by the National Institutes on Aging (NIA) requesting applications to study the basic mechanisms by which dietary restriction decreases disease burden and increases life span (RFA: AG-01-002, ‘Molecular and neural mechanisms underlying the effects of caloric restriction on health and longevity’). Most of the applicants who were funded had long been fascinated with the significance of this phenomenon, potentially the most far-reaching in biomedical science. A particularly valuable aspect of this program announcement was the requirement that funded applicants, along with a few other selected invitees, were to meet near the NIH on an annual basis to present and discuss their most recent results, published and unpublished. As these meetings progressed, it became clear that the field had experienced profound progress since the classic volume presenting a comprehensive view of the field, *The Retardation of Aging and Disease by Dietary Restriction*, by Richard Weindruch and Roy Walford, published in 1988, now sadly out of print. While it would be impossible for a multi-author volume to capture the coherence, tone and focus that made that classic so valuable to so many of us early in our careers, nevertheless it seemed as if some kind of review along those lines would be of some value. Therefore we contacted the participants in the NIA workshops, as well as many of the other leading authorities in the field, and many were gracious enough to accept our invitations to contribute reviews. We are particularly grateful to Dr. Masoro and Dr. Weindruch, who did so much to create this field, and Dr. Finch, who has

contributed so much to so many areas of gerontology, for agreeing to contribute papers representing their current thoughts on the subject. Indeed, we very much appreciate the time and effort that all our contributors made, and hope that our readers benefit as much from reading the articles as we did editing them.

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