



**OXYGEN CLUB
OF CALIFORNIA**

2001 WORLD CONGRESS

OXIDANTS AND ANTIOXIDANTS IN BIOLOGY

A JOINT MEETING OF THE
SOCIETY FOR FREE RADICAL RESEARCH INTERNATIONAL
CO-SPONSORED BY THE
LINUS PAULING INSTITUTE

MARCH 7–10, 2001
FESS PARKER'S DOUBLE TREE RESORT
SANTA BARBARA, CALIFORNIA

ORGANIZERS

Lester Packer

DEPARTMENT OF MOLECULAR PHARMACOLOGY & TOXICOLOGY
SCHOOL OF PHARMACY, UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CA

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Carroll E. Cross

DEPARTMENT OF INTERNAL MEDICINE, UNIVERSITY OF CALIFORNIA, DAVIS, CA

Balz Frei

LINUS PAULING INSTITUTE, OREGON STATE UNIVERSITY, CORVALLIS, OR

Catherine Rice-Evans

CENTRE FOR AGE-RELATED DISEASES,
GKT SCHOOL OF BIOMEDICAL SCIENCES, KING'S COLLEGE, LONDON, UK

Helmut Sies

INSTITUT FÜR PHYSIOLOGISCHE CHEMIE I, HEINRICH-HEINE-UNIVERSITÄT
DÜSSELDORF, GERMANY

**WEDNESDAY
MARCH 7, 2001**

02:00–08:00 REGISTRATION

06:00 WELCOME
Lester Packer
PRESIDENT, OXYGEN CLUB OF CALIFORNIA

06:15 KEYNOTE LECTURE

CHAIRPERSON *Sten Orrenius*
INSTITUTE OF ENVIRONMENTAL MEDICINE, KAROLINSKA INSTITUTE, STOCKHOLM,
SWEDEN

Cancer-associated mutations in manganese superoxide
dismutase: lung *versus* prostate

Joe McCord
WEBB-WARING INSTITUTE, UNIVERSITY OF COLORADO HEALTH SCIENCES
CENTER, DENVER, CO

07:30 WELCOME RECEPTION — POSTER VIEWING

THURSDAY
MARCH 8, 2001

SESSION I NITRIC OXIDE INTERACTIONS WITH MEMBRANES

CHAIRMAN *Victor Darley-USmar*
DEPARTMENT OF PATHOLOGY, UNIVERSITY OF ALABAMA AT BIRMINGHAM,
BIRMINGHAM, AL

08:00–08:20 Physical and chemical dynamics of nitric oxide in
membranes
Jack R. Lancaster, Jr.
DEPARTMENTS OF PHYSIOLOGY AND MEDICINE, LSU MEDICAL CENTER, NEW
ORLEANS, LA

08:20–08:40 Interactions of peroxynitrite and nitric oxide with the
mitochondrial inner membrane
Michael P. Murphy
BIOCHEMISTRY DEPARTMENT, UNIVERSITY OF OTAGO, DUNEDIN,
NEW ZEALAND

08:40–09:00 Nitration and oxidation of a hydrophobic tyrosine
probe by peroxynitrite in membranes: comparison
with nitration/oxidation of tyrosine by peroxynitrite in
aqueous solution
Raman Kalyanaraman
BIOPHYSICS RESEARCH INSTITUTE, MEDICAL COLLEGE OF WISCONSIN,
MILWAUKEE, WI

09:00–09:20 The mitochondrial nitric oxide synthase
Alberto Boveris
FISICOQUIMICA, FACULTAD DE FARMACIA Y BIOQUIMICA, UNIVERSIDAD DE BUENOS
AIRES, BUENOS AIRES, ARGENTINA

09:20–09:40 Redox regulation of nitric oxide biochemistry by hemoglobin

Rakesh P. Patel

DEPARTMENT OF PATHOLOGY, UNIVERSITY OF ALABAMA AT BIRMINGHAM,
BIRMINGHAM, AL

09:40 – 10:00 The impact of the interface between endothelium and blood on nitric oxide signaling

James Liao

DEPARTMENT OF CHEMICAL ENGINEERING, UNIVERSITY OF CALIFORNIA, LOS ANGELES, CA

10:00–10:20 Nitric oxide in regulation of ion channel function

Marek Radomski

DEPARTMENT OF PHARMACOLOGY, UNIVERSITY OF ALBERTA, CANADA

10:20–10:40 ***Break***

**SESSION II MYELOPEROXIDASES AND OTHER PEROXIDASES IN
CARDIOVASCULAR DISEASE. OXYGEN AND NITROGEN-
BASED RADICAL FORMATION AND INJURY**

CHAIRPERSONS *Ouliana Ziouzenkova*

VASCULAR MEDICINE AND ATHEROSCLEROSIS UNIT, CARDIOVASCULAR DIVISION,
BRIGHAM AND WOMEN'S HOSPITAL, HARVARD MEDICAL SCHOOL, BOSTON, MA

Sampath Parthasarathy

DEPARTMENT OF GYNECOLOGY & OBSTETRICS, EMORY UNIVERSITY SCHOOL OF
MEDICINE, ATLANTA, GA

10:40–11:00 A novel class of specific oxidized choline
glycero-phospholipids serve as ligands for the
macrophage scavenger receptor CD36

Stanley Hazen

DEPARTMENT OF CELL BIOLOGY, CLEVELAND CLINIC FOUNDATION, CLEVELAND,
OH

11:00–11:20 Peroxidase-based mechanisms for impaired nitric
oxide signaling during inflammation

Jason Eiserich

DEPARTMENT OF INTERNAL MEDICINE, DIVISION OF NEPHROLOGY, UNIVERSITY OF
CALIFORNIA AT DAVIS , DAVIS, CA

11:20–11:40 Use of animal models to examine the role of
myeloperoxidase in inflammatory disease

Marie Brennan

DIVISION OF CARDIOLOGY, UNIVERSITY OF CALIFORNIA, LOS ANGELES, CA

11:40–12:00 Myeloperoxidase-mediated oxidation of LDL:
A blessing in disguise

Sampath Parthasarathy

DEPARTMENT OF GYNECOLOGY & OBSTETRICS, EMORY UNIVERSITY SCHOOL OF
MEDICINE, ATLANTA, GA

12:00–12:20 **Modulation of peroxidase-dependent PPAR signaling
by antioxidants**

Ouliana Ziouzenkova

VASCULAR MEDICINE AND ATHEROSCLEROSIS UNIT, CARDIOVASCULAR DIVISION,
BRIGHAM AND WOMEN'S HOSPITAL, HARVARD MEDICAL SCHOOL, BOSTON, MA

12:40–1:00 ***Group Photo***

01:00–02:00 ***Lunch***

Session III **PLASMA MEMBRANE OXIDASES: ROLE IN REACTIVE
OXYGEN SPECIES-MEDIATED SIGNALING
OXYGEN SENSORS AND SIGNAL REGULATION**

CHAIRPERSONS *Bernard Babior*
THE SCRIPPS RESEARCH INSTITUTE, LA JOLLA, CA

Carroll E. Cross
DEPARTMENT OF INTERNAL MEDICINE, UNIVERSITY OF CALIFORNIA, DAVIS, CA

02:00–02:20 Oxygen sensing, signaling and the regulation of
physiologically important genes

Frank Bunn
HEMATOLOGY RESEARCH, LONGWOOD MEDICAL RESEARCH CENTER, BOSTON,,
MA

02:20–02:40 Sensors, mediators and responses of the oxygen
sensing signal pathway

Helmut Acker
MAX PLANCK INSTITUT FÜR MOLEKULARE PHYSIOLOGIE, DORTMUND, GERMANY

02:40–3:00 The Nox family of homologs of gp91-phox

David Lambeth
DEPARTMENT OF BIOCHEMISTRY, EMORY UNIVERSITY SCHOOL OF MEDICINE,
ATLANTA, GA

03:00–03:20 Superoxide production by phagocytes: Regulation of
flavocytochrome *b*₅₅₈ activation and role of rho
GTPase Rac2

Mary Dinauer
WELLS CENTER FOR PEDIATRIC RESEARCH, INDIANA SCHOOL OF MEDICINE,
INDIANAPOLIS, IN

- 03:20–03:40 Pro-inflammatory cytokines induce partial phosphorylation of p47phox under priming conditions of human neutrophils
Jamel El Benna
INSERM U479, PARIS, FRANCE
- 03:40–04:00 Redox regulation of hypoxic signalling: the activation mechanism of HIF1
Kiishi Hirota
INSTITUTE OF GENETIC MEDICINE, JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE, BALTIMORE, MD
- 04:00–04:20 Pro-atherogenic oxidative signaling in vascular cells
Marshall Runge
DIVISION OF CARDIOLOGY, UNIVERSITY OF TEXAS MEDICAL BRANCH, GALVESTON, TX
- 04:20–04:40 ***Break***

**Session IV PROTEIN OXIDATION AND THE PROTECTIVE ROLE OF
PROTEOLYTIC ENZYMES IN HEALTH AND DISEASE**

CHAIRPERSONS *Catherine Pasquier*

INSERM U479, PARIS, FRANCE

Kelvin J. A. Davies

ETHEL PERCY ANDRUS GERONTOLOGY CENTER AND DIVISION OF MOLECULAR
BIOLOGY, UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CA

04:40–05:00 Proteolytic pathways and cellular protection during
oxidative stress, aging and disease

Kelvin J. A. Davies

ETHEL PERCY ANDRUS GERONTOLOGY CENTER AND DIVISION OF MOLECULAR
BIOLOGY, UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CA

05:00–05:20 Protein oxidative damage during aging is highly
selective

Raj Sohal

UNIVERSITY OF SOUTHERN CALIFORNIA, SCHOOL OF PHARMACY, DEPARTMENT OF
MOLECULAR PHARMACOLOGY & TOXICOLOGY, LOS ANGELES, CA

05:20–05:40 Selective recognition of oxidized proteins by the
proteasome

Tilman Grune

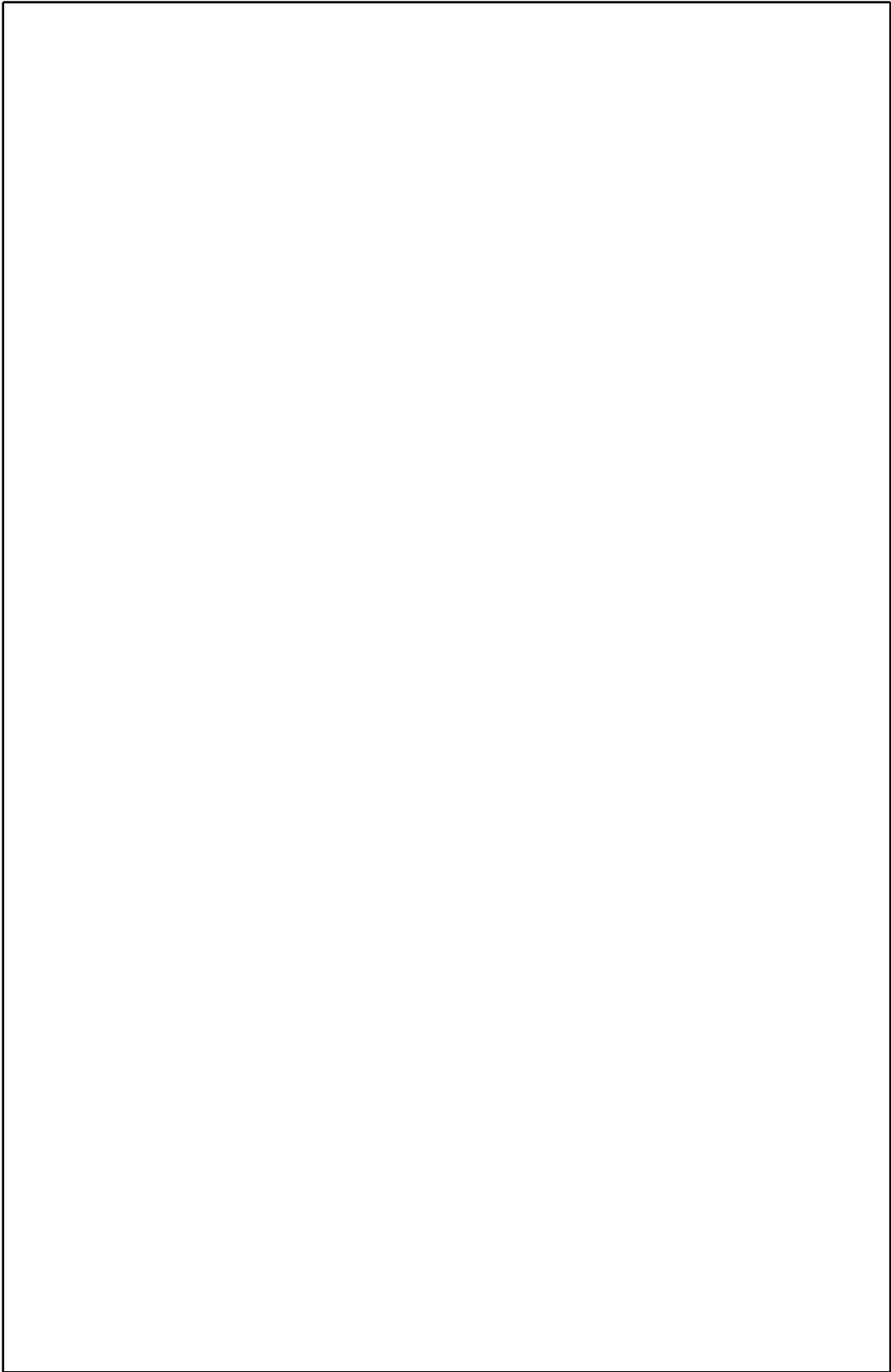
NEUROSCIENCE RESEARCH CENTER, MEDICAL FACULTY, HUMBOLDT UNIVERSITY
BERLIN, BERLIN, GERMANY

05:40–06:00 Deficiency of 20S proteasome functions induced by environmental pathological factors: from structural analysis to pharmacoproteomics

Jean-Edouard Gairin

INSTITUT DE PHARMACOLOGIE ET BIOLOGIE STRUCTURALE, TOULOUSE, FRANCE

06:00–07:30 ***Refreshments and Poster Viewing***



FRIDAY
MARCH 9, 2001

**SESSION V OXIDATIVE STRESS AND ITS ROLE IN CELL REGULATION
AND DISEASE**

- CHAIRPERSONS** *Junji Yodoi*
INSTITUTE FOR VIRUS RESEARCH, DEPARTMENT OF BIOLOGICAL RESPONSES,
KYOTO UNIVERSITY, KYOTO, JAPAN
- Angelo Azzi*
INSTITUTE OF BIOCHEMISTRY AND MOLECULAR BIOLOGY, UNIVERSITY OF BERN,
BERN, SWITZERLAND
- 08:00–08:20 Overview of redox signaling
Junji Yodoi
INSTITUTE FOR VIRUS RESEARCH, DEPARTMENT OF BIOLOGICAL RESPONSES,
KYOTO UNIVERSITY, KYOTO, JAPAN.
- 08:20–08:40 Antioxidant functions of thioredoxin and
glutaredoxin systems
Arne Holmgren
MEDICAL NOBEL INSTITUTE FOR BIOCHEMISTRY, DEPARTMENT OF MEDICAL
BIOCHEMISTRY AND BIOPHYSICS, KAROLINSKA INSTITUTE, STOCKHOLM, SWEDEN.
- 08:40–09:00 Anti-inflammatory activity of soluble thioredoxin:
Redox modulation of chemotactic activity
Hajime Nakamura
DEPARTMENT OF BIOLOGICAL RESPONSES, INSTITUTE FOR VIRUS RESEARCH,
KYOTO UNIVERSITY, KYOTO, JAPAN
- 09:00–09:20 Nrf2 and Keap1 regulation of oxygen stress response
Masayuki Yamamoto
UNIVERSITY OF TSUKUBA, TSUKUBA, JAPAN
- 09:20–09:40 Antioxidant defense in pathogenic protozoa
Leopold Flohé
DEPARTMENT OF BIOCHEMISTRY, TECHNICAL UNIVERSITY OF BRAUNSCHWEIG,
BRAUNSCHWEIG, GERMANY
- 09:40–10:00 **Break**

SESSION VI ROLE OF ANTIOXIDANTS IN CELL SIGNALING

CHAIRPERSONS *Balz Frei*

LINUS PAULING INSTITUTE, OREGON STATE UNIVERSITY, CORVALLIS, OR

Lester Packer

DEPARTMENT OF MOLECULAR PHARMACOLOGY & TOXICOLOGY,
SCHOOL OF PHARMACY, UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CA

10:00–10:20 -Tocopherol-associated protein (TAP): Structure,
function, and cellular distribution

Angelo Azzi

INSTITUTE OF BIOCHEMISTRY AND MOLECULAR BIOLOGY, UNIVERSITY OF BERN,
BERN, SWITZERLAND

10:20–10:40 Functional Analysis of the α -tocopherol transfer
protein in mice

Maret G. Traber

LINUS PAULING INSTITUTE, OREGON STATE UNIVERSITY, CORVALLIS, OR

10:40–11:00 -Tocopherol signaling in endothelial and platelet
function

John Keaney

BOSTON UNIVERSITY SCHOOL OF MEDICINE, BOSTON, MA

11:00–11:20 Biological significance of carotenoid breakdown
products

Olaf Sommerburg

DEPARTMENT OF PEDIATRICS, UNIVERSITY OF ULM, ULM, GERMANY

11:20–11:40 New insights into vitamin E metabolism

Regina Brigelius-Flohé

GERMAN INSTITUTE OF HUMAN NUTRITION, BERGHOLZ-REHBRÜCKE, GERMANY

11:40–12:00 Endothelial dysfunction in the early stages of
atherogenesis: Redox and non-redox regulation of
transcription factor activation and gene expression
Fabio Virgili
NATIONAL INSTITUTE FOR FOOD AND NUTRITION RESEARCH, ROME, ITALY

12:00–01:30 ***Lunch***

**SESSION VII ANTIOXIDANT PROPERTIES OF CATECHINS AND THEIR
OLIGOMERS: RELATIONSHIP TO HEALTH**

CHAIRPERSONS *Helmut Sies*

INSTITUT FÜR PHYSIOLOGISCHE CHEMIE I, HEINRICH-HEINE-UNIVERSITÄT
DÜSSELDORF, DÜSSELDORF, GERMANY

Catherine Rice-Evans

CENTRE FOR AGE-RELATED DISEASES, GKT SCHOOL OF BIOMEDICAL SCIENCES,
KING'S COLLEGE, LONDON, UK

01:00–01:20 Analysis of cocoa polyphenol oligomers

John F. Hammerstone

MARS INC., HACKETTSTOWN, NJ

01:20–01:40 Absorption and metabolism of cocoa polyphenols in
humans

Junji Terao

DEPARTMENT OF NUTRITION, SCHOOL OF MEDICINE, THE UNIVERSITY OF
TOKUSHIMA, TOKUSHIMA, JAPAN

01:40–02:00 Gastrointestinal metabolism of catechins and
procyanidins

Jeremy Spencer

CENTRE FOR AGE-RELATED DISEASES, GKT SCHOOL OF BIOMEDICAL SCIENCES,
KING'S COLLEGE, LONDON, UK

02:00–02:20 Cytokine responses to cocoa in humans

Carl Keen

DEPARTMENT OF NUTRITION, UNIVERSITY OF CALIFORNIA, DAVIS, CA

02:20–02:40 Polyphenols, gap-junctional communication and
peroxynitrite

Helmut Sies

INSTITUT FÜR PHYSIOLOGISCHE CHEMIE I, HEINRICH-HEINE-UNIVERSITÄT
DÜSSELDORF, DÜSSELDORF, GERMANY

02:40–03:00 Biological activity *in vivo* of procyanidins from *Vitis vinifera*

Giancarlo Aldini

ISTITUTO CHIMICO FARMACEUTICO TOSSICOLOGICO, UNIVERSITY OF MILAN,
MILAN, ITALY

03:00–03:20 Protein binding and cell redox regulation by the
procyanidin-rich French maritime pine bark extract
pycnogenol

Lester Packer

DEPARTMENT OF MOLECULAR PHARMACOLOGY & TOXICOLOGY, SCHOOL OF
PHARMACY, UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CA

03:20–03:40 ***Break***

**SESSION VIII WORKSHOP ON CLINICAL TRIALS ON ANTIOXIDANTS:
INSIGHTS AND PROBLEMS**

CHAIRPERSONS *Norman I. Krinsky*
DEPARTMENT OF BIOCHEMISTRY, TUFTS UNIVERSITY, BOSTON, MA

Alex Sevanian
DEPARTMENT OF MOLECULAR PHARMACOLOGY & TOXICOLOGY,
SCHOOL OF PHARMACY, UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CA

03:40–04:00 Evaluation of free radical and non-free radical
scavenging antioxidant effects of polyphenols in
postprandial lipoproteins

Fulvio Ursini
DEPARTMENT OF BIOLOGICAL CHEMISTRY, UNIVERSITY OF PADOVA, PADOVA,
ITALY

04:00–04:20 Glucose-6-phosphate dehydrogenase deficiency and
oxidative stress in the vasculature

Joe Loscalzo
BOSTON UNIVERSITY SCHOOL OF MEDICINE, BOSTON, MA

04:20–04:40 Randomized trials of vitamins by mail: The
physicians health study and women's health study

Michael Gaziano
EPIDEMIOLOGY, DEMOGRAPHY AND BIOMETRY PROGRAM, NATIONAL INSTITUTE ON
AGING, BOSTON, MA

04:40–05:00 How to develop a clinically relevant antioxidant:
-lipoic acid as an example

Hans-Jürgen Tritschler
ASTA MEDICA, FRANKFURT, GERMANY

- 05:00–05:20 Vitamin E atherosclerosis prevention trial: Findings
and perspectives
Howard Hodis
UNIVERSITY OF SOUTHERN CALIFORNIA, SCHOOL OF MEDICINE, LOS ANGELES, CA
- 05:20–05:40 Effects of vitamin C, alone and in comparison with an
antioxidant cocktail, on oxidative markers and
C-reactive protein in smokers and passive smokers
Gladys Block
SCHOOL OF PUBLIC HEALTH, UNIVERSITY OF CALIFORNIA, BERKELEY, CA

05:40–06:30 ***Science & Humanity Prizes***
Introduced by *Helmut Sies*

Lester Packer

DEPARTMENT OF MOLECULAR PHARMACOLOGY & TOXICOLOGY,
SCHOOL OF MEDICINE, UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CA

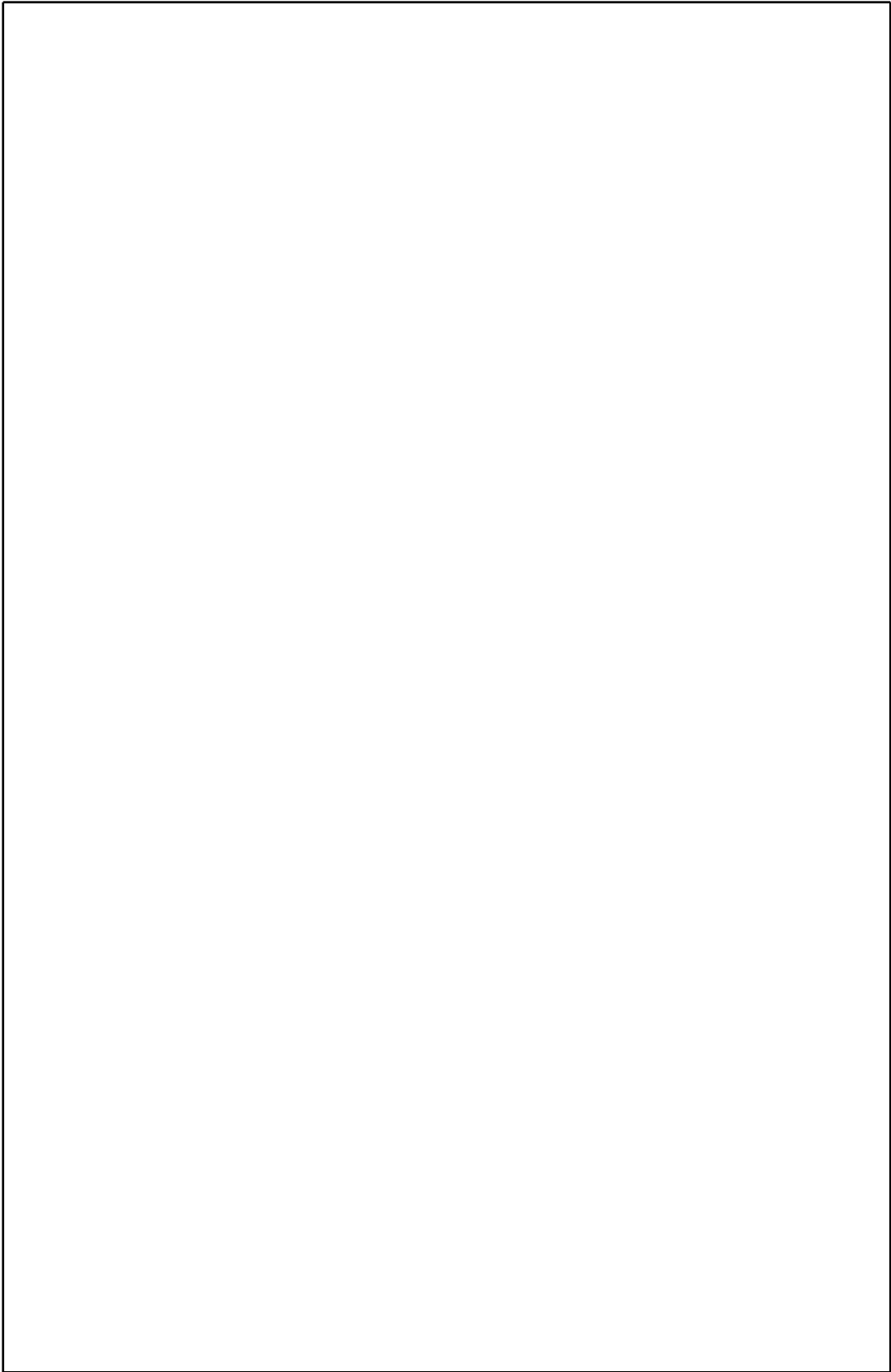
Leopold Flohé

DEPARTMENT OF BIOCHEMISTRY, TECHNICAL UNIVERSITY OF BRAUNSCHWEIG,
BRAUNSCHWEIG, GERMANY

06:30–08:00 ***Refreshments and Poster Viewing***

08:00 ***Banquet***

Young Investigator Awards



SATURDAY
MARCH 10, 2001

SESSION IX OXIDATIVE STRESS IN NEURODEGENERATIVE DISEASES

CHAIRPERSONS *Jean C. Shih*

DEPARTMENT OF MOLECULAR PHARMACOLOGY & TOXICOLOGY,
SCHOOL OF MEDICINE, UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CA

Moussa Youdim

TECHNION-FACULTY OF MEDICINE, EVE TOPF AND NPF CENTERS FOR
NEURODEGENERATIVE DISEASES RESEARCH, DEPARTMENT OF PHARMACOLOGY,
HAIFA, ISRAEL

09:00–09:20 Parkinson's disease and oxidative stress

Moussa Youdim

TECHNION-FACULTY OF MEDICINE, EVE TOPF AND NPF CENTERS FOR
NEURODEGENERATIVE DISEASES RESEARCH, DEPARTMENT OF PHARMACOLOGY,
HAIFA, ISRAEL

09:20–09:40 cDNA microarray gene expression in Parkinson's
disease and its MPTP model

Silvia Mandel

TECHNION-FACULTY OF MEDICINE, EVE TOPF AND US NATIONAL PARKINSON'S
FOUNDATION CENTERS FOR NEURODEGENERATIVE DISEASES, BRUCE RAPPAPORT
FAMILY RESEARCH INSTITUTE, HAIFA, ISRAEL

09:40 –10:00 Oxidative and genotoxic stress in the course of
amyloid peptide-induced neurodegeneration

Irene Ceballos-Picot

INSERM U383, HÔPITAL NECKER, PARIS, FRANCE

10:00–10:20 Peroxynitrite and dopamine neurodegeneration

Serge Przedborski

DEPARTMENTS OF NEUROLOGY AND PATHOLOGY, COLUMBIA UNIVERSITY,
NEW YORK, NY

10:20–10:40 ***Break***

10:40–11:00 Interaction of hydroxyalkenals with Cu,Zn-superoxide
dismutase

Ken Hensley

FREE RADICAL BIOLOGY AND AGING RESEARCH PROGRAM, OKLAHOMA MEDICAL
RESEARCH FOUNDATION, OKLAHOMA CITY, OK

11:00–11:20 Lysosomes as proximal messengers of cell death

Ulf Brunk

DEPARTMENT OF PATHOLOGY, UNIVERSITY OF LINKÖPING, LINKÖPING, SWEDEN

11:20–11:40 Retinal neurodegeneration in an *in vivo* model:
Implications for Alzheimer's disease and age-related
macular degeneration

Francisco J. Romero

DEPARTMENT OF PHYSIOLOGY, SCHOOL OF MEDICINE, UNIVERSITY OF VALENCIA,
VALENCIA, SPAIN

11:40–12:00 Role of lutein in prevention of age-related macular
degeneration

Erik van Kuijk

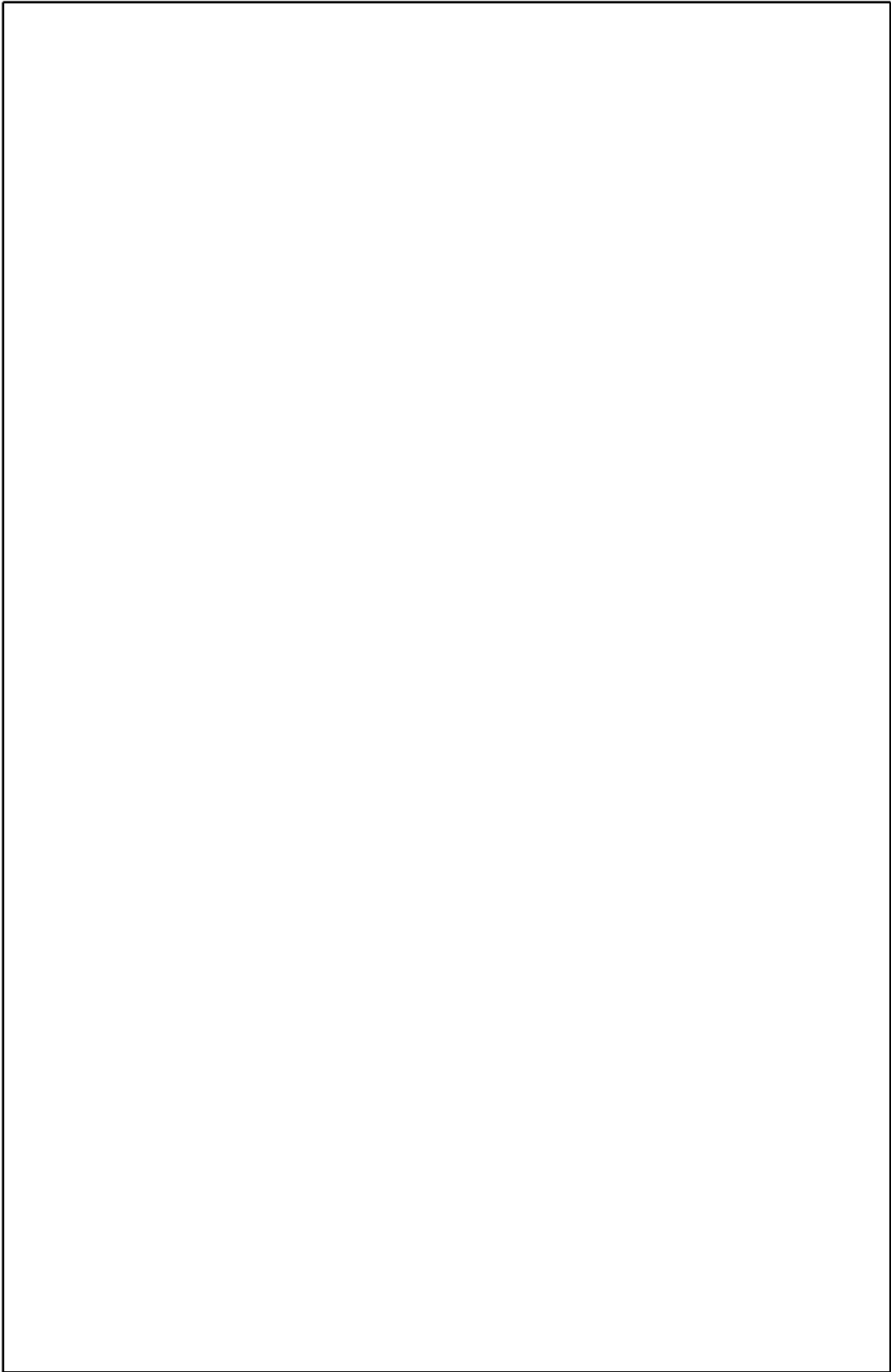
DEPARTMENT OF OPHTHALMOLOGY, UNIVERSITY OF TEXAS MEDICAL BRANCH,
GALVESTON, TX

12:00–12:20 Mechanisms of estrogen-induced neuroprotection

Roberta Díaz Brinton

DEPARTMENT OF MOLECULAR PHARMACOLOGY & TOXICOLOGY,
SCHOOL OF PHARMACY, UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CA

12:30–2:00 *Farewell Lunch*



S-ADENOSYLMETHIONINE (SAM-e) SYMPOSIUM

ORGANIZED BY

Klaus Krämer, Carlo di Padova, and Lester Packer

S-ADENOSYLMETHIONINE (SAM-e) SYMPOSIUM

CHAIRPERSONS *Lester Packer*

DEPARTMENT OF MOLECULAR PHARMACOLOGY & TOXICOLOGY,
SCHOOL OF PHARMACY, UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CA

Charles S. Lieber

LIVER DISEASE & NUTRITION SECTION, ALCOHOL RESEARCH AND TREATMENT
CENTER, BRONX VETERANS AFFAIRS MEDICAL CENTER, BRONX, NY

02:00 – 02:30 SAM-e: From the bench to the bedside—molecular
basis of a pleiotropic molecule

Teodore Bottiglieri

BAYLOR UNIVERSITY MEDICAL CENTER INSTITUTE OF METABOLIC DISEASE,
MASS SPECTROMETRY & BIOCHEMICAL DIAGNOSTIC CENTER, DALLAS, TX

02:30 – 03:00 SAM-e in the treatment of liver disorders

Charles S. Lieber

LIVER DISEASE & NUTRITION SECTION, ALCOHOL RESEARCH AND TREATMENT
CENTER, BRONX VETERANS AFFAIRS MEDICAL CENTER, BRONX, NY

03:00 – 03:30 Deficient SAM-e synthesis in alcoholic liver cirrhosis:
Cause or consequence?

José María Mato de la Paz

MEDICINA INTERNA, MOLECULAR BIOLOGY OF LIVER DISEASE, PAMPLONA,
NAVARRA, SPAIN

03:30 – 03:20 The role of SAME in the treatment of depression:
A review of the evidence

David Mischoulon

DEPRESSION CLINICAL AND RESEARCH PROGRAM,
MASSACHUSETTS GENERAL HOSPITAL, BOSTON, MA

03:20 – 04:00 EEG/ERP changes in response to SAM-e
administration in both young and aged subjects

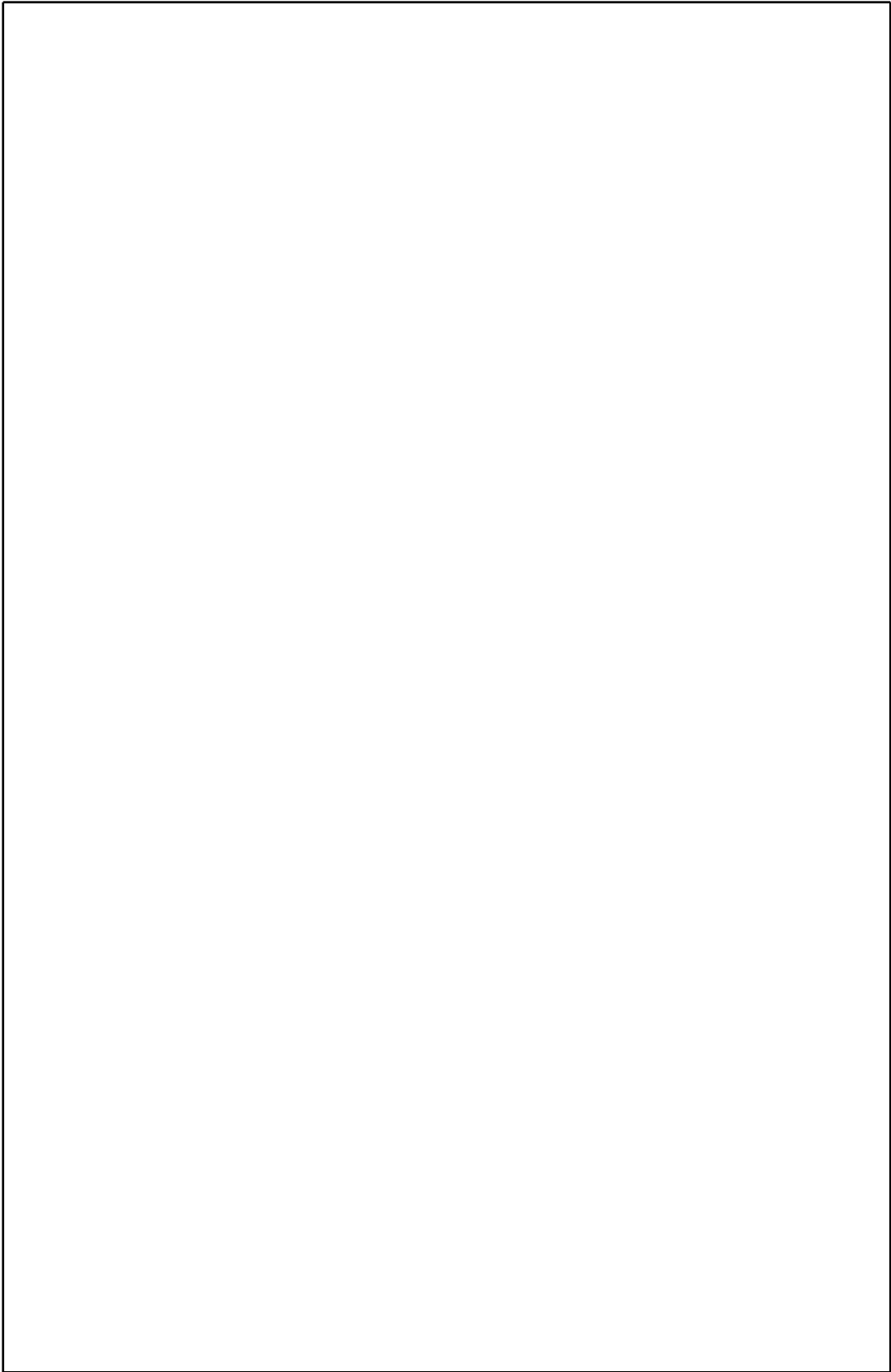
Bernd Saletu

DEPARTMENT OF PSYCHIATRY, UNIVERSITY OF WIEN, WIEN, AUSTRIA

04:30 – 05:00 Treatment of major depression with SAM-e: results of
two recent multi-center controlled trials

Roberto delle Chiaie

THIRD PSYCHIATRIC CLINIC, UNIVERSITY OF ROME "LA SAPIENZA", ROME, ITALY



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