



*Oxygen Club
of California*



UCA

Universidad
de Cádiz

OXIDANTS AND ANTIOXIDANTS IN BIOLOGY

PROGRAM

FEBRUARY 6–9, 2003

HOTEL MONASTERIO DE SAN MIGUEL

EL PUERTO DE SANTA MARÍA, CÁDIZ, SPAIN

OXIDANTS AND ANTIOXIDANTS IN BIOLOGY

FEBRUARY 6-9, 2003

EL PUERTO DE SANTA MARIA, CÁDIZ, SPAIN

A JOINT MEETING OF
OXYGEN CLUB OF CALIFORNIA
UNIVERSIDAD DE CÁDIZ
GRUPO ESPAÑOL DE RADICALES LIBRES

ORGANIZERS

Ana Navarro

DEPARTAMENTO DE BIOQUÍMICA Y BIOLOGÍA MOLECULAR
FACULTAD DE MEDICINA, UNIVERSIDAD DE CÁDIZ, CÁDIZ, SPAIN

José Viña

DEPARTAMENTO DE FISIOLÓGÍA, FACULTAD DE MEDICINA
UNIVERSIDAD DE VALENCIA, VALENCIA, SPAIN

Kelvin J.A. Davies

ETHEL PERCY ANDRUS GERONTOLOGY CENTER
UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CA, USA

Enrique Cadenas

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

THURSDAY
FEBRUARY 6, 2003

KEYNOTE ADDRESS

CHAIRPERSON *Kelvin J. A. Davies*

ETHEL PERCY ANDRUS GERONTOLOGY CENTER,
UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CA, USA

06:00 – 07:00 The antioxidant network:

From free radical scavenging to gene regulation

Lester Packer

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

09:00

Reception and Dinner

Hacienda de las Beatillas

EL PUERTO DE SANTA MARÍA

FRIDAY
FEBRUARY 7, 2003

SESSION I REDOX REGULATION OF CELL SIGNALING

*Session dedicated to the loving memory of our dear
friend and colleague Catherine Pasquier*

CHAIRPERSONS *Angelo Azzi*

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

Bertrand Rihn

INSTITUT NATIONAL DE RECHERCHE ET DE SÉCURITÉ, VANDOEUVRE-LÈS-NANCY,
FRANCE

09:00 – 09:20 Estrogen regulation of mitochondrial function: A
unified concept of estrogen-induced neuroprotection
and implications for neurodegenerative disease

Roberta Díaz Brinton

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

09:20 – 09:40 Oxidant-induced signaling: from intra- to intercellular
communication

Lars-Oliver Klotz

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

09:40 – 10:00 The zinc-finger domains of kinases function as redox
sensors

Ulrich Hammerling

IMMUNOLOGY PROGRAM, MEMORIAL SLOAN-KETTERING CANCER CENTER,
NEW YORK, NY, USA

10:00 – 10:20 Biphasic effects of oxidized lipids on the tyrosine
kinase receptor pathway

Anne Negre-Salvayre

INSERM U466, CHU RANGUEIL, TOULOUSE, FRANCE

- 10:20 – 10:40 Proinflammatory and proapoptotic effect of oxysterols
Giuseppe Poli
DEPARTMENT OF CLINICAL AND BIOLOGICAL SCIENCES, UNIVERSITY OF TURIN AT S. LUIGI GONZAGA HOSPITAL, TURIN, ITALY
- 10:40 – 11:00 *Coffee break*
- 11:00 – 11:20 1-cysPeroxiredoxin as a lung antioxidant enzyme
Aron B. Fisher
DEPARTMENT OF PHYSIOLOGY AND MEDICINE, UNIVERSITY OF PENNSYLVANIA MEDICAL CENTER, PHILADELPHIA, PA, USA
- 11:20 – 11:40 Novel functions of the mammalian and mitochondrial thioredoxin reductases
Giannis Spyrou
DEPARTMENT OF BIOSCIENCES AT NOVUM, KAROLINSKA INSTITUTET, HUDDINGE, SWEDEN
- 11:40 – 12:00 Thioredoxin binding protein, TBP2/VDUP1: Involvement in cell cycle and aging
Junji Yodoi
DEPARTMENT OF BIOLOGICAL RESPONSES, INSTITUTE FOR VIRUS RESEARCH, KYOTO UNIVERSITY, KYOTO, JAPAN

SESSION II **MITOCHONDRIA**

CHAIRPERSON *Enrique Cadenas*

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

12:00 – 12:20 **Mitochondria: A pore man's view**

Paolo Bernardi

DEPARTMENT OF BIOMEDICAL SCIENCES AND CNR INSTITUTE FOR NEUROSCIENCES,
UNIVERSITY OF PADOVA, PADOVA, ITALY

12:20 – 12:40 **The mitochondrial permeability transition: from molecular
mechanism to cardiac protection**

Andrew P. Halestrap

DEPARTMENT OF BIOCHEMISTRY, UNIVERSITY OF BRISTOL, BRISTOL, UK

12:40 – 01:00 **Mitochondria in nitric oxide-induced cell death**

Guy Brown

DEPARTMENT OF BIOCHEMISTRY, UNIVERSITY OF CAMBRIDGE, CAMBRIDGE, UK

01:00 – 02:20 ***Lunch***

02:20 – 02:40 **Regulation of the pyruvate dehydrogenase complex by R-
lipoic acid**

Mulchand Patel

DEPARTMENT OF BIOCHEMISTRY, SCHOOL OF MEDICINE AND BIOMEDICAL SCIENCES, STATE
UNIVERSITY OF NEW YORK AT BUFFALO, BUFFALO, NY, USA

02:40 – 03:00 **Mitochondrial nitric oxide synthase and redox signaling**

Juan José Poderoso

LABORATORY OF OXYGEN METABOLISM, SCHOOL OF MEDICINE, UNIVERSITY OF BUENOS
AIRES, BUENOS AIRES, ARGENTINA

- 03:00 – 03:20 **Oxidative stress and brain mitochondrial function**
Simon Heales
DEPARTMENT OF CLINICAL BIOCHEMISTRY, INSTITUTE OF NEUROLOGY, UNIVERSITY COLLEGE
LONDON, LONDON, UK
- 03:20 – 03:40 **Mitochondria, calcium, proteolysis, and apoptosis**
Kelvin J. A. Davies
ETHEL PERCY ANDRUS GERONTOLOGY CENTER, UNIVERSITY OF SOUTHERN CALIFORNIA,
LOS ANGELES, CA, USA
- 03:40 – 04:00 **Mitochondria, lipids, and cell death**
Carlos Fernández Checa
INSTITUTE OF BIOMEDICAL RESEARCH, LIVER UNIT HOSPITAL CLINIC, UNIVERSITY OF
BARCELONA, BARCELONA, SPAIN
- 04:00 – 04:20 **Mitochondrial regulation of apoptotic cell death**
Sten Orrenius
DIVISION OF TOXICOLOGY, INSTITUTE OF ENVIRONMENTAL MEDICINE, KAROLINSKA INSTITUTE,
STOCKHOLM, SWEDEN
- 04:20 – 04:40 ***Coffee break***

SESSION III AGING AND NEURODEGENERATION

CHAIRPERSONS *Ana Navarro*

DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY, SCHOOL OF MEDICINE,
UNIVERSITY OF CÁDIZ, CÁDIZ, SPAIN

Christiaan Leeuwenburgh

BIOCHEMISTRY OF AGING LABORATORY, COLLEGE OF HEALTH AND HUMAN PERFORMANCE,
UNIVERSITY OF FLORIDA, GAINESVILLE, FL, USA

04:40 – 05:00 **NADH dehydrogenase activity and aging**

Alberto Boveris

PHYSICAL CHEMISTRY, SCHOOL OF PHARMACY & BIOCHEMISTRY, UNIVERSITY OF BUENOS
AIRES, BUENOS AIRES, ARGENTINA

05:00 – 05:20 **Mitochondrial reactive oxygen species production in aging:
Gender differences and redox sensitive signaling pathways**

Juan Sastre

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

05:20 – 05:40 **Implication of inflammation in the degeneration of nigral
dopaminergic system**

Alberto Machado

DEPARTAMENTO DE BIOQUIMICA, BROMATOLOGIA, TOXICOLOGIA Y MEDICINA LEGAL,
UNIVERSIDAD DE SEVILLA, SEVILLE, SPAIN

05:40 – 06:00 **Antioxidants in aging and neurodegeneration**

Jim Joseph

HUMAN NUTRITION RESEARCH CENTER ON AGING AT TUFTS UNIVERSITY, BOSTON, MA, USA

06:00 – 06:20 **Cell signaling and apoptosis in aging**

Christiaan Leeuwenburgh

BIOCHEMISTRY OF AGING LABORATORY, COLLEGE OF HEALTH AND HUMAN PERFORMANCE,
UNIVERSITY OF FLORIDA, GAINESVILLE, FL, USA

06:20 – 06:40 Caloric restriction, gene expression, and aging

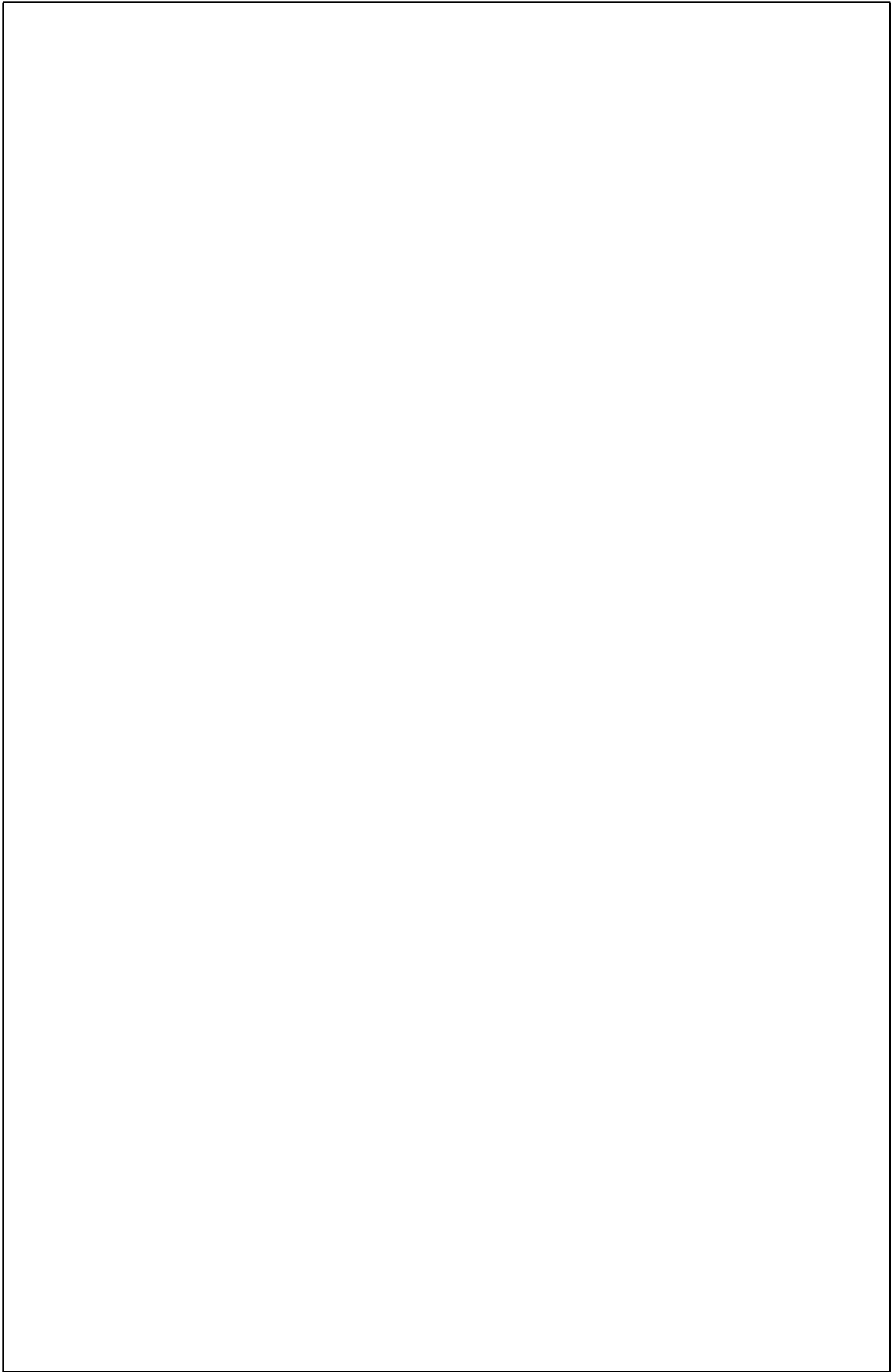
Tomas A. Prolla

DEPARTMENTS OF GENETICS AND MEDICAL GENETICS, UNIVERSITY OF WISCONSIN-MADISON,
MADISON, WI, USA

06:40 – 07:00 Mechanism of neuroprotective action of antioxidants:
cDNA microarray gene expression and proteomic analysis

Moussa Youdim

EVE TOPF AND NATIONAL PARKINSON FOUNDATION (US) CENTERS, DEPARTMENT OF
PHARMACOLOGY, TECHNION-FACULTY OF MEDICINE, HAIFA, ISRAEL



SATURDAY
FEBRUARY 8, 2003

SESSION IV NITRIC OXIDE, CELL SIGNALING, AND GENE EXPRESSION

CHAIRPERSONS *Santiago Lamas*

DEPARTAMENTO DE ESTRUCTURA Y FUNCIÓN DE PROTEINAS, CENTRO DE INVESTIGACIONES BIOLÓGICAS, INSTITUTO REINA SOFÍA DE INVESTIGACIONES NEFROLÓGICAS, MADRID, SPAIN

Alberto Boveris

PHYSICAL CHEMISTRY, SCHOOL OF PHARMACY AND BIOCHEMISTRY, UNIVERSITY OF BUENOS AIRES, BUENOS AIRES, ARGENTINA

09:00 – 09:20 **Selective measurement of nitric oxide evoked by glutamate agonists in rat hippocambal brain slices**

João Laranjinha

FACULTY OF PHARMACY AND CENTER FOR NEUROSCIENCES, UNIVERSITY OF COIMBRA, COIMBRA, PORTUGAL

09:20 – 09:40 **Nitric oxide-derived oxidants in cardiovascular disease**

Stanley L. Hazen

CENTER FOR CARDIOVASCULAR DIAGNOSTICS AND PREVENTION, CLEVELAND CLINIC FOUNDATION, CLEVELAND, OH, USA

09:40 – 10:00 **Nitric oxide: the balance between cell viability and apoptotic death**

Lisardo Boscá

INSTITUTE OF BIOCHEMISTRY, SCHOOL OF PHARMACY, UNIVERSITY OF MADRID, MADRID, SPAIN

10:00 – 10:20 **Nitric oxide mimics hypoxia by accumulating HIF-1**

Bernhard Brüne

DEPARTMENT OF CELL BIOLOGY, UNIVERSITY OF KAISERSLAUTERN, KAISERSLAUTERN, GERMANY

10:20 – 10:40 **Nitric oxide as modifier of gene expression: pathways and mechanisms**

Santiago Lamas

DEPARTAMENTO DE ESTRUCTURA Y FUNCIÓN DE PROTEINAS, CENTRO DE INVESTIGACIONES BIOLÓGICAS, INSTITUTO REINA SOFÍA DE INVESTIGACIONES NEFROLÓGICAS, MADRID, SPAIN

10:40 – 11:00 Nitric oxide and gene expression

Josef Pfeilschifter

PHARMAZENTRUM FRANKFURT, KLINIKUM DER JOHANN WOLFGANG GOETHE-UNIVERSITÄT,
FRANKFURT AM MAIN, GERMANY

11:00 – 11:20 *Coffee break*

SESSION V EXERCISE

CHAIRPERSONS *José Viña*

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

Josiane Cillard

LABORATOIRE DE BIOLOGIE CELLULAIRE ET VÉGÉTALE, UFR DES SCIENCES PHARMACEUTIQUES ET BIOLOGIQUES, UNIVERSITÉ DE RENNES I, RENNES, FRANCE

11:20 – 11:40 **Involvement of xanthine oxidase in free radical formation in exhaustive exercise: Role in cellular signaling**

José Viña

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

11:40 – 12:00 **Melatonin and exercise**

Javier González-Gallego

DEPARTMENT OF PHYSIOLOGY, UNIVERSITY OF LEÓN, LEÓN, SPAIN

12:00 – 12:20 **Contraction-induced oxidants as mediators of muscle adaptations to exercise**

Malcolm Jackson

DEPARTMENT OF MEDICINE, UNIVERSITY OF LIVERPOOL, LIVERPOOL, UK

12:20 – 12:40 **Capacity for recovery and possible mechanisms in muscle immobilization atrophy of young and old animals**

Abe Reznick

BRUCE RAPPAPORT FACULTY OF MEDICINE, DEPARTMENT OF ANATOMY AND CELL BIOLOGY, TECHNION-ISRAEL INSTITUTE OF TECHNOLOGY, HAIFA, ISRAEL

12:40 – 01:00 **Exercise and NF- B signaling**

Li Li Ji

EXERCISE PHYSIOLOGY AND NUTRITIONAL SCIENCE, UNIVERSITY OF WISCONSIN-MADISON, MADISON, WI, USA

01:00 – 02:20 **Lunch**

SESSION VI PLANTS

CHAIRPERSONS *Luis Alfonso del Río*

DEPARTAMENTO DE BIOQUÍMICA BIOLOGÍA CELULAR Y MOLECULAR DE PLANTAS, CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS, GRANADA, SPAIN

Bernard Arrio

LABORATOIRE DE BIOÉNERGÉTIQUE MEMBRANAIRE, C.N.R.S., UNIVERSITÉ DE PARIS-XI, ORSAY CEDEX, FRANCE

02:20 – 02:40 Chlorophyll fluorescence: a rapid and quantitative reporter of osmotic volume cyanobacteria

George C. Papageorgiou

INSTITUTE OF BIOLOGY, NCRS DEMOKRITOS, ATHENS, GREECE

02:40 – 03:00 Synergisms in antioxidative function of different classes of natural products

Eric F. Elstner

LEHRSTUHL FÜR PHYTOPATHOLOGIE, LABOR FÜR ANGEWANDTE BIOCHEMIE, TECHNISCHE UNIVERSITÄT MÜNCHEN, FREISING-WEIHENSTEPHAN, GERMANY

03:00 – 03:20 Reactive species, antioxidants, and the legume-Rhizobium symbiosis

Alain Puppo

LABORATOIRE DE BIOLOGIE VÉGÉTALE ET MICROBIOLOGIE, CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE, UNIVERSITÉ DE NICE SOPHIA-ANTIPOLIS, FRANCE

03:20 – 03:40 Peroxisomes, reactive oxygen species, and nitric oxide

Luis Alfonso del Río

DEPARTAMENTO DE BIOQUÍMICA BIOLOGÍA CELULAR Y MOLECULAR DE PLANTAS, CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS, GRANADA, SPAIN

03:40 – 04:00 Oxidative stress and plant mitochondria

Christine Foyer

CROP PERFORMANCE AND IMPROVEMENT DIVISION, IACR-ROTHAMSTED, HARPENDEN HERTFORDSHIRE, UK

Sessions on LIPOPHILIC ANTIOXIDANTS are sponsored by Johnson & Johnson honoring the scientific contributions of Lester Packer

SESSION VII LIPOPHILIC ANTIOXIDANTS: VITAMIN E AND COENZYME Q

CHAIRPERSONS *Frank Kelly*

ENVIRONMENTAL HEALTH, SCHOOL OF HEALTH & LIFE SCIENCES, KINGS COLLEGE LONDON, LONDON, UK

Francisco J. Romero

INVESTIGACIÓN Y DESARROLLO, UNIVERSIDAD CARDENAL HERRERA-CEU, VALENCIA, SPAIN

04:00 – 04:20 **Action of vitamin E against stress on cells**

Etsuo Niki

HUMAN STRESS SIGNAL RESEARCH CENTER, NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE & TECHNOLOGY, OSAKA, JAPAN

04:20 – 04:40 **Bioavailability of vitamin E forms**

Klaus Kraemer

SCIENTIFIC AFFAIRS HUMAN NUTRITION, BASF AKTIENGESELLSCHAFT, LUDWIGSHAFEN, GERMANY

04:40 – 05:00 **Metabolism of tocopherols and tocotrienols**

Regina Brigelius-Flohé

DEPARTMENT OF VITAMINS AND ATHEROSCLEROSIS, GERMAN INSTITUTE OF HUMAN NUTRITION, BERGHOLZ-REHBRÜCKE, GERMANY

05:00 – 05:20 **The role of vitamin E and oxidative stress in skin photoaging**

Jens Thiele

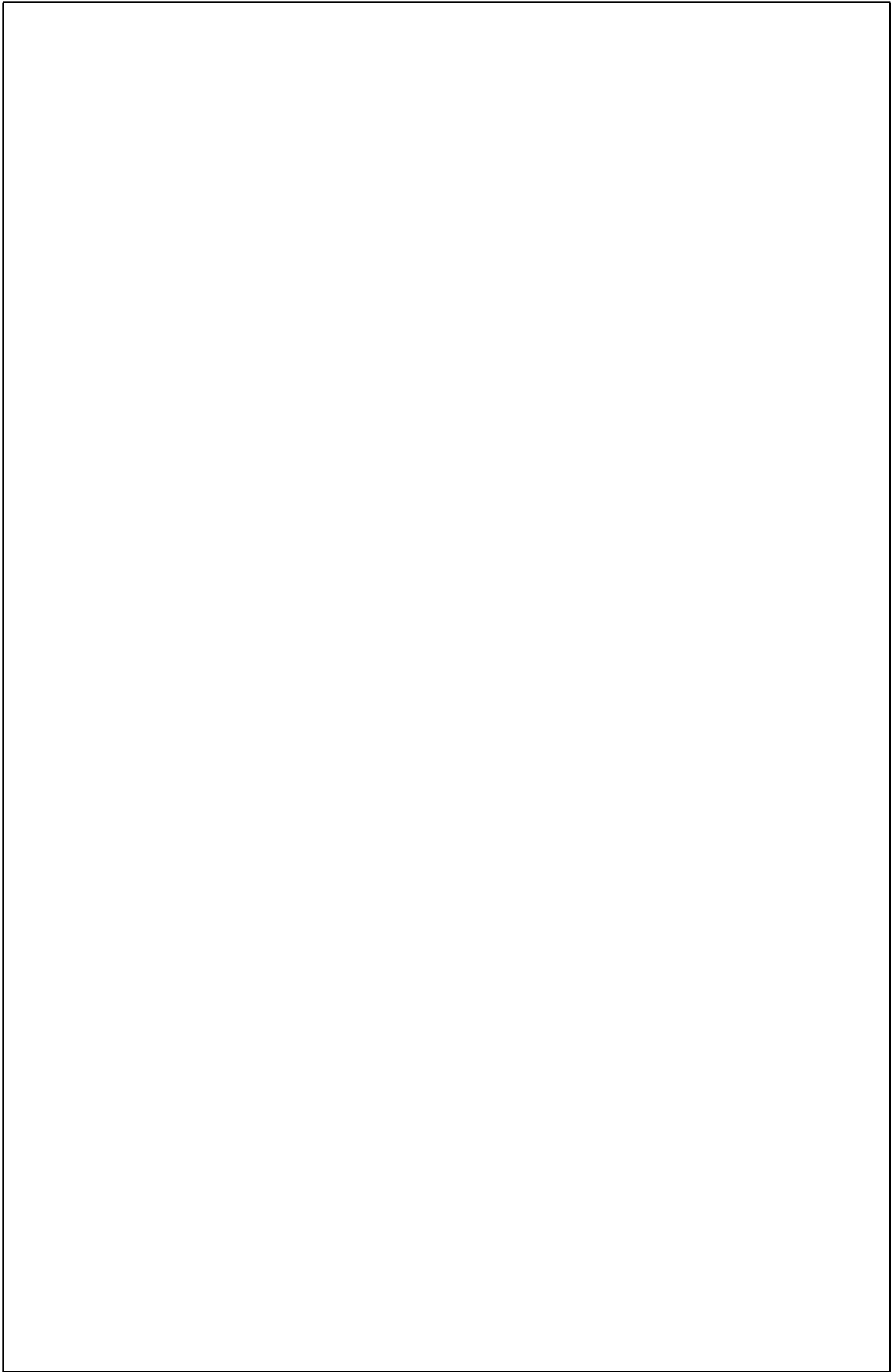
DEPARTMENT OF DERMATOLOGY, FRIEDRICH SCHILLER UNIVERSITY, JENA, GERMANY

05:20 – 05:40 **Effect of vitamin E on cholesterol and homocysteine induced atherosclerosis**

Nesrin Kartal-Özer

DEPARTMENT OF BIOCHEMISTRY, FACULTY OF MEDICINE, MARMARA UNIVERSITY, ISTANBUL, TURKEY

- 05:40 – 06:00 Tocotrienol supplementation modifies gene expression in human breast cancer cells both *in vitro* and *in vivo*
Kalanithi Nesaretnam
MALAYSIAN PALM OIL BOARD, BANDAR BARU BANGI, SELANGOR, MALAYSIA
- 06:00 – 06:20 Regulation of gene and protein expression by tocopherols
Angelo Azzi
INSTITUTE OF BIOCHEMISTRY AND MOLECULAR BIOLOGY, UNIVERSITY OF BERN, BERN, SWITZERLAND
- 06:20 – 06:40 Mechanism of vitamin E inhibition of cyclooxygenase activity in macrophages from old mice: Role of peroxynitrite
Simin Meydani
VASCULAR BIOLOGY LABORATORY, HUMAN NUTRITION RESEARCH CENTER ON AGING, TUFTS UNIVERSITY, BOSTON, MA, USA
- 06:40 – 07:00 Regulation of coenzyme Q metabolism
Gustav Dallner
DEPARTMENT OF BIOCHEMISTRY AND BIOPHYSICS, STOCKHOLM UNIVERSITY, STOCKHOLM, SWEDEN
- 09:00 Gala Dinner
Bodegas Terry
EL PUERTO DE SANTA MARÍA



SUNDAY
FEBRUARY 9, 2003

SESSION VIII VITAMIN E AND SELENIUM

CHAIRPERSONS *Fulvio Ursini*

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

Leopold Flohé

DEPARTMENT OF BIOCHEMISTRY, TECHNICAL UNIVERSITY OF BRAUNSCHWEIG, GERMANY

09:00 – 09:20 **Vitamin E in pregnancy and pre-eclampsia**

Frank Kelly

ENVIRONMENTAL HEALTH, SCHOOL OF HEALTH & LIFE SCIENCES, KINGS COLLEGE LONDON,
LONDON, UK

09:20 – 09:40 **Antioxidant role of selenium and its relevance to health
problems**

Margaret Rayman

SCHOOL OF BIOMEDICAL AND LIFE SCIENCES, UNIVERSITY OF SURREY, GUILDFORD, UK

09:40 – 10:20 **ROUND TABLE DISCUSSION**

Vitamin E and selenium synergism

Fulvio Ursini

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

Leopold Flohé

DEPARTMENT OF BIOCHEMISTRY, TECHNICAL UNIVERSITY OF BRAUNSCHWEIG, GERMANY

Helmut Sies

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

10:20 – 10:40 ***Coffee break***

SESSION IX LIPOPHILIC ANTIOXIDANTS: CAROTENOIDS

CHAIRPERSONS *Helmut Sies*

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

Ute Obermüller-Jevic

SCIENTIFIC AFFAIRS HUMAN NUTRITION, BASF AKTIENGESELLSCHAFT, LUDWIGSHAFEN,
GERMANY

10:40 – 11:00 **Animal carotenoid metabolism: New insights at the molecular
and functional level**

Johannes von Lintig

INSTITUT FÜR BIOLOGIE I, UNIVERSITÄT FREIBURG, FREIBURG, GERMANY

11:00 – 11:20 **Effects of β -carotene cleavage products on mitochondrial
function**

Werner Siems

HERZOG-JULIUS HOSPITAL FOR RHEUMATOLOGY AND ORTHOPEDICS, BAD HARZBURG,
GERMANY

11:20 – 11:40 **Noninvasive laser raman detection of carotenoid antioxidants
in human skin**

Werner Gellermann

DEPARTMENT OF PHYSICS, UNIVERSITY OF UTAH, SALT LAKE CITY, UT, USA

11:40 – 12:00 **Lipophilic micronutrients and sun protection**

Wilhelm Stahl

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

12:00 – 12:20 **Carotenoids and cancer prevention**

Ute Obermüller-Jevic

SCIENTIFIC AFFAIRS HUMAN NUTRITION, BASF AKTIENGESELLSCHAFT, LUDWIGSHAFEN,
GERMANY

12:20 – 02:00 ***Lunch***

SESSION X FLAVONOIDS, POLYPHENOLS, AND ISOFLAVONES

CHAIRPERSONS *Pierre Cillard*

LABORATOIRE DE BIOLOGIE CELLULAIRE ET VÉGÉTALE, UFR DES SCIENCES
PHARMACEUTIQUES ET BIOLOGIQUES, UNIVERSITÉ DE RENNES I, RENNES, FRANCE

Catherine Rice-Evans

ANTIOXIDANT RESEARCH GROUP, WOLFSON CENTRE FOR AGE-RELATED DISEASES, KING'S
COLLEGE, LONDON, UK

02:00 – 02:20 **Molecular mechanisms of the antioxidant properties of
flavonoids**

Catherine Rice-Evans

ANTIOXIDANT RESEARCH GROUP, WOLFSON CENTRE FOR AGE-RELATED DISEASES, KING'S
COLLEGE, LONDON, UK

02:20 – 02:40 **Flavan-3-ols and procyanidines: beyond their free radical
scavenging properties**

César Fraga

PHYSICAL CHEMISTRY, SCHOOL OF PHARMACY & BIOCHEMISTRY, UNIVERSITY OF BUENOS
AIRES, BUENOS AIRES, ARGENTINA

02:40 – 03:00 **Pycnogenol® in cigarette filters scavenges free radicals and
reduces mutagenicity and toxicity**

Baolu Zhao

INSTITUTE OF BIOPHYSICS, ACADEMIA SINICA, BEIJING, CHINA

03:00 – 03:20 **Effect of isoflavones on platelet aggregation and monocyte
and endothelial function**

Gerald Rimbach

HUGH SINCLAIR HUMAN NUTRITION UNIT, SCHOOL OF FOOD BIOSCIENCES,
UNIVERSITY OF READING, READING, UK

03:20 – 03:40 **cDNA arrays as a tool to investigate the role of nutritionally-
relevant molecules in human health and disease**

Fabio Virgili

FREE RADICALS RESEARCH GROUP, NATIONAL INSTITUTE FOR FOOD AND NUTRITION
RESEARCH, ROME, ITALY

03:40 – 04:00 **The antiatherogenic and anti-inflammatory potential of oat
phenolics**

Mohsen Meydani

VASCULAR BIOLOGY LABORATORY, HUMAN NUTRITION RESEARCH CENTER ON AGING,
TUFTS UNIVERSITY, BOSTON, MA, USA

04:00 – 04:20 **Wine antioxidants and LDL protein folding**

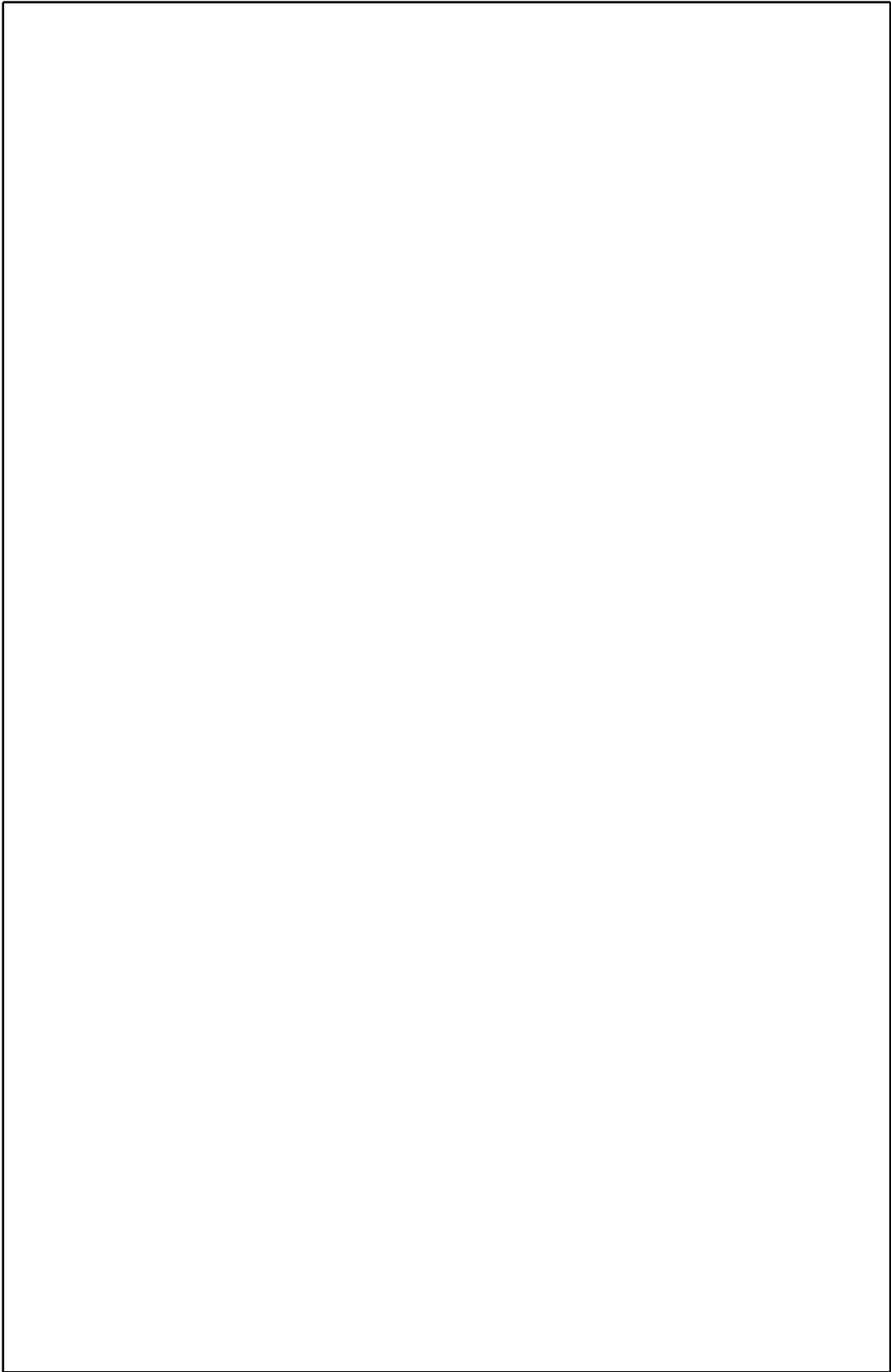
Fulvio Ursini

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

04:20 – 04:40 **Mechanism of action of flavonoids**

Helmut Sies

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



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VIATRIS

