



2nd International Symposium on
ADIPOBIOLOGY AND ADIPOPHERMACOLOGY
(ISAA)

Organized by the Bulgarian Society for Cell Biology

23-25 October 2009, Varna, Bulgaria

MESSAGE FROM THE CHAIRMAN

A Symposium for our times

Dear Colleagues,

It is our pleasure to welcoming you to the 2nd International Symposium on Adipobiology and Adipopharmacology (ISAA), 23-25 October 2009, Varna, Bulgaria. The Symposium is organized by the Bulgarian Society for Cell Biology.

Major non-communicable diseases (NCD), including obesity and related diseases, are responsible for 85% of deaths in Europe (see The 2008-2013 Action Plan for the Global Strategy for the Prevention and Control of NCD: www.who.int/nmh/Actionplan-PC-NCD-2008.pdf). The cost for the care of consequences of NCD is an enormous burden for the economy of the country in addition to the human suffering. In 2005, the World Health Organization estimated that approximately 1.6 billion adults were overweight and at least 400 million of them clinically obese. To these sad numbers, we should disappointingly add nearly 70,000 Bulgarians who die from stroke and myocardial infarction each year in a country with a population of less than 8 million people, as it was also alarmed in our paper *Homo obesus Bulgaricus* published in volume 6, 2007 of *CV Network Online*, an official forum of the International Academy of Cardiovascular Sciences.

Arguably, we have to learn more about the molecular control of food intake and energy homeostasis, the adipose tissue taking a central role in their regulation.

The Symposium is designed to provide a state-of-the-science overview of recent advance in adipobiology, also translational research in the field. We hope that it will be a stimulating scientific and educational event. Together to capture the scope and depth of the exciting field of adipobiology and adipopharmacology.

And friendship (friendomics).

On behalf of the Bulgarian Society for Cell Biology

George N. Chaldakov

PROGRAM

Day 1: Friday, 23 October 2009

Registration: 3 - 6 PM

Fee (payable *in situ*): 170.– Euros

For Bulgarian citizens: 50.– BGN

No registration fee for students

Venu: Festival and Congress Center, Varna

In vivo veritas

Welcome party: 7 PM

State-of-the-science, candlelight lecture

DELINEATING ADIPOSE-DERIVED SIGNALS FROM NOISE IN THE PATHOGENESIS OF OBESITY AND RELATED CARDIOMETABOLIC DISEASES

Gema Frühbeck

Pamplona, Spain

Day 2: Saturday, 24 October 2009

Opening: 8:50 AM

Session 1, 2, including coffee break: 9 AM – 1 PM

Lunch: 1:15 - 2:30 PM

Session 3, 4, including coffee break: 2:45 – 7:00 PM

Gala dinner: 8 PM

Piano bar: 11 PM...

Day 3: Sunday, 25 October, 2009

Session 5-7, including coffee break: 9 AM – 1:00 PM

Lunch: 1:15 – 2:30 PM

Trip to Balchik, a city along the Black sea, about 40 km North from Varna:

3 PM – 6 PM...

SCIENTIFIC PROGRAM

Day 2: Saturday, 24 October 2009

SESSION 1

Adipose tissue's Cinderella

State-of-the-science lecture

SITE-SPECIFIC PROPERTIES AND PARACRINE INTERACTIONS IN MAMMALIAN ADIPOSE TISSUE: IMPLICATIONS FOR CROHN'S DISEASE AND HIV INFECTION

Caroline M. Pond

Milton Keynes, UK

Jeffrey Friedman gave *leptin* in the beginning

State-of-the-science lecture

DEVELOPMENT OF LEPTIN ANTAGONISTS AND THEIR EVENTUAL USE AS MEDICAL MODALITIES

Arieh Gertler and Eran Elinav

Rehovot and Tel Aviv, Israel

State-of-the-science lecture

LEPTIN AS AN ENDOGENOUS CARDIAC HYPERTROPHIC FACTOR: STUDIES INTO MECHANISMS

Morris Karmazyn, Venkatesh Rajapurohitam, and Asad Zeidan
London, Ontario, Canada

LEPTIN INCREASES PLATELET ACTIVITY IN THE RAT:

***IN VITRO AND IN VIVO* STUDIES**

Andrzej Marciniak, Grażyna Wójcicka, and Jerzy Bełtowski
Lublin, Poland

DIET-INDUCED ALTERATIONS IN LEPTIN EXPRESSION CAN OCCUR INDEPENDENTLY OF CALORIC INTAKE

Richelle S. McCullough, Andrea L. Edel, Renee K. LaVallee, Chantal Bassett, Elena Dibrov, David P. Blackwood, Bradley P. Ander, and Grant N. Pierce
Winnipeg, Canada

PATHOPHYSIOLOGICAL AND PHARMACOLOGICAL IMPORTANCE OF PLACENTAL LEPTIN

Zoran Bojanić, Vladmila Bojanić, Stevo Najman, Gorana Rančić, and Snežana Jančić
Niš and Kragujevac, Serbia

LEPTIN-INDUCED CHANGES IN ERYTHROCYTE DEFORMABILITY AFTER *IN VITRO* OXIDATIVE STRESS

Esin Ileri Gurel, Nurten Seringec, Okan Arihan, Vildan Tasdemir, and Neslihan Dikmenoglu
Ankara, Turkey

SESSION 2 Adipokines

State-of-the-science lecture

ADIPOPROTEOMICS, A VALUABLE TECHNOLOGY FOR FASCINATING FAT

Johan Renes
Maastricht, The Netherlands

State-of-the-science lecture

ADIPOKINE CONCENTRATIONS ARE SIMILAR IN FEMORAL ARTERY AND CORONARY VENOUS SINUS BLOOD: EVIDENCE AGAINST *IN VIVO* ENDOCRINE SECRETION BY HUMAN EPICARDIAL FAT

Harold S. Sacks and Eric Johnson
Memphis, TN, USA

ROLE OF RESISTIN AND INTERLEUKIN-6 IN THE METABOLIC SYNDROME

Arif Ata, Ahmet Ergün, and S. Kenan Köse
Ankara, Turkey

SESSION 3 Obesity and *Homo obesus*

State-of-the-science lecture

ADIPOCYTE HYPOXIA: A KEY MODULATOR OF ADIPOSE TISSUE FUNCTION IN OBESITY?

Paul Trayhurn and Stuart Wood
Liverpool, UK

MATERNAL NUTRITION DURING PREGNANCY AND ADIPOSITY IN THE OFFSPRING

Sukhinder K. Cheema and Kanta Chechi
St. John's, Newfoundland, Canada

A PERSPECTIVE ON THE IMPACT OF OBESITY, DIABETES, AND LIFESTYLE ON CARDIOMETABOLIC HEALTH

Harpal S. Buttar
Ottawa, Ontario, Canada

IMMUNE SYSTEM RESPONSE TO STRESS: OBESITY AS A NOVEL MODULATOR

Bilge Pehlivanoglu
Ankara, Turkey

SESSION 4 The metabolic syndrome

State-of-the-science lecture

HYPERLEPTINEMIA, PARAOXONASE 1 AND PROTEIN HOMOCYSTEINYLATION: IMPLICATIONS FOR PROATHEROGENIC EFFECT OF THE METABOLIC SYNDROME

Jerzy Bełtowski, Grażyna Wójcicka, Ewelina Łowicka, and Hieronim Jakubowski
Lublin and Poznań, Poland and Newark, New Jersey, USA

METABOLIC SYNDROME AND NERVE GROWTH FACTOR: EFFECTS OF METFORMIN AND NONSTEROIDAL ANTI-INFLAMMATORY DRUG TREATMENT

Mariyana Hristova, Valeria Colafrancesco, Marco Fiore, and Luigi Aloe
Varna, Bulgaria and Rome, Italy

THE EFFECTS OF EXERCISE ON SERUM BRAIN-DERIVED NEUROTROPHIC FACTOR

Yu Nofuji, Masataka Suwa, Haruka Sasaki, and Shuzo Kumagai
Fukuoka and Miyagi, Japan

METABOLIC SYNDROME AND CARDIAC AUTONOMIC NEUROPATHY IN TYPE 2 DIABETIC PATIENTS

Zorica Rašić-Milutinović, Gordana Peruničić-Peković, Tamara Popović, and Branislav Milovanović
Belgrade, Serbia

METHYLENETETRAHYDROFOLATE C677T POLYMORPHISM IN METABOLIC SYNDROME

Cristina Hotoleanu
Cluj-Napoca, Romania

THE ROLE OF HOMOCYSTEINE AND FOLIC ACID IN CORONARY ARTERY DISEASE

Dragan Djuric, Krstic D, Vladimir Jakovljevic, and Olivera Stanojlovic
Belgrade and Kragujevac, Serbia

INFLAMMATORY MARKERS AND CARDIOVASCULAR PARAMETERS IN THE PREDICTION OF MORTALITY IN HEMODIALYSIS PATIENTS

Gordana Perunicic-Pekovic, Zorica Rasic-Milutinovic, A. Ignjatovic, and Marija Glibetić
Belgrade, Serbia

Day 3: Sunday, 25 October 2009

SESSION 5 Diabetes

State-of-the-science lecture

NERVE GROWTH FACTOR, PANCREATIC BETA CELLS, ADIPOSE TISSUE AND DIABETES MELLITUS

Marcia Hiriart

Mexico, Mexico

State-of-the-science lecture

MECHANISMS FOR THE DEVELOPMENT OF DIABETIC ANGIOPATHY AND ITS PREVENTION: ENEMIES AND FRIENDS WITHIN

Hiroshi Yamamoto, Takuo Watanabe, Yasuhiko Yamamoto, Hideto Yonekura, Seiichi Munesue, Kazuyo Ooe, Takahiro Sugihara, Hidehito Saito, So Motoyoshi, and Dong Han

Kanazawa, Japan

RELATIONSHIP OF PLASMA PHOSPHOLIPIDS FATTY ACIDS AND THE HOMEOSTASIS MODEL OF INSULIN RESISTANCE IN TYPE 2 DIABETIC PATIENTS: A PILOT STUDY

Tamara Popović, Zorica Rašić-Milutinović, Gordana Peruničić-Peković, Aleksandra Arsić, and Marija Glibetić

Belgrade, Serbia

OXIDATIVE STRESS IN HEALTH AND DISEASE: FOCUS ON LIPID PEROXIDATION

Vladimir Lj. Jakovljevic, Dejan Cubrilo, Snezana Pesic, Sasa Raicevic, and Dragan M. Djuric

Kragujevac and Belgrade, Serbia

COLD EXPOSURE AND ADIPOSE NITRIC OXIDE AND MAST CELLS: INFLUENCE ON AORTA CONTRACTILITY

Neşe Tunçel, Esin Peker, Erol Şener, Arın Güldal, Muzaffer Tunçel, George N. Chaldakov, Fatma Töre, and Varol Şahintürk

Eskişehir and Bolu, Turkey and Varna, Bulgaria

SESSION 6 Cancer

State-of-the-science lecture

SERUM-BORNE FACTORS IN CANCER PATIENTS WITH ADVANCED CACHEXIA: INFLUENCE ON ADIPOSE CELLS

Fred Haugen, Svein Dueland, and Christian A. Drevon

Oslo, Norway

ADIPOSE TISSUE AROMATASE AND BREAST CANCER: A VIEW OF (ADIPO)PHARMACOLOGIST

Stanislav Yanev

Sofia, Bulgaria

MOLECULAR MECHANISMS INVOLVED IN REGULATION OF ADIPOGENESIS IN MESENCHYMAL STEM CELLS AND TUMOR-ASSOCIATED FIBROBLASTS

Florina Bojin, Calin Tatu, Oana Gavriliuc, Carmen Bunu, and
Virgil Paunescu
Timisoara, Romania

SESSION 7 Bioesthetics

STAY THIN: A FIGHT AGAINST OREXINS AND GHRELIN

Irina Stoyanova

Enschede, The Netherlands and Stara Zagora, Bulgaria

CLINICAL AND EXPERIMENTAL STUDY OF ADIPOSE TISSUE BEHAVIOUR AFTER AUTOLOGOUS FAT GRAFTING

Pepa Atanassova and Regina Khater

Plovdiv, Bulgaria

In vino veritas

PRENATAL EXPOSURE TO ETHANOL BUT NOT RED WINE CAUSES AGE-RELATED DEFICITS IN RODENTS: IMPLICATION OF NERVE GROWTH FACTOR AND BRAIN-DERIVED NEUROTROPHIC FACTOR

Marco Fiore, Mauro Ceccanti, and Luigi Aloe

Rome, Italy

EFFECTS OF ACUTE AND CHRONIC ALCOHOL INTAKE ON CORTICAL EXCITABILITY

Marina Romeo and Marco Ceccanti

Rome, Italy

Dance Round lectures

CHRONOBIOLOGY OF ADIPOSE TISSUE: PINEAL-ADIPOSE NETWORK

Gorana Rančić, Vladmila Bojanić, Neşe Tunçel, and George N. Chaldakov
Niš, Serbia, Eskişehir, Turkey, and Varna, Bulgaria

THE ADIPOSE TISSUE AS A THIRD BRAIN

George N. Chaldakov, Anton B. Tonchev, and Luigi Aloe

Varna, Bulgaria and Rome, Italy

Coda

Discussion speaker:

Gema Frühbeck

Pamplona, Spain

Welcome-again words

George N. Chaldakov

Chairman, ISAA

Note

The duration of State-of-the-science lectures is 20 minutes/lecture, other lectures 10 minutes/lecture, Dance Round lectures 5 minutes/lecture, and Concluding discussion 30 minutes. Stay tuned to the ISAA chronobiology, please.

The Abstracts will be published in *Adipobiology*, An International Journal of Adipose Tissue in Health and Disease, volume 1, 2009.

2nd International Symposium on **ADIPOBIOLOGY AND ADIPOPHERMACOLOGY (ISAA)**

Chairman

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