3rd INTERNATIONAL CONFERENCE ON MOLECULAR BASIS OF METABOLIC REGULATION

ADIPOSE TISSUE FUNCTION AND DYSFUNCTION: ORGAN CROSS-TALK AND METABOLIC RISK

In Conjunction with
COST ACTION BM0602
ADIPOSE TISSUE: A KEY TARGET FOR PREVENTION OF THE METABOLIC SYNDROME

November 14-15, 2008 - Bari, Italy
Sheraton Nicolaus Hotel
Conference Goals

The major goal of this conference is to discuss the more recent information on the physiology and pathophysiology of adipose tissue, with particular focus on the impact of adipose tissue dysfunction on metabolic regulation and cardiovascular function. In addition, the conference will address the concept that a better understanding of the molecular mechanisms regulating adipose tissue development and depot specificity may shed light on new potential targets for therapeutic intervention in the metabolic syndrome and type 2 diabetes. Internationally renowned scientists from Europe, North America and Oceania, including investigators working in the academy and in pharmaceutical industries, will attend the conference.
Program Topics

- Development of Adipose Tissue
- Molecular Switches Regulating Adipocyte Biology
- Regulation of Adipocyte Signaling and Metabolism
- Biology of Different Fat Depots
- Adipocyte Products in the Pathogenesis of Metabolic Diseases
- Gene-Environment Interactions in Obesity and Type 2 Diabetes
- Adipose Tissue and Cardio-Metabolic Dysfunction

Chair and Local Organizer

Prof. Francesco Giorgino
University of Bari School of Medicine
Department of Emergency and Organ Transplantation
Section of Internal Medicine,
Endocrinology and Metabolic Diseases
Piazza Giulio Cesare, 11 - 70124 Bari (IT)
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Tel. +39-051-614.4004 - Fax +39-051-614.2772
E-mail: federica.schiassi@iec-srl.it
<table>
<thead>
<tr>
<th>Speakers, Chairpersons</th>
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<tr>
<td>Peter Arner</td>
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<tr>
<td>Karolinska University Hospital, Huddinge</td>
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<td>Stockholm, Sweden</td>
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<td>Francesco Beguinot</td>
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<td>University of Naples “Federico II”</td>
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<td>Matthias Blüher</td>
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<td>Saverio Cinti</td>
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<td>Michael P. Czech</td>
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<td>Juergen Eckel</td>
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<td>Jan Ehses</td>
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<td>University Hospital of Zurich</td>
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<td>Violeta A. Gafencu</td>
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<td>Institute of Cellular Biology and Pathology “N. Simionescu”</td>
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<td>Daniela Gasperikova</td>
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<td>David E. James</td>
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<td>Jørgen Jensen</td>
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<td>National Institute of Occupational Health</td>
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<td>Amira Klip</td>
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<td>Hospital for Sick Children</td>
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<td>Margarita Lorenzo</td>
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<td>Jeffrey E. Pessin</td>
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<td>Albert Einstein College of Medicine</td>
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<td>Erik A. Richter</td>
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<td>Shlomo Sasson</td>
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<td>Steven E. Shoelson</td>
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<td>Joslin Diabetes Center</td>
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Kenneth Siddle  
University of Cambridge  
Cambridge, UK

Maya Simionescu  
Institute of Cellular Biology and Pathology  
“N. Simionescu”  
Bucharest, Romania

Ulf Smith  
Sahlgrenska University Hospital  
Gothenburg, Sweden

Bart Staels  
University of Lille  
Lille, France

Maria Svelto  
University of Bari  
Bari, Italy

Ildiko Szanto  
University of Geneva  
Geneva, Switzerland

Paul Trayhurn  
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Liverpool, UK

Vincenzo Trischitta  
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Rome, Italy  
Scientific Institute  
Casa Sollievo della Sofferenza,  
San Giovanni Rotondo, Italy

Mariella Trovati  
University of Turin  
Turin, Italy

Emmanuel Van Obberghen  
University of Nice Sophia - Antipolis  
Nice, France

Roberto Vettor  
University of Padua  
Padua, Italy

Juleen R. Zierath  
Karolinska Institutet  
Stockholm, Sweden

Antonio Zorzano  
Institute for Research in Biomedicine  
Barcelona, Spain
November 14th, 2008

8.00 – 8.30  Registration
8.30 – 9.00  Plenary Session Opening
            C. Petrocelli (Magnifico Rettore, University of Bari, Italy)
            A. Quaranta (Amplissimo Preside, School of Medicine, University of Bari, Italy)
            F. Giorgino (Italy)
9.00 – 9.25  The Complexity of Adipose Tissue
            Chairs: M. P. Czech (USA), P. Trayhurn (UK)
            The concept of adipose organ and the transdifferentiation of adipocytes
            S. Cinti (Italy)
         9.25 – 9.50  Cytokines, Wnt signaling and the molecular regulation of adipogenesis
            U. Smith (Sweden)
         9.50 – 10.15  Macrophage functions and adipose tissue conditioning
            B. Staels (France)
10.15 – 10.45  Coffee Break

Molecular Switches Regulating Adipocyte Biology
            Chairs: J. E. Pessin (USA), B. Staels (France)
10.45 – 11.15  Inflammatory signaling pathways and adipose tissue metabolism
            S. E. Shoelson (USA)
11.15 – 11.40  DGK and the regulation of insulin action
            J. R. Zierath (Sweden)
11.40 – 12.05  Hypoxia-induced adipocyte dysfunction
            P. Trayhurn (UK)
12.05 – 12.30  Dysregulation of insulin action and secretion in type 2 diabetes
            E. Van Obberghen (France)
12.30 – 13.00  Discussion
13.00 – 15.00  Lunch
Different Fat Depots: Are They Really Different?

Chairs: P. Arner (Sweden), J. Eckel (Germany)

15.00 – 15.30
Cross-talk between visceral and subcutaneous adipose tissue
D. E. James (Australia)

15.30 – 15.55
Fat depot-related differences in adipose tissue precursor cells
F. Giorgino (Italy)

15.55 – 16.15
Adipokine protein expression pattern and adipose tissue function
D. Gasperikova (Slovak Republic)

16.15 – 16.35
Inflammatory signaling pathways regulating ApoE gene expression in macrophages
V. A. Gafencu / M. Simionescu (Romania)

16.35 – 17.00
Coffee Break

From Receptors to GLUTs: Regulation of Adipocyte Signaling and Metabolism

Chairs: K. Siddle (UK), E. Van Obberghen (France)

17.00 – 17.25
The role of reactive oxygen species in adipocyte metabolism
I. Szanto (Switzerland)

17.25 – 17.55
Lipid-droplet proteins and regulation of insulin sensitivity
M. P. Czech (USA)

17.55 – 18.25
Mechanisms of impaired GLUT4 vesicle traffic by cytokines and oxidative stress
A. Klip (Canada)

18.25 – 18.50
Aquaporins and adipocyte biology
M. Svelto (Italy)

20.00
Dinner
<table>
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<tr>
<th>Time</th>
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<tr>
<td>9.00 – 9.30</td>
<td><strong>Regulation of fatty acid oxidation and insulin sensitivity</strong></td>
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<td>J. E. Pessin (USA)</td>
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<td>9.30 – 9.55</td>
<td><strong>Mechanisms linking dysfunction of adipose tissues with metabolic diseases</strong></td>
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<td>P. Arner (Sweden)</td>
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<td>9.55 – 10.20</td>
<td><strong>Molecular mechanisms of the fat and muscle crosstalk</strong></td>
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<td>J. Eckel (Germany)</td>
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<td>10.20 – 10.45</td>
<td><strong>Modulation of insulin action by the nutrient sensing PRAS40/mTOR signalling pathway</strong></td>
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<td>M. Ouwens (The Netherlands)</td>
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<td>10.45 – 11.00</td>
<td><em>Coffee Break</em></td>
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<tr>
<td>11.00 – 11.25</td>
<td><strong>Interaction between BMI and insulin signaling genes in the modulation of insulin resistance and type 2 diabetes</strong></td>
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<td>V. Trischitta (Italy)</td>
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<td>11.25 – 11.50</td>
<td><strong>Prep1 deficiency induces protection from diabetes and increased insulin sensitivity through a p160-mediated mechanism</strong></td>
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<td>F. Beguinot (Italy)</td>
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<td>11.50 – 12.15</td>
<td><strong>Gene-environment interactions in the regulation of adipocyte function – The healthy obese phenotype</strong></td>
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<td>M. Blüher (Germany)</td>
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<td>12.15 – 12.40</td>
<td><strong>Adipotoxicity and mitochondrial dysfunction in type 2 diabetes</strong></td>
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<td>M. Roden (Germany)</td>
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<td>12.40 – 13.00</td>
<td><strong>Discussion</strong></td>
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<td>13.00 – 15.00</td>
<td><em>Lunch</em></td>
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Adipose Tissue Abnormalities and Metabolic Imbalance: from Bench to Bedside
Chairs: A. Klip (Canada), U. Smith (Sweden)

15.00 – 15.25 AMP Kinase - A multi-organ fuel sensor activated by exercise
E. A. Richter (Denmark)

15.25 – 15.50 What is the origin of intermuscular adipose tissue? The adipogenic potential of muscle satellite cells
R. Vettor (Italy)

15.50 – 16.15 Hormonal and pharmacological modulation of insulin action in adipocytes
M. Lorenzo (Spain)

16.15 – 16.40 Glycogen metabolism in animal models of obesity
J. Jensen (Norway)

16.40 – 17.00 Coffee Break

Adipose Tissue, Beta-Cell Dysfunction, and Cardiovascular Risk
Chairs: F. Beguinot (Italy), A. Zorzano (Spain)

17.00 – 17.25 Gluco-lipotoxicity and beta-cell dysfunction
N. Kaiser (Israel)

17.25 – 17.50 Islet inflammation and beta-cell dysfunction in type 2 diabetes
J. Ehses (Switzerland)

17.50 – 18.15 Products of lipid peroxidation (bioactive aldehydes) are signaling molecules that regulate the glucose transport system in vascular endothelial cells
S. Sasson (Israel)

18.15 – 18.40 Contribution of obesity and insulin resistance to vascular dysfunction
M. Trovati (Italy)

20.00 Dinner
November 16th, 2008

9.00 – 12.00  Management Committee Meeting of COST BM0602

Scientific Notes
Conference venue
Sheraton Nicolaus Hotel
Via Cardinale Agostino Ciasca, 27 - Bari, (IT)
Tel. +39-080-568.2111
Fax +39-080-504.2548

How to reach the venue
by car: Highway exit Bari Nord, ring-road direction Brindisi, exit no. 11. Follow the road signs to the venue
by plane: Bari airport (12 km from the Conference venue)
by train: Bari train station (6 km from the Conference venue)
taxi: taxi phone number +39 080-554.3333 +39 080-534.6666
General Information

Registration fee (VAT included)

**COST members**
Including accommodation from November 13 to November 16 at the Sheraton Nicolaus Hotel in Bari

- M.D. and Ph.D. € 450,00
- Ph.D. Student / Trainee € 300,00

**COST non members**
Not including accommodation from November 13 to November 16 at the Sheraton Nicolaus Hotel in Bari

- M.D. and Ph.D. € 500,00
- Ph.D. Student / Trainee € 200,00

Accommodation booking (VAT included)

- Single room from November 13 to November 16 at the Sheraton Nicolaus Hotel in Bari (for three nights) € 450,00
- Double room from November 13 to November 16 at the Sheraton Nicolaus Hotel in Bari (for three nights) € 510,00

Payment of registration and accommodation fee
The Conference fee should be paid in advance.
Payment must be made to I&C srl by:
- Cheque (made out in €) to: I&C srl, via Andrea Costa 202/6 - 40134 Bologna
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Cancellation
In case of cancellation, the Organizing Secretariat must be notified in writing not later than **October, 31st 2008**. A partial fee of 50% will be refunded. After this date no refunds are possible.

CME credits
The Conference has been presented to the Board for Accreditation of the Italian Ministry of Health for the professional figure of medical doctors and surgeons.
Registration and Accommodation Form

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ADIPOSE TISSUE FUNCTION AND DYSFUNCTION: ORGAN CROSS-TALK AND METABOLIC RISK
November 14 -15, 2008 - Bari, Italy - Sheraton Nicolaus Hotel

First Name ________________________________ Family Name ________________________________

Contact details (mandatory)
Institution / Organization ________________________________
Department / Section ________________________________
Address ( □ Private - □ a.m. Institution) ________________________________
Town ________________________________ ZIP Code ________________________________ State ________________________________ Country ________________________________
Phone ________________________________ Mobile ________________________________ Fax ________________________________ E-mail ________________________________

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Invoice in the name of (individual, company, institution):
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You may use my personal data according to law n.675 (Dec. 31, 1996) and law decree 196/2003 on privacy

Date ________________________________ Signature ________________________________
Registration and Accommodation Form

Registration fee (VAT included)
(please tick the relevant box)

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Total due € __________

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- Credit card
  - VISA  - MASTERCARD

  Name of the card owner

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  CVV2 __________________________

  Sum to debt

  Authorization signature

  Please send the cheque or a copy of the bank transfer to the Organizing Secretariat I&C srl with your registration form

Registrations without the corresponding fees will not be accepted
In metabolic diseases AstraZeneca plays an active role in the search for new and effective molecules, statins, for the treatment of hypercholesterolemia. AstraZeneca’s commitment to the search for innovative drugs against dislipidemias follows the US National Cholesterol Education Program guidelines: the LDL cholesterol levels that genuinely require pharmacological action and the drug dosages are to be evaluated in each patient, in connection with any existing risk factors. AstraZeneca’s research efforts in this area are aimed at offering this category of patients the opportunity of lowering their LDL cholesterol levels and of raising their HDL cholesterol, in order to guarantee an effective protection against atherosclerosis and thus to reduce global cardiovascular risk.

From ideas we create solutions.