

# CIBERDEM

## 8<sup>th</sup> ANNUAL MEETING

May 17-19, 2017



Hotel Campus  
Campus UAB  
Cerdanyola del Vallès  
Barcelona

**Wednesday, May 17<sup>th</sup>**

**15:30 REGISTRATION**

**17:15 OPENING AND WELCOME**

Eduard Montanya, Scientific Director, CIBERDEM

**17:30 SESSION 1: RESEARCH PROGRAM 2**

Chair: *Deborah Burks (Centro de Investigación Príncipe Felipe, Valencia)*

*Paloma Alonso-Magdalena (Universidad Miguel Hernandez, Elche)*

**17:30-18:00 State of the art lecture**

Treating Diabetes with Gene Therapy: Prospects and Challenges

Fátima Bosch (Centro de Biotecnología Animal y Terapia Génica, UAB, Barcelona)

**18:00-19:00 Oral presentation session 1**

**18:00 OP1** 3D CHROMATIN STRUCTURE MAPS IN HUMAN PANCREATIC ISLETS PROVIDE INSIGHTS INTO THE MECHANISMS OF TYPE 2 DIABETES RISK

Irene Miguel-Escalada<sup>1,2</sup>, Joan Ponsa<sup>3</sup>, Delphine Rolando<sup>3</sup>, Inés Cebola<sup>3</sup>, Jorge Ferrer<sup>1,2,3</sup>

*1 Genomic Programming of Beta-cells Laboratory, Institut d'Investigacions August Pi i Sunyer (IDIBAPS), 08036 Barcelona; 2 CIBERDEM; 3 Department of Medicine, Imperial College London, London W12 0NN, United Kingdom.*

**18:15 OP2 TREATMENT WITH CHEMICAL CHAPERONE 4-PHENYLBUTYRATE RESTORES GLUCOSE METABOLISM IN MICE OVEREXPRESSING HUMAN ISLET AMYLOID POLYPEPTIDE**

Sara de Pablo<sup>1,2</sup>, Joel Montané<sup>1,2</sup>, Carlos Castaño<sup>1,2</sup>, Júlia Rodríguez-Comas<sup>1,2</sup>, Gema Alcarraz-Vizán<sup>1,2</sup>, Melchor Sánchez-Martínez<sup>3</sup>, Alfons Nonell-Canals<sup>3</sup>, Joan-Marc Servitja<sup>1,2</sup>, Anna Novials<sup>1,2</sup>

*1 Diabetes and Obesity Laboratory, IDIBAPS, Barcelona; 2 CIBERDEM Barcelona; 3 Mind the Byte, Parc Científic de Barcelona.*

**18:30 OP3 ROLE OF GUT FUNCTION IN THE PROGRAMMING OF METABOLIC SYNDROME**

Fernández-Millán E<sup>1,2</sup>, Álvarez-Cilleros D<sup>3</sup>, de Toro-Martín J<sup>4</sup>, Escrivá F<sup>1,2</sup>, Álvarez C<sup>1,2</sup>

*1 CIBERDEM, ISCIII; 2 Department of Biochemistry and Molecular Biology II, School of Pharmacy, Complutense University of Madrid; 3 Departamento de Metabolismo y Nutrición, ICTAN (CSIC), Madrid; 4 Institute of Nutrition and Functional Foods (INAF), Laval University, Québec, Canadá.*

**18:45 OP4 IMPAIRED PARACRINE FGF SIGNALLING IN THE INSULIN RESISTANT LIVER: IMPLICATIONS FOR CHRONIC INJURY REPAIR AND DE NOVO HEPATOGENESIS**

Manzano Núñez F<sup>1,2</sup>, Arámbul Anthony MJ<sup>1,2</sup>, Galan Albiñana MA<sup>2</sup>, Acosta Umazor C<sup>1,2</sup>, Leal Tassias A<sup>2</sup>, Herrera A<sup>2</sup>, Corlu A<sup>3,4</sup>, Forteza Vila J<sup>2,5</sup>, Burks DJ<sup>1,2</sup>, Noon LA<sup>1,2</sup>

*1 CIBERDEM; 2 Centro de Investigación Príncipe Felipe; 3 INSERM, UMR991, Liver Metabolisms and Cancer; 4 Université de Rennes; 5 Universidad Católica de Valencia San Vicente Màrtir.*

**19:00-21:00 POSTERS & REFRESHMENT**

**21:00 DINNER**

**Thursday, May 18<sup>th</sup>**

**9:00 SESSION 1** (continuation)

Chair: *Deborah Burks (Centro de Investigación Príncipe Felipe, Valencia)*  
*Paloma Alonso-Magdalena (Universidad Miguel Hernandez, Elche)*

**9:00-11:00 Oral presentation session 1**

**9:00 OP5 IDENTIFICATION OF WISP1 AS A YOUNG BLOOD-BORNE FACTOR THAT PROMOTES ADULT PANCREATIC BETA CELL PROLIFERATION**

Rebeca Fernández-Ruiz<sup>1,2</sup>, Ainhoa García<sup>1,2</sup>, Yaiza Esteban<sup>1,2</sup>, Joan Mir-Coll<sup>1,3</sup>, Elena G Ruano<sup>1,2</sup>, Josep Vidal<sup>1,2,3,4</sup>, Ramon Gomis<sup>1,2,3,4</sup> and Rosa Gasà<sup>1,2</sup>

*1 Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS), Barcelona; 2 CIBERDEM, Barcelona; 3 Universitat de Barcelona; 4 Hospital Clínic de Barcelona.*

**9:15 OP6 THE IMPACT OF EXTRACELLULAR AND CELL-AUTONOMOUS REGULATION OF  $\beta$ -CELL REPLICATION DIFFERS DURING AGING**

Noèlia Téllez<sup>1,3</sup>, Yasmina Martí<sup>1</sup>, Claudia Fernández<sup>1</sup>, Aleix Giménez<sup>1</sup>, Eduard Montanya<sup>1,2,3</sup>

*1 Laboratory of Diabetes and Experimental Endocrinology, Clinical Sciences, IDIBELL-University of Barcelona; 2 Endocrine Unit, Hospital Universitari de Bellvitge; 3 CIBERDEM.*

**9:30 OP7 TRANSCRIPTION FACTOR-BASED REPROGRAMMING OF HUMAN FIBROBLASTS TOWARDS INSULIN-PRODUCING CELLS**

Gasa R<sup>1,2</sup>, Fontcuberta Pi-Sunyer M<sup>1,3</sup>, Cervantes S<sup>1,2</sup>, Dogheche N<sup>1</sup>, Figueiredo H<sup>1,3</sup>, Sanchez L<sup>1,2</sup>, Esteban Y<sup>1,2</sup>, Montserrat N<sup>4</sup>, Vidal J<sup>1,2,3,5</sup>, Soler A<sup>5</sup>, Novials A<sup>1,2</sup>, Gomis R<sup>1,2,3,5</sup>

*1 Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS), Barcelona; 2 CIBERDEM, Barcelona; 3 Universitat de Barcelona; 4 Institut de Bioenginyeria de Catalunya (IBEC), Barcelona; 5 Hospital Clínic de Barcelona.*

**9:45 OP8 EFFECTS OF HUMAN PANCREATIC DUCTAL CELLS ON PANCREATIC ISLET TRANSPLANTATION**

S. Marín<sup>1, 2, 3</sup>, E. Estil.les<sup>1,2</sup>, C. García<sup>1</sup>, N. Tellez<sup>1, 2, 3</sup>, E. Montanya<sup>1,2,3,4</sup>

*1 IDIBELL; 2 CIBERDEM; 3 University of Barcelona; 4 University Hospital of Bellvitge*

**10:00 OP9 EXPOSURE TO ENVIRONMENTALLY RELEVANT DOSES OF BISPHENOL A DECREASE R-TYPE CALCIUM CURRENT VIA ESTROGEN RECEPTOR B (ERB) IN PANCREATIC  $\beta$ -CELLS**

Sabrina Villar-Pazos<sup>1</sup>, Juan Martinez-Pinna<sup>2</sup>, Manuel Castellano-Munoz<sup>1</sup>, Paloma Alonso-Magdalena<sup>1</sup>, Ivan Quesada<sup>1</sup> and Angel Nadal<sup>1</sup>

*1 CIBERDEM, Universidad Miguel Hernández de Elche; 2 Departamento de Fisiología, Genética y Microbiología, Universidad de Alicante.*

**10:15 OP10 CONSUMPTION OF PHENOL-RICH VIRGIN OLIVE OIL IMPROVES HIGH FAT DIET-INDUCED TYPE 2 DIABETES MELLITUS**

Álvarez L<sup>1,2,3</sup>, Cárdenas A<sup>1,2</sup>, Berná G<sup>2,3</sup>, Tejedó JR<sup>1,2,3</sup>, Rojas A<sup>1,2,3</sup>, Bedoya FJ<sup>1,2,3</sup>, Soria B<sup>1,2,3</sup> and Martín F<sup>1,2,3</sup>

*1 Andalusian Center of Molecular Biology and Regenerative Medicine (CABIMER), Seville; 2 CIBERDEM, Seville; 3 Pablo Olavide University, Seville.*

**10:30 OP11 DELAYING THE AUTOIMMUNE ATTACK IN A RODENT MODEL OF TYPE I DIABETES**

Lachaud CC<sup>1</sup>; de la Fuente Martín E<sup>1</sup>; Cobo-Villeumier N<sup>1</sup>; Martín F<sup>1,2,3</sup>, Hmadcha A<sup>1,3</sup> Gauthier BR<sup>1</sup> and Soria B<sup>1,2,4</sup>

*1 Andalusian Center for Molecular Biology and Regenerative Medicine-CABIMER, Seville; 2 CIBERDEM, Madrid; 3 Instituto de Salud Carlos III-ISCIII, Madrid; 4 Pablo de Olavide University-UPO, Seville.*

**10:45 OP12 ALX3-DEFICIENCY IMPAIRS EMBRYONIC DEFENSE MECHANISMS AGAINST OXIDATIVE STRESS DURING DIABETIC PREGNANCY VIA ACTIVATION OF FOXO1 TRANSCRIPTION IN MICE**

M. Mirasierra<sup>1,2</sup>, P. García-Sanz<sup>3</sup>, R. Moratalla<sup>3</sup> and M. Vallejo<sup>1,2</sup>

*1 Instituto de Investigaciones Biomédicas Alberto Sols, CSIC/Universidad Autónoma de Madrid; 2 CIBERDEM, 3 Instituto Cajal, CSIC, Madrid and CIBERNED.*

**11:00-11:30 Coffee break**

**11.30 SESSION 2: RESEARCH PROGRAM 3**

Chair: *Sonia Fernández-Veledo (Fundación Instituto de Investigación Sanitaria Pere Virgili, Tarragona)*

*David Sebastián (Instituto de Recerca Biomédica, IRB-Barcelona)*

**11:30-12:00 State of the art lecture**

Mitochondrial quality control mechanisms and brown fat thermogenesis: A new insight

Manuel Benito de las Heras (Universidad Complutense de Madrid)

**12:00-13:00 Oral presentation session 2**

**12:00 OP13 PANCREATIC  $\beta$  CELLS OVEREXPRESSING HIAPP (INS1E-HIAPP) INDUCED AN IMPAIRED MITOPHAGY AND AN UNBALANCE OF MITOCHONDRIAL DYNAMICS**

Guillén C, Burillo J, García Aguilar A, Gómez-Oca R, Benito M.

*Facultad de Farmacia, UCM. Madrid.*

**12:15 OP14** ROLE OF BNIP3 IN MITOCHONDRIAL HEALTH AND METABOLISM IN SKELETAL MUSCLE

David Sebastián, Andrea Irazoki, Vincenzo Migliaccio, Antonio Zorzano  
*Institute for Research in Biomedicine (IRB Barcelona), The Barcelona Institute of Science and Technology, Baldiri Reixac, 10-12, 08028 Barcelona; Departament de Bioquímica i Biomedicina Molecular, Facultat de Biologia, Universitat de Barcelona, 08028 Barcelona; Instituto de Salud Carlos III, CIBERDEM.*

**12:30 OP15** VLDL AND APOLIPOPROTEIN CIII INDUCE ER STRESS AND INFLAMMATION AND ATTENUATE INSULIN SIGNALING VIA TOLL-LIKE RECEPTOR 2 AND ERK1/2 IN SKELETAL MUSCLE CELLS

Gaia Botteri<sup>1,2,3</sup>, Marta Montori<sup>1,2,3</sup>, Anna Gumà<sup>2,4</sup>, Javier Pizarro<sup>1,2,3</sup>, Lúdia Cedó<sup>2,5</sup>, Joan Carles Escolà-Gil<sup>2,5,6</sup>, Diana Li<sup>7</sup>, Emma Barroso<sup>1,2,3</sup>, Xavier Palomer<sup>1,2,3</sup>, Alison B. Kohan<sup>7</sup>, and Manuel Vázquez-Carrera<sup>1,2,3</sup>

1 *Pharmacology Unit, Department of Pharmacology, Toxicology and Therapeutic Chemistry, Faculty of Pharmacy, University of Barcelona; Institut de Biomedicina de la Universidad de Barcelona (IBUB); 2 CIBERDEM, Instituto de Salud Carlos III, Barcelona; 3 Institut de Recerca Sant Joan de Déu (IR-SJD). Esplugues de Llobregat, Barcelona; 4 Department of Biochemistry and Molecular Biology and IBUB, University of Barcelona; 5 Institut d'Investigacions Biomèdiques (IIB) Sant Pau, Barcelona; 6 Departament of Biochemistry and Molecular Biology, Autonomous University of Barcelona, Barcelona; 7 Department of Nutritional Sciences, University of Connecticut, Storrs, CT USA.*

**12:45 OP16** ANTI-INFLAMMATORY MECHANISMS OF 7-CIS HEXADECENOIC ACID

Clara Meana, Alma Astudillo, Laura Pereira, María A. Balboa and Jesús Balsinde  
*Instituto de Biología y Genética Molecular, CSIC, Valladolid*

### **13:00 CIBERs session**

Chair: *Eduard Montanya, Scientific Director, CIBERDEM (IDIBELL, Barcelona)*

*CIBERBBN, Ramón Martínez, Scientific Director (Universidad Politécnica de Valencia)*

*CIBERSAM, Eduard Vieta, Scientific Director (Hospital Clínico y Provincial de Barcelona)*

### **14:00 LUNCH & POSTERS**

### **16:00 SESSION 2 (continuation)**

Chair: *Sonia Fernández-Veledo (Fundación Instituto de Investigación Sanitaria Pere Virgili, Tarragona)*

*David Sebastián (Instituto de Recerca Biomédica, IRB-Barcelona)*

### **16:00-18:00 Oral presentation session 2**

**16:00 OP17** A NOVEL PROTEIN-PROTEIN INTERACTION NETWORK APPROACH REVEALS ALTERED CELLULAR FUNCTIONS OCCURRING IN RETINAL PIGMENT EPITHELIUM CELLS EXPOSED TO HYPERGLYCEMIC AND/OR HYPOXIC CONDITIONS

Miriam Navarro<sup>1,2</sup>, Jordi Capellades<sup>1,2</sup>, Antoni Aguilar-Mogas<sup>4</sup>, Marta Garcia-Ramirez<sup>2,5</sup>, Cristina Hernandez<sup>2,5</sup>, Rafael Simó<sup>2,5</sup>, Xavier Correig<sup>1,2</sup>, Marta Sales-Pardo<sup>4</sup>, Samira Jaeger<sup>6</sup>, Patrick Aloy<sup>6</sup>, Roger Guimerà<sup>3,4</sup>, y Oscar Yanes<sup>1,2</sup>

*1 Metabolomics Platform, Department of Electronic Engineering (DEEEA), Universitat Rovira i Virgili, Av. Països Catalans 26, 43007 Tarragona, Catalonia; 2 CIBERDEM; 3 Institució Catalana de Recerca i Estudis Avançats (ICREA), Lluís Companys 23, 08010 Barcelona, Catalonia; 4 Departament d'Enginyeria Química, Universitat Rovira i Virgili, Av. Països Catalans 26, 43007 Tarragona, Catalonia; 5 Diabetes and Metabolism Research Unit, Institut de Recerca Hospital Universitari Vall d'Hebron (VHIR), Passeig Vall d'Hebron 119-129, 08035 Barcelona; 6 Structural Bioinformatics and Network Biology group, Institute for Research in Biomedicine (IRB), Parc Científic de Barcelona, C/ Baldori Reixac 10, 08028, Barcelona.*



**16:15 OP18 REDUCED PRENATAL WEIGHT GAIN AND/OR AUGMENTED POSTNATAL WEIGHT GAIN PRECEDE POLYCYSTIC OVARY SYNDROME IN ADOLESCENT GIRLS**

Rita Malpique<sup>1</sup>, Francis E de Zegher<sup>2</sup>, Thomas Reinehr<sup>3</sup>, Feyza Darendeliler<sup>4</sup>, Abel Lopez-Bermejo<sup>5</sup>, Lourdes Ibáñez<sup>6</sup>

*1 Endocrinology, Hospital Sant Joan de Déu, University of Barcelona, Barcelona; 2 Department of Pediatrics, University of Leuven, Leuven, Belgium; 3 Vestische Hospital for Children and Adolescents Datteln, University of Witten-Herdecke, Datteln, Germany; 4 Istanbul University, Istanbul, Turkey; 5 Pediatric Endocrinology, Dr. Josep Trueta Hospital, and Girona Institute for Biomedical Research, Girona; 6 Endocrinology, Hospital Sant Joan Déu, University of Barcelona, Barcelona.*

**16:30 OP19 LIVER GLYCOGEN ACCUMULATION REDUCES HYPERGLYCEMIA AND HYPERPHAGIA IN MOUSE MODELS OF TYPE I AND TYPE II DIABETES**

Iliana López-Soldado, Jordi Duran, Joan J. Guinovart  
*Institut de Recerca Biomèdica (IRB); CIBERDEM*

**16:45 OP20 SUCCINATE/SUCNR1 AXIS: AN INNATE SYSTEM ALARM FOR ADAPTIVE M2 IMMUNE RESPONSES**

N. Keiran<sup>1</sup>, E. Calvo<sup>1</sup>, V. Ceperuelo-Mallafre<sup>1</sup>, C. Núñez-Roa<sup>1</sup>, C. Serena<sup>1,2</sup>, J. Vendrell<sup>1,2</sup>, S. Fernández-Veledo<sup>1,2</sup>

*1 Health Institute Pere Virgili, Research Unit, Tarragona; 2 Hospital Joan XXIII, Tarragona.*

**17:00 OP21** INCREASED CIRCULATING LEVELS OF SUCCINATE IN OBESE AND TYPE 2 DIABETIC PATIENTS ARE DIRECTLY RELATED TO GUT MICROBIOTA

Carolina Serena<sup>1</sup>, Victoria Ceperuelo-Mallafre<sup>1</sup>, Noelia Keiran<sup>1</sup>, Maribel Queipo<sup>2</sup>, Rosa Bernal<sup>2</sup>, Francisco Tinahones<sup>2</sup>, Jose Manuel Fernández-Real<sup>3</sup>, Joan Vendrell<sup>1</sup>, Sonia Fernández-Veledo<sup>1</sup>

*1 Hospital Universitari de Tarragona Joan XXIII. Institut d'Investigació Sanitària Pere Virgili. Universitat Rovira i Virgili, Tarragona; 2 CIBERDEM; 3 Servicio de Endocrinología y Nutrición, Campus Teatinos s/n, Hospital Clínico Universitario Virgen de la Victoria, 29010, Málaga; 4 Department of Diabetes, Endocrinology and Nutrition, Institut d'Investigació Biomèdica de Girona (IdIBGi), CIBEROBN, Girona.*

**17:15 OP22** TP53INP2 REGULATES ADIPOSITY BY ACTIVATING B-CATENIN THROUGH AUTOPHAGY-DEPENDENT MECHANISM

Montserrat Romero<sup>1,2,3</sup>, Alba Sabaté-Pérez<sup>1,2,3</sup>, Ignacio Castrillón-Rodríguez<sup>1,2,3</sup>, José María Moreno-Navarrete<sup>4,5</sup>, José Manuel Fernández-Real<sup>4,5</sup>, Joan Vendrell<sup>1,6,7</sup>, Ulf Smith<sup>8</sup>, and Antonio Zorzano<sup>1,2,3</sup>

*1 CIBERDEM; 2 Department of Biochemistry and Molecular Biomedicine, Faculty of Biology, University of Barcelona, Barcelona; 3 Institute for Research in Biomedicine, (IRB Barcelona). The Barcelona Institute of Science and Technology, Barcelona; 4 Department of Diabetes, Endocrinology and Nutrition, Institut d'Investigació Biomèdica de Girona (IdIBGi), Hospital of Girona 'Dr Josep Trueta', Girona; 5 CIBEROBN; 6 Department of Endocrinology, Hospital Joan XXIII, Rovira i Virgili University, Tarragona; 7 Institut d'Investigació Sanitària Pere Virgili (IISPV), Tarragona; 8 The Lundberg Laboratory for Diabetes Research, Department of Molecular and Clinical Medicine, the Sahlgrenska Academy at the University of Gothenburg, Gothenburg, Sweden.*

**17:30 OP23** THE LACK OF P85ALPHA IN BROWN ADIPOSE TISSUE IMPROVES THERMOGENESIS AND OBESITY SUSCEPTIBILITY

Almudena Gómez-Hernández<sup>1,2</sup>, Patryk Majewski<sup>1</sup>, Carlota Rubio-Longás<sup>1</sup>, Nuria Benoit<sup>1</sup>, Óscar Escribano<sup>1,2</sup>, Andrea Raposo<sup>1</sup>, Gema García-Gómez<sup>1,2</sup>, Silvia Fernández<sup>1,2</sup>, Manuel Benito<sup>1,2</sup>

*1 Departamento de Bioquímica y Biología Molecular, Facultad de Farmacia, Universidad Complutense de Madrid e IdISHCSC, Madrid; 2 CIBERDEM.*

**17:45 OP24 CHANGES IN CIRCULATING MICRORNA PROFILE IN MORBIDLY OBESE (MO) PATIENTS WITH TYPE 2 DIABETES (T2DM) THAT OVERCOME THE DISEASE ONE YEAR AFTER BARIATRIC SURGERY**

Sara García-Serrano<sup>1,2</sup>, Eva García Escobar<sup>1,2</sup>, Sergio Valdés<sup>1,2</sup>, Juan Miguel Gómez Zumaquero<sup>2,3</sup>, Ana Lago Sampedro<sup>1,2</sup>, Juan Domínguez Bendala<sup>4</sup>, Ricardo Pastori<sup>4</sup>, Eduardo García Fuentes<sup>1,5</sup>, Gemma Rojo-Martínez<sup>1,2</sup>

*1 UGC de Endocrinología y Nutrición, Instituto de Investigaciones Biomédicas de Málaga (IBIMA), Hospital Regional Universitario, Málaga; 2 CIBERDEM, Málaga; 3 Sequencing and Genotyping Platform (ECAI de Genómica), Hospital Regional Universitario de Málaga, IBIMA; 4 Diabetes Research Institute, University of Miami Miller School of Medicine, Miami, FL; 5 CIBEROBN, Málaga.*

**18:00-20:00 POSTERS & REFRESHMENTS**

**18:15 IPs meeting**

**21:00 DINNER**

Friday, may 19<sup>th</sup>

### 9:00 SESSION 3: RESEARCH PROGRAM 1

Chair: *José T. Real, (Fundación para la Investigación del Hospital Clínico de la Comunidad Valenciana, INCLIVA, Valencia)*

*Lidia Cedó, (Instituto de Investigación del Hospital de la Santa Cruz y San Pablo, Barcelona)*

### 9:00-9:30 State of the art session

Epidemiology of diabetes in Spain. Di@bet.es study

Gemma Rojo-Martínez (Instituto de Investigación Biomédica de Málaga, IBIMA, Málaga)

### 9:30-10:30 Oral presentation session 3

#### 9:30 OP25 COMPOSITION OF GUT MICROBIOTA, SEXUAL STEROIDS AND OBESITY

María Insenser<sup>1</sup>, Mora Murri<sup>1</sup>, Rosa del Campo<sup>2</sup>, M. Ángeles Martínez-García<sup>1</sup>, Rafael Montes-Nieto<sup>1</sup>, Elena Fernández-Durán<sup>1</sup>, Héctor Escobar-Morreale<sup>1</sup>

*1 Diabetes, Obesity and Human Reproduction Research Group, Hospital Universitario Ramón y Cajal & Universidad de Alcalá & Instituto Ramón y Cajal de Investigación Sanitaria (IRYCIS) & CIBERDEM, Madrid; 2 Department of Microbiology, Hospital Universitario Ramón y Cajal & Instituto Ramón y Cajal de Investigación Sanitaria (IRYCIS), Madrid.*

#### 9:45 OP26 FUNCTIONAL ANALYSIS OF MODY2 MUTATIONS IN THE NUCLEAR EXPORT SIGNAL OF GLUCOKINASE

Gutierrez-Nogués A<sup>1</sup>, García-Herrero CM<sup>1</sup>, Oriola J<sup>2</sup>, Vincent O<sup>3</sup> and Navas MA<sup>1,4</sup>

*1 Bioquímica y Biología Molecular III, Facultad de Medicina, Universidad Complutense de Madrid; 2 Hospital Clínic, IDIBAPS, Barcelona; 3 Instituto de Investigaciones Biomédicas Alberto Sols, CSIC-UAM, Madrid; 4 CIBERDEM.*

**10:00 OP27 ANTHROPOMETRIC INDEXES: WHICH ONE IDENTIFIES BETTER SUBJECTS AT HIGH CARDIOVASCULAR RISK?. A STUDY IN A SPANISH POPULATION**

Corbatón Anchuelo, Arturo; Martínez Larrad, María Teresa; Serrano Ríos, Manuel; Calle Pascual, Alfonso.

*CIBERDEM; Instituto de Investigación Sanitaria del Hospital Clínico San Carlos (IdISSC-HCSC), Madrid.*

**10:15 OP28 CIRCULATING SCD36 IS NOT ASSOCIATED WITH SUBCLINICAL ATHEROSCLEROSIS OR DIABETES**

Esmeralda Castelblanco, Núria Alonso, Lucía Sanjurjo, M Rosa Sarrias and Dídac Mauricio

*Instituto de Investigación Germans Trias i Pujol, Badalona.*

**10:30 PLATFORMS SESSION**

Chair: *Joan Guinovart (Institut de Recerca Biomèdica, Barcelona)*

**10:30-11:00 CIBERDEM platforms**

**Metabolomics platform**

Oscar Yanes, Coordinator Metabolomics Platform, (Universitat Rovira i Virgili, CIBERDEM, Reus)

**Biorepositorio de Diabetes y Enfermedades Metabólicas CIBERDEM-IDIBAPS**

Verónica Fernandez, Technical coordinator Blood and Fluid Biobank, (Biobank HCB-IDIBAPS, Barcelona)

**11:00-11:30 NANBIOSIS platform**

NANBIOSIS, an ICTS for the production & characterization of biomateriales, nanomaterials and systems (CIBERBBN)

Jesús Izco, Coordinator NANBIOSIS platform, CIBERBBN

**11:30-12:00 Coffee break**

**12:00 SESSION 3** (continuation)

Chair: *José T. Real, (Fundación para la Investigación del Hospital Clínico de la Comunidad Valenciana, INCLIVA, Valencia)*

*Lidia Cedó, (Instituto de Investigación del Hospital de la Santa Cruz y San Pablo, Barcelona)*

**12:00-13:30 Oral presentation session 3**

**12:00 OP29** ROLE OF ESTROGEN-RELATED RECEPTOR  $\gamma$  IN THE DEVELOPMENT OF DIABETIC CARDIOMYOPATHY

J. Lasheras<sup>1</sup>, R. Pardo<sup>1</sup>, M. Lozano<sup>1</sup>, R. Simó<sup>1,2</sup>, J.A. Villena<sup>1,2</sup>

*1 Vall d'Hebron Research Institute, Barcelona; 2 CIBERDEM*

**12:15 OP30** INCREASED FGF21 EXPRESSION IN BROWN ADIPOSE TISSUE OF TYROSINE HYDROXYLASE HETEROZYGOUS MICE AS A POTENTIAL COMPENSATORY MECHANISM RESPONSIBLE FOR THE MAINTAINANCE OF NORMAL UCP-1 LEVELS

Patricia Vázquez<sup>1,3</sup>, Catalina Hernández Sánchez<sup>2,3</sup>, Ángela M. Valverde<sup>1,3</sup> y Flora de Pablo<sup>2,3</sup>

*1 Instituto de Investigaciones Biomédicas "Alberto Sols" (IIB, CSIC-UAM), Madrid; 2 Centro de Investigaciones Biológicas (CIB, CSIC) Madrid, 3 CIBERDEM*

**12:30 OP31** BMS309403 DECREASES SATURATED-FATTY-ACID INDUCED ENDOPLASMIC RETICULUM STRESS-ASSOCIATED INFLAMMATION IN SKELETAL MUSCLE BY REDUCING P38 MAPK ACTIVATION

Ricardo Rodríguez-Calvo, Alba Bosquet, Sandra Guaita, Mercedes Heras, Paula Saavedra, Neus Martínez-Micaelo, Josefa Girona, Lluís Masana  
*Research Unit on Lipids and Atherosclerosis, Sant Joan University Hospital, Institut d'Investigació Sanitària Pere Virgili (IISPV), CIBERDEM, Universitat Rovira i Virgili, Reus.*

**12:45 OP32** DIFFERENTIAL EFFICACY OF A GLP-1R/GCGR DUAL AGONIST VERSUS A SINGLE GLP-1R AGONIST ON THE ACTIVATION OF BAT AND BROWNING IN DIET-INDUCED OBESE MICE

Laura Ruiz<sup>1,2</sup>, Pilar Valdecantos<sup>1,2</sup>, Vera Francisco<sup>1,2</sup>, Águeda González-Rodríguez<sup>3</sup>, Joseph Grimsby<sup>4</sup>, Cristina M. Rondinone<sup>4</sup>, Angela M. Valverde<sup>1,2,\*</sup>

*1 IIBm Alberto Sols (CSIC-UAM), Madrid; 2 CIBERDEM, Madrid; 3 Hospital Universitario Santa Cristina, Madrid; 4 MedImmune LLC., Gaithersburg, MD 20878, USA.*

**13:00 OP33** INCREASED EPICARDIAL FAT MASS IS ASSOCIATED WITH SYSTEMIC MARKERS OF INFLAMMATION AND ADIPOSITY AND ALTERATIONS IN THE HDL PHENOTYPE IN TYPE 1 DIABETIC PATIENTS

José Luis Sánchez-Quesada, Josep Julve, Cristina Colom, David Viladés, Rubén Leta, Montserrat Pérez-Cuellar, Andrea Ribas-Urbina, Francisco Blanco-Vaca, Antonio Pérez-Pérez

*Institut d'Investigacions Biomèdiques (IIB) Sant Pau, Barcelona; CIBERDEM.*

**13:15 OP34 PCSK9 VARIANTS AND PROMOTER METHYLATION ARE ASSOCIATED WITH AN ANTIATHEROGENIC LIPOPROTEIN PROFILE IN PATIENTS WITH TYPE 2 DIABETES AND METABOLIC SYNDROME**

Iris Oliva<sup>1</sup>, Montse Guardiola<sup>1</sup>, Marta Sánchez<sup>2</sup>, Joan-Carles Vallvé<sup>1</sup>, Núria Plana<sup>1</sup>, Lluís Masana<sup>1</sup>, David Monk<sup>2</sup>, Josep Ribalta<sup>1</sup>

*1 Unitat de Recerca en Lípids i Arteriosclerosi, Universitat Rovira i Virgili, IISPV, CIBERDEM, Reus; 2 Imprinting and Cancer Group, Epigenetics and Cancer Biology Program (PEBC), Bellvitge Institute for Biomedical Research (IDIBELL), Barcelona.*

**13:30 CLOSING REMARKS (Eduard Montanya)**



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