The European Society for the Study of Diabetes (EASD)
21th Islet Study Group
Natal, Rio Grande do Norte, Brazil, May 8-11, 2011

Scientific Program

Sunday - May 8th

17h00 -18h30 - **Registration**

18h45 - **Welcome and opening remarks**
Chairs - Carlos Boschero; Décio Eizirik

19h00 - Keynote Lecture
Genetics of type 2 diabetes- are we getting any closer?
Leif Groop, Lund University Diabetes Centre, Malmö, Sweden

20h00 – Welcome Cocktail

Monday May 9th

09h00 – 10h10 - Lectures
1 - Epigenetics and alternative splicing of beta cells in diabetes
Chairs - Leif Groop; Rui Curi

09h00 – 09h25 - The epigenome of pancreatic islets in health and disease –
François Fuks - Laboratory of Cancer Epigenetics, Université Libre de Bruxelles, (ULB),Belgium

09h35 – 10h00 - Alternative splicing in pancreatic beta cells –
Decio L. Eizirik - Laboratory of Experimental Medicine, Universite Libre de Bruxelles, Belgium

10h00 – 10h25 - Coffee break

10h25 – 11h45 - Short Talks
(8 min presentation + 4 min discussion)

OC.01
Functional and epigenetic alterations induced by palmitate in the insulin secreting clonal β cell line INS-1 832/13
Malmgren SM[1]; Nagorny CL[1]; Spegél P[1]; Dekker-Nitert M[1]; Ling C[1]; Mulder H[1] - [1]Lund University - Clinical science, Malmö

OC.02
Relationships between pancreatic islets and clinical characteristics
Marselli L[1]; Suleiman M[1]; Bugliani M[1]; Marchetti P[1] - [1]University of Pisa - Department of Endocrinology and Metabolism

OC.03
EFFECTS OF ANTI- AND PRO-INFLAMMATORY CYTOKINES ON THE EXPRESSION OF PRDX 6 IN INSULIN–PRODUCING RINm5F CELLS
Paula FMM[1]; Souza KL[2]; Boschero AC[3] - [1]Department of Anatomy, Cellular Biology and Physiology and Biophysics - Institute of Biology, UNICAMP, Campinas, SP, Brazil; [2]Institute of Biophysics Carlos Chagas Filho - UFRJ, RJ, Brazil; [3]Department of Anatomy, Cellular Biology and Physiology and Biophysics - Institute of Biology, UNICAMP, Campinas, SP

OC.04
Non-obese diabetic mice deficient in the pro-apoptotic BH3-only protein Bid are protected from Fas-induced beta cell destruction but not diabetes
Mollah Z[1]; Kay T[1]; Thomas H[1] - [1]St Vincents Institute - Immunology and Diabetes

OC.05
Global gene expression profiling to identify the mechanisms involved in the protective effects of 1,25-dihydroxyvitamin D_3 against cytokine-induced damage of islets of Langerhans.
Wolden-Kirk H[1]; Overbergh L[2]; Van Lommel L[3]; Naamane N[4]; Gysemans C[2]; Brusgaard K[1]; Christesen HB[1]; Thorrez L[5]; Schuit F[3]; Eizirik DL[4]; Mathieu C[2] - [1]University of Southern Denmark - Inst. of Clinical Research; [2]Catholic University of Leuven - Experimental Medicine; [3]K.U.Leuven - Gene Expression Unit; [4]Université Libre de Bruxelles - Experimental Medicine; [5]Catholic University of Leuven - Stem Cell Institute Leuven

OC.06
Differential Role of GPRC5B and GPRC5C Receptors in the Regulation of Pancreatic β-cell Function
Soni A[1]; stefan A[2]; Sarheed JM[3]; P Rorsman[4]; Salehi A[1] - [1]Lund university - Clinical Science; [2]2The Oxford Centre for Diabetes - Endocrinology & Metabolism, Oxford University, UK; [3]Lund University - Department of Clinical Science, UMAS, Clinical Research Center, University of Lund, Sweden; [4]The Oxford Centre for Diabetesm, Oxford University, UK - Endocrinology & Metabolism

11h45 – 13h00 – **Poster Session**

PT.01
Islet changes induced by increased fructose intake: increased β-cell apoptosis and islet fat deposit.
Rebolledo OR[1]; Marra CA[2]; Del Zotto H[3]; Borelli MI[4]; Maiztegui B[5]; Gagliardino JJ[6] - [1]Facultad de Ciencias Médicas UNLP - CENEXA (UNLP-CONICET; [2]Facultad de Ciencias Médicas UNLP - INIBIOLP (UNLP-CONICET; [3]CENEXA (UNLP-CONICET LA PLATA) - Fac. Cs. Médicas UNLP; [4]Universidad Nacional de La Plata - Centro de Endocrinología Experimental y Aplicada (CENEXA); [5]CENEXA - Facultad de Ciencias Medicas; [6]CENEXA (UNLP-CONICET) - Facultad de Ciencias Médicas UNLP

PT.02
Islet Neogenesis-Associated Protein (INGAP): Its Positive Physiological Modulatory Role in Insulin Secretion
Flores LE[1]; Del Zotto H[1]; Raschia MA[1]; Borelli MI[1]; Barbosa HC[2]; Boschero AC[3]; Gagliardino JJ[1] - [1]CENEXA (UNLP-CONICET LA PLATA) - Fac. Cs. Médicas UNLP; [2]UNICAMP - Departamento de Fisiologia e Biofísica; [3]IB - UNICAMP - Fisiologia e Biofísica

PT.04
Placental VEGF, COX-2 and CASPASE-3 in pregnancies complicated by diabetes or mild gestational hyperglycemia, relation with hyperglycemia and umbilical PI
Saito FH[1]; Calderon IMP[1]; Carvalho-Silva SAL[1]; Moreli JB[1]; Amorin RL[2]; Damasceno DC[1]; Rudge MVC[1] - [1]Botucatu Medical School/UNESP - Gynecology and Obstetrics; [2]School of Veterinary Medicine and Animal Sciences/UNESP - Pathology

PT.05
Reduction of SIRT4 protein expression impairs glucose-stimulated insulin secretion in islets from both control and restricted rats
Alves P L[1]; Vanzela EC[2]; Ribeiro RA[2]; Barbosa HC[2]; Amaral MEC[1] - [1]1Centro Universitário Hermínio Ometto, Programa de Pós Graduação em Ciências Biomédicas, UNIARARAS - NUCISA; [2]UNICAMP - Fisiologia e Biofísica

PT.06
Effect of *Azadirachta indica* (Neem) seed oil on maternal-fetal outcomes, lipid profile and oxidative stress in streptozotocin-induced diabetic rats

Iessi IL[1]; Dallaqua B[2]; Saito FH[3]; Corvino SB[4]; Piculo F[1]; Calderon IMP[5]; Lima PHO[6]; Rudge MVC[7]; Rodrigues T[8]; Damasceno DC[9] - [1]Unesp - Botucatu - Ginecologia e Obstetrícia; [2]Unesp - Botucatu - Ginecologia e Obstetricia; [3]Faculdade de Medicina de Botucatu - UNESP - Ginecologia e Obstetrícia; [4]Faculdade de Medicina de Botucatu - Ginecologia e Obstetrícia; [5]FMBotucatu/UNESP - Ginecologia e Obstetrícia; [6]UNESP - Faculdade de Medicina de Botucatu/ UNOESTE-Universidade do Oeste Paulista - Ginecologia e Obstetrícia/ FACLEPP; [7]UNESP - Ginecologia e Obstetrícia; [8]Universidade de Mogi das Cruzes - Centro Interdisciplinar de Investigação Bioquímica; [9]Faculdade de Medicina de Botucatu, Unesp, São Paulo, Brasil - Programa de Pós-Graduação em Ginecologia, Obstetrícia e Mastologia

PT.07

KNOCKDOWN OF 5-HT2B RECEPTOR DECREASE GLUCOSE STIMULATED INSULIN SECRETION IN A CLONAL (INS (832/13) BETA-CELL LINE

Bennet H[1]; Nagorny CL[2]; Wierup N[3]; Dekker-Nitert M[4]; Lernmark A[1]; Fex M[1] - [1]Clinical science, Malmö - The unit of Diabetes and Celiac disease; [2]Clinical science, Malmö - Molecular Metabolism; [3]Clinical science, Malmö - Neuroedocrine Cell Biology; [4]Clinical science, Malmö - Diabetes and Endocrinology

PT.08

ARHGAP21 expression in MIN6 cells and neonatal pancreatic islets: possible participation on the mechanism of insulin secretion

Ferreira SM[1]; Barbosa HC[2]; Rezende LF[3]; Bigarella CL[4]; Saad ST[5]; Boschero AC[6] - [1]Universidade Estadual de Campinas - Anatomia, Biologia Celular e Fisiologia e Biofísica; [2]UNICAMP - Departamento de Fisiologia e Biofísica; [3]Universidade Estadual de Campinas - UNICAMP - Departamento de Anatomia, Biologia Celular e Fisiologia e Biofísica; [4]UNICAMP - Hemocentro; [5]UNICAMP - Centro de Hematologia e Hemoterapia; [6]IB - UNICAMP - Fisiologia e Biofísica

PT.09

Calcium signaling alteration is associated with mitochondrial dysfunction and increased ROS generation in the islets of Langerhans from senescent rats

Coelho F. M.[1]; Sinigaglia-Coimbra R[2]; Hirata AE[3]; Jurkiewicz A[4]; Smaili SS[5]; Lopes GS[4] - [1]UNIFESP - Departamento de Farmacologia; [2]Universidade Federal de São Paulo - Medicina; [3]UNIFESP - EPM - Fisiologia ; [4]UNIFESP - EPM - Farmacologia; [5]UNIFESP - EPM - Farmacologia - MAD

PT.10

Evaluation of azadirachtin effect in streptozotocin-induced diabetic rats during pregnancy

Damasceno DC[1]; Dallaqua B[2]; Iessi IL[3]; Saito FH[4]; Bueno A[5]; Netto AO[6]; Sinzato YK[7]; Marini G[6]; Rudge MVC[7]; Rodrigues T[8] - [1]FM - UNESP - Botucatu - Ginecologia e Obstetrícia; [2]Unesp - Botucatu - Ginecologia e Obstetricia; [3]UNESP - Ginecologia e Obstetricia; [4]Faculdade de Medicina de Botucatu - UNESP - Ginecologia e Obstetrícia; [5]Faculdade de Medicina de Botucatu UNESP - Ginecologia e Obstetrícia; [6]Faculdade de Medicina de Botucatu - Ginecologia e Obstetrícia; [7]UNESP - Ginecologia e Obstetrícia; [8]Universidade de Mogi das Cruzes - Centro Interdisciplinar de Investigação Bioquímica

PT.11

GLUCOSE TOLERANCE, INSULIN SECRETION AND CA^{2+} HANDLING IN ISLETS FROM LDL RECEPTOR KNOCKOUT MICE (LDLR-/-) FED HIGH-FAT-DIET (WESTERN-TYPE)

Souza JC[1]; Vanzela EC[1]; Ribeiro RA[1]; Machado-de-Oliveira CAM[2]; Oliveira HCF[1] - [1]UNICAMP - Anatomia, Biologia Celular, Fisiologia e Biofísica; [2]Unifesp - Biociências

PT.12

Chronology of appearance of INGAP-positive cells and its relationship with the increase in B-cell mass during the pre and postnatal periods

Madrid V[1]; Borelli MI[2]; Maiztegui B[1]; Boschero AC[3]; Barbosa HC[4]; Gagliardino JJ[2]; Del Zotto H[1] - [1]CENEXA (UNLP-CONICET LA PLATA) - Fac. Cs. Médicas UNLP; [2]Universidad Nacional de La Plata - Centro de Endocrinología Experimental y Aplicada (CENEXA); [3]IB - UNICAMP - Fisiologia e Biofísica; [4]UNICAMP - Departamento de Fisiologia e Biofísica

PT.13

Effects of Fatty Acids Withdrawal in Culture Medium on RINm5F Cells Death Susceptibility
Rosim MP[1]; Nunes, V. A.[2]; Lenzen S[3]; Curi R[4]; Azevedo-Martins AK[5] - [1]Universidade de São Paulo - ICB; [2]Universidade de São Paulo - Escola de Artes, Ciências e Humanidades; [3]MHH-Hannover - Klinische Biochemie; [4]ICB - USP - Fisiologia e Biofísica; [5]Universidade de São Paulo - Escola de Artes Ciências e Humanidades

PT.14

PROTEIN RESTRICTION DURING PREGNANCY DID NOT MODIFY PRO-APOPTOTIC GENES EXPRESSION, BUT IMPAIRED THE EXPANSION OF PANCREATIC ISLETS AREA
Ramalho AFS[1]; Salvatierra CB[2]; Reis SRL[1]; Lemes SF[1]; Veloso RV[1]; Marise ABReis[3]; Arantes VC[1]; Latorraca MQ[4] - [1]Universidade Federal de Mato Grosso - Departamento de Alimentos e Nutrição; [2]UNEMAT - Departamento de Engenharia de Alimentos; [3]Universidade Federal de Mato Grosso - Departamento de Ciências Básicas em Saúde - FCM/UFMT; [4]Universidade Federal de Mato Grosso, Faculdade de Nutrição - Departamento de Alimentos e Nutrição

PT.15

Proteomic Approach to Search for Differentially Expressed Proteins in Human Pancreatic Islets and Human Insulinomas.
Terra L. F.[1]; Teixeira PC[2]; Wailemann R. A.[1]; Zelanis A.[3]; Palmisano G.[4]; Cunha-Neto E[2]; Kalil J[2]; Sogayar MC[1]; Labriola L[1] - [1]Instituto de Química - USP - Bioquímica; [2]InCor - FM - USP - Clínica Médica - Disciplina de Imunologia Clínica e Alergia / Lab de Imunologia; [3]Instituto Butantã - CAT- CEPID; [4]University of Southern Denmark - Biochemistry and Molecular Biology

PT.16

CaMK4/CREB pathway-mediated β-cell proliferation
Barbosa HC[1]; Rodrigues de Ledesma AM[1]; Liu B[1]; Jones PM[1]; Persaud SJ[1]; Muller DS[1] - [1]King College London - Diabetes and Nutritional Sciences Division

PT.17

CYTOTOXICITY AND CYTOPROTECTIVE EFFECTS OF FLAVONOIDS RUTIN, HESPERIDIN, NARINGIN, NEOHESPERIDIN ON INSULIN-SECRETING CELLS BRIN-BD11.
FELIPE ET[1]; MAESTRI JS[1]; KANUNFRE CC[2]; GRASSIOLLI S[2]; Curi R[3]; Newsholme P[4]; Carpinelli AR[5]; Oliveira-Emilio HR[2] - [1]Universidade Estadual de Ponta Grossa - Mestrado em Biologia Evolutiva; [2]Universidade Estadual de Ponta Grossa - Biologia Geral; [3]ICB - USP - Fisiologia e Biofísica; [4]University College Dublin - School of Biomolecular and Biomedical Science; [5]USP - Fisiologia e Biofísica

PT.18

MORPHOMETRY OF ENDOCRINE PANCREAS IN THE MSG-OBESE RAT
Lubaczeuski, C[1]; Vettorazzi JF[2]; Ferreira, LE[1]; Ribeiro RA[4]; Bonfleur ML[3]; Balbo SL[1] - [1]UNIOESTE - CCBS; [2]Unicamp - Anatomia, Biologia celular e Fisiologia e Biofísica; [3]UNIOESTE - Centro de Ciências Biológicas e da Saúde; [4]Universidade Estadual de Campinas - Fisiologia e Biofísica

PT.19

CONDITIONAL EXPRESSION OF CONSTITUTIVELY ACTIVE EGF-R IN BETA CELLS
Hakonen E[1]; Ustinov J[1]; Miettinen P[1]; Otonkoski T[1] - [1]University of Helsinki - Biomedicum Stem Cell Center and Hospital for Children and Adolescents

PT.20

Leptin downregulates expression of the gene encoding glucagon in alphaTC1-9 cells and mouse islets.
MARROQUI L[1]; Vieira E[1]; Gonzalez A[1]; Nadal A[1]; Quesada I[1] - [1]Universidad Miguel Hernández, Spain. - Instituto de Bioingeniería.

PT.21

NADPH oxidase plays an active role in the changes induced by fructose upon islet function
Borelli MI[1]; Flores LE[1]; Raschia MA[2]; Román L[2]; Rebolledo OR[2]; Gagliardino JJ[3] - [1]CENEXA (UNLP-CONICET LA PLATA) - Fac. Cs. Médicas UNLP - ARGENTINA; [2]CENEXA (UNLP-CONICET LA PLATA) - Fac. Cs. Médicas UNLP - ARGENTNA; [3]CENEXA (UNLP-CONICET LA PLATA) - Fac. Cs. Médicas UNLP - ARGENTINA

PT.22
Intrauterine Growth Retardation together with High Fat Diet in Rats Markedly Disturbs Islet Morphology without Loss of Beta-cell Mass or Induction of Diabetes
Delghingaro-Augusto V[1]; Madad L[1]; Simeonovic C[1]; Dahlstrom JE[1]; Nolan C[1] - [1]Australian National University - Medical School

PT.23
Participation of NAD(P)H oxidase on insulin secretory process of BRIN-BD11 beta cells.
Hirata AE[1]; Morgan D[2]; Graciano MFR[3]; Curi R[4]; Carpinelli AR[3]; Flatt, PR[5]; Newsholme P[6] - [1]UNIFESP - EPM - Fisiologia; [2]USP - Fisiologia e Biofísca; [3]USP - Fisiologia e Biofísica; [4]ICB - USP - Fisiologia e Biofísica; [5]University of Ulster - School of Biomedical Sciences; [6]University College Dublin - School of Biomolecular and Biomedical Science

PT.24

Protzek AOP[1]; Costa Júnior JM[1]; Purificação TA[1]; Rafacho A[2] - [1]State University of Campinas - Unicamp - Department of Anatomy Physiology and Biophysics, Institute of Biology; [2]Universidade Federal de Uberlândia - Faculdade de Ciências Integradas do Pontal

13h00 – 15h00 – Lunch time

May , Monday 9th

15h30 – 17h15 - Lectures
2 - Cross talk between beta-cells and other cells/-tissues
Chairs - Anders Tengholm; Jens Nielsen

15h30 – 15h55 - Connecting cells within the islets
Paolo Meda – University of Geneva School of Medicine, Switzerland

16h05 – 16h30 - Hypothalamic inflammation connecting obesity to pancreatic islet failure **–Lício Augusto Velloso** – School of Medical Sciences (UNICAMP), Campinas, SP, Brazil

16h40 – 17h05 - Modulation of pancreatic β-cell metabolism and insulin secretion by IL-6 released from skeletal muscle
Philip Newsholme UCD School of Biomolecular and Biomedical Science, UCD Conway Institute, UCD Dublin, Dublin 4, Ireland

17h15 – 17h30 h - Coffee break

17h30 – 18h30 h - Short Talks
(8 min presentation + 4 min discussion)

OC.07
Functional changes of pancreatic beta cells by high a glucose diet and hyperfunction of adipocytes
Velasco M[1]; Larque C[1]; MHiriart-Urdanivia[2] - [1]Instituto de Fisiologia Celular, UNAM - Neurodevelopment and Physiology; [2]Instituto de Fisiologia Celular, Universidad Nacional Autonoma de Mexico, UNAM - Neurodevelopment and Physiology

OC.08
The use of proteomics to elucidate the protective effects of glucagon-like peptide-1 on cytokine-mediated beta-cell dysfunction and death.
Overbergh L[1]; Bugliani M[2]; De Hertog W[1]; Verdrengh E[1]; Masini M[3]; Waelkens E[4]; Marchetti P[5]; Mathieu C[1] - [1]Catholic Unversity of Leuven - Laboratory of Experimental Medicine and Endocrinology; [2] -

[3]University of Pisa - Endocrinology and Metabolism; [4]Catholic Unversity of Leuven - Laboratory of Protein Phosphorylation and Proteomics; [5]University of Pisa - Dept. Endocrinology and Metabolism

OC.09
Lipotoxic ER stress-induced DP5 and PUMA expression contributes to mitochondrial beta-cell apoptosis
Cunha DA[1]; Gurzov EN[1]; Germano C[2]; Naamane N[1]; Eizirik DL[1]; Cnop M[1] - [1]Université Libre de Bruxelles - Experimental Medicine; [2]Faculdade de Medicina de Ribeirão Preto - Clínica Médica

OC.10
The role of GPR40 in type 2 diabetes and obesity in animal models
Balhuizen A[1]; Kumar R[2]; Salehi A[3] - [1]Lund university, Sweden - Clinical Science; [2]Lund university - Clinical Science; [3]Lund University - Clinical Sciences

OC.11
Role of the Ubiquitin-Proteasome System (UPS) in Type 2 Diabetes (T2D) Beta Cell Dysfunction.
Bugliani M[1]; R Liechti[2]; Cheon H[3]; Marselli L[4]; Suleiman M[1]; Xenarios I[2]; Lee M.S.[3]; Marchetti P[1] - [1]University of Pisa - Dept. Endocrinology and Metabolism; [2]Swiss Institute of Bioinformatics - Vital-It group; [3]Samsung Biomedical Center - Department of Medicine; [4]University of Pisa - Department of Endocrinology and Metabolism

Tuesday, May 10th

09h00 – 10h45 h - Lectures
3 - The role for diabetes candidate genes in pancreatic beta cells
Chairs - Miriam Cnop; Fumihiko Urano

09h00 – 09h25- From genotype to pancreatic β-cell phenotype in humans –
Piero Marchetti, Cisanello Hospital, Pisa - Italy

09h35 – 10h00 - Translating genome wide association signals into molecular mechanisms for diabetes in human pancreatic islets
Anna L Gloyn - Oxford Centre for Diabetes Endocrinology & Metabolism, University of Oxford, UK

10h10 – 10h35 Impact of naturally occurring severe activating glucokinase mutation gene in human islets –
Antonio Luís Cuesta Muñoz - Center for the Study of Pancreatic Beta-cell Diseases-DRI-Málaga, IMABIS-Carlos Haya Foundation, Malaga, SPAIN

10h45 – 11h00 - Coffee break

11h00 – 11h50 - Short Talks
(8 min presentation + 4 min discussion)
OC.12
Differential usage of NF-kB activating signals by IL-1β and TNF-α in pancreatic beta cells
Ortis F[1]; Miani M[2]; Colli ML[2]; Cunha DA[2]; Gurzov EN[2]; Allagnat F[2]; Eizirik DL[2] - [1]Université Libre de Bruxelles, Brussels, Belgium - Experimental Medicine - Institute of Biology, State University of Campinas (UNICAMP), Campinas, SP, Brazil - Anatomy, Cellular Biology and Physiology and Biophysics; [2]Université Libre de Bruxelles, Brussels, Belgium - Experimental Medicine

OC.13
Role of melatonin receptors in pancreatic islets
Nagorny CL[1]; Bennet H[1]; Stamenkovic J[1]; Sathanoori R[1]; Fex M[1]; Wierup N[1]; Mulder H[1] - [1]Lund University - Clinical Sciences Malmö

OC.14
Growth arrest specific protein 6 impinge on the β-cell mass in the newborn rat

Haase TN[1] - [1]University of Copenhagen - Department of Biomedical Sciences

OC.15

Mechanisms of expansion of the beta-cell mass in pregnancy

Gaarn LW[1]; Nielsen JH[1] - [1]Faculty of Health Sciences, University of Copenhagen - Department of Biomedical Sciences

11h50 – 13h30 – **Poster Session 2**

PT.25

Plasma membrane Ca^{2+}-ATPase overexpression depletes both mitochondrial and endoplasmic reticulum Ca^{2+} stores and triggers apoptosis in pancreatic b-cells.

Herchuelz A[1] - [1]Laboratoire de Pharmacodynamie - ULB, Belgium

PT.26

Effect of INGAP-PP upon islet glucokinase activity and glucose metabolism

Maiztegui B[1]; Borelli MI[1]; Gagliardino JJ[1] - [1]CENEXA (UNLP-CONICET La Plata) - Facultad de Ciencias Médicas-UNLP

PT.27

Identification of a novel GPCR mediating anti-diabetic effects of AAT

Kumar R[1]; Balhuizen A[2]; Soni A[1]; Salehi A[1] - [1]Lund university - Clinical Science; [2]Lund University, Sweden - Clinical Sciences

PT.28

Tumor necrosis factor-alpha and interferon-gamma induce pancreatic beta cell apoptosis through STAT1-mediated Bim activation

Gurzov EN[1]; Barthson J[1]; Germano C[2]; Moore F[1]; Eizirik DL[1] - [1]Université Libre de Bruxelles - Experimental Medicine; [2]Faculdade de Medicina de Ribeirão Preto - Clínica Médica

PT.29

Maternal protein restriction leads functional changes in pancreatic islets M2/3 subtype of muscarinic receptor (mAChR) from adult rats.

de Oliveira JC[1]; Barella LF[2]; Branco RCS[2]; Miranda RA[2]; Bataglini LA[2]; Lepri ER[3]; Mello EVSL[3]; Gravena C[2]; Mathias PCF[2] - [1]Universidade Estadual de Maringá - UEM - Biogia Celular e Genética; [2]Universidade Estadual de Maringá - UEM - Biologia Celular e Genética; [3]Universidade Estadual de Maringá - UEM - Histologia

PT.30

Impaired insulin secretory response in obese rats involves reduced muscarinic receptor function of pancreatic islets and high parasympathetic activity

Branco RCS[1]; Grassiolli S[2]; Bataglini LA[3]; Miranda RA[4]; Gravena C[3]; Mello E[5]; Lepri ER[5]; Mathias PC[3]; de Oliveira JC[6] - [1]Universidade Estadual de Maringa - Biologia Celular e Genetica; [2]UEM - DBC; [3]UEM - Biologia Celular e Genética; [4]UEM - Biologia Celular; [5]UEM - Histologia; [6]Universidade Estadual de Maringá - Biologia Celular e Genética

PT.31

BISPHENOL-A EXPOSURE DURING PREGNANCY DISRUPTS GLUCOSE HOMEOSTASIS IN MOTHERS AND ADULT MALE OFFSPRING

Alonso-Magdalena P[1]; García-Arévalo M[1]; Vieira E[1]; Soriano S[1]; Menes L[2]; Burks D[2]; Quesada I[1]; Nadal A[1] - [1]Universidad Miguel Hernández - Instituto de Bioingeniería; [2]Instituto Principe Felipe - CSIC

PT.32

MALNUTRITION AFTER WEANING IMPAIRS THE PROTECTIVE EFFECT OF TAURINE (TAU) SUPPLEMENTATION UPON ENERGY BALANCE, GLUCOSE HOMEOSTASIS AND INSULIN SECRETION (IS) IN MICE FED A HIGH FAT DIET (HFD)

Camargo RL[1]; Cappelli APG[2]; Batista TM[2]; MR Silva P[3]; Ribeiro RA[4]; Zoppi CC[5]; Carneiro EM[5] - [1]Universidade Estadual de Campinas - UNICAMP - Departamento de Anatomia, Biologia Celular,

Fisiologia e Biofísica; [2]Unicamp - Fisiologia e Biofísica; [3]Unicamp - Fisiologia; [4]Universidade Estadual de Campinas - Fisiologia e Biofísica; [5]UNICAMP - Anatomia, Biologia Celular e Fisiologia e Biofísica

PT.33

Reduction of plasma lipids improves insulin secretion in insulin resistant rats.

Destro M[1]; Bosqueiro JR[1] - [1]FC - UNESP - Bauru - Educação Física

PT.35

Endoplasmic Reticulum Stress: a potential candidate for the gestational diabetes pathogenesis

Nunes, V. A.[1]; Araujo MS[2]; Rosim MP[3]; Curi R[4]; Azevedo-Martins AK[5] - [1]Universidade de São Paulo - Escola de Artes, Ciências e Humanidades; [2]UNIFESP - Bioquímica; [3]Universidade de São Paulo - Fisiologia e Biofísica; [4]ICB - USP - Fisiologia e Biofísica; [5]Universidade de São Paulo - Escola de Artes Ciências e Humanidades

PT.36

SNARE COMPLEX FORMATION IN PANCREATIC ISLETS OF RATS SUBMITTED TO PROTEIN MALNUTRITION

Lopes BV[1]; Bertuol AEM[1]; Dotto RP[1]; Sílvia RLReis[2]; Arantes VC[3]; Latorraca MQ[4]; Marise ABReis[5] - [1]Universidade Federal de Mato Grosso - Departamento de Alimentos e Nutrição; [2]Universidade Federal de Mato Grosso - Laba; [3]UFMT - Alimentos e Nutrição; [4]Universidade Federal de Mato Grosso, Faculdade de Nutrição - Departamento de Alimentos e Nutrição; [5]Universidade Federal de Mato Grosso - Departamento de Ciências Biológicas da Saúde - Fisiologia

PT.37

DIFFERENTIAL IMPACT OF CHRONICALLY ELEVATED GLUCOSE AND PYRUVATE LEVELS ON THE MITOCHONDRIAL AND PLASMA MEMBRANE IN BETA CELLS

Goehring I[1]; Malmgren SM[1]; Mulder H[1]; Nicholls D[2] - [1]Lund University Diabetes Centre - Department of Clinical Sciences, Malmö, Sweden; [2]Buck Institute for Age Research - Novato, United States

PT.38

TNF-α AND ADIPONECTIN LEVELS RELATED TO BODY MASS INDEX IN MILD GESTATIONAL HYPERGLYCEMIA

Bueno A[1]; Sinzato YK[2]; Lima PHO[3]; Moreli JB[4]; Caetano M[5]; Gelaleti RB[6]; Morceli G[7]; Damasceno DC[8]; Calderon IMP[9]; Rudge MVC[2] - [1]Faculdade de Medicina de Botucatu UNESP - Ginecologia e Obstetrícia; [2]UNESP - Ginecologia e Obstetrícia; [3]UNESP - Faculdade de Medicina de Botucatu/ UNOESTE-Universidade do Oeste Paulista - Ginecologia e Obstetrícia/ FACLEPP; [4]Faculdade de Medicina de Botucatu- Unesp-Botucatu - Ginecologia Obstetrícia e Mastologia; [5]Universidade Estadual Paulista - UNESP - Ginecologia e obstetrícia; [6]UNESP - FMB - Ginecologia e Obstetrícia; [7]Faculdade de Medicina de Botucatu-Júlio de Mesquita Filho/FMB/UNESP - Departamento de Ginecologia e Obstetrícia; [8]Faculdade de Medicina de Botucatu, Unesp, São Paulo, Brasil - Programa de Pós-Graduação em Ginecologia, Obstetrícia e Mastologia ; [9]FMBotucatu/UNESP - Ginecologia e Obstetrícia

PT.39

TAURINE AMELIORATES GLUCOSE HOMEOSTASIS AND PANCREATIC ISLET FUNCTION IN OBESE (ob/ob) MICE

Santos-Silva, JC[1]; Ribeiro RA[1]; Cotrim, BB[1]; Carneiro EM[1] - [1]State University of Campinas - Department of Anatomy, Cell Biology and Physiology and Biophysics

PT.40

EFFECTS OF EXERCISE TRAINING AND INTERLEUKIN 6 UPON INSULIN SECRETORY MACHINERY PROTEINS: EVIDENCE FOR A POSSIBLE CONTRACTING SKELETAL MUSCLE AND PANCREATIC β-CELLS CROSSTALK MODULATION

Zoppi CC[1]; Costa Jr. JM[1]; Paula FMM[1]; Machado-de-Oliveira CAM[2]; Silveira LR[3]; Carneiro EM[4] - [1]State University of Campinas - Anatomy, Cellular Biology and Physiology and Biophysics; [2]Unifesp - Biociências; [3]USP - Ribeirão Preto - Escola de Ed Física; [4]UNICAMP - Fisiologia e Biofísica

PT.41

EARLY SWIM TRAINING MODULATES GLUCOSE AND CHOLINERGIC RESPONSES IN PANCREATIC ISLETS FROM MSG-OBESE RATS

Borck, P.C.[1]; Rickli, S.[2]; Barros, V.B.[3]; Franco, A.H.[3]; Alípio, J.C. de L.[2]; Venturelli, A.C.[3]; Machado, M.J.R.[2]; Leite, N. de C.[3]; Gonçalves, D.C.de O.N.[1]; Mathias PCF[4]; Grassiolli S[5] - [1]UEPG - Farmácia; [2]UEPG - Enfermagem; [3]UEPG - Educação Física; [4]UEM - Biologia Celular e Genética; [5]UEPG - DeBio

PT.42

Alpha 1-antitrypsin protects mouse islets from LPS induced inflammation

Nalla AA[1]; Nielsen JH[1]; Nalla A[1]; Billestrup N[1]; Frøkiær H[2]; Metzdorff S[2]; Petersen M[2]; Mehlsen A[2]; Shah F[3] - [1]Faculty of Health Sciences, University of Copenhagen - Biomedical Institute; [2]Faculty of Life Sciences, University of Copenhagen - Biochemistry; [3]DTU Nanotech, Lyngby - Department of Micro- and Nanotechnology

PT.43

CILIARY NEUROTROPHIC FACTOR (CNTF) IMPROVES INSULIN SECRETION AND HALF-LIFE AND INCREASES INSULIN SENSITIVITY IN NON-OBESE DM2 MICE

Rezende LF[1]; Santos GJ[2]; Santos-Silva, JC[2]; Boschero AC[2] - [1]State Universiy of Campinas - Department of Anatomy, Cell Biology and Physiology and Biophysics; [2]State University of Campinas - Department of Anatomy, Cell Biology and Physiology and Biophysics

PT.44

EFFECT OF THE PHYSICAL EXERCISE IN THE MECHANISMS OF THE SECRETION INSULIN IN MSG-OBESE MICE EFFECT OF THE PHYSICAL EXERCISE IN THE MECHANISMS OF THE SECRETION INSULIN IN MSG-OBESE MICE

Picinato MC[1] - [1]USP - Departamento de Fisiologia e Biofísica

PT.45

Insulin Secretion in Obese and Diabetic Animals Induced by High Fat Diet (HFD): The Role of Interleukin 10 (IL-10).

Cintra DE[1]; Pauli JR[1]; Ropelle ER[1]; Morarij J[2]; Contin Moraes J[3]; Araujo EP[4]; de Souza CT[5]; Batista TM[6]; Carneiro EM[6]; Saad MJA[7]; Velloso LA[7] - [1]Universidade Estadual de Campinas - Faculdade de Ciências Aplicadas; [2]Unicamp - Faculdade de Ciências Médicas; [3]Universidade Estadual de Campinas - Faculdade de Ciências Médicas; [4]FCM UNICAMP - Enfermagem; [5]FCM - UNICAMP - Clínica Médica; [6]Unicamp - Fisiologia e biofísica; [7]UNICAMP - Clínica Médica

PT.46

LOW PROTEIN DIET DURING FETAL LIFE AND NUTRITIONAL RECOVERY AFTER BIRTH WITH HIGH-FAT DIET IN RATS: EFFECTS ON INSULIN SECRETION

Silva HBF[1]; CARDOSO KB[2]; CARLI AP[3]; Reis SRL[2]; Souza LMI[4]; Marise ABReis[5]; Latorraca MQ[6]; Milanski M[7]; Arantes VC[2] - [1]Universidade Federal de Mato Grosso - Pós-Graduação em Biociências; [2]Universidade Federal de Mato Grosso - Departamento de Alimentos e Nutrição, Faculdade de Nutrição; [3]Universdidade Federal de Mato Grosso - Pós-graduação em Biociências; [4]Universidade Estadual de Campinas - Programa de Pós Graduação em Fisiopatologia Médica; [5]Universidade Federal de Mato Grosso - Departamento de Ciências Básicas, Faculdade de Ciências Médicas; [6]Universidade Federal de Mato Grosso, Faculdade de Nutrição - Departamento de Alimentos e Nutrição; [7]Unicamp - Departamento de Clínica Médica

PT.47

DUODENAL-JEJUNAL BYPASS IMPROVES GLUCOSE HOMEOSTASIS IN OBESE RATS

Araujo, ACF[1]; Balbo SL[2]; Ribeiro RA[3]; Nardelli TR[4]; Vettorazzi JF[4]; Bonfleur ML[5] - [1]UNIOESTE - CCMF; [2]UNIOESTE - CCBS; [3]Universidade Estadual de Campinas - Fisiologia e Biofísica; [4]Unicamp - Anatomia, Biologia celular e Fisiologia e Biofísica; [5]UNIOESTE - Centro de Ciências Biológicas e da Saúde

PT.48

Dexamethasone treatment increases AS160 activity in rat pancreatic islets through AMPK and AKT pathways

Purificação TA[1]; Paula FM[1]; Rezende LF[1]; Protzek AO[1]; Rafacho A[2] - [1]Unicamp – State University of Campinas - Department of Anatomy Physiology and Biophysics, Institute of Biology; [2]Federal University of Santa Catarina - bDepartment of Physiological Sciences, Center of Biological Sciences

13h30 – 15h00 – Lunch time

Tuesday, May 10th

15h30 – 17h15 - Lectures
4 - New developments in the regulation of islet cell function
(chair - André Herchuelz; Ângelo Carpinelli)

15h30 – 15h55 - Metabolic regulation of glucagon secretion –
Quan Zhang– The Oxford Centre for diabetes, Oxford, UK

16h05 – 16h30- The clock gene Rev-erb-alpha regulates beta cell function: modulation by high fat diet and leptin
Elaine Vieira - Instituto de Bioingeniería, Universidad Miguel Hernandez, Elche, Spain

16h40 – 17h05 - Rho GTPases in insulin secretion
Anjan Kowluru – Department of Pharmaceutical Sciences and Internal Medicine, Wayne State University and John D Dingell VA Medical Center, Detroit, MI48201, USA

17h15 – 17h30 - Coffee break

17h30 – 18h20 - Short Talks
(8 min presentation + 4 min discussion)

OC.16
The Ca^{2+}-activated cation channel TRPM5 as a positive regulator of insulin release.
Colsoul B[1]; Schraenen A[2]; Gilon P[3]; Nilius B[1]; Schuit F[2]; Vennekens R[1] - [1]K.U.Leuven - Laboratory of Ion Channel Research; [2]K.U.Leuven - Gene Expression Unit; [3]UCL - Pôle d'Endocrinologie, Diabète et Nutrition

OC.17
AMPK-UCP2 pathway may be involved in the reduced insulin secretion by pancreatic islet of low protein fed mice
de Oliveira CA[1]; Rezende LF[2]; Vanzela EC[2]; Santos GJ[2]; Souza JC[2]; Calegari VC[2]; Costa Júnior JM[2]; Protzek AO[2]; Carneiro EM[2] - [1]Universidade Federal de São Paulo - Unifesp - Departamento de Biociências; [2]Universidade Estadual de Campinas - UNICAMP - Departamento de Anatomia, Biologia Celular e Fisiologia e Biofísica

OC.18
Regulation of Epac2 localization in β-cells by cAMP and Ca^{2+}-mediated activation of Ras
Tengholm A[1]; Idevall-Hagren O[1] - [1]Uppsala University - Department of Medical Cell Biology

OC.19
Simvastatin treatment inhibits glucose-stimulated insulin secretion in INS-1E cells
Zúñiga JP[1]; Rebelato ELO[2]; Abdulkader F[3] - [1]Instituto de Ciências Biomédicas, Universidade de São Paulo - Fisiologia e Biofísica; [2]ICB - USP - Fisiologia e Biofísica; [3]ICB-USP - Fisiologia e Biofísica

Wednesday, May 11th

08h00 – 09h45 - Lectures
5 - Beta cell proliferation & regeneration
chairs - Sigurd Lenzen; Anna Gloyn

08h00 – 08h25 - Role of the EGF receptor in pancreatic beta cell growth and differentiation
Timo Otonkoski - Biomedicum Stem Cell Center and Children's Hospital, University of Helsinki, Helsinki, Finland

08h35 – 09h00 - Beta cell neogenesis in the postnatal pancreas
Luc Bouwens, Cell Differentiation Lab, Vrije Universiteit Brussel (Free University Brussels), Brussels, Belgium.

09h10 – 09h35 - Regulation of beta cell mass: lessons from pregnancy and birth –
Jens Høiriis Nielsen, Department of Biomedical Sciences, University of Copenhagen, Denmark

09h45 – 10h00 - Coffee break

10h00 – 11h45 - Lectures
6 - Islet pathophysiology in diabetes
Chairs Decio Eizirik; Lício Velloso

10h00 – 10h25- Peroxisomal stress and the role of free radicals in β-cell lipotoxicity –
Sigurd Lenzen - Institute of Clinical Biochemistry, Hannover Medical School, Hannover, Germany

10h35 – 11h00 - Molecular mechanisms of lipotoxic beta cell demise –
Miriam Cnop – Université Libre de Bruxelles (ULB), Brussels, Belgium

11h10 – 11h35 - The binary switch between life and death of ER stressed beta cells –**Fumihiko Urano** – University of Massachusetts Medical School, USA

11h45 – 12h00 - **Closing remarks**
Chair – Anders Tengholrn

12h00 – 12h00 **Assembly of the ISG Society**

Departure