

POSTER SESSION 1

POSTER SESSION 1 WILL DEVELOP ON WEDNESDAY 11 SEPTEMBER, FROM 16 H (4 PM) TO 18.15 H (6.15 PM).

IMPORTANT: AT THIS SESSION NEW INVESTIGATORS PRESENTING ODD POSTER NUMBERS SHOULD STAY AT THEIR POSTERS FROM 16 H TO 17 H TO BE JUDGED. THOSE NEW INVESTIGATORS PRESENTING EVEN POSTER NUMBERS SHOULD STAY AT THEIR POSTERS FROM 17.15 H TO 18.15 H TO BE JUDGED.

Anatomy and pathology

P1.1

Clustered villous mineralization: a placental feature of fetal vascular malperfusion in prolonged retained stillbirth

Jerzy Stanek

Cincinnati Children's Hospital Medical Center, Cincinnati, USA

P1.2

Ultrasonographic analysis for embryology of umbilical cord twist direction during second trimester

Masamitsu Nakamura^{1,2}, Tomohiro Oba¹, Taro Morimoto², Hiroko Takita¹, Mayumi Tokunaka¹, Minako Goto¹, Shoko Hamada¹, Ryu Matsuoka¹, Akihiko Sekizawa¹

¹Showa University School of Medicine, Tokyo, Japan. ²Hatanodai Ladies' Clinic, Tokyo, Japan

P1.3

Placental causes account for nearly half of perinatal deaths: A 15-year retrospective review from a teaching hospital in Thailand

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¹Chulalongkorn University, Pathumwan, Thailand. ²University of Toronto, Toronto, Canada

P1.4

Impact of standardized review of placenta pathology

Parastou Tizro¹, Julia Jiaqi O'Reilly^{2,3}, Anna Penn^{2,4}, Stephanie Barak¹

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P1.5

In IUGR Placentas, estimates of Villous and Capillary Volumes of Peripheral Villi Correlate with the Placental Weight

Sina Henschen, Nirav Barapatre, Hans-Georg Frank

LMU Munich, Dept. of Neuroanatomy, Munich, Germany

P1.6

An Optimized Placental Collection Method for Simultaneous Preservation of Tissue Morphology and Nucleic Acid Integrity

Morgan Meads^{1,2}, Peter De Hoff^{3,2}, Devin Pontigon^{1,2}, Donald Pizzo^{1,4}, Seerat Sekhon^{1,2}, Omar Farah^{1,2}, Louise Laurent^{3,2}, Mana Parast^{1,2}

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Angiogenesis/ Vasculature

P1.7

Von Willebrand disease type 1 in a porcine model influences expression of integrin $\alpha_v\beta_3$, members of the VEGF/VEGFR-2 system and ANG/TIE ratios at the time of placentation

Hanna Allerkamp^{1,2}, Stefanie Lehner², Carsten Detering², Mahnaz Ekhlesi-Hundrieser², Mario von Depka Prondzinski², Christiane Pfarrer¹

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P1.8

Placenta–heart axis: abnormal cardiovascular development and VEGF expression after perigestational alcohol intake at mid-gestation in mouse.

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P1.9

The Effect Of Gestational Diabetes Mellitus On The Term Placental Glycocalyx

Helen Wright, Shukla Das, Kenton Arkill, Lopa Leach

University of Nottingham, Nottingham, United Kingdom

P1.10

Role of caveolae in the formation of the placental microvasculature and its interaction with AQP1 and VEGFR2

Julieta Reppetti¹, Matías N. Sierra², Carlos A. Escudero³, Alicia E. Damiano^{1,2}, Nora A. Martínez¹

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P1.11

Expression of ECE1, IGFBP7 and CALR in a porcine model for von Willebrand disease (VWD) type 1 and 3

Katharina Kaiser^{1,2}, Stefanie Lehner², Hanna Allerkamp^{1,2}, Carsten Detering², Mahnaz Ekhlesi-Hundrieser², Mario von Depka Prondzinski², Christiane Pfarrer¹

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P1.12

Impaired placental vessel formation in mice lacking of adenosine A_{2A} receptor

Daniela Rojas¹, Jesenia Acurio^{2,3}, Felipe Troncos^{2,3}, Kurt Herlitz^{2,3}, Ambart Covarrubias⁴, Claudio Aguayo⁵, Evelyn Lara^{2,3}, Carlos Escudero^{2,3,6}

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P1.13

Pericytes mapping in bovine placenta

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Cell culture, proliferation and signaling

P1.14

Development of decidualized and 3D human endometrial models for the study of human implantation and endocrine pathologies.

Noelia Romina Carnovale¹, Maria Florencia Oviedo¹, Daiana Ganiewich¹, Florencia Oppenheimer², Gustavo Jose Leiros², Carla Noemi Olivares¹, Mariela Andrea Bilotas¹, Gabriela Fabiana Meresman¹

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P1.15

Identification of optimal conditions for human placental-explant culture

Chandana Tekkotte¹, Rachel Sebastian¹, Yan Zhang^{1,2}, Jun Zhou^{1,2}, Yukun Liu^{1,3}, Morgan Meads⁴, Tzu Ning Liu¹, Mana M. Parast⁴, Louise C. Laurent¹

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P1.16

Application of impedance spectroscopy for analysis of BeWo clone b30 human choriocarcinoma cell line

Sergey Nikulin^{1,2}, Evgeny Knyazev^{1,3}, Tatyana Gerasimenko¹, Ildar Gazizov¹, Vladimir Petrov^{1,4}, Olga Kindeeva^{1,2}, Dimitri Sakharov^{1,5}

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P1.17

The hyaluronan synthesis inhibitor 4-methylumbelliferone inhibits cell proliferation and wound healing on in vitro endometriosis models.

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P1.18

Hypoxia inducible factor-1 alpha impairs syncytialization of human trophoblast bewo cells: role of endocannabinoid system.

Tomás Etcheverry¹, Paula Accialini¹, Marcos Palligas², Cyntia Abán³, Nora Saraco², Nora Martínez⁴, Mariana Farina¹

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P1.19

Differential activation of placental nutrient sensor pathways AMPK, insulin/IGF-1, and mTOR in SGA, AGA and LGA newborns from healthy mothers

Maria-Luisa Lazo-de-la-Vega-Monroy¹, Karen-Alejandra Mata-Tapia¹, Martha-Isabel Gonzalez-Domínguez², Juan-Antonio García-Santillán¹, Angélica Corona-Figueroa¹, Hector-Manuel Gomez-Zapata³, Juan-Manuel Malacara¹, Leonel Daza-Benítez³, Gloria Barbosa-Sabanero¹

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P1.20

Differential role of calcium-activated potassium channels in regulation of nitric oxide synthesis by insulin in endothelial cells from gestational diabetes mellitus.

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P1.21

Attenuation of EZH2-mediated H3K27 methylation up-regulates STAT5B expression during trophoblast syncytialization

Xiao-Wen Gan, Jiang-Wen Lu, Wang-Sheng Wang, Kang Sun

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P1.22

Cytokines profile in different populations of extracellular vesicles during the first trimester of pregnancy

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Developmental programming

P1.23

Experimental gestational diabetes induces a pro-inflammatory and pro-oxidant environment in maternal and fetal livers

Daiana Debora Fornes, María Florencia Heinecke, Evangelina Capobianco, Alicia Jawerbaum

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P1.24

Placental endocrine malfunction programs ovarian defects in female murine offspring

Hannah Yong¹, Sijia Yao¹, Jorge Lopez-Tello¹, Efthimia Christoforou¹, Ionel Sandovici¹, Miguel Constancia¹, Amanda Sferruzzi-Perri^{1,2}

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P1.25

Placental expression of glucose, amino acids and fatty acids transporters and association with birth weight

Gloria Barbosa-Sabanero¹, Juan Antonio García-Santillán¹, María Luisa Lazo-de-la-Vega-Monroy¹, Martha Isabel González-Domínguez², Héctor Manuel Gómez-Zapata³, Leonel Daza-Benites³, Juan Manuel Malacara-Hernández¹

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P1.26

Placental lipid metabolism genes are regulated by DHA supplementation in women with pregestational obesity and folate/vitamin B12 unbalance

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P1.27

In placenta of women with pregestational obesity, DHA supplementation generates an imbalance in the expression of pro and anti-inflammatory genes

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Early pregnancy, implantation and invasion

P1.28

Understanding the natural selection of human embryos: blastocyst quality modulates the generation of a tolerogenic microenvironment by decidualized cells.

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P1.29

Natural embryonic death in the plain viscacha *Lagostomus maximus*: are there previous anatomic-histological variations that would intervene in the differential survival of the implantations?

Francisco Acuña^{1,2}, Claudio Gustavo Barbeito^{1,2}, Guadalupe Ranea¹, Enrique Leo Portiansky^{3,2}, María Angélica Miglino⁴, Mirta Alicia Flamini¹

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P1.30

Revisit ROS in Early Pregnancy: Essential for Placentation but Quantity Matters

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P1.31

The decidualization by VIP conditions endometrial receptivity and immune microenvironment through Reticular Stress and Unfolded Protein Response

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P1.32

How do the mechanical influences of blood flow impact trophoblast plugging and unplugging of the spiral arteries in early pregnancy?

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P1.33

Versican is a novel regulator for trophoblast epithelial-mesenchymal transition and invasion

Keyla S. N. Pires¹, Camilla M. Gonçalves¹, Rayane M. Botelho¹, Ana Lucia M. Silva¹, Liliane P. G. Tenorio¹, Jaqueline C. Santos¹, Eloiza L. L. Tanabe¹, Karen S. C. Borbely¹, Suely V. Silva², Vanessa M. Freitas², Alexandre U. Borbely¹

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Fetal growth restriction

P1.34

Effects of acute sepsis in liver of female and male adult intrauterine growth-restricted offspring exposed to a low protein diet during gestation

Anastasiya Vinokurtseva^{1,2,3}, Reza Khazaei^{2,4,3,5}, Daniel B Hardy^{2,4,3}, Ruud Veldhuizen^{2,4,5,3}, Edith Arany^{1,2,5,6,3}

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P1.35

In utero exposure of $\Delta 9$ -tetrahydrocannabinol causes placental insufficiency and alters pancreas development in the neonatal female offspring leading to impaired glucose tolerance in adulthood

Ryan Guillies^{1,2,3}, Kendrick Lee^{1,3}, Farsad Jomani^{1,3}, Savita Dhavantari^{1,4,3,2}, Daniel B Hardy^{5,3}, Edith Arany^{1,4,3,2}

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P1.36

Comparison between fetal growth restriction that occurs after normal birth weight versus fetal growth restriction that recurs - Pregnancy outcomes in correlation with placental histopathology

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P1.37

Investigation of Wigglesworth intrauterine growth restriction model using DCE-MRI

Matthieu Dap^{1,2}, Marine Beaumont^{3,4}, Olivier Morel^{1,2,4}, Anne Tarrade⁵, Enersto Palmero-Soler^{3,6}, Ikrame Ramdhani⁶, Charline Bertholdt^{7,3,6}

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P1.38

Reduced o-linked n-acetyl-glucosamine impacts on placental structure and fetal growth in a experimental model of hypertension

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P1.39

Effect of fetal growth restriction on the biomechanical and structural properties in human umbilical and chorionic arteries

Germán Arenas¹, Jose Gonzalez¹, Héctor Saavedra², Alvaro Navarrete², Sebastian Castillo-Galán¹, Claudio García-Herrera², Bernardo Krause¹

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P1.40

Role of the uterine glands in the early embryonic death of mammals using a natural model: the plains viscacha *Lagostomus maximus* (Rodentia, Chinchillidae)

Francisco Acuña^{1,2}, Claudio Gustavo Barbeito^{1,2}, Fabián Nishida^{3,2}, Enrique Leo Portiansky^{3,2}, María Angelica Miglino⁴, Mirta Alicia Flamini¹

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P1.41

Placental mesenchymal stem/stromal cells (pMSCs): could they contribute to placental vascular dysfunction in FGR?

Anna Boss, Anna Brooks, Larry Chamley, Jo James

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Fetal Membranes/ Preterm labour and birth

P1.42

Reduced expression of Zonula Occludens-1 in fetal membranes was associated with inflammatory infiltration in premature rupture of membranes

Huijuan Zhang^{1,2}, Juan Li¹, Weibin Wu^{3,2}, Ying Wu⁴

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P1.43

Placental Malaria Modifies P-glycoprotein (P-gp) and Abca1 Transporters in the Mouse Visceral Yolk Sac

Lilian M. Martinelli¹, Klaus N. Fontes², Mila W. Reginatto³, Cherley B. V. Andrade², Victoria R. S. Monteiro², Annamaria R. Vago¹, Fernanda R. C. L. Almeida¹, Patricia M. Martinelli¹, Flavia F. Bloise⁴, Stephen G. Matthews⁵, Tania M. Ortiga-Carvalho², Enrrico Bloise¹

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P1.44

Is there a gender dependent placental histopathology differences in preterm births?

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P1.45

Previous Zika virus infection is a risk-factor to posterior pregnancy: an epidemiological study in Alagoas State, northeastern Brazil (2016-2019)

Séfora Braga, Alexandre Borbely

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P1.46

Reduced expression of Zonula Occludens-1 in fetal membranes was associated with inflammatory infiltration in premature rupture of membrane

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⁴Departments of Neonatology, International Peace Maternity and Child Health Hospital, Shanghai Jiao Tong University, School of Medicine, Shanghai, China

P1.47

Endocannabinoid system is involved in the triggering of preterm labor by LPS

Carolina Marvaldi, Julieta Schander, Julieta Aisemberg, Fernanda De la Cruz, Ana Franchi, Manuel Wolfson

CEFyBO/UBA-CONICET, CABA, Argentina

P1.48

The role of cervical endocannabinoid system in the modulation of lipopolysaccharide-induced proinflammatory response
Carolina Marvaldi, Felisa Herrero Lo Giudice, Julieta Schander, Julieta Aisemberg, Ana Franchi, Manuel Wolfson
CEFyBO (UBA-CONICET), CABA, Argentina

P1.49

Maternal enrichment of the environment protects the offspring against LPS-induced inflammation during gestation: Are the placentas different?
Julieta Schander, Carolina Marvaldi, Fernanda De la Cruz, Julieta Aisemberg, Federico Jensen, Ana Franchi
CEFyBO, CABA, Argentina

P1.50

The Endocannabinoid Anandamide regulates oxytocin receptor in human placenta
Paula Accialini¹, Tomás Etcheverry¹, Cyntia Abán², Mercedes Negri Malbrán³, Gustavo Leguizamón³, Sabina Maté⁴, Mariana Farina¹
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P1.51

Probiotic lactobacillus Kefiri CIDCA 8348 administration prevents LPS-induced preterm birth by reducing acute inflammation in gestational tissues and favoring placental vascular homeostasis
MARIA SILVIA VENTIMIGLIA¹, MARLON I POZO ALVÁN¹, NATALIN VALEFF¹, LORENA JURIO¹, MARIA DE LOS ANGELES SERRADELL², FERICO JENSEN¹
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Hormones/ Growth factors

P1.52

Crosstalk between ER α and NF κ B transcription factors on E₂ induced leptin expression in placental cells.
Malena Schanton¹, Maria Fernanda Camisay¹, Antonio Pérez-Pérez², Bernardo Maskin³, Roberto Casale³, Victor Sánchez Margale², Alejandra Erlejman¹, Cecilia Varone¹
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P1.53

Angiotensin II upregulates Placental Leptin and has a Potential Inflammatory Role in Early Gestation Placenta
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P1.54

Leptin prevents cellular stress under hypoxic condition in trophoblastic cells
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P1.55

Altered placental androgen signalling contributes to growth restricted outcomes
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P1.56

Effects of maternal hypothyroxinemia over the adipose tissue in the adult the progeny

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P1.57

The offspring gestated in hypothyroxinemia has higher paracellular intestinal permeability and signs of intestinal inflammation
Barbara Gutierrez^{1,2}, Maria C. Opazo^{1,2}, Maximo Diaz^{1,2}, Jacques Gonzalez³, Philippe Aubert³, Hélène Boudin³, Michel Neunlist³, Alexis M Kalergis^{2,4,5}, Susan M Bueno^{2,4}, Claudia A Riedel^{1,2}

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P1.58

The offspring gestated in hypothyroxinemia count with less functional Tregcells due to CD25 localizes in the intracellular increasing their autoimmune response during EAE.

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P1.59

Low levels of free thyroxine in umbilical cord blood is associated with a reduce in deiodinase 2 activity in human trophoblast from gestational diabetes pregnancies

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P1.60

Serotonin reuptake inhibitors alter placental aromatase activity in human primary villous trophoblasts

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INRS-Centre Armand Frappier Santé Biotechnologie, Montreal, Canada

P1.61

Trophoblastic cell invasion is induced by leptin involving b-Catenin/Wnt pathway

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Immunology

P1.62

INFγ and IL-10 seric and placental profile during porcine gestation.

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P1.63

Mediators expression in amniotic membrane of pregnant women with and without Gestational Diabetes Mellitus
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P1.64

Anticoagulation in pregnant women with Antiphospholipid Antibody Syndrome, Heart disease and Thrombocytopenia
ANNIE CAROLINE MAGALHÃES SANTOS, ROGÉRIO CAIXETA MORAES DE FREITAS
UNIVERSITY HOSPITAL JULIO MULLER, Cuiabá, Brazil

P1.65

HIV-I INHIBITION BY IFN-I ADJUVANTS IN NAONATAL MACROPHAGES

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P1.66

Maternal obesity induces changes in the expression of inflammatory genes in their offspring's monocytes and gestational DHA supplementation differentially regulates PCG1 α expression.

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P1.67

Expression of HLA-G, HLA-E and HLA-F in the choriodecidual interface of complete hydatidiform moles
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P1.68

Decidual immune cell infiltration and progression to post-molar trophoblastic neoplasia

Lawrence Lin, Marcello Toscano, Mara Hoshida, Regina Schultz, Koji Fushida, Rossana Francisco

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P1.69

Macrophage-mediated Regulatory Effect of *F. nucleatum* on Trophoblast Cells.

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Infection and inflammation

P1.70

Serum Concentration Levels of Interleukin-17A (IL-17A) in HIV Infected Highly Active Antiretroviral therapy (HAART) Treated and Uninfected Normotensive versus Pre-eclamptic Black South African Women

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P1.71

Role of the NF-kappa B signal pathways during the ex vivo infection of human placenta with *Trypanosoma cruzi* and *Toxoplasma gondii*

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P1.72

HMGB1 role in placental barrier infection by *Trypanosoma cruzi*

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P1.73

Fitz - Hugh - Curtis Syndrome: perihepatitis and sepsis in puerperium

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P1.74

Vertical transmission of Zika virus and perinatal microcephaly

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P1.75

Group B Streptococcus induces trophoblast reduced motility: preeclampsia implications and uvaol treatment

Ana Lucia M. Silva¹, Rayane M. Botelho¹, Liliane Patrícia G. Tenorio¹, Eloiza L. L. Tanabe¹, Keyla S. N. Pires¹, Camilla M. Gonçalves¹, Jaqueline C. Santos¹, Aldilane Lays X. Marques¹, Marie-Julie Allard², Julie L. Bergeron³, Guillaume Sebire^{4,3}, Karen S. C. Borbely^{1,5}, Alexandre U. Borbely¹

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P1.76

Uvaol effects in Group B Streptococcus-induced trophoblast cell death and inflammation

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P1.77

ZIKA VIRUS AND PLACENTA: HISTOPATHOLOGICAL INVESTIGATION, INFLAMMATORY PROFILE AND ULTRASTRUCTURAL ANALYSIS IN GESTATIONS RESULTING IN CASES OF MICROCEPHALY OR NOT

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P1.78

Differential secretion of inflammatory cytokines by human trophoblast in the presence of E. coli and two lactobacillus strains.

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P1.79

Chronic intervillitis linked to platelet alloimmunization – a new entry port to understanding a rare but important placental lesion

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P1.80

The involvement of Annexin A1 in human placental response to maternal Zika virus infection

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P1.81

Placental characterization of Zika virus infection during 2016 outbreak in Campinas/SP - Brazil

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P1.82

Placental submicroscopic malaria: histopathology and expression of genes associated with hypoxia, apoptosis and inflammation.

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Metabolism and Metabolic Diseases

P1.83

Maternal diets enriched in sunflower and chia oil modulate PPAR pathways in the decidua from diabetic rats during early postimplantation

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P1.84

Morphometric analysis shows there is enhanced surface density of human placental villi in pregnant women with high, vs. deficient, 25 hydroxycholecalciferol levels

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P1.85

Role of kisspeptin and its therapeutic potential in fetoplacental dysfunction of hypothyroid rats

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P1.86

Type 2 Diabetes Mellitus Development in Low-Income Mother-Infant Pairs of Brazilian Women with Previous Gestational Diabetes Mellitus: A 5-11 Years of Follow-up Retrospective Cohort Study

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P1.87

Pre-pregnancy Metabolic Syndrome on Short and Long-term Adverse Consequences for the Offspring: A Cohort Study of Low Income Brazilian Mothers

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P1.88

Changes in Placental Lipidomics with Obesity and Gestational Diabetes: Sexual Dimorphism

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P1.89

Expression and function of enzymes involved in tryptophan metabolism in human placenta; effect of gestation age.

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P1.90

Disruption of imprinting at the Igf2-H19 locus in the placental endocrine zone affects maternal systemic metabolism

Jorge Lopez-Tello, Hannah EJ Yong, Efthimia R Christoforou, Tina Napso, Ionel Sandovici, Miguel Constancia, Amanda N Sferruzzi-Perri

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P1.91

Maternal diabetes induces FoxO1 and connexin 43 alterations in the heart of the developing embryo

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P1.92

Paternal diabetes programs metabolic disorders in the placenta and the fetus

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P1.93

Maternal treatment with sodium butyrate prevents fetal macrosomia and reduces the expression of lipid transporters in placentas from overweight rats.

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P1.94

Use of metformin for gestational diabetes treatment and its effects in placental nutrient transporters expression.

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P1.95

Maternal Supraphysiological Dyslipidemia Induces Arginases-Increase Impairing Feto-Placental Endothelial Function in Pregnancies with Gestational Diabetes Mellitus

Susana Contreras, Lorena Carvajal, Claudette Cantin, Barbara Fuenzalida, Andrea Leiva

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P1.96

Alterations of plasma membrane fluidity, plasma membrane potential and nitric oxide bioavailability in HUVECs from gestational diabetes

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P1.97

Metabolism of Tryptophan in the Healthy and Preeclamptic Human Placenta

Michelle Broekhuizen, Theo Klein, Emilie Hitzerd, Rugina Neuman, Yolanda De Rijke, Sam Schoenmakers, Peter Sedlmayr, Jan Danser, Daphne Merkus, Irwin Reiss

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Periconceptual Health, embryo development and nutrition

P1.98

Impacts of maternal iron deficiency on the mouse placental-heart axis

Jacinta Kalisch-Smith¹, Nikita Ved¹, Dorota Szumska¹, Shelly Harris¹, Aimee Jacquemot¹, Magda Wolna¹, Fabrice Prin¹, Emily Hardman², Timothy Mohun³, Samira Lakhal-Littleton¹, Duncan Sparrow¹

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P1.99

Exposure to Bisphenol A or 17- α -ethinyl estradiol during early pregnancy negatively affects the remodeling of uterine spiral arteries and fetal growth/survival in mice

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P1.100

mTOR signaling inhibition during organogenesis in the rat increases resorption rate and impairs embryo development by affecting folate availability

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P1.101

RELEVANCE OF CYSTEIN-RICH SECRETORY PROTEINS FOR FERTILIZATION, FERTILITY AND EARLY EMBRYO DEVELOPMENT
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P1.102

Impact of lipid-based nutrient supplementation on placental mTOR signaling and IGF-1 gene methylation and fetal growth
Marisol Castillo-Castrejon¹, Ivana Yang¹, Elizabeth Davidson¹, Sarah J Borengasser¹, Jamie Westcott¹, Jennifer Kemp¹, Ana Garces², Ali Sumera³, Lester Figueroa², Michael Hambidge¹, Nancy Krebs¹, Thomas Jansson¹, Theresa Powell¹

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P1.103

Predictive value of blood immunological markers for early detection of pregnancy complications associated with poor placental function in high obstetric risk patients..

Paula Arbildi¹, Sebastián Rosano², Valentina López², Nahir Correa^{3,4}, Claudio Rodríguez-Camejo¹, Valentina Zubiaurre², Mariana Cora², Leonardo Sosa², Ana Hernández¹, Cecilia Sónora^{1,3}

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The Effect of Folic Acid Supplementation in the Ovary and Upon Embryo Development

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Sphingosine-1-phosphate metabolism and signaling attenuates vascular dysfunction at the fetoplacental endothelium.

Ilaria Del Gaudio, Sebastian Hendrix, Uwe Lang, Christian Wadsack
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Altered placental β -oxidation capacity in female infants in pregnancies complicated by maternal obesity

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Differential Expression γ -H2AX and RAGE in the Placenta of Gestational Diabetes Mellitus (GDM), Preterm Labor (PTL) and Preeclampsia patients and in invasive trophoblast cells.

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Alterations in Mitochondrial Dynamics in Placentae From Women Who Smoke During Pregnancy

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Maternal morbidity and mortality related to placenta accreta from 2007 to 2016 in Baghdad Medical City

Tagreed Hatem
Baghdad Medical City, Baghdad, Iraq

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Placental histopathology lesions and pregnancy outcome in pregnancies complicated with anterior vs. posterior placenta previa
Daniel Tairy, Eran Weiner, Hadas Miremberg, Roni Hochman, Jacob Bar, Michal Kovo
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Association of maternal lipid profile with the presence of placental infarcts and intima-media thickness of fetal abdominal aortic
Osvaldo Rafael Ramírez-Ibarra¹, Lorena del Rocío Ibarra-Reynoso¹, Yeniley Ruiz-Noa¹, Juana Rosalba García-Ramírez², María Luisa Lazo de la Vega¹, Francisco Javier Anaya-Torres³, María Francia Pineda-Cubillan¹, Mónica Preciado-Puga⁴, Gonzalo Arroyo-Díaz⁵
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Maternal obesity and its association with placental villous hypoplasia and Doppler ultrasonography of the fetal abdominal aorta
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Characterization of the expression of calcium-activated potassium channels (BKCa and IKCa) in placenta of gestational diabetes mellitus
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T2* weighted placental MRI in relation to placental histopathology and birth weight
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Transfer and Effect of Endothelin Receptor Antagonists in the Human Placenta: an Ex Vivo Perfusion Study of the Isolated Cotyledon
Emilie Hitzert^{1,2}, Rugina I. Neuman^{2,3}, Michelle Broekhuizen^{1,2,4}, Sinno H.P. Simons¹, Sam Schoenmakers³, Irwin K.M. Reiss¹, Birgit C.P. Koch⁵, Anton H. van den Meiracker², Jorie Versmissen², Willy Visser^{2,3}, A.H. Jan Danser²
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Placental histopathology and pregnancy outcomes in "early" vs. "late" placental abruption
Noa Gonen^{1,2}, Michal Kovo^{1,2}, Letizia Schreiber^{3,2}, Lilach Kornblit Noy², Giulia Barda^{1,2}, Eldar Volpert^{1,2}, Jacob Bar^{1,2}, Eran Weiner^{1,2}
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A new pipeline for clinico-pathological and molecular placental research utilizing FFPE tissues
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Intermediate-conductance calcium-activated potassium channels (IKCa) expression in placenta and its association with neonatal intrauterine growth curve and neonatal ponderal index in gestational diabetes mellitus

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Preeclampsia

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Glycan expression in placental villi histocultures and BeWo cells: Differences between healthy pregnant vs. early-onset severely preeclamptic women and immunomodulatory effects on circulating Natural Killer Cells.

Julio C. Bueno-Sánchez¹, Marisol Campuzano¹, Bernardo Agudelo-Jaramillo¹, Juan Carlos Quintana-Castillo², Juan Guillermo Maldonado-Estrada¹, Gerard Chaouat³

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Regulation of RECK expression by TGF- β 1 and oxygen in human first-trimester trophoblast cells

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Aspirin protects against TNF- α -induced oxidative stress in trophoblast via Nrf-2 activation

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Retinoic acid-induced placental vascular hypoplasia

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Preeclampsia: Analysis of subcellular fragments released from the placental trophoblast and their effect on adult endothelial cells utilizing a novel flow-system

Nadja Kupper¹, Jacqueline Güttler¹, Julia Fuchs¹, Dagmar Brislinger¹, Ingrid Lang¹, Marc Mueller², Birgit Glasmacher², Stefan Wernitznig¹, Dagmar Kolb-Lenz^{1,3}, Birgit Hirschmugl⁴, Berthold Huppertz¹

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Physiological Arterial Remodeling: When Is It Abnormal?

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Trophoblast-specific gene expression driven by endogenous retrovirus LTRs in normal vs pre-eclamptic (PE) pregnancy.

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Diagnostic accuracy of urinary spot protein:creatinine ratio and another methods for proteinuria in hypertensive pregnant women.

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Sterile inflammatory molecules are significantly down regulated by magnesium sulfate treatment in preeclampsia

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Ultrasound and Microbubble Gene Delivery for Targeting Altered Placental MicroRNAs in Preeclampsia

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Clinical and histopathological findings in placentas of patients with early- and late-onset preeclampsia

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EFFECT OF INTERMITTENT HYPOXIA ON CAVEOLIN-1 EXPRESSION AND ITS ASSOCIATION WITH AQUAPORIN-3 IN VILLOUS TROPHOBLASTS

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NITRATION OF PLACENTA AQUAPORINS AFFECTS THE SURVIVAL OF VILLOUS TROPHOBLAST CELLS

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Serum of patients with preeclampsia activates UPR-PERK pathway in human trophoblast cell line HTR8/SVneo

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Stem cells and cellularity

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Amniotic epithelial stem cells: Signalling pathways activated during their hepatic differentiation and proliferation.

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Media matters: effect of media formulations on mesenchymal stem/stromal cell purity and phenotype across gestation

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Derivation of human trophoblast stem cells from human pluripotent stem cells

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Trophoblast stem cells isolated using the side-population technique are depleted in placentae from growth restricted pregnancies

Teena Gamage, Jasper Perry, Vicky Fan, Katie Groom, Larry Chamley, Jo James

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Transport/ Nutrients

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Placenta-on-a-chip model for assessing the transport and toxicity of xenobiotics *in vitro*

Evgeny Knyazev^{1,2}, Anna Khristichenko^{1,3}, Diana Maltseva^{1,2}, Tatyana Gerasimenko¹, Olga Kindeeva^{1,4}, Vladimir Petrov^{1,5}, Dimitri Sakharov^{1,6}

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Cholesterol uptake and efflux is impaired in human trophoblast cells from pregnancies with maternal supraphysiological hypercholesterolemia

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Monoacylglycerol lipase mobilises intracellular lipid stores in the human term placenta

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Vasoactive Intestinal Peptide induces glucose and neutral amino acid uptake through mTOR pathways in human trophoblast cells

Fatima Merech, Elizabeth Soczewski, Vanesa Hauk, Daniel Papparini, Rosanna Ramhorst, Claudia Pérez Leirós, Daiana Vota
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DHA regulates placental expression of Folate and Vitamin B12 receptors in women with pregestational obesity

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Revisiting the role of term placenta in serotonin handling; in situ and ex vivo studies in human and rat placenta show its protective function against excessive fetal serotonin

Rona Karahoda, Hana Horackova, Petr Kastner, Lukas Cervený, Radim Kucera, Cilia Abad, Frantisek Staud

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Maternal malnutrition impacts placental morphology and transport. An origin for poor offspring growth and vulnerability to disease.

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Rho family of GTP proteins Cell Division Cycle 42 (Cdc42) and Rac Family Small GTPase 1 (Rac1) regulates F-actin dependent amino acid transporter trafficking in primary human trophoblast cells (PHT)

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Trophoblast biology

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Effect of macrophages on the invasion of trophoblast at the maternal - fetal interface

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Enrichment and characterization of trophoblast-derived extracellular vesicles isolated from ex vivo one-sided placenta perfusion

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Autophagy Activation Accompanied by Increased EMT level in Trophoblast of Placenta Accreta

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The role of LINC-HELLP bound proteins PCBP1, PCBP2 and YBX1 in extravillous trophoblast differentiation

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Transcriptional co-activator YAP regulates stemness of the placental trophoblast epithelium

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Oleic acid stimulation of amino acid uptake in human trophoblast cells is mediated by phosphatidic acid activation of mTOR signaling

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Annexin A1 as an important regulator of placental cells response to DNA damage in mice

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MITOCHONDRIAL METABOLISM IN HUMAN FRESH VILLOUS TROPHOBLAST

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Tissue transglutaminase in Swan-71 trophoblast cells: hypoxia modulates enzyme expression, cell migration and proliferation.

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KRÜPPEL-LIKE TRANSCRIPTION FACTOR 6 (KLF6) OVEREXPRESSION INDUCES CELL CYCLE ARREST AND FUSION OF BEWO CELLS

Andrea Lis Miranda^{1,2}, Lucille Kourdova^{1,2}, Ana Cristina Racca^{1,2}, María Laura Rojas^{1,2}, Mariano Matías Cruz del Puerto^{1,2}, Susana Genti-Raimondi^{1,2}, Graciela Panzetta-Dutari^{1,2}

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Late Abstracts

LA.1

PLACENTAL AND ENDOTHELIAL DYSFUNCTION CAUSE IUGR PHENOTYPE IN MURINE MATERNAL OBESITY AT E15.5

Tobias Kretschmer¹, Eva-Maria Turnwald¹, Marion Handwerk¹, Ruth Janoschek¹, Inga Bae-Gartz¹, Maria Wohlfarth¹, Tim van Beers², Mojgan Ghilav³, Wilhelm Bloch³, Eva Hucklenbruch-Rother¹, Jörg Dötsch¹, and Sarah Appel¹

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LA.2

CONSEQUENCES OF HUMAN PLACENTAL BARRIER EXPOSURE TO NANOCERIA AND TO BENZO(A)PYRENE

Margaux Nedder^{1,2}, Sonja Boland^{1,3}, Stéphanie Devineau^{1,3}, Amal Zerrad-Saadi^{1,2}, René Lai-Kuen^{1,4}, Jean Guibourdenche^{1,3}, Xavier Coumoul^{1,5}, Sophie Gil^{1,2}, Thierry Fournier^{1,2*}, and Ioana Ferencatu^{1,2*} (* equal contribution)

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LA.3

SECRETION OF SFLT-1 BY FIRST TRIMESTER CHORIONIC VILLI: INVOLVEMENT OF THE NADPH OXIDASE / P38 MAPK PATHWAY

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LA.4

LIPODYSTROPHY-ASSOCIATED PPARG VARIANTS INDUCE A DECREASED CELL FUSION AND MIGRATION IN HUMAN VILLOUS CYTOTROPHOBLAST AND FIBROBLAST, RESPECTIVELY

Hussein Shoaito¹, Camille Gosseume², Corinne Vigouroux², Camille Vatiér², Catherine Pienkowski⁵, Thierry Fournier^{1,3*}, Séverine A. Degrelle^{1,3,4*}

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LA.5

TARGETED DELIVERY OF FLUORESCENT LIPOSOMES TO THE PLACENTAS OF NON-HUMAN PRIMATES

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LA.6

INVESTIGATION OF THE PLACENTAL STEROIDOGENESIS DISRUPTION CAUSED BY BISPHENOL AND THE ROLE OF SULFATE

Jumpei Fujiki, Risa Yabusaki, Naoko Ohtani, Takahiro Ieko, Hiroki Inoue, Hidetomo Iwano.

Laboratory of Veterinary Biochemistry, Department of Veterinary Medicine, Rakuno Gakuen University.

LA.7

THE TARGETED PESTICIDES AS ACETYLCHOLINESTERASE INHIBITORS AND PESTICIDES EXPOSURE RELATED PLACENTAL PATHOLOGY AND BIRTH OUTCOME AMONG TEA GARDEN WORKERS

Shashi Nandar Kumar^{1,2}, Sheikh Raisuddin², Vishwajeet Singh³, Noor Saba Khan¹, Arnab Nayek¹, Usha Agrawal⁴, Banajit Bastia¹, Meenakshi Ahluwalia⁵, Kumar Vaibhav⁶, Deepa Borgohain⁷, Arun Kumar Jain^{1,*}

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POSTER SESSION 2

POSTER SESSION 2 WILL DEVELOP ON THURSDAY 12 SEPTEMBER, FROM 15 H (3 PM) TO 17.15 H (5.15 PM).

IMPORTANT: AT THIS SESSION NEW INVESTIGATORS PRESENTING ODD POSTER NUMBERS SHOULD STAY AT THEIR POSTERS FROM 15 H TO 16 H TO BE JUDGED. THOSE NEW INVESTIGATORS PRESENTING EVEN POSTER NUMBERS SHOULD STAY AT THEIR POSTERS FROM 16.15 H TO 17.15 H TO BE JUDGED.

Anatomy and pathology

P2.1

Global population variation in placental size and structure: evidence from Cebu, Philippines

Haley Ragsdale¹, Christopher Kuzawa^{1,2}, Victoria deMartelly³, Josephine Avila⁴, Nanette Lee⁴, Julianne Rutherford^{5,6}

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P2.2

Could uterine artery pulsatility indices predict risk of postpartum hemorrhage?

Anna Kajdy¹, Dorota Sys¹, Artur Pokropek²

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P2.3

Common umbilical cord insertion in a monochorionic, monoamniotic twin pregnancy - a case report.

Filip Szkodziak, Piotr Szkodziak, Piotr Czuczwar, Sławomir Woźniak, Tomasz Paszkowski

3rd Department of Gynaecology, Medical University of Lublin, Lublin, Poland

P2.4

Physiological and pathological distribution of iron nanoparticles suggest a botanical view of the placenta.

Silvia Chiarelli, Ludovica Sandei, Irene Vitulo, Alessandra Andrisani, Vincenzo Zanardo

University, Padova, Italy

P2.5

Morphological lesions caused by ZIKV infection in the placenta of undernourished mouse dams

Claudio Barbeito^{1,2}, Jimena Barbeito Andrés³, Jessica Ferreira⁴, Andrea Cristofolini^{5,6}, Mariana Fiorimanti^{5,6}, Luiza Higa⁷, Maria Bellio⁸, Amilcar Tanuri⁷, Cecilia Merkis⁵, Elisa Cebral^{9,2}, Patricia Garcez⁴

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⁷Department of Genetics, Institute of Biology, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil. ⁸Microbiology Institute Paulo de Góes, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil. ⁹Institute of Biodiversity and Experimental Biology and Applied (IBBEA-CONICET), Department of Biodiversity and Experimental Biology, Faculty of Exact and Natural Sciences (FCEN), University of Buenos Aires, Buenos Aires, Argentina

P2.6

EFFECTS OF MATERNAL OBESITY ON PLACENTAL MORPHOMETRICAL CHARACTERISTICS AND NEWBORN WEIGHT

Yhoiss Smiht Muñoz¹, Mara Sairles Gómez², David Moreno¹, Liliana Salazar¹, Antonio José Tascón³, María Carolina Pustovrh¹

¹Universidad del Valle, Cali, Colombia. ²Universidad Libre- Seccional Cali, Cali, Colombia. ³Clínica Versailles, Cali, Colombia

P2.7

Negative effects of smoking marijuana during pregnancy on the placenta: experimental evidence

Mariana Veras¹, Sarah Benevenuto¹, Janaina Torres¹, Victor Yariwake¹, Thamires Moraes^{2,1}, Iran Silva¹

¹School of Medicine University of Sao Paulo, Sao Paulo, Brazil. ²UNINOVE, Sao Paulo, Brazil

P2.8

Endometrial NK and plasma cells in infertile women

Udo R. Markert, Bettina Toth, Jana Pastuschek, Maja Weber, Christin Bär, Julia Heger, Priska Streicher, Nora Schultz, Ruben Kuon, Lianghai Diao, Boris Donskoi, Maia Chiokadze, Ksenia Khazhlyenko, Isabel Santillán, Rodolfo F Favaro, Ekkehard Schleußner

Placenta Lab, Department of Obstetrics, Jena University Hospital, Jena, Germany

Angiogenesis/ Vasculature

P2.9

Does pain in the lower abdomen of a pregnant woman always mean premature birth?

Slawomir Wozniak, Piotr Czuczwar, Piotr Szkodziak, Aleksander Wozniak, Tomasz Paszkowski

Medical University of Lublin, Lublin, Poland

P2.10

Syncytiotrophoblast basal membrane-derived exosomes increase NO generation in human umbilical vein endothelial cells

Delia Chiarello¹, Paula Coronado¹, Gonzalo Fuentes^{1,2}, Fernando Toledo³, Fabian Pardo⁴, Luis Sobrevia^{1,5,6,7}

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P2.11

Late-gestation fetal demise in endothelial-specific Hand1 dominant-negative mice

Jennifer Courtney, Helen Jones

Cincinnati Children's Hospital Medical Center, Cincinnati, USA

P2.12

Recellularization of bovine allantochorionic blood vessels

Igor Smirnow, Amanda Saragó, Antonio Alexandre Speri Alves, Gustavo Sá Schiavo Matias, Paula Fratini, Maria Angelica Miglino, Rodrigo Silva Nunes Barreto

School of Veterinary Medicine and Animal Sciences, University of São Paulo, São Paulo, Brazil

P2.13

Anastomosis de Hyrt's en obesidad gestacional

Liliana Salazar¹, Yhoiss Smiht Muñoz¹, María Carolina Pustovrh¹, Felipe Ruiz², Antonio Tascón³

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P2.14

Cortisol effects on the expression of genes related to angiogenesis and placental development

Talita Húngaro¹, Marcos Gregnani¹, Thaís Alves-Silva¹, Michael Bader², Ronaldo Araújo¹

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P2.15

IL-36 (α , β , and γ) modify trophoblast-endothelial cell interaction

José Martín Murrieta-Coxca^{1,2}, Rodolfo R. Favaro², Sandra Rodríguez-Martínez¹, Mario Eugenio Cancino-Díaz¹, Ruby N. Gutiérrez-Samudio², Udo R. Markert², Diana M. Morales-Prieto²

¹Departamento de Inmunología, Instituto Politécnico Nacional, Escuela Nacional de Ciencias Biológicas, Mexico City, Mexico.

²Placenta Lab. Department of Obstetrics. University Hospital Jena, Jena, Germany

Comparative/ Animal models

P2.16

Apoptosis and proliferation in canine placenta

Gimena Gomez Castro^{1,2}, Carolina Zanuzzi^{3,2,4}, Cecilia Ines Merkis⁵, Claudio Barbeito^{1,2}, Mónica Diessler¹

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P2.17

Immunohistochemical detection of prolactin and prolactin receptor in canine and feline placentae

Rocío Hernández^{1,2}, Claudio G. Barbeito^{1,2}, Mónica Diessler¹

¹Cátedra de Histología y Embriología, Laboratorio de Histología y Embriología Descriptiva, Experimental y Comparada (LHYEDEC), Facultad de Ciencias Veterinarias, Universidad Nacional de La Plata., La Plata, Argentina. ²Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), La Plata, Argentina

P2.18

Maternal-fetal communication of stressful signals via extracellular vesicles

Melisa Monteleone, Silvia Billi, Eliana Fernandez, Marcela Brocco

Instituto de Investigaciones Biotecnológicas, Buenos Aires, Argentina

P2.19

The development of an arginine vasopressin rodent model for the study of preeclampsia

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P2.20

Caffeine consumption during gestation alters placental vascularization and fetal development in mice.

Thaís Paula, Lucas Cardoso, Luís Belotto, Felipe Prado, Guilherme Gonçalves, Fernando Felicioni, André Caldeira-Brant, Enrico Bloise, Hélio Chiarini-Garcia, Fernanda Almeida, Gustavo Menezes, Hortencia Oliveira
UFMG, Belo Horizonte, Brazil

P2.21

Morphological Placenta adaptations to maternal undernutrition in a bovine model

Andrea Oxiley, Soledad Orcasberro

Universidad de la Republica, Montevideo, Uruguay

P2.22

Early compensatory Placentomal differentiation in nutritional restricted ewes at 70 days of gestation

Andrea Oxiley, Soledad Orcasberro

Universidad de la Republica, Montevideo, Uruguay

P2.23

Adaptations induced by lacking maternal Kinin B1 receptor and maternal swimming during pregnancy in the placenta and in fetal growth

Thais Alves-Silva^{1,2}, Leandro Freitas-Lima^{1,2}, Adriano Arruda¹, Talita Hungaro¹, Aline Arakaki¹, Rogerio Batista¹, MarluCIA Aires³, Michael Bader², Ronaldo Araujo¹

¹Federal University of São Paulo, São Paulo, Brazil. ²Max-Delbrück-Zentrum für Molekulare Medizin, Berlin, Germany. ³Federal University of Sergipe, Sergipe, Brazil

Developmental programming

P2.24

Perceived maternal stress during pregnancy affects newborn development in a low-income cohort of pregnant women.

Marcela A. Brocco¹, María Aurelia González², Martin G. Frasch³, Mercedes Rumi⁴, Patricia Rey², Lilliana Pupelis², Ernestina Petzil², María Victoria Binda², Gabriela Berg⁵, Bibiana Fabre⁵, Sandra Susacasa², Marta C. Antonelli⁴

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P2.25

Gestational weight gain impacts on DNA methylation and protein expression of leptin receptor in the newborn

Erika Chavira-Suárez^{1,2}, Angélica Ramírez-Mendieta², Sofia Martínez-Gutiérrez², Paola Zárate-Segura³, Jorge Beltrán-Montoya⁴, Nidia Espinosa-Maldona², Juan Carlos de la Cerda-Ángeles⁵, Felipe Vadillo-Ortega^{1,2}

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P2.26

DHA supplementation in women with pregestational obesity does not affect the offspring's adiposity neither at birth nor at 4 months of age.

Karina Carrasco¹, Angela Jaramillo², María Luisa Garmendia², Paola Casanello^{3,1}

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P2.27

Exposure to a glyphosate-based herbicide affects the reproductive developmental programming with long-term consequences in a rat model

Virginia Lorenz, María Mercedes Milesi, Marlise Guerrero Schimpf, María Paula Gastiazoro, Guillermina Pacini, Dalma Belén Cadaviz Fernández, Enrique Hugo Luque, Jorgelina Varayoud

Institute of Health and Environment of Litoral (ISAL), Faculty of Biochemistry and Biological Sciences, Universidad Nacional del Litoral - Consejo Nacional de Investigaciones Científicas y Técnicas (UNL-CONICET), Santa Fe, Argentina

P2.28

The impact of intrauterine growth restriction on adiposity and small intestine morphology during postnatal development in pigs

Thaís Garcia Santos¹, Stefany Araújo², Saffir Fernandes¹, Fernando Felicioni¹, Thaís Domingues e Paula¹, André Caldeira-Brant¹, Hélio Chiarini-Garcia¹, Fernanda Almeida¹

¹Universidade Federal de Minas Gerais, Belo Horizonte, Brazil. ²Centro Universitário de Belo Horizonte, Belo Horizonte, Brazil

P2.29

Aberrant inflammation in rat pregnancy contributes to risk factors associated with cardiovascular disease and pregnancy complications in subsequent generations

Nicole Protopoulos¹, Takafumi Ushida², Shannyn K. Macdonald-Goodfellow¹, Charles H. Graham¹

¹Queen's University, Kingston, Canada. ²Nagoya University, Nagoya, Japan

Early pregnancy, implantation and invasion

P2.30

Role of decorin in decidual cell development during human pregnancy

Chidambra Halari, Pinki Nandi, Peeyush Lala

University of Western Ontario, London, Canada

P2.31

Osmolar stress altered the differentiation of extravillous trophoblast pathway

Matías N. Serra¹, Julieta Reppetti², Carolina Anud¹, Mariana Farina³, Alicia E. Damiano^{1,2}, Nora Martínez²

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P2.32

Immunological outcomes of versican silencing in HTR-8SV/neo cells

Eloiza Tanabe, Keyla Pires, Camilla Gonçalves, Rayane Botelho, Ana Lúcia da Silva, Jaqueline Santos, Karen Borbely, Alexandre Borbely

Cell Biology Laboratory, Institute of Health and Biological Sciences, Federal University of Alagoas, Maceió, Brazil

P2.33

Immune Suppression in Abnormally Invasive Placenta (AIP)

Sonia C. DaSilva-Arnold, Stacy Zamudio, Abdulla Al-Khan, Nicholas P. Illsley

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P2.34

Implantation failures and exposure to glyphosate or a commercial formulation: hormonal and uterine dysfunction during the pre-implantation period as possible mechanisms

Guillermina Pacini, Virginia Lorenz, Dalma Belén Cadaviz Fernández, María Paula Gastiazoro, Enrique Hugo Luque, Jorgelina Varayoud, María Mercedes Milesi

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P2.35

Ghrelin deficiency modifies the uterine inflammatory response affecting mice embryo implantation and development.

Eugenia Mercedes Luque¹, Daniela Paira², Pedro Javier Torres^{1,3}, Nicolás David Ramírez¹, Cintia Díaz⁴, Ricardo Fretes^{4,3}, Rubén Motrich², Ana Carolina Martini^{1,3}

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P2.36

UTERINE CONTRACTILE ACTIVITY AND INTRAUTERINE EMBRYO SPACING ARE ALTERED BY OBESITY

Maria Bazzano¹, Gisela Sarribre^{1,2}, Martín Berón de Astrada^{1,3}, Evelin Elia^{1,2}

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P2.37

Characterization of platelet – trophoblast interactions in human first trimester placenta

J. Guettler¹, D. Forstner¹, O. Nonn¹, S. Maninger¹, N. Kupper¹, S. Wernitznig¹, M. Goeritzer², G. Marsche³, B. Huppertz¹, M. Gauster¹

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Fetal growth restriction

P2.38

Endothelial nitric oxide synthase is vital for nanoparticle-mediated Insulin-like growth factor-1 improvement of fetal growth and protection of trophoblast from oxidative stress.

Rebecca Wilson, Weston Troja, Emily Sumsner, Kristen Lampe, Helen Jones

Center for Fetal and Placenta Research, Cincinnati Childrens Hospital and Medical Center, Cincinnati, USA

P2.39

Targeted Liposomal Delivery of Epidermal Growth Factor Increases System A Amino Acid Transporter Activity in Human Placental Explants

Lewis J Renshall, Frances Beards, Susan L Greenwood, Paul Brownbill, Edward Johnstone, Colin P Sibley, John D Aplin, Lynda K Harris

Maternal and Fetal Health Research Centre, University of Manchester, Manchester, United Kingdom

P2.40

PLACENTAL ANGIOGENIC FACTORS EXPRESSION IN A MURINE MODEL OF DEXAMETHASONE-INDUCED INTRAUTERINE GROWTH RESTRICTION (IUGR). DOES MELATONIN PREVENT IUGR?

Julieta Aisemberg, Julieta Schander, Carolina Marvaldi, Manuel Wolfson, Ana María Franchi

CEFYO, CABA, Argentina

P2.41

PETN induced HO-1 expression in endothelial cells as a target for secondary prevention of endothelial dysfunction

Veronika Teichert, Ruby Gutierrez-Samudio, Jana Pastuschek, Udo Markert, Tanja Groten

University Hospital Jena, Department of Obstetrics, Placentalabor, Jena, Germany

P2.42

Pentaerithrityl tetranitrate (PETN) for secondary prevention of intrauterine growth restriction (PETN-Trial)

Tanja Groten, Ekkehard Schleußner

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P2.43

Histological placenta features influencing fetal growth and infant anthropometry

Tetsuo Nakayama¹, Masanao Ohashi¹, Seishi Furukawa², Yuichiro Sato², Hiroshi Sameshima²

¹Miyazaki Medical Association Hospital, Miyazaki, Japan. ²University of Miyazaki, Miyazaki, Japan

P2.44

Placental morphofunctional associations between fetal weight and gestational age in pigs

Tailine R. L. Reis¹, Vitoria R.C.Silva¹, Fernando Felicione¹, Mariana M.A. Nascimento¹, Larissa R.Peixoto¹, Cheryl J. Ashworth², Enrrico Bloise¹, Helio C.Garcia¹, Fernanda R.L.C. Almeida¹

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Genomics, epigenomics and transcriptional regulation

P2.45

Histone deacetylases 1 and 2 control cytotrophoblast differentiation and syncytiotrophoblast development

Gargi Jaju¹, Mariyan Jeyarajah¹, Megan McGill², Stephen Renaud^{1,3,4}

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P2.46

Elucidating the role of OVOL2 in placental development

Mariyan Jeyarajah¹, Stephen Renaud^{1,2,3}

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P2.47

T. cruzi and *T. gondii* *ex vivo* infection of Human, Canine and Ovine Placental Explant induces specific miRNA profiles

Lisvaneth Medina^{1,2}, Christian Castillo¹, Ana Liempi^{1,2}, Catalina Espinoza¹, Emilia Corradi¹, Humberto Prieto³, Ulrike Kemmerling¹

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P2.48

T. cruzi induction of Trophoblast Differentiation might be mediated by miRNAs

Lisvaneth Medina^{1,2}, Christian Castillo¹, Ana Liempi^{1,2}, Catalina Espinoza¹, Emilia Corradi¹, Humberto Prieto³, Ulrike Kemmerling¹

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P2.49

Longitudinal characterization of circulating small RNAs during normal human pregnancies

KAREN RUBI CELAYA CRUZ¹, Mariana Flores Torres², Nidia Carolina Espinosa Maldonado³, Juan Carlos De la Cerda Ángeles³,

Carlos Fabián Flores Jasso², Filiberto Bautista Moreno², Felipe Vadillo Ortega¹, Erika Chavira Suárez¹

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P2.50

Epigenetic modifications linked to the downregulation of Occludin expression in the placental vasculature

Stephany D Villota, Maria Toledo-Rodriguez, Lopa Leach

The University of Nottingham, Nottingham, United Kingdom

P2.51

DNA Methylation Profile in Placentas of Sickle Cell Anemia Women

GISLENE GIL¹, Galina Ananina¹, Mariana Maschietto², Letícia Baptista¹, Sueli Costa¹, Fernando Costa³, Maria Costa⁴, Mônica Melo¹

¹Center for Molecular Biology and Genetic Engineering (CBMEG), University of Campinas-UNICAMP, Campinas, Brazil. ²Boldrini Children's Center, Campinas, Brazil. ³Hematology and Hemotherapy Center, University of Campinas, Campinas, Brazil. ⁴Center for Integral Attention to Women's Health (CAISM), University of Campinas, Campinas, Brazil

P2.52

Contribution of miRNAs miR-21 & miR-126 to the early endothelial programming in response to fetal growth restriction.

Estefanía Peñaloza, Bernardo Krause

Pontificia Universidad Católica de Chile, Santiago, Chile

Imaging / New technologies

P2.53

Inspection of three-dimensional morphology of the murine placenta by high resolution contrast-enhanced microCT

Katrien De Clercq¹, Eleonora Persoons¹, Tina Napso², Amanda Sferruzzi-Perri², Greet Kerckhofs^{3,1}, Joris Vriens¹

¹KULeuven, Leuven, Belgium. ²University of Cambridge, Cambridge, United Kingdom. ³UCLouvain, Louvain-la-Neuve, Belgium

P2.54

Group B Streptococcus provokes biomechanical and biochemical alterations in trophoblast cells: a Raman Spectroscopy and Atomic Force Microscopy-based study

Aldilane Lays X. Marques¹, Liliane Patricia G. Tenorio¹, Marie-Julie Allard², Julie D. Bergeron³, Guillaume Sebire^{2,3}, Elaine Cristina O. Silva⁴, Samuel T. Souza⁴, Eduardo Jorge S. Fonseca⁴, Karen S.C. Borbely^{1,5}, Alexandre U. Borbely¹

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P2.55

Structure-function relationships in the fetoplacental circulation from in silico interpretation of micro-CT vascular structures
Monika Byrne¹, Rosalind Aughwane², Joanna James¹, Ciaran Hutchinson³, Owen Arthurs³, Neil Sebire³, Sebastien Ourselin⁴, Anna David², Andrew Melbourne^{4,5}, Alys Clark¹

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P2.56

Magnetic resonance assessment of the effect of maternal position on fetoplacental blood flow and oxygenation

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P2.57

AI-based rapid placental assessment tool

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P2.58

Spatial T2* MRI measures as a marker of oxygenation – assessment in healthy pregnancies over gestation

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Immunology

P2.59

Characterization and distribution profile of hematopoietic cells in mouse placenta

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P2.60

More than just a circulatory interface? High-dimensional single-cell analyses uncover tissue-resident programs in placental lymphocytes

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P2.61

Trophoblast cells prevent Neutrophil Extracellular Trap-induced damage and promote vascular transformation signals in neutrophils

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P2.62

Homeostasis loss in VIP deficient mice is associated with altered regulatory T cells recruitment

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P2.63

Possible role of polyclonal Immunoglobulin G (IgG) of patients with different clinical manifestations of the antiphospholipid syndrome on activation of inflammation biomarkers

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P2.64

Aspirin-triggered lipoxins modulate phosphorylation of endothelial nitric oxide synthase and protein nitration of endothelial cells stimulated with polyclonal IgG from patients with antiphospholipid syndrome

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P2.65

Pregestational obesity associates with increased T lymphocyte subtypes in the offspring

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P2.66

In-Depth Characterization of Gestational Immune Dynamics using Mass Cytometry

Amber Moore, Nora Vivanco-Gonzalez, Katie Plummer, Olivia Mitchel, Harleen Kaur, Moises Rivera, Sean Bendall, Theo Palmer
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P2.67

Chemokine and prolactin secretion is modified by Ang II and Ang-(1-7) in decidualized compared to non-decidualized human endometrial stromal cells (T-HESC).

Agustina Sotelo, Franco Mangone, Rosario Macchi, Cecilia Parrado, Luciana Salaverry, Brenda Almozni, Marisa Castro, Estela Rey-Roldán, Andrea Canellada

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Infection and inflammation

P2.68

A Pro- Inflammatory Profile in the Placenta and Maternal Serum of Infants with Reduced Fetal Growth.

Megan Sharps, Bernadette Baker, Helen Bischof, Tatiana Guevara, Susan Greenwood, Rebecca Jones, Alexander Heazell
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P2.69

LPS FROM *PORPHYROMONAS GINGIVALIS* IMPAIRS TROPHOBLAST CELL FUNCTION AND IMMUNE-TROPHOBLAST INTERACTION
Vanesa Hauk, Guillermina Calo, María Román Muñoz, Daiana Vota, Fátima Merech, Daniel Papparini, Rosanna Ramhorst, Claudia Pérez Leirós

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P2.70

Impairment of first-trimester trophoblast cell function by ZIKV infection. Role of VIP in the trophoblast response to the virus.
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P2.71

Effects of *Plasmodium vivax* infection during pregnancy: placental changes and decreased anthropometric profile of the newborn

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P2.72

Metabolites of the Kyn pathway participate in the control of the *T. cruzi* infection in human placental explants

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P2.73

Effects of the E.Coli exotoxin alpha-hemolysin on human chorioamniotic membranes.

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P2.74

Placental injury of a pregnant woman infected with Chikungunya in the third trimester of gestation.

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P2.75

The immunosuppressant drug azathioprine induces expression of IL-18 in placental cells

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P2.76

Cervico-vaginal carriage rate of *Escherichia coli* in pregnant women receiving antenatal control in a public hospital of Buenos Aires

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P2.77

Analysis of nitrosative stress and MIF (inhibitory factor of macrophage migration) in fetal development in an acute congenital Chagas model in mice

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P2.78

The role of Toll-like receptor 3 on the pathogenesis of murine malaria during pregnancy

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P2.79

Pharmacological agonist Compound 43 attenuate placental inflammation-induced decrease in formyl peptide receptor-2 and enhances trophoblast and endothelial function in vitro: Potential therapeutic target for inflammation induced Fetal Growth Restriction.

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P2.80

Evaluation of human placental villi inflammation via TLR4 activation during Zika virus infection

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P2.81

Impact of Plasmodium berghei infection on autophagic profile and structure of mice placenta

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Developmental Biology, Biomedical Sciences Institute, University of São Paulo, São Paulo, Brazil. ³Department of Clinical and

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Metabolism and Metabolic Diseases

P2.82

Mitochondrial metabolic and bioenergetic adaptations associated with the morphological and functional transformation from cytotrophoblast to syncytiotrophoblast

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P2.83

Effect of adipose tissue derived exosomes on glucose and fatty acid uptake in human primary trophoblast cells

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P2.84

Antioxidant treatment rescues the hyperglycemic and hyperlipidemic effects on placental iron homeostasis

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P2.85

MELATONIN INHIBITS THE CHANGE OF HMG-COA REDUCTASE AND SREBP INDUCED BY FRUCTOSE IN THE LIVER OF NEWBORN. PRELIMINARY RESULTS.

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P2.86

Artesunate Treatment Improves Hyperglycemia in a Rodent Model of Gestational Glucose Intolerance Without Increasing Beta Cell Mass: a Potential Role for Placental Apelin

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P2.87

Pregestational overweight/obesity are associated with C-section and with LGA newborn in women attended in the public health system in Chile between 2015-2017*

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P2.88

HUMAN MATERNAL SUPRAPHYSIOLOGICAL HYPERCHOLESTEROLEMIA IMPAIRS PLACENTAL ENDOTHELIAL FUNCTION, CHOLESTEROL TRAFFIC AND FUNCTIONALITY OF NEONATAL HDL.

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P2.89

Exogenous insulin requires MAPK activation to reverse the umbilical vein endothelial dysfunction observed in pregnant women with gestational diabetes mellitus treated with insulin

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P2.90

Syncytiotrophoblast extracellular vesicles express functional insulin receptor capable of binding insulin; circulating levels are increased in Gestational Diabetes Mellitus

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P2.91

EFFECT OF ISOMALTULOSE CONSUMPTION DURING THE PREGNANCY IN NEW BORN RATS. (PRELIMINARY RESULTS)

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P2.92

Hypertensive disorders during pregnancy associates with maternal pre-gestational obesity in women attended in the public health system in Chile between 2015-2017

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P2.93

Lipid profile of circulating placental exosomes in gestational diabetes with and without preeclampsia

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P2.94

Levels of extracellular vesicles and their associated miRNAs in maternal and fetal circulation during normal and diabetic pregnancies

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P2.95

Protein analysis in skeletal muscle from gestational diabetes mellitus and their association with insulin signalling during pregnancy.

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Metabolomics - Proteomics

P2.96

Elemental metabolomics to identify pregnancy risk factors and predict gestational outcomes

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P2.97

PLACENTAL SECRETION OF PROTEINS INTO THE MATERNAL AND FETAL CIRCULATIONS IN NORMAL HUMAN PREGNANCIES IS SEX DEPENDENT

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P2.98

Proteomic identification of potential targets in the syncytiotrophoblast microvillous membrane for placental-specific therapeutic delivery.

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Cincinnati Children's Hospital, Cincinnati, USA

Periconceptional Health, embryo development and nutrition

P2.99

miR-155 regulates placental development and fetal growth, probably by inhibiting the expression of angiotensin II type 1 receptor (AT₁R).

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P2.100

Is placental aging the key to gestational disorders?

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P2.101

Increased expression of placental oxidative stress and reduced antioxidant markers in post-term deliveries

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P2.102

Progressive uterine artery occlusion in guinea pigs increases oxidative stress levels and disrupts glycogen metabolism in the maternal decidua

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Decreased birth weight due to life-long maternal cafeteria diet: ¿is feto-placental development affected?

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Excessive gestational weight gain results in higher contractile microvascular state in women with normal pre-gestational weight

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Successful use of low molecular weight heparin in acute oligohydramnios - a case report.

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Restriction of early fetal growth and placental chorioangiomas

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Extracellular matrix structure in SCNT and natural bovine placenta conditions

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The intracellular pH in human umbilical vein endothelial cells from gestational diabetes is unaltered by insulin.*

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Liquid Chromatography-Multiple Reaction Monitoring Mass Spectrometry Quantification of Extracellular Vesicles Signaling Proteins in placental cells under different physiological conditions

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ROLE OF LEPTIN ON THE APOPTOSIS OF TROPHOBLAST EXPLANTS TRIGGERED BY ACIDOSIS

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CESAREAN SCAR PREGNANCY WITH PROGRESSION TO ABNORMALLY INVASIVE PLACENTA; EXPECTANT MANAGEMENT ACCORDING TO WILL OF PATIENT: REPORT OF A CASE AND LITERARY REVIEW.

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ESTIMATION OF FETAL RADIATION DOSE DURING THE PROPHYLACTIC USE OF THE AORTIC OCCLUSION BALLOON ON ABNORMALLY INVASIVE PLACENTA PREGNANCIES.

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UROLOGICAL INJURIES DURING THE TREATMENT OF ABNORMALLY INVASIVE PLACENTA

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Preeclampsia

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The effects of a high cholesterol diet on AT1 signaling during pregnancy

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URIC ACID LEVELS IN GESTATIONAL HYPERTENSIVE DISORDERS AND FETAL GROWTH RESTRICTION

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MULTIPLE PREGNANCIES AND GESTATIONAL HYPERTENSIVE DISEASES

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P2.117Comparison of *in vitro* pre-eclampsia (PE) cell models with PE placental tissue

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Tissue factor and thrombomodulin: Determination of mRNA levels in exosomes derived from human placental explant cultures.

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Preeclampsia and ox-LDL modify the expression of autophagy markers in placenta and first trimester trophoblast cell line impairing trophoblast invasion and migration.

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Maternal and placental selectins in women with pre-eclampsia; association with the renin-angiotensin-system

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Syncytiotrophoblast Extracellular Vesicles from Late-Onset Preeclampsia Placentae do not induce a Pro-Inflammatory immune response in THP-1 Macrophages

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The expression of RECK a key regulator of trophoblast invasion and endothelial-like differentiation is differentially regulated by TGF-beta, Angiotensin II, Adenosine and oxygen tension: role in preeclampsia.

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Evaluation of FasL and TRAIL in exosomes derived from placental explant cultures of women with early- and late-onset preeclampsia.

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FGL2-Associated Transcriptional and Histopathological Features of Immunological Preeclampsia

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Estrogen receptor ESR1 polymorphisms as early predictors of preeclampsia -eclampsia in high-risk pregnancies

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Evaluation of Angiogenic growth mediators and Oxidative DNA damage marker in serum and placentas of women with preeclampsia: a case-control study in Ghana

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Impaired Iron Homeostasis Contributes to Cell Death in Preeclampsia

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Placental phenotype and lifetime cardiovascular disease risk following pre-eclampsia

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Stem cells and celularity

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Toward a 3D bio-printed model of placental-villous transport: Growth and viability of human primary placental cell-types on hydrogel scaffolds

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Functional properties of human chorionic villous MSCs in response to cancer environment

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Programming of Human DBMSCs by glucose increase their engraftment and properties

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Placental scaffolds support osteogenic and chondrogenic differentiation of bovine adipose-derived cells

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Optimizing differentiation of human pluripotent stem cell-derived cytotrophoblast into extravillous- and syncytio- trophoblast.

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Bovine placenta as biological scaffold source

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Recellularization of canine placental extracellular matrix: mesenchymal stem cells applied to tissue bioengineering

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Toxicology/ Oxidative Stress

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Exposure to perfluoralkyl substances and their potential impact on fetal growth

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Effects of maternal Au-NP exposure by inhalation on fetoplacental development and placental function, in a rabbit model

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THE TRANSCRIPTIONAL ACTIVATOR KRÜPPEL-LIKE FACTOR 6 (KLF6) IS INVOLVED IN TROPHOBLAST REDOX HOMEOSTASIS

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Investigating cannabis mediated fetal growth restriction: the effect of Δ9-THC on placenta vascular development

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Effects of *in utero* and lactational exposure to glyphosate or its commercial formulation on pregnancy outcomes in rats

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PATERNAL SHORT ALCOHOL CONSUMPTION IMPAIRS THE OFFSPRING HEALTH IN MICE

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Does repeat low-dose oral exposure to acetamiprid (neonicotinoid insecticide) during gestation alter the physiology of the triad mother- placenta- fetus in the rat?

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Neurobehavioral status and abstinence signs in newborns exposed to high doses of caffeine in the prenatal period
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Transport/ Nutrients

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The kinetics of mercury in the human placenta: Relationship between genotype and phenotype in healthy and diseased placentas

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Effects of utero-placental structure on oxygen exchange function predicted by an organ-scale computational model.

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Efficient leucine transport across the placental barrier depends on physiological, oppositely directed leucine gradients

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Human placental metabolism of vitamin D and transfer to maternal and fetal circulations

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AQUAPORIN-9 IS EXPRESSED IN VILLOUS TROPHOBLAST MITOCHONDRIA.

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OSMOTIC STRESS AND HUMAN AMNION AQUAPORINS

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Differential Regulation of Transporters in Human Placental Cells and Primary Explants in Response to Hypoxia

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OMEGA (ω) 6 EXCEEDED DIETS MODIFY PLACENTAL VASCULARIZATION, REDUCING VITALITY AND FETAL GROWTH IN A MURINE MODEL

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The migratory capacity of HTR8/SVneo cells under hypoxia is regulated by KLF6

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Trophoblast Syncytialization and Efflux of Cyclic Nucleotides by MRP Transporters

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Deiodinases expression is altered in human trophoblast from gestational diabetes mellitus pregnancies

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Trophoblast proliferation is inhibited by FKBP51

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RECK regulates the endothelial-like differentiation of human trophoblast cells modulating the Notch signaling pathway

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Morphofunctional, molecular and ultrastructural characterization of autophagy in mice placenta

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Activation of cholinergic anti-inflammatory pathway in decidual macrophage promote trophoblast invasiveness

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The role of SDF2 (Stromal cell derived factor-2) in gestational diseases through PERK- branch of the Unfolded Protein Response/ER stress.

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Exogenous CRIPTO-1 increases proliferation of the trophoblast cell lineage HTR8/SV-neo

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Building an integrated gestational high-risk biobank for extracellular microvesicles investigation

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