

Centre
Île-de-France - Jouy-en-Josas - Antony

INRAE



18th European Placenta Group IFPA meeting 2022



Program November 23rd to 25th, 2022 | Amphitheater of Biotechnologies | B. 440

18th EPG meeting

13:50 Welcome address | Pascale Chavatte-Palmer

14:00 **Session 1 - Placental Physiology - A**

15:45

Chairs Mark Dilworth and Christiane Pfarrer

14:00 Characterisation of protein O-GlcNAcylation reveals novel regulation of secretory pathway and DNA damage proteins during syncytiotrophoblast differentiation • A. Scrivener *, 1*University of Manchester, UK

14:10 Putative PPARγ isoforms in placenta: a sequence analysis and RNA detection in BeWo cells and placental villi
• M. L. Vignaud, Université Paris Cité, France

14:20 Notch3 is a key regulator of human trophoblast self-renewal and differentiation
• B. Dietrich *, Medical University of Vienna, Austria

14:30 Temporal and spatial mapping of villous trophoblasts and stromal cells during human first trimester placental development • Th. Maxian *, Medical University of Vienna, Austria

14:40 Could a preconception/pregnancy combined myo-inositol, probiotic and micronutrient supplement alter placental poly-unsaturated fatty acid (PUFA) metabolism which can influence parturition
• V. Cracknell-Hazra *, University of Southampton, UK

14:50 15-hydroxyprostaglandin dehydrogenase (HPGD) in human extravillous trophoblast differentiation
• V. Kunihs*, Medical University of Vienna, Austria

15:00 View inside a current study on senescence of endometrium in RIF patients
• A-Ch. Wrzal, Jena University Hospital, Germany

15:10 Modulating resistance to fetoplacental blood flow alters maternofetal oxygen transfer
• T. Tropea, University of Manchester, UK

15:20 Liver X receptor activation attenuates oxysterol induced inflammatory responses and vascular dysfunction in placental endothelial cells • M. George *, Medical University of Graz, Austria

15:30 Open discussion

15:45 Coffee break

* Early career Investigator



18th EPG meeting

16:15
17:40

Session 2 - Placental Physiology - B

Chairs Véronique Ferchaud-Roucher and Rohan Lewis

16:15

The placenta - a new source of bile acids during pregnancy • E. Ontsouka, University of Bern, Switzerland

16:25

Effect of cholesterol on AMPK protein expression and activation in human MSPH placenta, BeWo, and PHT cells
• H. Horackova *, Charles University, Czech Republic

16:35

Analysis of traffic-related particulate matter in perfusates of ex vivo perfuse human placental lobules
• A. Evangelinos *, University of Manchester, UK

16:45

Hydroxychloroquine effect on cytokine induced activation of feto-placental endothelial cells
• M. Gajic *, Medical University of Graz, Austria

16:55

Placental extracellular vesicles could modify hematopoiesis during pregnancy
• K. Ujcic *, University Hospital Jena, Germany

17:05

Placental uptake of vitamin D; a potential mediator of fetal growth? • L. Cooke *, University of Southampton, UK

17:15

Placental uptake of glutamine and glutamate is reduced following exposure to tert-butyl hydroperoxide (TBOOH), an inducer of oxidative stress • T. Alharthi, University of Manchester, UK

17:25
17:40

Open discussion

Dinner on your own

Notes

Thursday 24th of November 2022

2022

18th EPG meeting

Also accessible online

Zoom access

<https://inrae-fr.zoom.us/j/7486036136>

Meeting ID : 748 603 6136



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Amphitheater of Biotechnologies, B. 440
INRAE Jouy-en-Josas

9:15
10:40

Session 3 - Placental Physiology - C

Chairs Anne Couturier-Tarrade and Jürgen Pollheimer

9:15 DNA methyltransferase 3B is essential for placental development • C. Hanna, Babraham Institute, Cambridge, UK

9:25 Sex-differential effect of maternal obesity on placental nutrient sensing pathways
• G. Devarenne *, CHU Nantes Obstetric & Gynecology department, France

9:35 Sex-specific adaptations of the human placenta to maternal obesity
• M. Hita Fernandez *, University Paris-Saclay, France

9:45 Obesogenic diet in pregnancy provokes disturbances in placental iron homeostasis in association with fetal growth restriction • J. Zaugg *, University of Cambridge, UK

9:55 The impact of extracellular vesicles derived from watermelon on placental function and pregnancy outcomes in an *in vivo* model • H. Kowash *, University of Manchester, UK

10:05 PETN enhances stress resistance in endothelial and trophoblast cells • S. Große, University Hospital Jena, Germany

10:15 The FGF/ERF/NCOR1/2 repressive axis controls trophoblast cell fate
• P.A. Latos, Medical University of Vienna, Austria

10:25 Open discussion

10:40 Coffee break

Notes



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11:00
12:15

Session 4 - Reproductive immunology and inflammation

Chairs Teresa Tropea and Udo Markert

11:00

Distinct neutrophil phenotypes in first trimester pregnancy • Z.N. Mihalic *, Medical University of Graz, Austria

11:10

The placenta has an active role in maintaining fetal homeostasis following maternal immune activation
• S.S.K. Hansen *, University of Copenhagen, Denmark

11:20

Functional heterogeneity between decidua basalis and parietalis macrophages is controlled by placentation
• A.L. Höbler *, Medical University of Vienna, Austria

11:30

Role of the prokineticins in perinatal inflammation: case of chorioamnionitis
• M. Digonnet *, CEA Biosciences and Biotechnology Institute of Grenoble, France

11:40

Placental NLRP3 inflammasome signaling in gestational diabetes and the therapeutic potential of metformin (new project introduction) • R. Karahoda *, Charles University, Czech Republic

11:50

The immunological signature of feto-placental endothelial derived exosomes on the fetus
• M. Klaczynski *, Medical University of Graz, Austria

12:00

Open discussion

12:15
14:00

Lunch on site

Notes



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14:00
16:00

Session 5 - Animal placenta / Comparative placentology

Chairs Hanna Courtney and Morgane Robles

14:00

Influence of beta-hydroxybutyrate on motility, cell metabolism and the expression of pro-inflammatory factors of bovine caruncular epithelial cells *in vitro* • C. Hildebrand *, University of Veterinary Medicine Hannover, Germany

14:10

Bovine placental trophoblast giant cells and hybrid cells in relation to the fetomaternal interface - a morphological characterization by 3-dimensional reconstruction
• L. Tiedje *, University of Veterinary Medicine Hannover, Germany

14:20

mTOR signalling pathway as a key-modulator in placenta development: cell functionality and gene expression of trophoblast adaptive response during the early stage of pregnancy in sheep • I. Viola, University of Turin, Italy

14:30

Effect of maternal exposure to a cocktail of food contaminants on fetoplacental development and growth in a rabbit model • J. Bozec *, University Paris-Saclay, France

14:40

Decidualization in the dog: focusing on maternal-derived decidual cells for understanding the maintenance and termination of canine pregnancy • M. Kowalewski, University of Zurich, Switzerland

14:50

Nursing in the periconceptional period alters placental gene expression and subsequent foal growth
• E. Derisoud *, University Paris-Saclay, France

15:00

Multiscale correlative imaging of horse and zebra placental villi • D. Laundon *, University of Southampton, UK

15:10

Open discussion

15:25

Coffee break

16:00

Notes



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16:00
17:40

Session 6 - Placental models / organoids / stem cells

Chairs Susanne Lager and Christian Wadsack

16:00

The glycosylphosphatidylinositol (gpi)-anchor biosynthesis pathway is involved in regulating mouse placentation
• V. Pérez-García, Centro de Investigación Príncipe Felipe, Valencia, Spain

16:10

TRPV2 is involved in trophoblast branching of the mouse placenta • K. De Clercq, KU Leuven, Belgium

16:20

Physiologically-relevant culture medium increases mitochondrial function and promotes proliferation and differentiation of human trophoblast stem cells (hTSCs) • G. Avellino*, University of Cambridge, UK

16:30

Towards a human-based placenta-embryo chip for developmental toxicity assessment of nanoparticles
• M. Murdeu *, EMPA, Switzerland

16:40

Study of preeclampsia-derived EVs on the blood-brain-barrier integrity and microglia activation using static and microfluidic models • J. Murrieta-Coxca *, University Hospital Jena, Germany

16:50

Multiplexing senescence markers in the placenta: elucidating premature aging in pregnancy pathologies by spatial phenotyping • Th. Forndran *, University Hospital Jena, Germany

17:00

Endothelial to mesenchymal transition (EndoMT) of preeclamptic feto-placental endothelial cells (PE fpEC) is governed by alk2-snail pathway • M. Merčnik *, Medical University of Graz, Austria

17:10

Open discussion

17:25

20:00

Dinner at Café du Palais de Justice, 1 Rue Jouvencel, 78000 Versailles

Notes

Friday 25th of November 2022

2022

18th EPG meeting

Also accessible online

Zoom access

<https://inrae-fr.zoom.us/j/7486036136>

Meeting ID : 748 603 6136



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INRAE Jouy-en-Josas

9:15
10:40

Session 7 - Feto-placental pathology

Chairs Louisa Campagnolo and Paul Brownbill

9:15

Effect of pentaerythryltetranitrate (PETN) on the development of fetal growth restriction in pregnancies with impaired uteroplacental perfusion at mid gestation - a randomised clinical trial
• T. Groten, University Hospital Jena, Germany

9:25

Peri-conceptual stress signalling through O-GlcNAcylation : effects on fetal/placental development
• X. Liu *, University of Manchester, UK

9:35

Perinatal, metabolic and reproductive features in PPAR α -related lipodystrophy
• Th. Fournier, Université Paris Cité, France

9:45

The role of the ion channels PIEZO1 and TRPV4 in the placental endothelium - implications for endothelial (dys)function • H. Allerkamp, Medical University of Graz, Austria

9:55

Untangling the role of the umbilical cord in pregnancy complications
• N. Butson *, St. Mary's Hospital, Manchester, UK

10:05

Open discussion

10:15

Coffee Break

10:40

Notes



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10:30
11:45

Session 8 - Feto-placental pathology

Chairs Sandra Haider and John Aplin

10:30

Cellular targets and uptake mechanisms of extracellular vesicles from normal and preeclampsia pregnancies
• H. Winter *, University Hospital Jena, Germany

10:40

Role of HTRA1 in preeclampsia : a possible biomarker? • G. Tossetta, Polytechnic University of Marche, Italy

10:50

Cholesterol homeostasis is altered in a preeclampsia model using primary human cytotrophoblasts
• B. Fuenzalida *, University of Bern, Switzerland.

11:00

Characterization of the role of pregnancy zone protein (PZP) in preeclampsia
• M. Desseux *, CEA Biosciences and Biotechnology Institute of Grenoble, France

11:10

The potential of S-(2-Boronoethyl)-L-Cysteine (BEC) as a therapy to enhance nitric oxide production by the fetoplacental endothelium • L. Almohammadi *, University of Manchester, UK

11:20

Differential expression of glucose transporter proteins GLUT-1, GLUT-3, GLUT-8, and GLUT-12 in the placenta of macrosomic, small-for-gestational-age and growth -restricted fetuses
• P. Stanirowski, Medical University of Warsaw, Poland

11:30

Open discussion and break

11:45

Notes

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13:05

Session 9 - Virtual presentations

Chairs Thierry Fournier and Vincente Pérez Garcia

11:45

GOT1 and GOT2 are important players in energy maintenance of the placenta in response to physiological shear stress • B.A. Brugger *, Medical University of Graz, Austria

11:55

Modelling of a 3D in vitro human placenta-on-chip model using chorion carcinoma-derived trophoblast cell line (BeWo B30) and immortalised umbilical vein cell line (EA.hy-926) • K. Radziun *, University of Liverpool, UK

12:05

Platelet-derived factors deregulate the transcriptome of the human trophoblast
• J. Guettler *, Medical University of Graz, Austria

12:15

Placental sphingosine-1-phosphate receptors are differentially expressed across gestation
• F. Lyssy *, Medical University of Graz, Austria

12:25

Assessment of anti-inflammatory agents to treat placental dysfunction • J.N. Chen *, University of Manchester, UK

12:35

The ectonucleotidases cd39 and cd73 in the human placenta • D. Forstner *, Medical University of Graz, Austria

12:45

Effect of pravastatin on placental expression of EGFL7 in PE and IUGR: a new potential therapeutic approach
• S. Salvi *, Fondazione Policlinico Universitario A. Gemelli IRCCS, Rome, Italy

12:55

Biological effects of benzo- [A]-pyrene and cerium nanoparticles on the human placental barrier
• G. Deval *, Université Paris Cité, France

13:05

Discussion, presentation of awards and concluding remarks

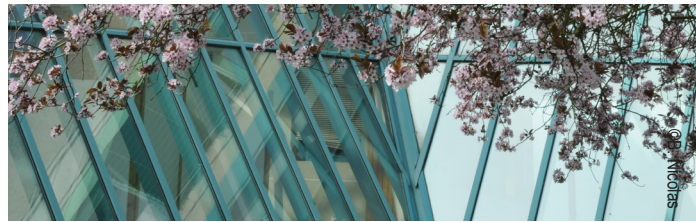
13:30

Notes

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INRAE Île-de-France Jouy-en-Josas - Antony
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48° 45' 50,39" NORD
2° 10' 24,56" EST
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18th European Placenta Group IFPA meeting

Building 440



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