



Recent Advances in Placental Pathophysiology

Guest Editor:

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Message from the Guest Editor

Every year, around 20 % of 140 million births worldwide are from pathological pregnancies. These obstetrical complications have lifelong consequences for the mother (death, metabolic disorders) and the foetus (death, intrauterine growth restriction (IUGR), prematurity, and metabolic disorders in adulthood).

The placenta is essential for implantation, enables an immune tolerance of the conceptus to avoid miscarriage, produces pregnancy hormones such as hCG at implantation to maintain pregnancy, participates in the remodelling of the uterine spiral arteries, is a biological barrier allowing the exchange of nutrients and gases between maternal and foetal blood, protects the foetus from toxics and pathogens, and might be involved in parturition.

Sub-topics:

- Interactions between trophoblasts and uterine immune cells
- Trophoblastic cell differentiation, proliferation, invasion, fusion, apoptosis, necrosis and senescence
- Remodelling of uterine spiral arteries
- Genetic, Epigenetic (DOHAD: developmental origin of health and disease)
- Pollutants: endocrine disruptors, xenobiotics, drugs
- Infectious diseases
- Maternal microbiota





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Message from the Editor-in-Chief

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