



## Changes of Placental Gene Expression of the Most Important Biological Systems in the Background of IUGR

Guest Editor:

**Dr. József Gábor Joó**

First Department of Obstetrics  
and Gynaecology, Semmelweis  
University, Budapest, Hungary

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### Message from the Guest Editor

Dear Colleagues,

Intrauterine growth restriction is one of the most important pathological conditions in obstetrics. It can be caused by maternal, fetal and environmental factors, though the most common etiology is placental dysfunction. The placenta transports oxygen and energy to the fetus, but also transmits numerous endocrine signals for the pregnant woman and for the fetus as well. As the placenta ensures the oxygen and nutrient demand is met for intrauterine growth, genes involved with growth control can be representatively examined from placental tissue. Among the many genes involved, those influencing metabolism, angio- and vasculogenesis, placental growth, apoptosis, and glucocorticoid metabolism are of highest significance.

At present, little is known about the molecular mechanisms leading to the development of IUGR. However, several growth factors have been implicated and an important role for multiple growth factor-related gene families and other specific genes has been firmly established.





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Department of Physiology,  
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Conocimiento s/n, 18100 Armilla,  
Granada, Spain

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MDPI, Grosspeteranlage 5  
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