## **Special Issue**

# The Placental Matrix: Trophoblasts, Decidualization, and Embryo Implantation

### Message from the Guest Editor

The placenta is essential for pregnancy success. orchestrating a complex interplay between trophoblast differentiation, decidualization, and immune modulation to ensure proper embryo implantation and maternalfetal communication. Disruptions in these tightly regulated processes, especially due to inflammation and environmental toxicants, can trigger severe pregnancy complications, including implantation failure, pre-eclampsia, fetal growth restriction, and long-term offspring health consequences. Deciphering the molecular and cellular mechanisms underlying these interactions is critical for developing targeted interventions to improve reproductive outcomes. This Special Issue delves into the latest advancements in placental biology, immune crosstalk, and reproductive toxicology, shedding light on how environmental and inflammatory factors shape pregnancy health.

#### **Guest Editor**

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### Deadline for manuscript submissions

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