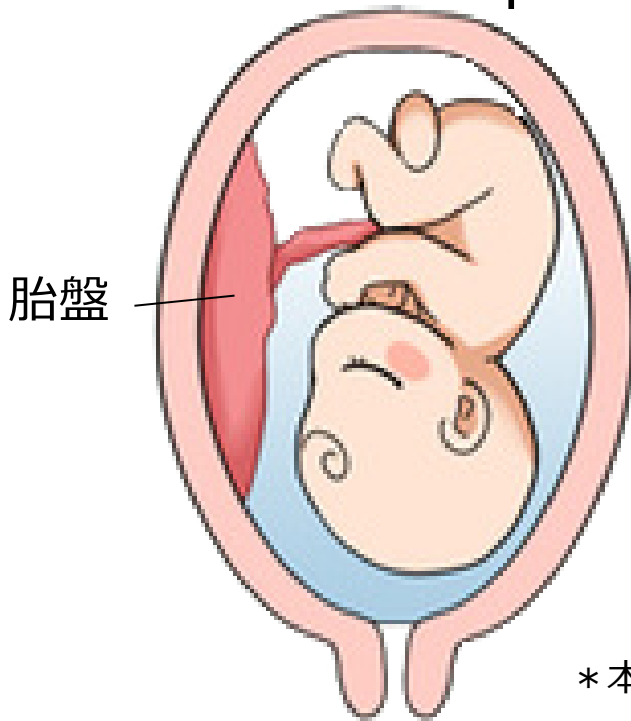


# Trophoblast-immune cell communication via microRNA transported in extracellular vesicles



胎盤形成は妊娠において最も重要な過程の1つです。

胎盤形成機構はどのようにして制御されているのでしょうか？

\* 本セミナーは大学院単位認定の対象となります。

演者：

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## Abstract:

The syncytiotrophoblast forms the interface between fetus and mother, from which extracellular vesicles (EVs) such as exosomes and microvesicles are permanently released into the maternal circulation. These EVs contain fetal proteins, DNA and RNA for communication with neighboring and distant maternal cells. The number, size and content of particles may reflect or predict placental disorders and can be assessed in maternal serum samples. EVs may be taken up by a variety of cells which can react upon the simple interaction but also upon the release of specific transported factors. These interactions can be mimicked ex vivo or in vitro. By applying adapted centrifugation protocols, different subtypes of EVs can be isolated and enriched from blood, ex vivo placenta perfusates or cell line supernatants. Transfection of trophoblastic cell lines may be used to modify the content of their EVs, for example that of specific microRNAs. Coincubation of such EVs with potential target cells leads to increase of trophoblast-derived miRNAs in these cells where they may exert their functions. Our group has shown that miR-141 transfected into trophoblastic cells is transported via EVs and released into T cells where it affects proliferation.

日時： 2018年9月25日（火） 18:30-19:30

場所： 銀杏会館（大阪大学医学部学友会館・医療情報センター）  
阪急電鉄・三和銀行ホール

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