

# Pregnancy derived products for treatment of perinatal brain injuries

Citation for published version (APA):

Müller, M. M. (2017). *Pregnancy derived products for treatment of perinatal brain injuries*. [Doctoral Thesis, Maastricht University]. Maastricht University. <https://doi.org/10.26481/dis.20170224mm>

## Document status and date:

Published: 01/01/2017

## DOI:

[10.26481/dis.20170224mm](https://doi.org/10.26481/dis.20170224mm)

## Document Version:

Publisher's PDF, also known as Version of record

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## **Propositions**

### **Pregnancy derived products for treatment of perinatal brain injuries.**

**Martin Müller**

1. Pregnancy derived products protect the immature brain after perinatal injury. (this thesis)
2. WJ-MSCs and 17 $\beta$ -Estradiol reduce injury in part by targeting cell cycle regulation and apoptosis. (this thesis)
3. sPIF restores cortical architecture and neuronal morphology by reducing apoptotic cells and inflammatory response. (this thesis)
4. Modulating non-coding RNAs and cell fate signaling pathways is an attractive tool to protect the immature brain after perinatal injury. (this thesis)
5. “The practice of medicine is an art, not a trade, a calling not a business, a calling in which your heart will be exercised equally with your head.” (Sir William Osler)
6. “you let your imagination run...this is the truly creative part of scientific activity, what it has in common with the arts. But it is only the first step. Then comes the hard job of confronting the hypothesis with facts.” (Christian de Duve)