**PROJECT RESUME**

**TITLE:** To determine the effects of sFlt-1 on neuronal differentiation, migration and morphology using an in vitro neuronal model of relevance to pre-eclampsia

Recent systematic evidence has shown an association between exposure to pre-eclampsia, a common hypertensive disorder of pregnancy, and certain neurodevelopmental outcomes in the child. However, the anatomical correlates and mechanisms through which exposure to pre-eclampsia influences neurodevelopmental outcomes is unclear. In recent years, there has been an intensive research effort focusing on characterising the molecular changes that occur in pre-eclampsia, and elevations in maternal sFLT1 is the most well characterised change. Here we propose that that exposure to sFLT1 alters neuronal differentiation, migration and or neuronal growth. In this project we will characterise the anatomical changes that result from exposure to sFLT1 in an in vitro neuronal model at a single cell level. This will allow us to uncover new insights into how pre-eclampsia exposure may influence neuronal development.

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