

Hochschule Kaiserslautern University of Applied Sciences

Applied Research Center

Integrated Miniaturised Systems

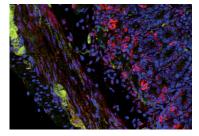


INFLENS Effect of inflammatory and antiinflammatory compounds upon neural stemcell quality in the healthy and neurodegenerated enteric nervous system

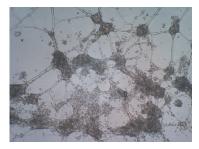
In this study, the effect of inflammatory and antiinflammatory compounds such as bacterial lipopolysaccharide respectively fungal derivatives on the intrinsic innervation of the gastrointestinal tract, the enteric nervous system (ENS), will be investigated.

A specific focus will be set on proliferation and differentiation of neural stem cells, derived from the ENS, under the influence of inflammatory and antiinflammatory compounds.

The major goals are the analysis of regulations of marker genes and proteins, as well as micro RNA, that reflects the effects and mechanisms of the compound used.



Immune (red) and nerve cells (yellow) in the gut wall



In vitro networks of differentiating enteric neural stem cells

Project duration:

10/2014 - 09/2017

Project management:

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Project partners:

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Funding:

Stiftung Rheinland-Pfalz für Innovation





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