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The kaleidoscope of microglia phenotypes

Kracht, Laura

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The kaleidoscope of microglia phenotypes

Microglia transcriptional phenotypes from development to disease

Laura Kracht

The kaleidoscope of microglia phenotypes- *Microglia transcriptional phenotypes from development to disease*

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Cover

The cover represents an illustration of a view through a kaleidoscope in form of the yin & yang symbol. Microglia are very dynamic cells, and their main aim is to maintain CNS homeostasis. When the CNS microenvironment gets in disbalance, microglia react with shifting from a homeostatic to an activated phenotype. These activated phenotypes are remarkably diverse and specifically tailored to the needs of the microenvironment at that given moment to restore CNS homeostasis. In that sense, the kaleidoscope is a metaphor for environmental-induced shifts of microglia phenotypes, whereby the diverse microglial phenotypes can be imagined as the manifold compositions of colorful crystals seen in a kaleidoscope, and a change in microenvironment (disbalance) is equivalent to a rotation of the kaleidoscope. The yin & yang symbol represent balance in a broad sense and in the here presented context, it reflects the endeavour of microglia to maintain CNS homeostasis. The colorful half of the yin & yang symbol is representing the microglial transcriptional phenotypes discovered over the last decade and in the presented dissertation, whereas the monochromic other half of the symbol is representing microglial phenotypes that we are not aware of yet.

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university of
 groningen

The kaleidoscope of microglia phenotypes

Microglia transcriptional phenotypes from development to disease

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to obtain the degree of PhD at the
 University of Groningen
 on the authority of
 the Rector Magnificus Prof. C. Wijmenga
 and in accordance with
 the decision by the College of Deans.

This thesis will be defended in public on

10 January 2022 at 9.00 hours

by

Laura Kracht

born on 13 September 1990
 in Göttingen, Germany

Supervisor

Prof. B.J.L. Eggen

Co-supervisor

Dr. S.M. Kooistra

Assessment committee

Prof. U.L.M. Eisel

Prof. P.J. Lucassen

Prof. S. Garel

Paranymphs

Dr. M. Borggrewe

N. Talma, MSc.

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