

### EDUCATION

Radboud University Nijmegen, and University of Utrecht, the Netherlands. (2002-2006)

#### Ph.D. in Biological Science.

University of Torino, Italy (1996-2001)

#### B.Sc. and M.Sc. Biological Science.



### CURRENT AND PREVIOUS AFFILIATION

- 2018-present **Associate professor position** University of Amsterdam, the Netherlands
- 2010-2017 **Assistant professor position** University of Amsterdam, the Netherlands
- 2006-2010 **Postdoctoral research position** University of California Irvine, Irvine, CA USA
- 2006 **Postdoctoral research position** Radboud University Nijmegen, the Netherlands

### SELECTED RELEVANT GRANTS

- 2020-Alzheimer Nederland (50k€) "Mechanisms of the early diet mediated effects on AD" PI
- 2019-Amsterdam Neuroscience (60k€) "The impact of early-life stress on hypothalamic microglial immunometabolism" PI
- 2019-Amsterdam neuroscience (75k€) "Working Out the Antidepressant Effects of Exercise" Co-PI
- 2019-Urban Mental Health (250k€) "Understanding and targeting microbial patterns among adolescents with depression: using a complex systems approach in an urban environment." Co-PI
- 2018-Alzheimer Nederland-AN (200 k€) "Early fatty acids protect against AD via modulation of microglia and synapses" Co-PI
- 2016 – ABC (250 k€)" The role of fat metabolism and nutritional status in early-life stress induced cognitive impairments: An interdisciplinary study using animal experimental and human observational data.
- 2015 - ABMP (250 k€) "Advanced *in vitro* and *in vivo* modeling to study the role of astrocytes in MDD".
- 2015 – JPI (as co-applicant-1,2K) "D-Cog-Plast-Identification of dietary modulators of cognitive ageing and brain plasticity and proof of concept of efficacy for preventing/reversing cognitive decline "
- 2014 - Food Cognition and Behavior NWO (660 k€) in collaboration with Nutricia Research "Nutritional programming of brain development and function: can it protect against early- life stress induced (accelerated) cognitive decline?"
- 2013 - Meervoud NWO (220 k€) "The role of nutritional and epigenetic programming in the early-life stress induced accelerated cognitive decline; relevance for Alzheimer's disease."
- 2012 - Internationale Stichting Alzheimer Onderzoek (ISAO)(100 k€) "Early stress affects vulnerability to AD pathology"

**Co-inventor on a patent** in collaboration with Nutricia Research "Preventing early-life stress induced impairments"

**Member of DoHAD, Neurofederation, EBBS, Society for Neuroscience**

#### Main organizer of international meetings

2021-Chair Dutch Neuroscience meeting

June-2014 "Early-life experiences from genes to cognition"

March-2018 "Brain SINposium: crosstalk Stress Inflammation & Nutrition"

**My research focus** is on early-life stress (ES) induced cognitive decline and metabolic disorders. I test the exciting new hypothesis that nutrition, neuroinflammation and stress hormones synergistically mediate the ES-induced deficits. This knowledge is crucial for the development of peripheral (e.g. nutritional) interventions. I have established a leading research team (6 PhD students, 3 Postdocs) with personal grants from national and international funding agencies (>2 million euros), underlining the groundbreaking nature of my research. Next to an extensive (inter)national network of academic collaborators my work has attracted the attention of several private entities (Nutricia, Biocrates, Lipotype) that recognize the translational potential of my research and contribute in cash and in kind. To date, I have established a working ES mouse model, shown that ES impairs cognitive functions, hippocampal plasticity (e.g. neurogenesis) and alters metabolic phenotype. I have identified the key role of essential micronutrients in the programming by ES and have convincingly shown that enriching the diet in early-life with micronutrients protects against ES-induced effects and that ES alters neuroinflammatory functions and Alzheimer neuropathology. Finally, I am currently extending these groundbreaking insights to test how ES alters breast milk composition in human.