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Faculty of Psychology

# Colloquium lecture of Dr. Esther Aarts

## Gut-brain axis & nutritional neuroscience

We make more than 200 food-related decisions each day. In making these decisions, neurocognitive processes such as reward motivation and cognitive control play an important role. However, the brain and its pharmacology do not act in isolation of other bodily processes. For example, food motivation is clearly increased when peptide hormones from the periphery signal hunger instead of satiety. Reversely, systemic inflammation in the body is well known to decrease motivation, such as during sickness. An important modulator of these endocrine and immune signals is the gut microbiome, that is, the microorganisms in our intestines. In turn, the food we choose to consume impacts our gut microbiome, our immune system, and subsequently our brain functioning.

Here, I will show some of our past (fMRI) projects into the role of the gut-brain axis in motivational and cognitive control, as well as currently running projects on the bidirectional link between nutrition and the brain with the gut microbiome as a potentially mediating factor.

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This colloquium lecture takes place online!

Thursday, January 13, 2022; 3 pm