

# Jeshua J. Tromp

## Cognitive Neuroscientist

Nijmegen, Netherlands

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### RESEARCH PROFILE

I am a postdoctoral research fellow in cognitive neuroscience, building an independent research program at the intersection of **nutrition**, the **gut microbiome**, and **brain health**. A central focus of this program is **brain iron metabolism**, which I investigate using large multimodal datasets and **advanced statistical modeling**, examining both iron deficiency as a driver of mental and cognitive **fatigue** and iron overload as a factor in **neurodegeneration**.

### RESEARCH POSITIONS

2024 - current <i>Nijmegen, Netherlands</i>	<b>Postdoctoral Researcher</b> <i>Donders Institute, Medical Neuroscience, Radboudumc</i> Funded by Horizon Europe
2019 - 2024 <i>Leiden, Netherlands</i>	<b>Research Scientist</b> <i>Cognitive Psychology Unit, Leiden University</i> Funded by NWO VICI
2019 <i>Stockholm, Sweden</i>	<b>Research Intern</b> <i>Department of Neuroscience, Karolinska Institutet</i>
2018 <i>Utrecht, Netherlands</i>	<b>Research Intern</b> <i>Psychiatry Department, UMC Utrecht</i>
2017 <i>Utrecht, Netherlands</i>	<b>Research Intern</b> <i>Translational Neuroimmunology, Wilhelmina Kinderziekenhuis</i>

### EDUCATION

2019 - 2025 <i>Leiden, Netherlands</i>	<b>Ph.D. Cognitive Neuroscience</b> <i>Leiden University</i>
2017 - 2019 <i>Utrecht, Netherlands</i>	<b>Master Neuroscience &amp; Cognition</b> <i>Utrecht University</i>
2014 - 2016 <i>Utrecht, Netherlands</i>	<b>Science Honours Academy</b> <i>Utrecht University</i>
2013 - 2016 <i>Utrecht, Netherlands</i>	<b>Honours Bachelor College of Pharmaceutical Sciences</b> <i>Utrecht University</i>

### SKILLS & PROFICIENCIES

<b>Programming</b>	Python, R, BASH, HTML, git, GitHub
<b>Languages</b>	Dutch (native), Papiamentu (native), English (fluent), Spanish (B1)
<b>Teaching</b>	Course development, workgroup leader, lectures (consciousness, cognitive robotics, cognitive modeling, experimental methods, philosophy of science)
<b>Scientific outreach</b>	Blog <a href="http://hersenvoer.substack.com">hersenvoer.substack.com</a>

## PUBLICATIONS

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Lopez-Sanchez, L., Papalini, S., **Tromp, J.**, Albayay, J. & Kohn, N. Interaction of physical activity and gut-brain axis: relevance for obesity. *Reviews in Endocrine and Metabolic Disorders* (in press).

**Tromp, J.**, Nieuwenhuis, S., Lucchi, F., Cohen, J. D. & Jongkees, B. A normative account of the trade-off between cognitive stability and flexibility in task switching. *PsyArXiv* (2026) doi:10.31234/osf.io/5rx9v\_v2.

**Tromp, J.**, Wurm, F., Lucchi, F., de Kleijn, R. & Nieuwenhuis, S. Phasic alertness impairs cognitive control by amplifying competition between evidence accumulators. *J. Neurosci.* 45, e1595242025 (2025). doi:10.1523/JNEUROSCI.1595-24.2025.

**Tromp, J.**, Nieuwenhuis, S. & Murphy, P. The effects of neural gain on reactive cognitive control. *Comput. Brain Behav.* 5, 422-433 (2022). doi:10.1007/s42113-022-00140-7.

Judd, N., Sauce, B., Wiedenhoeft, J., **Tromp, J.**, Chaarani, B., Schliep, A., van Noort, B., Penttila, J., Grimmer, Y., Insensee, C., Becker, A., Banaschewski, T., Bokde, A. L. W., Quinlan, E. B., Desrivieres, S., Flor, H., Grigis, A., Gowland, P., Heinz, A., et al. Cognitive and brain development is independently influenced by socioeconomic status and polygenic scores for educational attainment. *Proc. Natl. Acad. Sci. U. S. A.* 117, 12411-12418 (2020). doi:10.1073/pnas.2001228117.

Willemsen, H. L. D. M., Kavelaars, A., Prado, J., Maas, M., Versteeg, S., Nellissen, L. J. J., **Tromp, J.**, Gonzalez Cano, R., Zhou, W., Jakobsson, M. E., Malecki, J., Posthuma, G., Habib, A. M., Heijnen, C. J., Falnes, P. O. & Eijkelkamp, N. Identification of FAM173B as a protein methyltransferase promoting chronic pain. *PLoS Biol.* 16, e2003452 (2018). doi:10.1371/journal.pbio.2003452.

## CONFERENCES

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2026 (forthcoming)  
Bordeaux, France

**Organization for Human Brain Mapping**

2025  
Barcelona, Spain

**Hereditary Plenary Meeting**

2025  
Rotterdam,  
Netherlands

**Cognitive Science Society**

2025  
Egmond aan Zee,  
Netherlands

**NVP Winter Conference for Brain and Cognition**

2024  
Egmond aan Zee,  
Netherlands

**NVP Winter Conference for Brain and Cognition**

2023  
Oxford, England

**Cognitive Computational Neuroscience**

2022  
Egmond aan Zee,  
Netherlands

**NVP Winter Conference for Brain and Cognition**

2021  
Egmond aan Zee,  
Netherlands

**NVP Winter Conference for Brain and Cognition**

## AWARDS

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2026

**Donders Collaboration Grant**  
10,000 euros