



# David Thonnard

Neuroscientist  
Data-analyst

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## About Me

I am a neuroscientist and data scientist with a biomedical and psychological background. For the past 8 years, I have been conducting preclinical work studying cognitive flexibility. During this period, I have also developed a wide array of statistical and data-related skills. More recently, I have been combining academia with industry.

## Languages

- Dutch
- English
- French
- Spanish
- German

## Hard Skills

### Laboratory Skills

- ☒ Neurosurgical lesions
- ☒ Neurosurgical implantations
- ☒ IHC/nissl stainings
- ☒ Brain perfusion/extraction
- ☒ Injections (IP/SC/IM)
- ☒ Optogenetics
- ☒ Flowcytometry

## Work Experience

- currently **Research Scientist** UCB  
In-vivo pharmacology - neurodegeneration - gene therapy
- 2020-2021 **QA Analyst/Consultant** Johnson&Johnson  
Quality Assurance in the European Distribution Center (EDC) for Medical Devices (Johnson & Johnson) as consultant for Altran - Capgemini.
- 2013-2020 **Neuroscientist** KU Leuven - Brain and Cognition  
Preclinical brain research. Main topic: cognitive flexibility. Lab of Prof. Dr. Rudi D'Hooge.
- 2008 **Lab technician** University Ghent - Dep. of Virology  
Quantification of cellular immunological memory after measles vaccination through intracellular cytokine detection using flowcytometry. Lab of Prof. Dr. Geert Leroux-Roels.

## Education

- currently **Advanced Master in Artificial Intelligence** KU Leuven  
Engineering and Computer Science
- 2014-2020 **PhD Neuroscience** KU Leuven  
Thesis: Pharmacological mechanisms and telencephalic interactions involved in neurocognitive flexibility
- 2008-2013 **Master of Science in Theoretical and Experimental Psychology** Ghent University  
Thesis: Jouw pijn is mijn pijn, maar... "Does it matter if you're black or white?".
- 2005-2008 **Bachelor in Biomedic Laboratory Technology, Pharmaceutical and Biological Techniques** University College - Ghent  
Thesis: Quantification of cellular immunological memory after measles vaccination through intracellular cytokine detection.

## Grants

- 2014 Doctoraatsbeurs Strategisch Basisonderzoek IWT/FWO

## Conferences & Presentations

- 08/2017 **European Behavioural Pharmacology Society** Heraklion - Greece  
Perseverative behaviour in low-dose MK801-treated mice
- 07/2017 **RIKEN Brain Science Institute** Tokyo - Japan  
Impaired reversal learning after NMDA-induced lesions in the PFC-HC network
- 05/2017 **Belgian Society for Neuroscience** Ghent  
Effect of MK801 on learning and memory
- 07/2016 **Federation of European Neurosciences Societies** Copenhagen - Denmark  
Cognitive flexibility: Modulation of prefrontal-hippocampal network

## Certificates and Courses

- 03/2020 Introduction to SAS FLAMES
- 01/2020 Python for Machine Learning VSC - KU Leuven
- 01/2020 Python for Data Science VSC - KU Leuven
- 01/2020 Scientific Python VSC - KU Leuven

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### Behavioural Testing

- ☒ Morris Water Maze
- ☒ T-Maze
- ☒ Rotarod
- ☒ Open Field
- ☒ Elevated Plus Maze
- ☒ Touchscreen visual discrimination
- ☒ Odor discrimination

### Computer Skills

- ☒ R
- ☒ SAS
- ☒ Python
- ☒ SQL
- ☒ Stata
- ☒ SPSS
- ☒ Matlab
- ☒ C
- ☒ LaTeX

 Driver's license: B (2004)

## Soft Skills



10/2019	Matlab programming introduction	VSC - KU Leuven
10/2019	Linux scripting	VSC - KU Leuven
12/2016	Non-parametric statistics	Leuven Statistics Research Centre
07/2014	FELASA C - Laboratory Animal Sciences	Biomedical Sciences - KU Leuven
03/2010	Vaccinations in the 21 <sup>st</sup> century	Ghent University
02/2008	The tumor micro-environment: new insights and therapeutic perspectives	Ghent University
03/2007	Viral infections during pregnancy and in children. Disease and bio-safety in the lab	Ghent University
2007	Kjeldahl method	Ghent University
2004	Business Management	OLVL Highschool

## Publications

2021	<b>Effects of orbitofrontal cortex and ventral hippocampus disconnection on spatial reversal learning.</b> <i>Thonnard, D., Callaerts-Vegh, Z., D'Hooge, R.</i> Neuroscience Letters, 135711 <a href="#">DOI</a>
2020	<b>Comparison between touchscreen operant chambers and water maze to detect early prefrontal dysfunction in mice.</b> <i>Van den Broeck, L., Hansquin, P., Sierksma, A., Thonnard, D., Vegh-Callaerts, Z. &amp; D'Hooge, R.</i> Genes, Brain and Behavior, e12695 <a href="#">DOI</a>
2019	<b>Differential effects of post-training scopolamine on spatial and non-spatial learning tasks in mice</b> <i>Thonnard, D., Callaerts-Vegh, Z., D'Hooge, R.</i> Brain Research Bulletin, 152, 52-62 <a href="#">DOI</a>
2019	<b>NMDA receptor dependence of reversal learning and the flexible use of cognitively demanding search strategies in mice</b> <i>Thonnard, D., Dreesen, E., Callaerts-Vegh, Z., D'Hooge, R.</i> Progress in Neuropsychopharmacology & Biological Psychiatry, 90, 235-244 <a href="#">DOI</a>
2011	<b>Oorzaken en gevolgen van een verhoogd glucose metabolisme bij kanker</b> <i>Thonnard, D., Vermeulen, S.</i> Tijdschrift van de Belgische Vereniging van Laboratorium Technologen, 38(1), 17-23 <a href="#">DOI</a>

## Extra-curricular Activities

