

## CONTACT

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## KEY SKILLS

**Project Management:** Leading and delivering multidisciplinary projects

**Data Analysis:** Expert in data analysis

**Team Leadership:** Lead and mentor.

**Scientific Communication** through publications, talks, and grants

**Interdisciplinary Collaborations**

**Homecage Monitoring Expert**

**FAIR Metadata & Ontologies** for reproducibility and interoperability

**Entrepreneurship & Consulting** as Founder & CEO of MAPP

## RESPONSABILITIES

- Founder & CEO of MAPP
- Founder of Neuronautix
- Admin of The Behaviour Forum
- Reviewer for Frontiers in Behavioral Neuroscience
- Member of COST Action TEATIME
- Mentor & Workshop Facilitator
- President of an Art Association

## EDUCATION

2014 - 2018

EPFL PhD in Neurosciences

2008 - 2013

EPFL Master in Life Sciences

Engineering Diploma

GPA: 5.6 / 6.0

## LANGUAGES

- French (Native - C2)
- English (Fluent - C1)
- Italian (B2)

# HUZARD DAMIEN, PHD

FOUNDER & CEO OF METADATAPP (MAPP)  
DATA & BEHAVIORAL SCIENCE CONSULTANT  
FAIR METADATA EXPERT

## PROFILE

Neuroscientist with 15+ years of experience in preclinical research, specializing in behavior, data science, and neurodevelopmental disorders. I help academic, clinical, and industry partners improve reproducibility through FAIR metadata, ontology design, and advanced Homecage Monitoring (HCM) solutions. Experienced in leading cross-functional projects, analyzing complex datasets, and delivering innovative, translational outcomes.

## WORK EXPERIENCE

**Founder (CEO, CSO)** 2025 -  
METADATAPP (MAPP) => [www.metadatapp.net](http://www.metadatapp.net)

- An API-first platform to organize and standardize metadata management in preclinical research settings.

**Founder and Science Consultant** 2024 -  
Neuronautix ([www.neuronautix.com](http://www.neuronautix.com))

- Scientific consultant, Data analysts
- Helping Professionals with Behavioral and preclinical studies

**Senior Postdoctoral scientist** 2021 - 2024  
Institute of Functional Genomics (IGF), CNRS/INSERM, Montpellier

- Led research on somatosensory deficits in autism models, exploring novel connections between neurophysiology and social behaviors.
- **Developped an innovative research trajectory focusing on the role of the skin in neurodevelopmental disorders.**
- Studied heart rate in relation to sociability in preclinical models.
- Supervised 2 Engineers, 2 Master Students 1 PhD candidate
- 3 Awards, 2 scientific articles, 1 Python library, 1 postdoc Grant (57k€)

**Postdoctoral scientist** 2019 - 2021  
Institute of Functional Genomics (IGF), CNRS/INSERM, Montpellier

- Leveraged machine-learning techniques to solve complex data analysis problems (sociality in mice models of ASD)
- Led studies on pathological social avoidance in ASD models.
- 2 scientific articles, Certifications (Python and animal experimentation)

**PhD Candidate** 2014 - 2018  
EPFL, Switzerland (Lab of Prof. Carmen Sandi)

- Behavioral and physiological research on Stress adaptation of rats.
- ECG monitoring to understand stress.
- Led research that advanced understanding of biomarkers in preclinical models contributing to potential therapeutic strategies.
- **3 Scientific articles**, 4 international conferences, 1 EU consortium

**Research intern** 2013 - 2014  
EPFL and Concordia University

- Effects of Urolithin-A on activity and mitochondrial function in rats.
- Co-author in **Nature Medicine** + first-authorship

## TECHNICAL SKILLS

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### • Metadata & FAIR Data –

Ontology design, FAIR principles, metadata management, semantic web standards

### • Project & Lab Management

Operations management, protocol development, automation, organization; Founder of Neuronautix and MetaDatApp

### • Programming & Data Science

Python (pandas, PyTorch), custom analysis tools (LWTools), machine learning tools, IoT system development, APIs, LLMs, PHP

### • Data Processing & Analytics

Time-series analysis, statistics, visualization, live monitoring, data logging, metadata storage and interoperability

### • Preclinical Research

Bio-behavioral phenotyping, Homecage Monitoring (LMT, DVC, DOMEs), ECG monitoring & analysis, optogenetics, fiber photometry, experimental & hardware design

## ORAL PRESENTATIONS

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2025 - TEATIME conference: “Metadata management in preclinical research”

- AFTSAL meeting: “Metadata tools”
- 2 TEATIME Webinars - “science communication”

2023 - SFETD - Young Talent Session

- French Pain Research Network Symposium
- YISS, IGF Montpellier
- EPNA Award special lecture, Eranet meeting
- IASAT, Marseille - poster
- Neurofrance, Lyon - poster

2022 - Spin-Days, Sète

- GIS Autism, Andrew#3
- FENS, Paris - poster

2020 - FENS, Virtual - poster

2019 - Invited Seminar (by V. Prevost), Inserm Lille

2018 - FENS, Berlin - poster

- Webinar for MATRICS EU-FP7 consortium.

2017 - EPFL Brain-Mind-Institute retreat, Villars

2016 - FENS, Copenhagen - poster

2016, 2017 & 2018 - MATRICS (EU FP7) GAs

2014 - FENS, Milan - poster

## HOBBIES

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Family activities

Climbing, Tennis, Padel

Contemporary Tattooing

## AWARDS, GRANTS

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- 4 Virtual Mobility Grants from COST (2025)
- Young Researcher and Innovator grant (2025)
- Virtual Mobility for TheBehaviourForum.org (2024)
- Best Speaker Award, YISS (2023)
- Best presentation, French Pain Symposium (2023)
- Invitation at SFETD meeting (2023)
- NEURON, EPNA Award, 3000€ (2022)
- Lefoulon-Delalande fellowship, **57000€** (2021)
- FENS Grant & Voucher Programme (2020)
- FENS-IBRO/PERC travel grant (2018)
- Research Explorer Ruhr: visiting Cheng lab (2018)

## MEDIA OUTREACH

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- Gehirn & Geist (Feb 23), *Die soziale Kraft der Berührung*.
- Neurosapiens Podcast (Nov 22), on Social contacts.
- Cerveaux & Psycho (Oct 22), *Le toucher fondement du lien social*.
- Espiloon N°147 (2021), *Le pouvoir des Caresses*
- Canal9, TV documentary on rats behavior (2014)

## CERTIFICATIONS

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FELASA B (Animal experimentation, Conceptor level)

JAX Course: **ML Application for Behavior Quantification**

Cajal Neurokit: **Modern Approaches to Behavioural Analysis**

Python: Data analysis

Python: advanced

## SCIENTIFIC ARTICLES

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1000+ CITATIONS, H-INDEX = 8

- (2025) Too big to Lose, OSF preprint. FAIR- compliant Repositories for HCM (meta)data.
- (2025) Huzard et al., BioRxiv (Under Review)

**First study showing a link between ASD and itch hypersensitivity and somatosensory deficits.**

- (2023) LWTools (v1.1.1)

**Python library to analyze data from LiveMouseTracker.**

- (2022) Huzard et al., *Science advances*.

**AWARDED Excellent paper in Neuroscience**

- (2020) Huzard et al. (REVIEW). *Stress*.
- (2020) Huzard et al.. *Stress*.
- (2019) Borie et al. *BioRxiv*.
- (2019) Huzard et al., *Psychoneuroendocrinology*.
- (2017) Laviola et al., *Plos One*.
- (2016) Huzard et al., (REVIEW).
- (2016) Ryu et al., **Nature Medicine**.
- (2015) Huzard et al., *Physiology & Behavior*.