

CURRICULUM VITAE (CVA)

Part A. PERSONAL DATA				CV date	19/01/2026
First name	Chloé				
Family name	Gomez				
Gender (*)	Female	Birth date	24/02/1996		
NIE	Z2337179Q				
e-mail	cgomez10@us.es	URL Web	https://chloegom.github.io		
Open Researcher and Contributor ID (ORCID) (*)	0009-0007-0082-1959				

(*) Mandatory

A.1. Current position

Position	Postdoctoral researcher				
Initial date	01/09/2024				
Institution	University of Seville				
Department/Center	Medical Physiology and Biophysics	Faculty of Medicine			
Country	Spain	Teleph. number	641913895		
Key words	Neuroimaging, Machine Learning, MRI, psychiatry				

A.2. Previous professional status

Period	Position/Institution/Country/Interruption cause
2020-2024	PhD funded by the research project NeuroStim supported by Foundation Bettencourt Schueller (PIs: Dr. B. Jarraya & Dr. A. Grigis) / Neurospin (CEA Paris-Saclay), Université Paris-Saclay / France
2021-2022 (97 hours)	Tutorials teacher / Information Technology Department · IUT d'Orsay, Université Paris-Saclay / France
2019-2020 (10 months)	Research Internship / Centro Interdisciplinario de Neurociencia de Valparaíso (CINV) / Chile (PIs : Dr. M.J. Escobar, Dr. A. Palacios)
2018 (3 months)	R&D Engineering internship / TissUse GmbH / Berlin (Germany)

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD in Life and Health Sciences	Neurospin (CEA Paris-Saclay), Université Paris-Saclay, France	2024
Engineering degree in "Information Technology for Health" / equivalence Master	Telecom Physique Strasbourg (French Graduate School of Engineering), Université de Strasbourg, France	2019
Classe préparatoire aux grandes écoles (CPGE) - Intensive two-year study course preparing for the competitive entrance examinations to the top French Graduate Schools of Engineering ("Grandes Ecoles")	René Cassin, Bayonne, France	2016





Part B. CV SUMMARY

Fascinated from an early age by the **mysteries of the brain**, I chose to specialize in the technologies that make it possible to explore it, in particular **neuroimaging**. My scientific trajectory focuses on the development of **machine-learning methods** combined with neuroimaging to better understand the biological mechanisms underlying disorders of consciousness and, more recently, psychiatric disorders.

After earning my scientific baccalaureate with highest honours, I was admitted to a French *classe préparatoire*, one of the most selective and rigorous academic pathways in France in **mathematics and physics-chemistry**. Seeking a stronger link with the medical domain, I achieved a competitive national ranking in the Concours Mines-Télécom, granting me admission to **Télécom Physique Strasbourg (TPS)** in the **IT-for-Health** track. TPS is one of France's leading Grandes Écoles in health information technologies and [ranked first among the 14 engineering programmes offering a health-oriented curriculum](#). I secured one of only eight places available nationwide, allowing me to build a solid interdisciplinary background in **signal and image processing, and computer science**.

During my final-year internship abroad at CINV (Valparaíso, Chile), I strengthened my skills in **AI, neuroscience, and imaging**. Motivated to take greater initiative in research, I pursued a **PhD in Neuroimaging at Neurospin** (CEA Paris-Saclay), one of Europe's most advanced centres for cognitive and computational neuroscience and ultra-high-field MRI. My PhD was funded by the **Bettencourt Schueller Foundation** (PI: Dr. B. Jarraya) and I joined the [ANR-funded UDOPIA programme in AI](#).

As a PhD student under the mentorship of Dr. Jarraya and Dr. Grigis, my project *DeepStim* focused on modelling brain dynamics and their relation to conscious states. I combined experimental data with computational models, producing findings published in top-tier peer-reviewed proceedings of **international conferences**, such as International Conference on Medical Image Computing and Computer Assisted Intervention (**MICCAI**) and IEEE International Symposium on Biomedical Imaging (**ISBI**) and Q1 **journals** such as **Scientific Reports** and **PLOS One**. A key contribution involved using **generative models** (Gomez et al., MICCAI 2022; Scientific Reports 2024) to identify activity patterns across conscious states. I also studied neural correlates of consciousness using latent models (Grigis, Gomez et al., MICCAI 2022; PLOS One 2024) and extended this work to the restoration of consciousness with deep brain stimulation (Gomez et al., ISBI 2023). I presented this work as an **oral** at the ISBI congress 2023, thanks to a PhD student **mobility scholarship** I was awarded from the Graduate School Life Sciences and Health (1000 €). During a **short stay in Prof. Gustavo Deco's lab** (>45k citations), I collaborated with E. Pérez-Ordoño on whole-brain modelling to explore transitions between brain states during recovery of consciousness (Pérez-Ordoño et al., bioRxiv 2025; manuscript submitted).

These experiences, in France and abroad, have shaped my scientific approach: **collaborative, interdisciplinary, and curiosity-driven**. In September 2024, I joined the Neuroimaging & Brain Networks Lab at the University of Seville, which investigates brain-organizational changes in psychiatric and neurodevelopmental disorders. My current work aims to develop robust, **data-driven tools for classification and stratification in mental health**. I model non-linear associations between diagnoses and brain biomarkers and capture interactions across brain structures using multivariate supervised learning and interpretable classifiers.

Beyond research, I value **teaching, outreach, and mentorship**. At Université Paris-Saclay, I taught **97 hours of courses** on databases and SQL and **supervised three students** in medicine and engineering. This year, I have also served as a reviewer for two manuscripts submitted to the Q1 journals *BJPsych* and *Imaging Neuroscience*. **Peer reviewing** strengthens my critical assessment skills and reflects my commitment to the scientific community. In 2023, I participated in the **French Three-Minute Thesis competition** and engage actively in science communication. For the **International Day of Women**



and Girls in Science, I presented an outreach talk on neuroimaging for high-school students and contributed to a workshop on brain architecture for the **Brain Awareness Week** at the Faculty of Medicine of Seville. This year, I am **co-organizing *Nosotras Investigamos***, a conference highlighting outstanding female neuroscientists in Seville and addressing gender-related challenges in academic careers (<https://nosotrasinvestigamos.github.io>).

Part C. RELEVANT MERITS

C.1. Major publications in peer-reviewed books and journals and at conferences

*I have made two contributions published in Q1 journals, and new contributions have just been submitted for publication recently (preprints available). I have made three peer-reviewed contributions to **top-tier international conferences in medical imaging** including **MICCAI** (double-blind review, acceptance rate: 30%) and **ISBI** (peer-reviewed).*

C.1.1. Journals

1. **C. Gomez***, L. Uhrig, V. Frouin, ... B. Jarraya, and A. Grigis (1/6) 2024 “Deep learning models reveal the link between dynamic brain connectivity patterns and states of consciousness,” *Sci. Rep.*, doi: 10.1038/s41598-024-76695-1., ***Corresponding author**
2. A. Grigis, **C. Gomez**, V. Frouin, ... B. Jarraya, (2/6) 2024 “Revisiting the standard for modeling functional brain network activity: Application to consciousness,” *PLOS ONE*, doi: 10.1371/journal.pone.0314598.

C.1.2. Conferences proceedings

3. **C. Gomez**, J. Tasserie, L. Uhrig, B. Jarraya, and A. Grigis (1/5) 2023 “Exploration of the Neural Correlates of Consciousness Using Linear Latent Model,” *20th ISBI*. doi: 10.1109/isbi53787.2023.10230583. Participation in the congress: oral presentation
4. **C. Gomez**, A. Grigis, L. Uhrig, and B. Jarraya (1/4) 2022 “Characterization of Brain Activity Patterns Across States of Consciousness Based on Variational Auto-Encoders,” *25th International Conference on MICCAI 2022*, doi: 10.1007/978-3-031-16431-6_40. Participation in the congress: poster
5. A. Grigis, **C. Gomez**, V. Frouin, ..., B. Jarraya (2/5) 2022 “Interpretable Signature of Consciousness in Resting-State Functional Network Brain Activity,” *25th International Conference on MICCAI 2022*, doi: 10.1007/978-3-031-16431-6_25.

C.1.3. Preprints

6. C. Aleman-Morillo, N. García-San-Martín, R. Al Bethlehem, ..., R. Romero-García (5/15). 2026. “Early deviations from normative brain morphology and cortical microstructure in schizophrenia spectrum disorders”. medRxiv, January 11. <https://doi.org/10.64898/2026.01.09.26343760> – **manuscript submitted for publication.**
7. E. Pérez-Ordoyo, J. Tasserie, L. Uhrig, ..., Y. Sanz Perl (4/13). 2025. «Restoring Signatures of Consciousness by Thalamic Stimulation in a Whole-Brain Model of an Anesthetized Nonhuman Primate». bioRxiv, Novembre 10. <https://doi.org/10.1101/2025.11.07.686535>. - **manuscript submitted for publication.**
8. A. Grigis, **C. Gomez**, J. Tasserie, ..., L. Uhrig (2/7) 2022. “Predicting cortical signatures of consciousness using dynamic functional connectivity graph-convolutional neural networks,” bioRxiv, <https://doi.org/10.1101/2020.05.11.078535>.

C.2. Congresses

*In addition to the **two first-author papers presented at international conferences** (oral presentation and poster), I have made **one contribution to a European conference** (FENS Forum), **three***



contributions to French national conferences. I also recently submitted **two abstracts**, respectively to the OHBM 2026 international conference and the French IABM conference.

- Multi-site machine learning detection of schizophrenia spectrum disorders using normative sMRI, **Gomez C.**, Segura P., García-San-Martín N., ..., Romero-García R., OHBM 2026, Bordeaux, June 2026 – **submitted, pending acceptance**
- 14-site machine learning study for detecting schizophrenia spectrum disorders using normative structural MRI models, **Gomez C.**, Segura P., García-San-Martín N., ..., Romero-García R., IABM2026, Lyon, March 2026 – **submitted, pending acceptance**
- Deep learning models reveal the link between dynamic brain connectivity patterns and states of consciousness, **Gomez C.**, Uhrig L., Frouin V., Duchesnay E., Jarraya B., Grigis A. [IABM2024](#), Grenoble, March 2024 - Participation: **poster**
- Un modèle interprétable à variables latentes pour identifier les réseaux cérébraux de la conscience, **Gomez C.**, Tasserie J., Uhrig L., Jarraya B., Grigis A. [IABM2023](#), Paris, March 2023 - Participation: **poster**
- An interpretable latent model for identifying consciousness-related brain networks, **Gomez C.**, Tasserie J., Uhrig L., Jarraya B., Grigis A., [2nd Annual AI/Data Science PhD Day](#), Saclay, December 2022 - Participation: **poster**
- A generative model of brain states dynamic in non-human primates based on variational auto-encoder, Gomez C., Grigis A., Uhrig L., Jarraya B., FENS Forum 2022, July 2022, Paris - Participation: **poster**

C.3. Research projects

1. **“Atypical brain maturation in neurodevelopmental disorders”**. Plan de Consolidación funded by the Spanish National Research Agency. University of Seville. 01/04/2024-30/06/2026. 199.535 €. Role: Research coordinator. **This project funds my current postdoctoral position.**
2. **“Biomarkers of brain reorganization related to cognitive impairment in early psychosis (BRIGHT)”**. Junta de Andalucía. 98,000€. 10/2025 to 09/2028. Role: Collaborator.
3. **“Resilience and vulnerability: from neural circuits to networks” (ResilNet)**. ERA-NET Neuron European project. University of Seville. 01/01/2024-01/01/2027. 180.000 €. Role: Collaborator.
4. **“Neuroimaging genetics for understanding atypical neurodevelopmental trajectories in psychosis (NEUTRINO)”**. Spanish Ministry of Science. University of Seville. 01/11/2022-01/11/2026. 256.000 €. Role: Collaborator.
5. **“Translational neuroimaging: Characterising brain organisation in healthy individuals and in patients with psychiatric and neurological conditions”**. Junta de Andalucía Emergia grant. University of Seville. 10/2021 - 10/2025. 293.000€. Role: Collaborator.
6. **“Neurostim: Understanding the mechanisms of action of deep brain stimulation”**. Granted by the Fondation Bettencourt Schueller and managed by CEA Paris-Saclay. Université Paris-Saclay. 09/2019 - 09/2024. 900 000 €. Role: **This project funded my PhD.**

C.4. Participation in technology/knowledge transfer activities

- Teaching-related contracts with Université Paris-Saclay (IUT of Orsay, Information Technology Department) from Jan 2021 to June 2022. Tutorial teacher for databases and SQL, first- and second-year students. All paid. 97h.
- Established a collaboration with the European Centre for Algorithmic Transparency (ECAT, European Commission), holding weekly meetings with Robert Jungnickel (HUMAINT team) to integrate human-centric, ethical AI perspectives into the project.
- Co-organization of the one-day conference *Nosotras Investigamos* (11 February 2026) to highlight female neuroscientists in Seville and address gender-related challenges in academic careers (<https://nosotrasinvestigamos.github.io>)