

Jaime de Juan-Sanz, PhD

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• CURRENT POSITION

Sept 2019 Independent Junior **Group Leader** at the Institut du Cerveau et de la Moelle épinière, Paris. France. *Research theme: Molecular physiology of nerve terminal bioenergetics.*

• EDUCATION

April 2013 PhD in Neuroscience, Molecular Neuropathology Program, CBMSO, Madrid. Spain
Head of lab: Carmen Aragon / Full Professor at UAM.

June 2009 Master's in Molecular Biomedicine, Autonomous University of Madrid (UAM).
Head of lab: Beatriz López-Corcuera / Associate Professor at UAM

June 2008 Bachelors' in Biochemistry, Autonomous University of Madrid (UAM).

• PREVIOUS LABORATORIES

2013 – 2019 Postdoctoral Associate, Weill Cornell Medicine, New York, NY. USA.
Head of lab: Timothy A. Ryan / HHMI Janelia Senior Fellow.

2009 – 2013 PhD Student in Neuroscience, Molecular Neuropathology Program, CBMSO, Madrid. Spain
Head of lab: Carmen Aragon / Full Professor at UAM.

• AWARDS/GRANTS

2019 ERC Starting Grant, “SynaptoEnergy”, ERC-StG-852873. 1.49M €, 5 years. Starting Jan 2020.

2019 ATIP-Avenir, “Molecular physiology of synaptic mitochondrial bioenergetics and its dysfunction in epilepsy”. ~500k €, 3 years. Funding declined, incompatible with ERC.

2018 ICM Desseigne Chair in Epilepsy Research, ~800k €, 4 years.

2017 Joy Cappel Young Investigator Award (Rockland, USA). 4k \$.

2012 Juan Abello Award from the Royal Spanish Academy of Pharmacy (RANF, Spain). 2k €.

• FELLOWSHIPS

2018 – 2020 Marie Skłodowska-Curie IF, “5-HT_astroneuron”, MSCA-IF-2018-841401. 172k €, 2 years.
Declined for personal reasons.

2009 – 2013 Ph.D. Fellowship FPI Program from Spanish Ministry of Education (ref. BES-2009-017832).
Supervisor: Carmen Aragon (CBMSO). 80k €, 4 years

2008 – 2009 Master's. Fellowship Lanzadera from The Centre for Biomedical Network Research on Rare Diseases (CIBERER). Supervisor: Beatriz López-Corcuera (CBMSO). 20k €, 1 year

2007 – 2008 Undergraduate Fellowship. “Starting Fellowship” from Spanish Ministry of Education.
Supervisor: Beatriz Lopez-Corcuera (CBMSO). 1.2k €, 1 year

• HIGHLIGHTED PUBLICATIONS

1. Ashrafi, G.*, **de Juan-Sanz, J***, Farrell, R.J. and Ryan T.A. (2019). Molecular tuning of the axonal mitochondrial Ca²⁺ uniporter ensures metabolic flexibility of neurotransmission. *Neuron*, In press. * equal contribution.
2. Rocha-Muñoz, A., Núñez, E., Arribas-González, E., Lopez-Corcuera B., Aragon C* & **de Juan-Sanz, J*** (2019) E3 ubiquitin ligases LNX1 and LNX2 are major regulators of the presynaptic glycine transporter GlyT2. *Scientific Reports* 9, 14944. * co-corresponding authors.
3. **de Juan-Sanz, J.**, Holt, G. T., Schreiter, E. R., de Juan, F., Kim, D. S., & Ryan, T. A. (2017). Axonal endoplasmic reticulum Ca²⁺ content controls release probability in CNS nerve terminals. *Neuron*, 93(4), 867-881.
4. Koopmans F, van Nierop P, Andres-Alonso M, (...) Malenka R, Nicoll RA, Pulido C, **de Juan-Sanz J**, Sheng M, Südhof TC, (...)Verhage M (2019). SynGO: An Evidence-Based, Expert-Curated Knowledge Base for the Synapse. *Neuron*, 103(2):217-234
5. Wang, Y., Subramanian, M., Yurdagul, A., Barbosa-Lorenzi, V. C., Cai, B., **de Juan-Sanz, J.**, ... & Tabas, I. (2017). Mitochondrial Fission Promotes the Continued Clearance of Apoptotic Cells by Macrophages. *Cell*, 171(2), 331-345.

- **SUPERVISION OF STUDENTS AND PERSONNEL**

- 2019 – present Ulku Cuhadar, Postdoctoral fellow. de Juan-Sanz Lab. *Research theme: Postsynaptic bioenergetics and their role in shaping neurotransmission*
- 2019 – present Anjali Amrapali Vishwanath, PhD Student (Sorbonne Universite). de Juan-Sanz Lab. *Research theme: LETM1 function in neuronal mitochondria and its molecular dysfunction in epilepsy.*
- 2019 – present Anushree Kumar, Technician. de Juan-Sanz Lab. *Research theme: Novel pHluorin variants to improve synaptic vesicle cycle optical sensors*
- 2014 – 2019 Enrique Núñez, Technician. Aragon Lab. *Research theme: LNX1/2 as regulators of presynaptic glycine recapture by GlyT2.*
- 2017 – 2019 Andres de la Rocha, PhD Student. Aragon Lab. *Research theme: LNX1/2 as regulators of presynaptic glycine recapture by GlyT2.*
- 2015 – 2019 Ryan J. Farrell, PhD Student (David Rockefeller Graduate Program, Rockefeller University. NY, USA). Ryan Lab. *Research theme: Role of preselinins in axonal ER Ca²⁺ handling.*
- 12/17 – 02/18 Nohely Abreu, Rotating PhD Student (Physiology Biophysics and Systems Biology Graduate Program). Ryan Lab. *Research theme: VAPB and the modulation of ER/mitochondria contacts in axons.*
- 03/16 – 06/16 Gabriel A. Fitzgerald, Rotating PhD Student (Physiology Biophysics and Systems Biology Graduate Program at Weill Cornell). Ryan Lab. *Research theme: Novel low affinity Ca²⁺ indicators to study ER-mitochondrial Ca²⁺ transfer.*
- 07/15 – 08/15 Delwen Franzen (MBL Woods Hole Neurobiology Course, Graduate School of Systemic Neurosciences, Ludwig-Maximilians-Universität München). *Research theme: Role of preselinins in axonal ER Ca²⁺ handling.*

- **TEACHING ACTIVITIES**

- Summer 2015 Teaching assistant at the Marine Biological Labs Summer Neurobiology Course, The University of Chicago, IL. USA.
- 2009 – 2010 Teaching assistant at the Biochemistry Classes of bachelor's in biology, Faculty of Science. Autonomous University of Madrid. Madrid, Spain. *The Autonomous University of Madrid (UAM) is currently ranked in the top 5 of Spanish universities.*

- **REVIEWER JOURNALS**

PLoS One, PLoS Biology, PNAS, Neuron

- **REVIEWER GRANTS**

Fédération pour la Recherche sur Cerveau (frcneurodon.org)

- **CONFERENCES AND INVITED TALKS**

- 2019 Neurosciences & Disease – IP/ICM symposium. *Invited talk.*
- 2018 Junior Scientist Workshop on Protein Engineering: Making and Using Tools for Neuroscience and Other Biological Problems, Janelia Research Campus, Ashburn, VA (USA). *Invited talk.*
- 2017 Janelia Conference: Cell Biology of Neurons and Circuits, 2017 (09/17 – 09/20), Janelia Research Campus, Ashburn, VA (USA). *Poster and selected talk.*
- 2017 Keck Biomembrane conference, Cornell University, Ithaca, NY (USA). *Poster and selected talk.*
- 2016 EMBO conference: Structure and function of the endoplasmic reticulum, Girona (Spain). *Poster.*
- 2016 Gordon Research Conference: Cell Biology of the Neuron, Waterville Valley, MA (USA). *Poster.*
- 2013 XXXVI SEBBM Conference. Selected *talk.*

- **MEMBERSHIPS OF SCIENTIFIC SOCIETIES**

- 2013 – present Member of the New York Academy of Sciences (NYAS).
- 2009 – present Member of the Spanish Society for Biochemistry and Molecular Biology (SEBBM).

- **OUTREACH ACTIVITIES**

- 2013 – present Science outreach activities: PLoS Neuroscience Blog (<http://blogs.plos.org/neuro/>)
Mapping Ignorance (<https://mappingignorance.org/author/jaimedejuan/>).