

Rodrigo Senovilla-Ganzo



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Research Positions

05/25-Present – Postdoc in Dr. Denis Duboule's lab (College de France; Paris, France).

Evolutionary impact of chromatin architectures in mammalian gastrulation.

12/20-12/24 – PhD in Dr. García-Moreno's lab (Achucarro BCN; Leioa, Spain).

09/23-12/23 – Research Stay in Pr. Henrik Kaessmann's lab (ZMBH; Heidelberg, Germany).

Inter-species comparisons of single cell early brain atlases of developing vertebrates (scRNA/ATACseq) reveal developmental rules that limit vertebrate diversity (pleiotropy).

01/20-12/20 – Master Project in Dr. Guadaño's lab (IIBM-CSIC; Madrid, Spain).

Characterization of audition maturation in AHD syndrome (cerebral hypothyroidism) using genetic expression analysis (RNAseq), EEG and immunohistological approaches in mice.

06/19-08/19 – Research Asistant in Pr. Demeneix and Dr. Fini's lab (MNHN-CNRS; Paris, France).

02/19-02/19 – Bachelor Project in Pr. Demeneix and Dr. Fini's lab (MNHN-CNRS; Paris, France).

Thyroid signaling and endocrine disruption in neural development using *Xenopus Laevis*.

06/18-08/18 – Research Stay in Pr. Lola Ganfornina and Pr. Diego Sánchez's lab (IBGM-UVA-CSIC; Valladolid, Spain).

Education

2020-2025 – PhD in Neuroscience (University of the Basque Country)

2019-2020 – Master in Neuroscience (Autonomous U. of Madrid, Spain) – Qualif. 9.5/10.

2020-2020 – Data Analysis for Life Science Courses - HarvardX on EdX.

2015-2019 – Bachelor in Biochemistry (University of Barcelona, Spain) – Qualif. 8.7/10.

Awards

Best oral presentation (ECCN10): Free publication BBE (Karger Editorial)

Travel grants (EMBO, FEBS, PRamon, Single Cell Barcelona)

PhD Fellowship: Fundación Tatiana Pérez de Guzmán el Bueno. 4 years salary (only 3 fellowships were awarded nationally).

Master Fellowships: CSIC JAE Intro (6 months salary), and UAM Excellence (Tuition Fee)

Publications

1. **Senovilla-Ganzo, R.***, Olazagoitia-Garmendia, A.*, García-Moreno, F., & Castellanos-Rubio, A. (2023). Functional evolutionary convergence of long noncoding RNAs involved in embryonic development. *Communications Biology* 2023 6:1, 6(1), 1–11. <https://doi.org/10.1038/s42003-023-05278-z>
2. **Senovilla-Ganzo, R.**, & García-Moreno, F. (2024). The Phylotypic Brain of Vertebrates, from Neural Tube Closure to Brain Diversification. *Brain Behavior and Evolution*, 99(1), 45–68. <https://doi.org/10.1159/000537748>
3. Rueda-Alaña, E., **Senovilla-Ganzo, R.**, Grillo, M., Vázquez, E., Marco-Salas, S., Gallego-Flores, T., Ftara, A., Escobar, L., Benguría, A., Quintas-Gorozarri, A., Dopazo, A., Rábano, M., dM Vivanco, M., María Aransay, A., Garrigos, D., Toval, Á., Luis Ferrán, J., Nilsson, M., Manuel Encinas, J., García-Moreno, F. (2024). Evolutionary convergence of sensory circuits in the pallium of amniotes. *Science*. 14/02/2025. DOI: 10.1126/science.adp5182
4. Gaminde-Blasco, A., **Senovilla-Ganzo, R.**, Balantzategi, U., García-Moreno, F., Matute, C., Baleriola, J., & Alberdi, E. (2025). Amyloid- β increases MBP and MOBP translation in oligodendrocytes through dysregulation of hnRNP A2 dependent RNA dynamics. *LIFE*, eMID 604f58263ae3d948.
5. Jimenez, S., **Senovilla-Ganzo, R.**, Gallego-Flores, T., Perez-Pascual, E., Ordeñana-Manso, A., Rayo-Morales, R., De Pitta, M., Garcia-Moreno, F. Experimental Neurogenesis in the Embryos of the Gecko *Paroedura picta*. *Neural Stem Cells: Methods and Protocols*. 2025/03/12. *Methods in Molecular Biology (MIMB)*, volume 2899. Springer US.
6. Zaremba, B., Fallahshahroudi, A., Schneider, C., Schmidt, J., Sarropoulos, I., Leushkin, E., Berkí, B., Poucke, E. Van, Jensen, P., **Senovilla-Ganzo, R.**, Hervas-Sotomayor, F., Trost, N., Lamanna, F., Sepp, M., García-Moreno, F., & Kaessmann, H. (2024). Developmental origins and evolution of pallial cell types and structures in birds. *Science*. 14/02/2025. DOI: 10.1126/science.adp5182
7. Rueda-Alaña, E., Grillo, M., Vazquez, E., Salas, S. M., **Senovilla-Ganzo, R.**, Escobar, L., Quintas, A., Benguría, A., Aransay, A. M., Bengoa-Vergniory, N., Dopazo, A., Encinas, J. M., Nilsson, M., & García-Moreno, F. (2024). BirthSeq , a new method to isolate and analyze dated cells in different vertebrates . *Development*. <https://doi.org/10.1242/DEV.202429/352330/BIRTHSEQ-A-NEW-METHOD-TO-ISOLATE-AND-ANALYZE-DATED>
8. Abiega, O., **Senovilla-Ganzo, R.**, El-Ouraoui, M., Muro-García, T., Ruiz-Clavijo, L., Fitzsimons, C., Martín-Suárez, S., & Encinas, J. M. (2024). Hippocampal reactive neural stem cells are able to phagocytose and have an immunological molecular signature. *BioRxiv*, 2024.01.26.577346. <https://doi.org/10.1101/2024.01.26.577346>

Collaborations

Castellanos-Rubio (EHU/UPV), Alberdi (Achucarro / EHU/UPV), Sierra (Achucarro), Sánchez (EHU/UPV), Moreno (Complutense), Encinas (Achucarro).

Conference Presentations

SEBiBC 24 - Oral presentation and congress organizer (RSG-Spain Satellite). 16-18 October 2024 - Valencia, Spain (National).

EuroEvoDevo 24 - Oral presentation and symposium organizer. 25-28 June 2024 - Helsinki, Finland (International).

IBRO 24 – Oral (PRamon Satellite / Travel grant) and poster presentation. 9-13 September 2023 – Granada, Spain (International).

Cortical Evolution 23- Poster presentation. 21-23 June 2023 – Burgos, Spain (International).

ECCN 22 - Oral presentation. 22-24 June 2022 – Prague, Czech Republic (International).

Neurogune 22- Poster presentation. 1 July 2022 - Pamplona, Spain (National).

Single Cell Genomics Symposium 22 - Poster presentation. 24-25 March 2024 – Barcelona, Spain (International).

SENC 21- Oral (PRamon Satellite) and poster presentation. 3-5 Nov 2021 - Lleida, Spain (National).

Workshops

Developmental neurobiology: From stem cells to circuits 2023. Travel fellowship and poster prize.

Venice summer school 2022: The character concept in metabolic, physiological, and developmental evolution. Travel fellowship.

Scientific Outreach and Service

03/23-Currently – Collaborator PreLight Community part of The Company of Biologist editorial group. Select, highlight and comment on preprints.

04/2022-Currently – Basque Country Node Leader in the Spanish Regional Student Group part of International Society for Computational Biology (ISCB). Scientific outreach and organization of networking events for students in the Basque Country and Spain.

2021/23. Representative of PhD candidates in Achucarro. Steering boards participation and organization of training workshops.

2021/23. Neuroscience Day. Organizer and participant of outreach activities for undergraduates and campus community.

2022. Women in Neuroscience. Organizer of outreach activities for women in science visualization for kids and schools.

Scientific outreach: Fernando de Rojas (School, Burgos), Pintxo-pote zientifikoa (General audience, Barakaldo).

Teaching Experience

“An introduction to -omics” – Master in Neuroscience UPV/EHU

“Bioinformatics for PhD students” – Internal training Achucarro BCN

Mentoring of master students in bioinformatics (Aitor Ordeñana, Erise Pérez)

Bioinformatic Skills

R (Advanced) / **Bash** (Advanced) / **Python** (Advanced)

scRNAseq (Advance), **scATACseq** (Advance), **RNAseq** (Advance), **ChIPseq** (Intermediate), **Spatial transcriptomics** (Beginner)

Languages

English (Professional Competence, CPE); **Spanish** (Native); **French** (Medium Competence, B1 EIM); **Catalan** (Medium Competence, B2 EIM); **Basque** (Beginner); **German** (Beginner)

Other Interests

Evo-devo philosophy, running, hiking, films and theatre...

References

Dr. Fernando García-Moreno (Achucarro BCN, fernando.garcia-moreno@achucarro.org)

Prof. Nerea Moreno (U. Complutense, nerea@bio.ucm.es)

Dr. Ainara Castellanos-Rubio (EHU/UPV, ainara.castellanos@ehu.eus)