

## PERSONAL INFORMATION

Name: Enric Llorens-Bobadilla

ORCID: 0000-0002-7891-1272

Date and place of birth: June 7<sup>th</sup>, 1987; Palma de Mallorca, Spain

## • CURRENT POSITION

08/2022 – Assistant Professor  
Group Leader at the Department of Cell and Molecular Biology (CMB),  
Karolinska Institutet, Stockholm, Sweden

## • EDUCATION AND PREVIOUS POSITIONS

2016 – 07/2022 Postdoctoral Researcher  
Department of Cell and Molecular Biology, Karolinska Institutet, Stockholm  
Supervisor: Jonas Frisén

09/2010 – 03/2016 PhD Student  
Dept. of Molecular Neurobiology, German Cancer Research Center (DKFZ),  
Heidelberg, Germany. Dissertation: “Molecular and Cellular Determinants of  
Injury-Induced Neurogenesis”.  
Supervisor: Ana Martin-Villalba.

2005 – 2010 Diploma in Pharmacy  
University of Barcelona (UB), Spain

09/2009 – 04/2010 MSc Student  
Dept. of Pharmaceutical Sciences, Swiss Federal Institute of Technology  
(ETH), Zurich, Switzerland.

## • GRANTS, FELLOWSHIPS AND AWARDS

2027-2031 Wallenberg Academy Fellow (WAF) in Medicine 2025  
2023-2028 European Research Council (ERC) Starting Grant  
2025-2028 Swedish Foundation for Strategic Research (SSF) Sweden-South Korea  
collaboration (funded preliminary Acomys experiments in spinal cord injury)

2024-2026 WASP-DDLS research project  
2022-2027 Swedish Foundation for Strategic Research (SSF) Future Leaders  
2022-2026 VR Starting Grant in Medicine and Health  
2022-2023 StratNeuro Starting Grant  
2022-2025 Wings for Life Project Grant (co-PI)

Fellowships awarded in competition after PhD:

2020-2021 StratNeuro (Strategic Research Areas, SFO) Postdoctoral Fellowship  
2017-2020 Human Frontiers Science Program (HFSP) Long Term Postdoctoral Fellowship  
2017 EMBO Long Term Fellowship – invited but declined

## • ORGANISATION OF SCIENTIFIC MEETINGS

2023-2026 Organizer of the StratRegen Seminar Series in Stem Cells and Regenerative Medicine  
2024 Co-organizer of the 3<sup>rd</sup> ‘CNS Injuries and Repair’ symposium. September 2024.  
Stockholm.

2023 Organizer of Symposium on “Multiomic analysis of glia-mediated regeneration”  
European Glia Meeting. July 2023. Berlin.

2023 Co-organizer of the 2<sup>nd</sup> ‘CNS Injuries and Repair’ symposium. September 2023.  
Stockholm.

## • SUPERVISIONS AND TEACHING ACTIVITIES

Doctoral and postdoctoral supervisions:

2025-	Simon Perrin, Postdoctoral supervisor
2024-	Timm Häneke, PhD supervisor
2024– 2025	Deniz Secilmis, Postdoctoral supervisor
2023– 2025	Laura Pintado, Postdoctoral supervisor
2022-	Margherita Zamboni, Postdoctoral supervisor
2023-	Gabriel Gomez Rydholm, PhD supervisor
2023-	Lei Wang, PhD supervisor
2021 – 2022	Paul Packhaus, MD Thesis supervisor
2022	Arooj Arfan, MD Thesis supervisor. Awarded the national “Asklepiospriset 2023”

Teaching:

2024	Course co-director and teacher of the 'CNS Injuries and Repair' course for MSc and PhD students, Karolinska Institute
2023	Course co-director and teacher of the 'CNS Injuries and Repair' course for MSc and PhD students, Karolinska Institute
2019	Teaching 'CNS Injuries and Repair' course for MSc and PhD students, Karolinska Institute
2012-2016	Teaching 'Adult Stem Cells' course in the "Master Program Molecular Biosciences", German Cancer Research Center (DKFZ)

• **INVITED LECTURES (last 2 years)**

2025	Frontiers in Neuroscience Symposium, Institute of Advanced Studies, Hong Kong
2024	FENS Satellite meeting, In vivo cell fate conversions, Vienna
2024	International Society for Regenerative Medicine Seminar, online
2024	Center for Neuromusculoskeletal Restorative Medicine Symposium, Hong Kong
2024	Chinese Academy of Sciences, Institute of Neuroscience Seminar, Shanghai
2023	3 <sup>rd</sup> Neuroepigenetics & Neuroepitranscriptomics Conference, Riviera Maya
2023	Rudbeck Seminar, Uppsala University
2023	Symposium speaker, European Glia Meeting, Berlin
2023	Lithuanian Stem Cell Society Annual Meeting, Vilnius
2022	Neurorepair: surgery and rehabilitation, Berlin
2022	Epigenetics in the Nervous System conference Abcam conference, Berlin

• **MEMBERSHIPS AND REVIEWING ACTIVITIES**

Since 2024 –	Member of the StratRegen Steering Board
Since 2020 –	Member, Swedish Developmental Biology Organization (SWEDBO) and Association of Spanish Scientists in Sweden (ACES)
2014 - 2018	Member, German Stem Cell Network (GSCN) and the International Society for Stem Cell Research (ISSCR)
Since 2014 –	Reviewer for Cell, Nature Neuroscience, Neuron, Nature Communications among others
Since 2015 –	Reviewer for Wellcome Career Development Awards (UK), Brain Research UK Project Grants (UK), Arsep Foundation (France), KID Projects (Sweden).

## 10 selected publications

1. Zamboni, M, Martínez Martín, A., Rydholm, G., Häneke, T., Pintado, L., Secilmis, D., Ziegenhain, C., Llorens-Bobadilla, E. (2025) The regulatory code of injury responsive enhancers enables precision cell state targeting in the CNS. *Nature Neuroscience*. DOI: doi-org.proxy.kib.ki.se/10.1038/s41593-025-02131-w
2. Wu, Y., Korobeynyk, V.I., Zamboni, M., Waern, F., Cole, J.D., Mundt, S., Greter, M., Frisén, J., Llorens-Bobadilla, E.#, Jessberger, S.#. (2025) Multimodal transcriptomics reveal neurogenic aging trajectories and the emergence of regional inflammation in the aging mouse dentate gyrus. *Nature Neuroscience* 28, pages 415–430. # Co-corresponding author. Citations: 15
3. Llorens-Bobadilla, E.#, Zamboni, M., Marklund, M., Bhalla, N., Chen, X., et al. (2023). Solid-phase capture and profiling of open chromatin by spatial ATAC. *Nature Biotechnology*, 41(8), 1085-1088. Citations: 75. # Co-corresponding author.
4. Llorens-Bobadilla, E., Chell, J.M., Le Merre, P., Wu, Y., Zamboni, M., et al. (2020). A latent lineage potential in resident neural stem cells enables spinal cord repair. *Science*, 370(6512), eabb8795. Citations: 173.
5. Kalamakis, G., Brüne, D., Ravichandran, S., Bolz, J., Fan, W., Ziebell, F., Stiehl, T., ..., Llorens-Bobadilla, E., et al. (2019). Quiescence modulates stem cell maintenance and regenerative capacity in the aging brain. *Cell*, 176(6), 1407-1419.e14. Citations: 426.
6. Baser, A., Skabkin, M., Kleber, S., Dang, Y., Gülcüler Balta, G.S., Kalamakis, G., ..., Llorens-Bobadilla, E., et al. (2019). Onset of differentiation is post-transcriptionally controlled in adult neural stem cells. *Nature*, 566(7742), 100-104. Citations: 187.
7. Llorens-Bobadilla, E., Zhao, S., Baser, A., Saiz-Castro, G., Zwadlo, K., et al. (2015). Single-cell transcriptomics reveals a population of dormant neural stem cells that become activated upon brain injury. *Cell Stem Cell*, 17(3), 329-340. Citations: 891.
8. Zamboni, M., Llorens-Bobadilla, E., Magnusson, J.P., Frisén, J. (2020). A widespread neurogenic potential of neocortical astrocytes is induced by injury. *Cell Stem Cell*, 27(4), 605-617.e5. Citations: 144.
9. Floriddia, E.M., Lourenço, T., Zhang, S., van Bruggen, D., Hilscher, M.M., ..., Llorens-Bobadilla, E., et al. (2020). Distinct oligodendrocyte populations have spatial preference and different responses to spinal cord injury. *Nature Communications*, 11(1), 5860. Citations: 153.
10. Albors, A.R., Singer, G.A., Llorens-Bobadilla, E., Frisen, J., May, A.P., Ponting, C.P., et al. (2023). An ependymal cell census identifies heterogeneous and ongoing cell maturation in the adult mouse spinal cord that changes dynamically on injury. *Developmental Cell*, 58(3), 239-255.e10. Citations: 30.

## **Bio**

Enric Llorens-Bobadilla is an Assistant Professor and Group Leader at the Department of Cell and Molecular Biology at Karolinska Institutet in Stockholm, Sweden. His lab, established in 2022, focuses on understanding glial biology and developing regenerative strategies for the central nervous system, leveraging single-cell and spatial genomics technologies.

Enric earned his PhD from the University of Heidelberg and the German Cancer Research Center (DKFZ) in Germany, where he pioneered single-cell transcriptomic approaches to study adult stem cell niches. He then completed postdoctoral training with Jonas Frisén at Karolinska Institutet as a Human Frontier Science Program Fellow.

He is the recipient of an ERC Starting Grant, was named a Wallenberg Academy Fellow, and received the Swedish Foundation for Strategic Research Future Leaders award.