

We are looking for an early career postdoctoral researcher to join our team 'Neuroreceptors, dynamics and function [1]' at the Institute of Functional Genomics in Montpellier, France. The position is for 30 months, with an ideal start date in April 2022.

The recruited candidate will be working on solving structures of GPCR complexes using single particle cryoEM and investigating their interactions with lipids. You will have access to an EM facility housing a 200 KeV JEOL with FEG, K3 camera and GIF, and a 120 keV JEOL for screenings. Your work will also be supported by several high-end platforms covering GPCR functional assays and light microscopy.

The ideal candidate should have:

- A PhD, or about to be awarded, in biochemistry, biophysics or structural biology with relevant associated publication(s).
- Experience with membrane proteins expression and purification is a must. Specifically, experience in eukaryotic expression system (mammalian cells and/or insect cells) will be greatly appreciated.
- Experience in cryoEM is desirable.
- Previous experience working with GPCRs will be appreciated but isn't essential.
- The ability to work collaboratively and be a team player is essential. The candidate should also be able to work independently and efficiently.
- Good oral and written skills in English is also essential as all lab business and meetings are conducted in English. French speaking is not required.

Our team, led by Philippe Rondard/Jean-Philippe Pin, is made up of 10+ researchers, postdocs, engineers and PhD students of different nationalities forming a friendly and dynamic group. Our work mainly focuses on the study of Class C GPCRs using innovative pharmacological tools such as nanobodies and photoactivable ligands, as well as FRET to analyze GPCRs function and conformations at the molecular and single molecule level (collaboration with E Margeat, on campus).

The advertised position is funded by an ANR grant coordinated by Dr Anaïs Menny, who will be your direct supervisor, dedicated to expanding our research themes to single particle cryoEM and other biophysical approaches. The scientific environment at the institute also provides ample interaction possibilities and support from other teams studying

GPCRs, ranging from neuropharmacology to cryoEM and crystallography.

The city of Montpellier is particularly attractive with its very large research community, dynamic cultural life, lots of bars and restaurants, affordable housing and sun all year round. It is located 20 min from the Mediterranean sea and is surrounded by vineyards and the hilly Cevennes.

To apply, follow this link: <https://bit.ly/3HiXA9q> [2]

The candidate should provide a CV, a short cover letter describing their scientific interests, and name and contact details of two references.

Please **contact Anaïs Menny** for any informal inquiries about the position: anais.menny@igf.cnrs.fr

Relevant recent publications:

Allosteric modulators enhance agonist efficacy by increasing the residence time of a GPCR in the active state. Cao AM*, Quast RB*, Fatemi F, Rondard P, Pin JP, Margeat E. Nat Commun 2021. doi:10.1038/s41467-021-25620-5

Illuminating the allosteric modulation of the calcium-sensing receptor. Liu H, Yi P, Zhao W, Wu Y, Acher F, Pin JP, Liu J, Rondard P. PNAS September 1, 2020 117 (35) 21711-21722

Moreno Delgado D, Moller TC, Ster J, Giraldo J, Maurel D, Rovira X, Scholler P, Zwier JM, Perroy J, Durroux T, Trinquet E, Prézeau L, Rondard P and Pin J-P (2017) Pharmacological evidence for a metabotropic glutamate receptor heterodimer in neuronal cells. Elife 6: e25233.

Structural basis for how sMAC is packaged for clearance. Menny A*, Lukassen MV*, Couves EC, Franc V, Heck AJR, Bubeck D. Nat Commun, 2021. doi: 10.1038/s41467-021-26366-w

CryoEM reveals how the complement membrane attack complex ruptures lipid bilayers. Menny A, Serna M, Boyd CM, Gardner S, Joseph AP, Morgan BP, Topf M, Brooks NJ, Bubeck D. Nat Commun, 2018. doi:

10.1038/s41467-018-07653-5

Links:

[1] <https://www.igf.cnrs.fr/index.php/en/h-teams-en/ht-rondard-en#research-subject>

[2] <https://bit.ly/3HiXA9q>