**MARION SILVANA FERNÁNDEZ BERROCAL**

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**Summary**

Ph.D. student with extensive experience as biomedical researcher, who thrives when working in teams and has a strong focus on behavior, immunofluorescence, transcriptomics, and neuroscience discovery. Track record of conducting research, publishing in journals, and presenting at conferences. Strong ability to work collaboratively and independently. Able to combine current academic knowledge and theoretical training with practical experience to provide solutions-oriented service. Open to new challenges both in academy and especially in industry.

**Skills**

* Project coordination, leadership, teamwork, communication, collaboration, decision-making, attention to detail, and critical thinking.
* Areas of expertise: Neuroscience, behavior, spatial memory, and DNA repair
* Technical skills: Scientific writing, research, molecular biology, cell biology, imaging, rodent handling, behavioral assays, Western Blot, cell culture, primary culture, *in vitro* assays, and scientific software (FIJI/Image J, GraphPad, EndNote, IMARIS).

**Professional experience**

***Scientist/Ph.D. candidate***  2022–Current

Norwegian University of Science and Technology (NTNU), Medicine and Health Science Faculty. Trondheim – Norway

* Managing the planning, experiments, and scientific writing to assist the research project I oversee.
* Tutoring of master students.

***Intern***  2022

GreinDX, Oslo Science Park. Oslo – Norway

* Standardizing various protocols involving cell biology, cell culturing, immunocytochemistry, and flow cytometry in cancer research.

***Research Assistant*** 2020–2022

Norwegian University of Science and Technology (NTNU), Medicine and Health Science Faculty. Trondheim – Norway

* Managing planning, experiments, and scientific writing as part of a large research group, resulting in 2 publications in different journals
* Tutoring duties to four master's students during their successful master's thesis.
* Consolidated collaborative work with another group at NTNU while maintaining efficiency levels in neuroscience and biomedical research, reorganizing workloads, and resulting in 2 additional publications and one of them as a second author.

***Research Scientist*** 2019–2020

Julius-Maximilians University of Würzburg (JMU), Biozentrum. Würzburg–Germany

* Standardizing various protocols involving electrophysiology and immunohistochemistry in insects.

***Research Scientist*** 2016–2017

Pontificia Universidad Católica de Chile (UC), Physiology Department. Santiago–Chile

* Standardizing primary cell culture for a study of high-fat diets and their effect on autophagy.

***Genetics Intern*** 2015–2016

Hospital Nacional Docente Madre Niño “San Bartolomé”, Neonatal Screening Unit.Lima–Peru

* Participated in the creation of a brand-new area in the public health system in Peru to screen newborns for various genetic diseases and performed genetic counseling roles and disease management alongside medical doctors.

***Research Scientist***  2015 Universidad Nacional Mayor de San Marcos (UNMSM), Faculty of Biology**.** Lima–Peru

* Developed a research project funded by the Peruvian government (5000PEN) to investigate antigenotoxic effects on a native plant commonly used in Peruvian gastronomy.

**Other relevant activities**

***Additional courses/training***

* FELASA C (2019)

***Languages***

* Spanish (Native speaker), English (C2), German (B2 studies), Norwegian (B1)

***Oral presentations and poster***(Below are listed the three most relevant)

Total: 5 presentations at the national and international levels: Norway (1), France (1), Slovenia (1), Cuba (1), Peru (1)

2022 **Fernandez-Berrocal M**, Bugaj A, Kunath N, Marthinsen R, Saasen V, Heggedal M, Døskeland D, Innvær K, Bjørås M, Ye J.
Oral: *NEIL3 DNA glycosylase impacts the function of hippocampus.*
1st Norwegian Base excision repair meeting 2022. Lillehammer, Norway

2022 **Fernandez-Berrocal M**, Bugaj A, Kunath N, Marthinsen R, Saasen V, Heggedal M, Døskeland D, Innvær K, Bjørås M, Ye J.
Poster: *NEIL3-mediated epigenetic regulation of hippocampal function in long-term memory.*  Federation of the European Neuroscience Societies (FENS) Forum 2022. Paris, France.

2021 Castañeda-Zegarra, S; Zhang, Q; Alirezaylavasani, A; **Fernandez-Berrocal, M** & Oksenych, V
Oral: *Mice lacking DNA repair factor XLF and MRI show leaky severe combined immunodeficiency (SCID).*
45th Federation of European Biochemical Societies (FEBS) Congress 2021. Ljubljana, Slovenia

***Publications*** (Below are listed the three most relevant)

Total: 5 co-author papers

* Bugaj A. M., Kunath N., Saasen V. L., Fernandez-Berrocal M. S., Vankova A., Sætrom P., Bjørås M., Ye J.
*Dissecting gene expression networks in the developing hippocampus through the lens of NEIL3 depletion.***Progress in Neurobiology,** 2022 DOI: 10.1016/j.pneurobio.2024.102599
* Kunath N, Bugaj AM, Bigonah P, **Fernandez-Berrocal MS**, Bjørås M, Ye J.
*DNA repair enzyme NEIL3 enables a stable neural representation of space by shaping transcription in hippocampal neurons.*

**iScience,** 2021 DOI: 10.1016/j.isci.2021.103470

* Hildrestrand GA, Rolseth V, Kunath N, Suganthan R, Jensen V, Bugaj AM, **Fernandez-Berrocal MS**, Sikko SB, Vetlesen S, Kuśnierczyk A, Olsen AK, Gützkow KB, Rowe AD, Wang W, Moldestad O, Syrstad MD, Slupphaug G, Eide L, Klungland A, Sætrom P, Luna L, Ye J, Scheffler K, Bjørås M.

*NEIL1 and NEIL2 DNA glycosylases modulate anxiety and learning in a cooperative manner in mice.*
**Communications Biology,** 2021 DOI: 10.1038/s42003-021-02864-x.

***Fellowships, Awards & Scholarships***

* **“Digital Life Norway (DLN) Industry Internship”,** granted to remarkable PhD students who will do a fully paid Internship in an industry partner from DLN for 3 months during their studies. 40000 NOK
* **“Excellence Scholarship”**, granted to remarkable students from the “Asociación Cultural Peruano Británica” who obtained an A grade in the First Certificate in English, to improve English skills in London. 5000 GBP.

***Extracurricular activities***

* Social media manager, travel coordinator, and activity manager at the Board of European Students of Technology (BEST) 2019-2022, Norway.

***Memberships***

* Digital Life Norway Research School (DLN), Norwegian Neuroscience Society (NNS), Federation of the European Neuroscience Societies (FENS)

**Education**

Ph.D., Medicine and Health Sciences (Neuroscience), NTNU, Norway 2022 - Current

MSc, Biosciences (Behavioral Neurobiology), JMU, Germany 2020

BSc, Genetics and Biotechnology, UNMSM, Peru 2016

**References**

* **Ph.D. Jing Ye.** Group leader at NTNU – Norway. jing.ye@ntnu.no Telephone: +4745676009
* **Ph.D. Magnar Bjørås.** Professor at NTNU and Universitetet i Oslo (UiO) – Norway. magnar.bjoras@ntnu.no Telephone +4795081497
* **Ph.D. Eugenia Morselli.** Associate Professor at Universidad San Sebastian (USS) – Chile. eugenia.morselli@uss.cl Telephone: +56978970272