

Sara MONTICELLI

Address: 1 rue Laurent Fries, Illkirch, France
Phone: 0669202998
E-mail: montices@igbmc.fr
Date of birth: July 16th, 1988
Nationality: Italian

RESEARCH EXPERIENCE

Postdoctoral fellow, September 2021 - present

Institute of Genetics and Molecular and Cellular Biology (IGBMC), Illkirch, France

- Macrophages as signaling hubs in physiological and pathological conditions - *first-author paper submitted, three published papers*

Supervisor: Dr. Angela Giangrande (angela@igbmc.fr)
FOUNDED by Agence Nationale de la Recherche (ANR)

Postdoctoral fellow, April 2020 - September 2021

Institute of Genetics and Molecular and Cellular Biology (IGBMC), Illkirch, France

- Characterization of macrophage diversity in *Drosophila* - *published paper*
- HIF1 α as a key player in the metabolic sensing of *Drosophila* macrophages - *paper in preparation*
USIAS project in collaboration with Dr. Tina Mukherjee (inStem, India)

Supervisor: Dr. Angela Giangrande (angela@igbmc.fr)
FOUNDED by bilateral grant Centre Franco-Indien pour la Promotion de Recherche. Avancée (CEFIPRA)

Visiting PhD Student, January 2019 - April 2019

Institute of Genetics and Molecular and Cellular Biology (IGBMC), Illkirch, France

- Analysis of the role of dMRP/ABCC1 in glial and immune cell migration

Supervisor: Dr. Angela Giangrande (angela@igbmc.fr)
FOUNDED by Marco Polo scholarship for scientific training abroad

EDUCATION

PhD in Cellular and Molecular Biology, April 2020

University of Bologna, Italy

- Thesis: "Harnessing the power of *Drosophila* model to obtain new insights on *MYC* and *ABCC1* cellular functions: from neuroblastoma to autism spectrum disorder" – *published paper, first-author paper in preparation*
- *Drosophila* model of chronic myeloid leukemia - *published paper*

Supervisor: Prof. Elena Maestrini (elena.maestrini@unibo.it)
Co-supervisors: Dr. Roberto Bernardoni (roberto.bernardoni@unibo.it)
Prof. Giovanni Perini (giovanni.perini@unibo.it)

Master's degree in Molecular and Cellular Biology, October 2016

University of Pisa, Italy

- Thesis: "Functional characterization of *znf367* gene in *Xenopus laevis* developing nervous system" - *published paper*

Supervisor: Prof. Michela Ori (michela.ori@unipi.it)
Final degree mark: 110/110 cum laude

Bachelor's degree in Ecological Sciences and Biodiversity, May 2013

University of Pisa, Italy

- Thesis: "Molecular cloning and expression analysis of *znf367* gene in *Xenopus laevis* and Zebrafish embryos"

Supervisor: Prof. Michela Ori (michela.ori@unipi.it)

Final degree mark: 110/110 cum laude

PERSONAL COMPETENCES

Ability to present and discuss scientific topics during meetings, seminars and conferences.

Organization of the mini symposium "Advances and Challenges in Innate Immunity: Lessons from *Drosophila*" (Sept 26th, 2022 - IGBMC). Organizing committee: Dr. Pierre Cattenoz, Dr. Sara Monticelli.

Good writing skills for the preparation of grants and scientific articles.

Supervisory experience (2018 - present):

- Supervision of two master students and two PhD students on projects aimed to study the role of the immune system during *Drosophila* neurodevelopment and neurodegeneration (IGBMC, Illkirch, France)
- Supervision of a visiting PhD student working on a *Drosophila* model of Autism (IGBMC, Illkirch, France)
- Supervision of a master student working on topics related to my PhD project (University of Bologna, Italy)

Tutoring and outreach activity (2018 - present):

- Laboratory practicals in *Drosophila* genetics for high school students (Mantova, Italy)
- Laboratory practicals in human genomics and functional genetics for master students (University of Bologna, Italy)

Practical skills: molecular biology for DNA and RNA manipulation and analysis, cellular biology, imaging, animal models (*Xenopus laevis*, Zebrafish and *Drosophila melanogaster*), basics of bioinformatics.

AWARDS AND FELLOWSHIPS

- 1-year FRC postdoc fellowship (starting on January 2024)
- Marco Polo scholarship for scientific training abroad (2019)
- 3-year PhD fellowship at University of Bologna, Italy (2016)

PUBLICATIONS

Monticelli, S., Sommer, A., AlHajj Hassan, Z., Adé, K., Cattenoz, P., Perdiguero, E.G., Giangrande, A. **Early-wave macrophages: novel string-puller of late hematopoiesis** *Developmental cell* submitted

Bazzi, W., **Monticelli, S.**, Delaporte, C., Riet, C., Giangrande, A. and Cattenoz, P.B. (2023) **Gcm counteracts Toll-induced inflammation and impacts hemocyte number through cholinergic signaling.** *Front. Immunol.* 14:1293766. <https://doi.org/10.3389/fimmu.2023.1293766>

Voutyraki, C., Choromidis, A., Meligkounaki, A., Vlachopoulos, N. A., Theodorou, V., Grammenoudi, S., Athanasiadis, E., **Monticelli, S.**, Giangrande, A., Delidakis, C., & Zacharioudaki, E. (2023). **Growth deregulation and interaction with host hemocytes contribute to tumor progression in a *Drosophila* brain tumor model.** *Proceedings of the National Academy of Sciences of the United States of America*, 120(33), e2221601120. <https://doi.org/10.1073/pnas.2221601120>

Pavlidaki, A., Panic, R., **Monticelli, S.**, Riet, C., Yuasa, Y., Cattenoz, P. B., Nait-Oumesmar, B., & Giangrande, A. (2022). **An anti-inflammatory transcriptional cascade conserved from flies to humans.** *Cell reports*, 41(3), 111506. <https://doi.org/10.1016/j.celrep.2022.111506>

Cattenoz, P. B., **Monticelli, S.**, Pavlidaki, A., & Giangrande, A. (2021). **Toward a Consensus in the Repertoire of Hemocytes Identified in *Drosophila*.** *Frontiers in cell and developmental biology*, 9, 643712. <https://doi.org/10.3389/fcell.2021.643712>

Bernardoni, R., Giordani, G., Signorino, E., **Monticelli, S.**, Messa, F., Pradotto, M., Rosso, V., Bracco, E., Giangrande, A., Perini, G., Saglio, G., & Cilloni, D. (2019). **A new BCR-ABL1 *Drosophila* model as a powerful tool to elucidate the pathogenesis and progression of chronic myeloid leukemia.** *Haematologica*, 104(4), 717–728. <https://doi.org/10.3324/haematol.2018.198267>

Naef, V., **Monticelli, S.**, Corsinovi, D., Mazzetto, M. T., Cellerino, A., & Ori, M. (2018). **The age-regulated zinc finger factor ZNF367 is a new modulator of neuroblast proliferation during embryonic neurogenesis.** *Scientific reports*, 8(1), 11836. <https://doi.org/10.1038/s41598-018-30302-2>

Ferrucci, F., Ciaccio, R., **Monticelli, S.**, Pigni, P., di Giacomo, S., Purgato, S., Erriquez, D., Bernardoni, R., Norris, M., Haber, M., Milazzo, G., & Perini, G. (2018). **MAX to MYCN intracellular ratio drives the aggressive phenotype and clinical outcome of high risk neuroblastoma.** *Biochimica et biophysica acta. Gene regulatory mechanisms*, 1861(3), 235–245. <https://doi.org/10.1016/j.bbagr.2018.01.007>

CONFERENCES

27th European *Drosophila* Research Conference (EDRC 2023) - October 2023 TALK

Conference on Multiple Sclerosis - June 2023 TALK

9th Tri-Regional stem cell & developmental biology meeting - June 2023 TALK

6th Upper Rhine Immunology (URI) meeting - October 2022 TALK

French Society of Developmental Biology (SFBD) conference - November 2022 POSTER

19th European *Drosophila* Neurobiology Conference (NeuroFly 2022) - September 2022 POSTER

8th Tri-Regional stem cell & developmental biology meeting - September 2021 TALK

Italian Society of Biophysics and Molecular Biology (SIBBM) meeting - June 2019 POSTER

19th Italian *Drosophila* Research Conference (XIX IDRC) - June 2018 TALK

62nd Italian Embryology Group (GEI) conference - June 2016 TALK

Strasbourg,
November 20th, 2023

Sara Monticelli

