

Isabelle BRUNET

42 years old, Widow since 09/08/2017, one daughter (21/08/3013)

Education

2016: HDR in Sciences, Technics and Health at Paris Descartes University, Paris, France.

2007: PhD in Neurosciences, University P & M Curie, Paris, France.

2002-2003: Master of Science (M.Sc) in Neuropharmacology, University Paris VII / ENS.

Current Position

Since 2016: Group leader “**Molecular control of Neurovascular development**”, currently 8 members.

Previous Positions

2014: Senior Researcher INSERM permanent position, ranked 1st.

2007- 2014: Postdoctoral fellow INSERM U833 – Collège de France- Paris, France with Anne Eichmann.

2002-2007: PhD ENS Ulm, Paris, France and Cambridge, UK (Christine Holt). PhD Supervisor: Alain Prochiantz;

Grants & Fellowships

2021-2025 : Laureate of the “Translational Program INSERM AGEMED 2.0 for Aging” Grant (Lead Investigator)

2020 : Labex Memolife 1st postdoc fellowship for S. Taib. (6 months)

2019-2022: PhD Fellowship by French Ministry (MNRT) obtained to fund M. Karam (3 years salary).

2019 : Fondation Collège de France Neurocure (Lead Investigator 60k€)

2019: 4th year PhD Fellowship from La Ligue Contre le Cancer for S. Taib.

2019-2024: ANR NIRVANA (Lead Investigator 310 k€)

2018-2023: ANR HeartBrain (Co-lead Investigator 300 k€)

2017: 4th year PhD Fellowship from the Medical Research Foundation (FRM) for E. Simonnet.

2017: Fondation Leducq Grant for research Equipment and Technology Platforms (Co-lead Investigator 500k€ Equipment+3 years salary for an ingeneer)

2016-2021: Laureate of the “Translational Program INSERM AGEMED for Aging” Grant (Lead Investigator, 1 year postdoc salary and 150k€ possibly more as biotech companies will join and fund the program)

2016-2018: Labex Memolife structuring projets Grant (Co-lead Investigator 60k€)

2016-2018: PhD Fellowship by French Ministry (MNRT) obtained to fund S. Taib (3 years salary).

2015: GEFLUC Research Grant (Lead Investigator 30k€) for Emerging team

2015-2018: Medical and Scientific PhD Grant INSERM (100k€ salary) obtained to fund E. Simonnet. Medical and Scientific PhD Fellowship from Medical Research Foundation (FRM) (95k€ salary) (declined)

2015-2016: INSERM Starting Package (Lead Investigator 40k€) for initiating my team

Supervision Of Graduate Students And Postdoctoral Fellows

10 Master students (including 4 International Master students), 2 PhD students, 3 postdocs (2 internationals) and 2 technicians; co-supervision of 3 PhD students and 2 postdocs since 2016.

Institutional Responsibilities

2016-2021: Member nominated of the INSERM National Evaluation Board (CSS4)

Since 2016 HCERES Expert (1 or 2 evaluation visits/year)

2016: Scientific board member of the Imaging Facility, CIRB, College de France, Paris, France.

Since 2015 Teaching in Master 2 BIVATH and European Magister of Genetic

PhD Thesis comittee (18 PhD thesis),HDR committee (2) mentoring 5 PhD students for SU.

Commissions Of Trust

Since 2017 Frequent reviews for ANR, FRC, La Ligue etc...and for *Nature Communication, Circulation etc.*

Jury for ED394 PhD Fellowship attribution, Editor for *Frontiers in Cardiovascular Medicine*.

International and National Oral Presentations (last 3 years)

2021 Chairperson and speaker at Neurofrance, ANS Developmental Neuroscience Forum lecture (ADNF-Australia)

2020: Mitovasc Plenary lecture (Angers)

2019: Congrès 3rd AXON Meeting (Alicante), The international conference on controversies in neuropathic pain (Munich), Université des Saints-Pères (Paris), Pessac Hospital (Bordeaux), Institut de Genomique Fonctionnelle (Montpellier),

2018: EMBO workshop Neural guidance in development and disease (Baveno), EMBO workshop on Molecular Neurobiology (Crete), Bordeaux Neurocampus, Paris Neurosciences Seine, SFA

Selected Publications

- 1- Simonnet, E.* , Martin-Pires, S.* , Pardanaud, L. , Eichmann, A., Henrion, D., Silvestre, J.S. and **Brunet, I.** Ephrin-A4/EphA4 signaling in arterial innervation development and physiology. **Submitted.**
- 2- Karam, M. Malkinson G., & **Brunet, I.** Heterogeneity and developmental dynamics of LYVE-1 perivascular macrophages distribution in the mouse brain. **bioRxiv** 2021.10.08.463501; doi: <https://doi.org/10.1101/2021.10.08.463501>
- 3- Taïb, S. , Lamandé, N., Martin, S., Topilko, P.& **Brunet, I.** Myelinating Schwann cells and Netrin-1 control intra-nervous vascularization of the developing mouse sciatic nerve. **Elife** (2022)
- 4- Taïb, S., Durand, J. & **Brunet, I.** Neuropathie périphérique induite par l'oxaliplatine. **Médecine/sciences** **36**, 33–37 (2020)
- 5- Azar S., Letaïef, L., Malkinson, G., Martin, S., Validire, P., Teillaud, J.L., Dieu-Nosjean, M.C. & **Brunet, I.** Tissue-cleared 3D imaging followed by protein analysis: a single biopsy for multiple information In revision to **NatureCom** (2020)
- 6- Simonnet, É. & **Brunet, I.** The functions of arterial sympathetic innervation: From development to pathology. **Medecine/Sciences** **35**, 643–650 (2019)
- 7- Pardanaud, L., Pibouin-Fragner, L., Dubrac, A., Mathivet, T., English, I., **Brunet, I.**, Simons, M., Eichmann, A.. Sympathetic Innervation Promotes Arterial Fate by Enhancing Endothelial ERK Activity. **Circulation Research**. **119**, 607–620 (2016)
- 8- Minocha, S., Valloton, D., **Brunet, I.**, Eichmann, A., Hornung, J.P., Lebrand, C. NG2 glia are required for vessel network formation during embryonic development. **Elife** **4**, 1–23 (2015)
- 9- Fortuna, V., Pardanaud, L., **Brunet, I.**, Ola, R., Ristori, E., Nicoli, S., Eichmann, A. Vascular Mural Cells Promote Noradrenergic Differentiation of Embryonic Sympathetic Neurons. **Cell Rep** **11**, 1786-1796 (2015)
- 10- Eichmann, A. & Brunet, I. Arterial innervation in development and disease. **Sci. Transl. Med.** **6**, 1–5 (2014)
- 11- **Brunet, I#**, Gordon, E., Han J., Broqueres-You, D...., Simons, M., Levy, B.I., Tessier-Lavigne, M., Grenz, A., Eltzhig, H. and Eichmann, A.#. Netrin-1 guides sympathetic arterial innervation. **Journal of Clinical Investigation**, **124(7)**, 3230-3240 (2014)#: **corresponding author**