

Frédérique Peronnet

DR2 CNRS (Section 21)

Laboratory of Developmental Biology (LBD)

UMR7622

Team Epigenetic control of developmental homeostasis and plasticity

Institute of Biology Paris Seine (IBPS)

Sorbonne Université

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Professional Career

(2012 -) : CNRS, Director of research (DR2)

(1992) : CNRS, Researcher (CR1)

(1988) : CNRS, Researcher (CR2)

Education

(2013) : BIOL60140 - Advanced Methods for Biological Sequence Analysis, Manchester University

(2012) : BIOL61820 - Bioinformatics for System Biology, Manchester University

(1996 - 1997) : Post-doctoral internship : Institut Jacques Monod (Dr. J-A. Lepesant), UPMC

(1996) : Accreditation to supervise research (HDR), UPMC

(1988) : PhD in Developmental Biology, UPMC

Awards

(1988) : PhD thesis scholarship from the *Association pour la recherche contre le cancer* (ARC)

(1985 - 1987) : PhD thesis scholarship from the Ministry of Scientific Research

Research management and administration

(2002 -) : PI, LBD (co-PI since 2017) Team *Epigenetic control of developmental homeostasis and plasticity*

(2018 -) : Vice-dean delegated for Research, Sorbonne Université

(2015 -) : Co-leader of the Systems biology network (70 teams), Idex Sorbonne Universités

(2017) : Deputy-dean of the LBD (2017)

(2016 - 2017) : Deputy-dean of the Department of Biology (UFR), UPMC

(2014 - 2017) : President of the scientific council of the Department of Biology (UFR), UPMC

- *Jury of recruitment competitions* : CNRS, UPMC, U-Montpellier, U-Paris VII (recruitment of PhD students, assistant-professors, professors, engineers, technicians)
- *Organization of meetings* : (2017) French *Drosophila* conference, Presqu'île de Giens, 100 participants ; (2017) SU Systems Biology meeting, Paris, 80 participants ; (2016) SU Systems Biology meeting, Paris, 150 participants ; (2011) International congress of the Integrative biology IFR, "Epigenetics : From bases to pathology", Paris, 150 participants ; (2010) French *Drosophila* conference. Banyuls-sur-mer, 200 participants
- *Grants* : (2018) Project leader, ARC, 50 k€ (2012) ; (2017) Co-project leader, SATS-SU for the Systems biology network, 130 k€ ; (2016) Project partner, IBPS, 19 k€ ; (2015) Project partner, GEFLUC, 10 k€ ; (2014) Project leader, SU Convergence program, 57 k€ ; (2013) Project leader, Ligue Nationale contre le Cancer, 40 k€ ; (2014) Project leader, ARC, 50 k€ ; (2011) Inter-DIM, Bio-MEB-FEG program, Scientific head, 468 k€

Reviews and expert committees

- Reviewer for IJMS, NAR, PLoS One, Journal of Cell Science, Symmetry, SpringerPlus, Cell cycle, PLoS Genetics, Cellular Biochem.Physio
<https://publons.com/author/523584/frederique-peronnet#profile>
- Expert for ANR, Région Languedoc-Roussillon, Rannís-Icelandic Research Fund, Montpellier-U, FNRS, IASys, Otto-Hahn-Medal, Cancéropôle Ile-de-France

Teaching and training

- Continuing education : Epigenetic lab training (UPMC, INRA, Promocell-Heidelberg, Euromedicom) – 35h/year

- Lectures and practical training in Epigenetics (M1 UPMC and ENS, M2 UPMC) – 20h/year
- Tutorial classes in Molecular Biology (L1 UPMC) – 24h/year
- 8 PhD supervised
- 14 PhD thesis committees
- 40 PhD and HDR jurys as president or reviewer

Research interests

Epigenetics, Developmental robustness, Phenotypic plasticity, Gene networks, Systems biology, *Drosophila*

https://www.researchgate.net/profile/Frederique_Peronnet

Selected publications

- Dardalhon-Cuménal D., Deraze J., Dupont C.A., Ribeiro V., Coleno-Costes A., Pouch J., Le Crom S., Thomassin-Bourrel H., Debat V., Randsholt N.B., Peronnet F. (2017) Cyclin G And The Polycomb Repressive Complexes PRC1 And PR-DUB Cooperate For Developmental Stability. *bioRxiv* 144048; doi: <https://doi.org/10.1101/144048>.
- Gibert, J.M., Mouchel-Vielh, E., and Peronnet, F. (2017). Modulation of *yellow* expression contributes to thermal plasticity of female abdominal pigmentation in *Drosophila melanogaster*. *Scientific Reports*, 7, 43370. PMID: 28230190.
- Gibert, J.M., Mouchel-Vielh, E., De Castro, S., and Peronnet, F. (2016). Phenotypic Plasticity through Transcriptional Regulation of the Evolutionary Hotspot Gene *tan* in *Drosophila melanogaster*. *PLoS Genetics*, 12, e1006218. PMID: 27508387.
- Dupont, C.A., Dardalhon-Cuménal, D., Kyba, M., Brock, H.W., Randsholt, N.B., and Peronnet, F. (2015) *Drosophila* Cyclin G and epigenetic maintenance of gene expression during development. *Epigenetics & Chromatin*, 8, 18. PMID: 25995770.
- Prickaerts, P., Niessen, H., Mouchel-Vielh, E., Dahlmans, V., van den Akker, G., Rapp, U., Geijselaers C., Adriaens M., Spaapen F., Takihara Y., Peronnet F. and Voncken, J. W. (2012). MK3 controls polycomb target gene expression via negative feedback on ERK. *Epigenetics & Chromatin*, 5(1), 12. PMID: 22870894.
- Bartoletti, M., Rubin, T., Chalvet, F., Netter, S., Dos Santos, N., Poisot, E., Paces-Fessy M., Cuménal D., Peronnet F., Pret A-M. and Théodore, L. (2012). Genetic basis for developmental homeostasis of germline stem cell niche number: A network of tramtrack-group nuclear BTB factors. *PLoS ONE*, 7(11), e49958. PMID: 23185495.
- Coléno-Costes A., Jang S.M., de Vanssay A., Rougeot J., Bouceba T., Randsholt N.B., Le Crom S., Mouchel-Vielh E., Bloyer S. and Peronnet F. (2012) New partners in regulation of gene expression: the Enhancer of Trithorax and Polycomb Corto interacts with methylated Ribosomal Protein L12 via its chromodomain. *PLoS Genetics*, 8(10), e1003006. PMID: 23071455.
- Debat V.*, Bloyer S.*, Faradji F., Gidaszewski N., Navarro N., Orozco-terWengel P., Ribeiro V., Schlötterer C., Deutsch J.S. and Peronnet F. (2011) Developmental Stability: a Major Role for Cyclin G in *Drosophila melanogaster*. *co-first authors. *PLoS Genetics*, 7(10):e1002314. PMID: 21998598.
- Mouchel-Vielh E., Rougeot J., Decoville M. and Peronnet F. (2011). The MAP kinase ERK and its scaffold protein MP1 interact with the chromatin regulator Corto during *Drosophila* wing tissue development. *BMC Dev Biol*, 14:11-17. PMID: 21401930.
- Faradji, F., Bloyer, S., Dardalhon-Cuménal, D., Randsholt, N.B., and Peronnet, F. (2011). *Drosophila melanogaster* Cyclin G coordinates cell growth and cell proliferation. *Cell Cycle*, 10:805-818. PMID: 21311225.

Selected invited conferences

- IFM, Paris, 2016. Cooperation between Cyclin G and Polycomb complexes for developmental stability.
- DIF day, Institut Curie, Paris, 2015. Epigenetic component of developmental stability.
- Jacques Monod Conference “Building, repairing, and evolving biological tissues”, Roscoff, 2015. Genetic and cellular bases of developmental stability.
- IBPC, Paris, 2015. Cooperation between Cyclin G and Polycomb complexes for developmental stability.
- IBPS, Paris, 2015. Developmental stability: how to buffer noisiness of organ size?
- First joint meeting SFBD/EFOR, Paris, 2014. Fluctuating asymmetry, an estimate of developmental noise.
- Symmetry and Asymmetry in Biology, MNHN, Paris, 2014. Cyclin G, fluctuating asymmetry and developmental stability in *Drosophila*.