

Victor Laigle

PhD Student, 1st year



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Skills

Languages

French ★★★★★
English ★★★★★
Spanish ★★★★★

Programming

Python • R

Bash • Git • Perl

LaTeX • MySQL

Docker • C++

Interests

Sports

Volleyball: 8 years of practice,
Tennis: 8 years, Diving

Traveling & Hiking

1 year solo in South America & Asia,
15,000km road-trip in Canada/USA,
800kms hitch-hiking across France

References



Véronique Stoven



veronique.stoven@minesparis.psl.eu



Vincent Mallet



vincent.mallet@minesparis.psl.eu

Experience

Jan 2024

Present

PhD Student, Deep Learning for Structural Biology

Mines Paris - PSL Research University (CBIO)

Supervisors: Pr. Véronique Stoven, Dr. Vincent Mallet Paris, France



- Geometric Deep Learning on protein surfaces
- Homologous mining of large scale protein structure databases
- Systems Biology approaches for the identification of new therapeutic targets in Cystic Fibrosis

April 2019

March 2022

Research Engineer, Mass Spectrometry Proteomics

Institut Curie (LSMP)

Paris, France



- Provided support to collaborators of the facility to analyse, visualise and interpret their proteomics data
- Maintained and improved *myProMS*, software for proteomics data analysis
- Implemented new functionalities to the software (Hydrophobicity of peptides, Absolute Quantification, GSEA, Quality Control)

April 2018

Aug 2018

Research Intern, Computational biology of proteins and ageing

European Bioinformatics Institute (Thornton group) Cambridge, UK



- Studied protein-ligand interactions through structural aspects
- Evaluated chemical compounds thought to affect human ageing, and their target proteins
- Built an informatic pipeline in *Python* / *Bash*, selecting the best compounds to test in *Drosophila melanogaster*
- Integrated bioinformatic tools such as *Docking* softwares (*GOLD*, *Vina*) and *Comparative Modelling* programs (*MODELLER*)

March 2017

Aug 2017

Research Intern, Computational biology & Gene regulation

Centre for Molecular Medicine Norway (NCMM)

Oslo, Norway

- Modelled Transcription Factor-DNA binding at methylated sites
- Used whole-genome methylation data and expanded DNA alphabet with machine learning algorithm to predict TF-DNA binding for *Arabidopsis thaliana* model organism

Education

2014

2018

Master's degree in Science and Engineering

Mines Paris - PSL Research University

Paris, France

Major: Biotechnology



Relevant courses: *Bioinformatics*, *Drug Design*, *Machine Learning*, *Statistics*, *Data Analysis*, *Synthetic Biology*

2012

2014

Preparatory Classes, Specialization in Physics & Chemistry

Lycée Clemenceau

Nantes, France

Advanced and intensive courses to prepare for national entrance examinations to French "Grandes Écoles"

Publications

- **Laigle V.** Dingli F., Amhaz S., Perron T., Chouchène M., Colasse S., Petit I., Pouillet P., Loew D., Prunier C. and Levy L. *Quantitative Ubiquitylome Analysis Reveals the Specificity of RNF111/Arkadia E3 Ubiquitin Ligase for its Degradative Substrates SKI and SKIL/SnoN in TGF- β Signaling Pathway.* Molecular & Cellular Proteomics 20, (2021) <https://doi.org/10.1016/j.mcpro.2021.100173>
- Nowwarote N., Petit S., Ferre F. C., Dingli F., **Laigle V.**, Loew D., Osathanon T. and Fournier B. P. J. *Extracellular Matrix Derived From Dental Pulp Stem Cells Promotes Mineralization.* Frontiers in Bioengineering and Biotechnology 9, (2022) <https://doi.org/10.3389/fbioe.2021.740712>
- Pinto M. J., Cottin L., Dingli F., **Laigle V.**, Ribeiro L. F., Triller A., Henderson F., Loew D., Fabre V. and Bessis A. *Microglial TNF α orchestrates protein phosphorylation in the cortex during the sleep period and controls homeostatic sleep.* The EMBO Journal 42, e111485 (2023) <https://doi.org/10.15252/embj.2022111485>