




BERAUD Mélanie

Data Scientist, PhD Microbiology/Molecular Biology,
Senior technician Biotechnology

Melanie Beraud  

kumquat42 

melanie.beraud@gmail.com 

0033 67027587 

currently in Paris, France 

SOFT SKILLS



People management, Tutoring, Open-minded,
Public speaking, Analytical skills, Critical thinking,
Adaptability, Enthusiast, Self-learner

BIO SKILLS



Cloning and Mutagenesis

High-throughput cloning, mutagenesis & screening,
'Golden Gate', qPCR, primer design

Biochemistry and Proteomics

Protein Expression and Purification, HPLC/UPLC,
Mass-spectrometry (ESI, MALDI, SELDI)

Genomics

Web servers and platforms, Genome browsing,
variant analysis

Microbiology

E.coli, *Salmonella*, *B. subtilis*, *fungi*, environmental
strains, communities.

DATA SKILLS



Programming

Python, R, VBA for Excel, SQL

Data Visualization and statistics

plotly, seaborn, dash, streamlit, Excel
Statistics with R

Machine Learning

supervised, unsupervised (sklearn), deep-learning,
NLP (tensorflow), hugging face

Big Data

Spark, Databricks AWS

Environments and OS

IDE, Jupyter Notebooks, docker, Terminal,
Windows, Linux

LANGUAGES

English

Full Professional Proficiency

French

Native Proficiency

German

Limited Working Proficiency

Dutsch

Elementary Proficiency

MOOCs

BIG (Génomique) (2020)

Python (2018)

Genomes and Algorithms (2016)

Analyse de données multidimensionnelles (2016)

Statistics using R (2015)

EDUCATION

Data Science

Jedha Bootcamp

Paris, France

08/2023 - 01/2024

- Data Visualization
- Machine Learning
- Deployment

Final project: Development of a web application
for the detection of human emotion

PhD Microbiology

University Denis Diderot (Paris VII)

Paris, France

09/2007 - 09/2010

Thesis: *Le locus yciGFE(katN) du régulon σ^S :*

*Régulation différentielle chez E. coli et Salmonella
par H-NS et le régulateur YncC*

M.Sc. Microbiology, Genomic, Biochemistry, Structural Biology

Paris VII and XI University

Paris, France

09/2004 - 08/2007

Technical degree in Biotechnology (BETC)

ENCPB

Paris, France

09/2002 - 06/2004

WORK EXPERIENCE

Biotechnology Teacher

Lycée Galilée *Genevilliers, France*
03/2023 - 08/2023
- High school and BTEC students.

Sequencing Platform Manager

Seqlab, Genoscope, CEA *Evry, France*
05/2021 - 11/2022
- People: HR, planning, meetings,
- Daily production follow up,
- 2 papers published,
- Collaborators: quotations, reportings.

Strain engineer

Lipofabrik *Lesquin, France*
04/2018 - 01/2021
- Strain optimization: GMO/non-GMO tools,
- High-throughput screening,
- Strain registration and genome analyses,
- Technicians supervision.

Postdoc

University of Mons *Mons, Belgium*
04/2013 - 09/2017
- Engineering of marine communities,
- Development of qPCR and MS protocols,
- Home-made database: genomic, proteomic,
- Home-made statistical analysis pipeline,
- Formatting application for MS results,



Postdoc

MPI Biochemistry *Planegg, Germany*
01/2011 - 01/2013
- Golden Gate cloning,
- High-throughput screening,
- Fluorescence microscopy, ChIP, qPCR,
- Structure analysis.

PhD Candidate

Institut Pasteur *Paris, France*
09/2007 - 09/2010
- Thesis & 2 papers,
- Cloning and protein expression,
- β -galactosidase transcription assays,
- *in vitro* (radioactive) transcription assays,
- Home-made application for results analyses.

INTERESTS

I like to... Break my head on board Games and puzzles, read books, bike; 
& make something out of all kind of threads: Knitting, Hooking, Sewing 

PAPERS

Schmidt *et al.* 2024

Low-frequency somatic mutations are heritable in tropical trees *Dicorynia guianensis* and *Sextonia rubra*, PNAS, DOI: 10.1073/pnas.2313312121

Fouteau *et al.* 2022

Complete Genome Sequence of *Tepidibacter sp.* Strain 8C15b, Isolated from Bank Sediments of Haiphong Bay, Vietnam, Microbiol. Resour. Announc., DOI: 10.1128/mra.00132-22

Matallana-Surget *et al.* 2017

Chapter 17: Comparative metaproteomics to study environmental changes, In 'METAGENOMICS: PERSPECTIVES, METHODS, AND APPLICATIONS', ISBN: 9780081022689

Levi-Meyrueis *et al.* 2015

Repressor activity of the RpoS/ σ^S -dependent RNA polymerase requires DNA binding, Nucleic acid Res., DOI: 10.1093/nar/gku1379

Beraud *et al.* 2010

Proteomic Analysis Reveals Differential Regulation of the σ^S -Dependent *yciGFE(katN)* Locus by YncC and H-NS in *Salmonella* and *Escherichia coli* K-12, Mol Cell Proteomics, DOI: 10.1074/mcp.M110.002493

VOLUNTEERING

Data4Good

2024 - ...
Data Scientist for 2 projects:
- LinkR: Interhop
- Seastemik: PinkBombs

MeepClub

2022 - ...
Active member, organization of public events for Telethon, local yearly convention, and other public events

StaPa

2008 - 2010
Young Researcher Association from 'Institut Pasteur'. Secretary, Yearly congress organization, Leisure events and Movie nights.