# FADI SLIMI

Lyon, France

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#### Education

## Engineering in Industrial Biology

Sep. 2021 - Oct 2024

National Institute of Applied Sciences and Technology

Integrated Preparatory Cycle: Chemistry and Applied Biology

Sep. 2019 - June 2021

National Institute of Applied Sciences and Technology

Tunis, Tunisia

Tunis, Tunisia

# Professional Experience

## Final Year Internship in Bioinformatics

Feb 2024 - Jul 2024

LBBE: Laboratory of Biometry and Evolutionary Biology (CNRS, Claude Bernard University of Lyon 1)

Lyon, France

- \* Characterization of splicing variants based on PacBio sequencing data
- \* Quantification and differential analysis of splicing variants
- Identification and functional annotation of candidate splicing variants that may contribute to reproductive isolation in flycatchers

## Internship in Bioinformatics

Jun 2023 - Sep 2023

Pasteur Institute of Tunis

Tunisia

- \* Identification of rare genetic diseases in Tunisia
- \* Analysis of high-throughput sequencing data via the Galaxy pipeline
- \* Analysis of DNA chip genotyping data using the PLINK tool and SNP annotation via VEP to assess functional impact

# Internship in Veterinary Epidemiology and Microbiology

Jul 2022 - Aug 2022

Pasteur Institute of Tunis

Tunisia

- \* Research on viruses and bacteria of economic and medical importance (including isolation, characterization, typing, pathogenicity, prevention, modeling)
- \* Epidemiological surveillance and prevention methods

## Internship in Medical Genetics

Jul 2021 - Aug 2021

Tunis, Tunisia

LABGEN

- \* Male infertility analyses
- \* Morphological and molecular cytogenetic analysis
- \* Molecular Genetics Analysis

#### Academic Projects

## Database Development on Genetic Diseases in Tunisia | PreMedit

- \* Description: Collaboration with BioInnov8 and another company to be announced to collect and analyze data on proteins and 3D structures involved in rare genetic diseases. Implementation of functional annotation and bioinformatics analysis.
- \* Role: Contribute to the functional analysis of proteins and the interpretation of genomic data.

## Modeling Human Diseases by Implementing Knock-In and Knock-Out Methods (Murine Model)

- \* Description: Participation in a project using Knock-In/Knock-Out mouse models to understand human diseases, facilitating translational research efforts.
- Role: Focus on crucial preliminary steps of gene isolation to ensure project success.

#### Exploration of Natural Molecules and Their Antiviral Activities Against Coronavirus (SARS-CoV-2)

\* The objective of this project is to screen a library of natural compounds for their potential to inhibit SARS-CoV-2 replication in cell culture models.

#### Valorization of Citrus Peel Waste into Textile Fibers

\* Optimization of extraction and processing of cellulose from citrus peel waste for the production of sustainable and eco-friendly textile fibers.

#### Technical Skills

- \*Excel/PowerPoint \*Bioinformatics: Linux, Bash, Python, R \*Genotyping Techniques: NGS, PLINK
- \*Genome Manipulation: CRISPR-Cas9 \*Database Management: GenBank, Ensembl, NCBI Gene
- \*Modeling Tools: BLAST, PyMOL \*Genetic Sequence Analysis: Variant Calling Tools, VEP
- \*Omics Data Analysis: Galaxy Pipelines \*Molecular Biology: DNA/RNA Extraction, PCR, RT-qPCR
- \*Immunological Techniques: ELISA, Western/Southern Blotting \*Laboratory Techniques

# Languages