Olivier Dennler

Phd student in Bioinformatic

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26 years old
Driver's license

Education and Training

- 2019-2022 Phd in bioinformatic, Rennes 1 University
 - 2019 Molecular Phylogeny training, CNRS training Montpellier (1 week)
- 2018-2019 Master 2 Computer science and Integrative Biology, Rennes 1 University
 Sequences algorithm, machine-learning, combinatorial optimization, biological network studies, molecular modeling, semantic WEB
- 2017-2018 Master 1 in Bioinformatic, Rennes 1 University

Basic bioinformatics, programming, statistics, clustering methods, genomics, study of bioinformatics algorithms, sequence analysis

2014-2017 Licence degree in Molecular and Cellular Biology, Strasbourg University

Study of the molecular mechanisms of living organisms and the characteristics of different biological macromolecules as well as their analysis methods

Professional Experiences

2019-2022 Phd: Phylogenetic prediction of functional sequence modules in ADAMTS-TSL proteins (supervisors, Drs N Théret and F Coste),

IRSET and IRISA, Rennes, Dymec team (Dynamics of microenvironment and Cancer) and Dyliss team (DYnamics, Logics and Inference for biological Systems and Sequences)

Development of a novel framework for integrating local sequence conservations and Protein-Protein Interactions evolutionary histories within phylogenetic trees. Application to the paralogs, orthologs, and isoforms of the multidomain A Disintegrin-like and Metalloproteinase with ThromboSpondin motif (ADAMTS) protein family and establishment of the first conservation map of function-associated sequences during ADAMTS evolution revealing novel functional signatures.

2019 Functional analysis of the ADAMTS / ADAMTSL family of proteins using methods of segmentation of sequences and phylogenetic reconciliations (supervisors, Drs N Théret and F Coste, 6 months).

IRISA Rennes, Dyliss team (DYnamics, Logics and Inference for biological Systems and Sequences) Recovery and analyzis of protein sequences. Establishment and implementation of an innovative method for functional characterization of protein regions. Integration of phylogenetic data, sequence conservation data and functional data.

2018 Phylogenetic profiling of protein blocks (supervisors, Dr J Thompson, 2 months),

ICube Strasbourg, CSTB team (Complex Systems and Translational Biology)

Contribution to the implementation of a new tool for predicting protein regions involved in interactions. Development of scripts allowing the analysis of the results obtained by data mining and clustering. Validation of predictions obtained from a functional point of view by Gene Ontology enrichments and structural studies

Scientific Communications

- 2022 Publication,
 - O Dennler, F Coste, S Blanquart, C Belleannée, N Théret., (2022). Phylogenetic prediction of functional sequence modules in ADAMTS-TSL proteins. Submitted
- 2022 **Poster**,
 - O Dennler, et al. (2022). Functional Motif Prediction in ADAMTS-TSL proteins Based on Module(s) and Phenotype(s) Co-appearance. Rencontres Alphy / AIEM Génomique évolutive, Bioinformatique, Alignement et Phylogénie, Mar 2022, Rennes, France
- 2021 **Poster**.
 - **O Dennler**, et al. (2021). Phylogenetic Functional Module Characterization of the ADAMTS / ADAMTS like Protein Family. JOBIM: Journées Ouvertes en Biologie, Informatique & Mathématiques, Jul 2021, Paris, France

2021 Poster,

O Dennler, et al. (2021). Phylogenetic Functional Module Characterization of the ADAMTS / ADAMTS like Protein Family. WABI 2021 - Workshop on Algorithms in Bioinformatics, Aug 2021, Chicago (Online), United States

Community and volunteer experiences

2021-2022 President of the Nicomaque association,

In the organizing committee of a science popularization film festival (Sciences En Cour[t]s)

2022 Team member of the organizing comitte for the annual event that federates French bioinformatics: JOBIM, The Journées Ouvertes en Biologie, Informatique et Mathématiques; 5-8 july, Rennes

2020 Sciences En Cour[t]s participation,

Production of a popular science short films

2017-2018 Member of the committee of the E-BIGO association (Students in Bioinformatics of the Great West),

Secretary, participation in the organization of BIG-Day 2018

2016-2017 Member of the committee of an archery club (1er Cie d'Arc Strasbourg),

Assistant treasurer, interim secretary

Technical and personal skills

Bioinformatic

Sequence Protein sequence study

analyzes Multiple sequences alignment tools

Sequence segmentation techniques

Data usage Query biological databases

Integration and understanding of various

types of biological data

Phylogeny Basic knowledge of phylogeny

Techniques of phylogenetic reconciliations

Profiling phylogenetics

Functional annotation using phylogeny

Computer science

Programmatic Python

languages Java

R

Bash

Bases in SQL/HTML/Latex

OS Windows, GNU/Linux

Tools Microsoft Office, Git

Languages

French Mother tongue

English CLES B2

German A2 (basic)