Jonas Béal

PhD Student in Bioinformatics and Biostatistics and MBA Fellow



Current situation

2017-2020 PhD, Institut Curie - U900, Paris.

Mathematical models of cancer and quantification of their clinical impact in the prediction of survival and response to treatment. Supervised by Emmanuel Barillot and Aurélien Latouche

- Scientific content: Dynamical modelling of cancer mechanisms based on data analysis and literature curation.
 Transformation of mathematical models into precision medicine tools using biomedical data. Biostatistical impact analysis by simulating clinical trials.
- *Skills*: Scientific and technology watch. Data analysis, machine learning and programming (R and Python). Scientific communication (articles and conferences) and popularization.
- 2018-2021 MBA Fellow, Collège des Ingénieurs, Paris.

Dual PhD/MBA programme focused on management, finance, entrepreneurship and leadership

Education

2015–2017 Master of Science, EPFL, Lausanne.

Master 'Life Science and Technology', option 'Molecular Medicine and Systems Biology' in École Polytechnique Fédérale de Lausanne. Courses of *Cancer Biology, Systems Biology, Genomics.* 5.77/6 and $2^{nd}/33$

2012–2016 **Engineer degree**, École Polytechnique, Palaiseau.

General scientific foundation, humanities and major in Biology. GPA 3.88/4.

2010-2012 'Classes préparatoires', Lycée du Parc, Lyon.

Previous experience

02/2017–08/2017 Master thesis, Institut Curie - U900, Paris.

Specification of cancer models with integration of patient omics data. Supervised by Dr. Calzone.

o 'Fondation Marguerite's Prix Annaheim - Matille', for project of 'high quality devoted to bringing together life sciences and information technology'

09/2016-01/2017 Laboratory internship, EPFL - Genomics of Infectious Diseases Lab., Lausanne.

Project about Study of kinetic parameters that determine the impact of rate-limiting enzymes in the kinetic models of genome-scale metabolic networks. Supervised by Prof. Hatzimanikatis and Dr. Miskovic

09/2016–12/2016 Laboratory internship, EPFL - Computational Systems Biotechnology Lab., Lausanne.

Genome-Wide Association Study (GWAS) on antibody response to several bacterial pathogens and influence of HLA genomic region. Supervised by Prof. Fellay and Dr. Hammer

 $07/2106 - 09/2016 \quad \textbf{Start-up internship}, \textit{NovaDiscovery}, \ Lyon.$

Project within bio-modelling team. Conception of tools to model biochemical equations in Haskell language. Supervised by Frédéric Cogny

03/2015–07/2015 Laboratory internship, Brain and Spine Institute, Paris.

Research project in Alexis Brice's team about characterisation of a mouse model spinal cord to study fronto-temporal dementia and amyotrophic lateral sclerosis. Supervised by Morwena Latouche

10/2012–04/2013 **Teacher for special needs**, *EPIDE*, Belfort.

Professional immersion in a centre for social integration, which takes care of underprivileged young people

Languages

French Native speaker English Fluent; daily professional use

Italian Intermediate Chinese Notions

Computer skills

R, Python, Matlab Frequent use Bash, Haskell Basic knowledge

Interests

Reading Avid reader with wide-ranging interests: French literature, essays, graphic novels

Sports Regular badminton player