

# Frederic COMMO, PhD

# Data Scientist - Oncology & Bioinformatics

Project Leader, Precision Cancer Medicine & Molecular Screening Programs



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Frederic Commo

#### Work experience

# 2014 - Present Data Scientist at Gustave Roussy, Villejuif, France

Project Leader, Precision Cancer Medicine & Molecular Screening Programs

• Identifying molecular alterations matching with targeted therapies.

Deployment of data transfer/storage and analysis solutions for molecular screening programs at Gustave Roussy.

- Developing sharable visualization tools to assist therapeutic decision-making. Interactive aCGH Viewer an end-user server solution for visualising and interacting with genomic profiles. curveFitter, online application for curve fitting and drug response analysis (an extension of the nplr R package).
- Identifying new biomarkers and exceptional responders to treatments (ongoing research)
- Publications: Ann Oncol 2015 (1st author), Bioinformatics 2015 (1st author)
- R package as author: rCGH on Bioconductor (genomic profiling and visualization)

# 2012 - 2014 Data Scientist - Visiting Scientist at Sage Bionetworks, Seattle, WA

- Steering Committee & Tumour Board Committee, Precision Medicine Programs.
- Computational methods for Precision Cancer Medicine (microarrays & NGS).
- Publications: J Clin Oncol. 2013, Clin Cancer Res. 2013, Mol Cancer Ther. 2013
- R package as author: nplr on CRAN (Logistic regressions for curve fitting and drug response analysis)

#### 2007 - 2012 Project leader at Gustave Roussy, Villejuif, France

Department of Translational Research & Inserm U981 (Pr Fabrice André)

- Project management & data analysis, Precision Medicine Program SAFIR01.
- Microarray Gene Expression analyses & meta-analyses.
- 2004-2007 **APHP non-active status** to join Compiègne University of Technology.
- 1993-2004 **Research Assistant**. Dpt of Pathology, TENON Hospital, Paris.
  - 1986-93 Laboratory technician. Dpt of Pathology, Jean VERDIER Hospital, Bondy, France.

## **Education**

PhD in Oncology & Bioinformatics, University Paris-Saclay 2015

Genomic analysis within precision medicine: optimisations & visualization tools. Supervisor: Pr. Fabrice André

Engineering Diploma & M. Sci., Compiègne University of Technology (U.T.C.) 2007

Viva voce: Molecular portrait of ependymoma recurrences (Plos One 2010 as co-1st author).

1985 Higher Technician Degree: Lab Technician School, Pitié-Salpêtrière, Paris.

#### **Continued Education**

- **2013** Machine Learning, Caltech, through edX (9 weeks)
  - Data Analysis, John Hopkins Univ. through Coursera (8 weeks)
  - Mathematical Biostatistics, John Hopkins Univ. through Coursera (7 weeks)
- 2012 Python programming, MIT, Cambridge, USA through edX (15 weeks)
- **1995-98** Ecole Pratique des Hautes Etudes, University Paris-VI, Paris.
- **1991-92** Molecular biology applied to diagnosis, University Paris-VI, Paris.

### **Skills**

- **Data Analysis** Big Data, Statistical Inferences, Clustering, Data Modelling, Features Extraction.
- **Programming**
- R, Python, SQL, html, CSS, javascript, Cloud Computing.
- Languages
- French native, English.

#### **Publications**

- Collaboration to 48 *publications* in peer-reviewed international journals.
- Online end-user applications: aCGHviewer, CellViability, CellExplorer

#### **Teaching**

- Statistical methods applied to genomics at *U.T.C. from 2008 to 2010*.
- Applied Statistics at Ionis Engineering School, Paris, 2012

#### **Hobbies**

Motorcycling, blues guitar, Diving (Advanced PADI certified).