Grégoire Siekaniec

Post doctoral position

June 18, 1995
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About me

I am interested in all subjects dealing with omics data (regardless of the sequencing technology) and I am particularly interested in the treatment of microorganism data with comparative genomics and/or metagenomics.

Languages

- French, native ●●●●●
- English, fluent ●●●●○
- Spanish, basis ●○○○○

Hard Skills

- Comparative genomic
- Metagenomic
- Transcriptomic
- Genome assembly
- Biostatistic
- LaTeX
- Programming language
  - Python ●●●●
  - Bash ●●●●
  - R ●●●○
  - ASP ●●○○
  - HTML, CSS ●●○○
  - C++ ●●○○
  - Java ●○○○
  - Javascript ●○○○

Soft Skills

- Autonomy
- Adaptability
- Team work
- Mobility

Education

2018 – 2021 — **Doctoral degree** — Rennes university
For further details see the Working Experience section

2016 – 2018 — **Master degree in Bioinformatics, specialized in molecular bioinformatics: methods and analysis** — Claude Bernard Lyon 1 university
Rank: 4/20

2015–2016 — **Licence degree in Life Sciences: Modeling and Computing of Life** — Claude Bernard Lyon 1 university
Rank: 4/25

2013–2015 — **Associate's degree (DUT) in Biological Engineering specialised in Bioinformatics** — Auvergne university, Aurillac campus
Rank first year: 2/37, Rank second year: 2/27

Working Experience

2022 – 2023 — **Postdoc in Bioinformatics** — ICO Saint-Herblain
Omics Data Science Unit of ICO

Processing of exomic data of metastatic breast cancer RH+/HER2- and development of a software named LOngiTUdinal comparative genomics Study (LOTUS) allowing variants comparison in a longitudinal study.

Supervised by Pascal JEZEQUEL.

2018 – 2021 — **PhD in Bioinformatics** — INRAE and INRIA/IRISA Rennes
MicroBio team of INRAE and GenScale team of INRIA

Identification of bacterial strains, in particular strains of *Streptococcus thermophilus* via reads from MinION sequencing. Development of a bacterial strain identification software called Oxford nanopore Reads Identification (ORI). Associated publications: [Siekaniec *et al.* 2021] and [Roux *et al.* 2022] (see the Publications section).

Supervised by Jacques NICOLAS and Eric GUEDON.

Internship

2018 — **2nd master degree internship - 6 month** — INRIA/IRISA Rennes
GenScale team of INRIA

Quality verification and assembly enhancement of the apple aphid *Dysaphis plantaginea* obtained with Illumina 10X technology.

Supervised by Dominique LAVENIER and Fabrice LEGEAI.

2017 — **1st master degree internship - 4 month** — LBBE Lyon
Laboratory of Biometry and Evolutionary Biology

Participation in the de novo assembly of the Y chromosome of *Silene latifolia* using reads from Illumina, MinION and PacBio sequencing.

Supervised by Gabriel MARAIS and Cécile FRUCHARD.

2015 — **DUT degree internship - 4 month** — MIO Marseille, Luminy campus
Mediterranean Institute of Oceanography

Metagenomic analysis of sequencing data (pyrosequencing 454) from microbial communities of volcanic hot springs and hyperalkaline hydrothermal systems.

Supervised by Marianne QUEMENEUR.

Lecturer

2018 – 2019 — **Contract teacher** — Rennes university
Licence Biology, python, 24h

2019 — **Contract teacher** — Rennes university
Master Bioinformatic, python, 19h

2019 — **Contract teacher** — Rennes university
Master Public Health, python, 21h

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Other skills

- Sequencing technologies
  - Nanopore
  - Illumina
  - PacBio
  - 10X
  - Pyrosequencing 454
- Computing cluster usage (SGE or Slurm)

Scientific Contributions

Publications

2022 **The genomic basis of the Streptococcus thermophilus health-promoting properties**
Emeline Roux, Aurélie Nicolas, Florence Valence, Grégoire Siekaniec, Victoria Chuat, Jacques Nicolas, Yves Le Loir and Eric Guédon
BMC Genomics, impact factor 4.56

2021 **Identification of Isolated or Mixed Strains from Long Reads: A Challenge met on Streptococcus thermophilus Using a MinION Sequencer.**
Grégoire Siekaniec, Emeline Roux, Téo Lemane, Eric Guédon and Jacques Nicolas
Microbial Genomics, impact factor 4.65

Presentations

2020 **SeqBim**
Presentation of my doctoral work during an oral presentation in a national conference specialized in combinatorics or text algorithmics and their applications to bioinformatics.

2020 **JOBIM (Computational and Mathematical Biology Open Day)**
Poster presentation in a national bioinformatics conference.

2018 & 2021 **NanoClub**
Presentation of my doctoral work during an oral presentation in an open day for users of Nanopore technologies.

Popularisation of science

2020 **Science en Cour[t]s**
Organization of the 2020 edition of the Science en Cour[t]s festival.

2019 **Science en Cour[t]s**
Participation to Science en Cour[t]s, a short film festival, which offers PhD students the opportunity to make short films about their thesis work.

Extra-Curricular Activities

Climbing	Climbing for 4 years
Longboarding	Longboarding for 2 years
Slackline	Since 2016. I was a member of the BZ'Slack association (Rennes).
Guitar	Self-taught since 2013.
Drawing	Self-taught. I designed the 2020 poster of the Science en Cour[t]s short film festival and the logo of the LOGIN association (Association of young researchers at LS2N).
Travel	Travel to other countries and learn about their culture