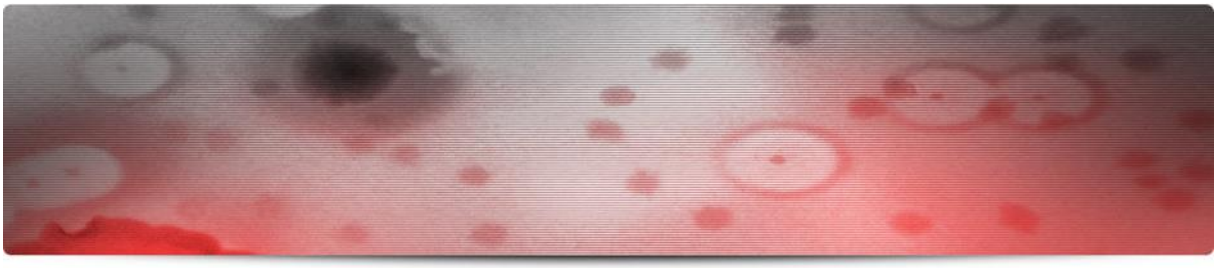
Thomas Clavel - Research Group Intestinal Microbiome



Development of web interfaces and platforms for biological sequence processing and querying

Next-generation sequencing technologies revolutionized the field of microbiology by revealing the diversity of DNA and RNA sequences from microbial communities. The massive amount of data produced by such technologies challenge the existing informatic structures both in terms of storage and processing capacities. We are currently implementing ways to increase accessibility to accumulating data and developing new approaches for their processing and presentation. In this context, we are looking for enthusiastic students to help accomplish these goals.

If you are an advocate of clean and user friendly web interfaces and want to join a team of microbiologists and bioinformatics researchers working on the organization and exploration of sequence data, we can offer:

- **insights into microbial communities by next generation sequencing**
- **practical application of web development technologies as Python's Django Framework, jQuery and Twitter's Bootstrap**
- **a Docker based development in a locally hosted gitLab**
- **work in an interdisciplinary research environment: combining biology and computer science**
- **exposure to scientific community**
- **possibility to work alone or in small teams**

Project description:

- Front end: Expand the existing web front by enhancing clarity, robustness and futures of the service.

- Back end: Assist in the optimization and benchmarking of distributed cloud computing and operation scripts.

- Engineering: Clean up and further organize the project and contribute in the stability and long-term maintenance of the system.

For current stage of the project, look at: www.imngs.org

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