

General information for researchers working in the Laboratory of Evolutionary and Adaptive Physiology LEAP

The goal of this document is to provide you with general information about the organization of the lab, about the rules, and about the expectations for a researcher at different levels : MSc, PhD, post-doc or visiting researcher.

- We are all involved in a **scientific research process** with the same goals. This process can be summarized as follow:

- finding an original scientific question and elaborating hypothesis
- defining general and specific objectives
- collecting and summarizing bibliographic data
- designing experiments, including number of replicates and "a priori" statistical analysis (power analysis)
- carrying out experiments (or field data collection)
- following protocols (SOPs), implementing existing protocols and developing new protocols
- analyzing collected data with appropriate statistics
- store and share your data analysis using RMarkdown document and Github
- discussing results, analysis and drawing conclusions
- sharing results with other people of the lab and with other scientists
- publishing your results
- sharing with social media and providing news for the website
- attending international conferences
- mentoring less experienced researchers and visiting researchers

- It means that we all do the same job...with different background and experience ! Consequently, this is a **team job** ! No one should work alone and helping other people is the key of the success.

- The **expectations** are :

- seriousness and motivation
- enthusiasm and good mood
- creativity and new ideas !!
- active collaboration with other researchers and mentoring younger researchers
- independent seeking for funding opportunities
- publishing in a timely fashion
- participating in international conferences (at least once a year for PhD and post-doc)
- assistance in animal feeding and maintenance (including week-ends and holidays)
- active participation in weekly lab meeting, including reading proposed articles,

presenting results or experimental designs, reporting international conferences, etc.

- participating in general URBE activities (e.g. happy hours, conferences, etc.)
- becoming a member of ILEE (Institute of Life, Earth and Environment) and participating in general ILEE activities (mailto: carolin.meyer@unamur.be)

- You can find a lot of informations on the **website** of the lab at: <http://www.evolution-physiology.be>

Visit on a regular basis the web site !

Register as a lab member (create a login and a password) so that you can access to restricted areas.

Restricted areas concern lab resources (including SOPs, basic literature, excel sheets, lab thesis, etc.) as well as a discussion forum.

Each researcher is supposed to have a look at those resources and to become familiar with the different approaches by reading general articles and protocols.

!! Reading protocols is mandatory before working in the lab !!

Please, feel free to share your general questions, results, protocols, interesting articles, international experience, new lab material interests, etc, on the private forum. It is a restricted discussion area, only visible by lab members. An e-mail will be sent to you for each new topic. You can also ask to receive an e-mail for each posted reply.

Please, provide us with information to implement on a regular basis the different pages of the website : news/blog, personal profiles, research projects, etc.

You can find general operating resources on the page “resources” (grant opportunities, bibliography, proteomic links, collaborations, etc).

A page with all lab publications refers to the PDF.

- For bibliography management, the lab is using **Mendeley** (<http://www.mendeley.com/>). We share specific bibliographies using shared groups. MSc students should refer to their respective lab mentor to get access to their specific literature. Watch tutorials at: <http://www.mendeley.com/videos-tutorials/>

- A welcome package with main general publications is available for new students and should be carefully read to become familiar with our researches.

- Since January 2018, all lab members should use the electronic lab book that can be found at : <https://elabnotebook.unamur.be/experiments.php> . You have to register to Frédéric Silvestre group. All your lab experiment must be added to this lab book.

- All people from the lab who order material, devices, etc, must add the order to a Google Drive sheet, and must ask the PI for approval before ordering. Other google drive documents and sheets are often used, such as an updated list of the killifish stock. You must all use these shared documents.

- There is not mandatory statistical software used by all lab members. However, we highly recommend to get familiar with R, which is the most used language for statistical

analyses. We're asking you to keep all your statistical analyses in a RMarkdown document so that the analyses can be verified and validated. We recommend that you create a Github account where you can keep and share all your analyses (<https://github.com/>).

- New graduate students should be familiar with the following Master BOE **courses** :

- Ecological proteomics and epigenetics (SBOE M166)
- Evolutionary Genomics and Transcriptomics (SBOE M165)
- Ecotoxicology (SBOE M163)
- Molecular ecology (SBOE M124)

- PhD students are responsible to add credits during their research. A meeting of the advisory committee is expected at least at mid-term.

- It is expected that all lab members try to disseminate their works as broadly as possible, not only to other scientists, but also to vulgarize our science.

- **Authorship** on manuscript :

- when data are sufficient to publish a scientific article, this should be done as soon as possible (within a few months)
- the general rule is that the PhD student (or post-doc) who mentored the MSc student is expected to write the manuscript and to be as first author. The MSc student should be as second author (and followers if several students are involved). The PI is last author. Exception to this rule **MUST** be discussed and approved by all co-authors.
- for communications at international conferences, the first author should be the researcher who will present the communication (either oral or poster).
- all co-authors of a manuscript should have taken a significant part of the work **AND** should at least have read and corrected the manuscript.

- Respect the general rules of the URBE (ROI)

Frédéric Silvestre