

**Post-doctoral position**  
**« Microbiota and Drosophila Metabolism »**  
Integrative physiology of Host-Microbes Interactions Lab  
Institut de Génomique Fonctionnelle de Lyon  
ENS de Lyon

**The lab**

We study how the intestinal microbiome influences host nutrition, growth and physiology.

We use gnotobiology coupled to genetics, functional genomics, imaging and biochemical approaches in bacteria and the host. We use flies and mice as host models.

Recent lab publications:

[\*A standardized gnotobiotic mouse model harboring a minimal 15-member mouse gut microbiota recapitulates SOPF/SPF phenotypes\*](#)

[\*Metabolic Cooperation among Commensal Bacteria Supports Drosophila Juvenile Growth under Nutritional Stress\*](#)

[\*Drosophila-associated bacteria differentially shape the nutritional requirements of their host during juvenile growth\*](#)

[\*Commensal Gut Bacteria Buffer the Impact of Host Genetic Variants on Drosophila Developmental Traits under Nutritional Stress\*](#)

[\*Bacterial Adaptation to the Host's Diet Is a Key Evolutionary Force Shaping Drosophila-Lactobacillus Symbiosis\*](#)

[\*Drosophila Perpetuates Nutritional Mutualism by Promoting the Fitness of Its Intestinal Symbiont Lactobacillus plantarum\*](#)

[\*D-Alanylation of teichoic acids contributes to Lactobacillus plantarum-mediated Drosophila growth during chronic undernutrition\*](#)

[\*Lactobacillus plantarum strain maintains growth of infant mice during chronic undernutrition\*](#)

We are based at [IGFL](#), a research unit of the [École Normale Supérieure](#) in the Gerland-Biodistrict area of Lyon a vibrant city for enjoying French food, French culture and an ideal base to discover France (Paris: 2h - Alps: 1.5hrs – Mediterranean sea: 3hrs)

**The position**

We are looking to strengthen our research using drosophila as a host model organism and in the frame of a recently awarded ANR grant you will investigate how intestinal microbes and bacterial metabolites shape Drosophila metabolism during juvenile growth.

The position is opened now until it is filled. An initial contract of one year (renewable up to 5 years) is proposed. Fellowship applications will also be supported. Salary from 2200€ to 3300€ net/month according to experience.

**The profile**

Ph'D in Biology with past experience using the drosophila model is required including advanced skills in genetics and molecular biology. Excellent communication and collaborative skills (English is the working language) and evidence of strong interest in nutrition, microbiome and physiology. Knowledge in biochemistry and metabolism and/or experience with isotope labelling would be a plus.

**The employer**

The École Normale Supérieure de Lyon is an elite French public higher education institution that trains professors, researchers, senior civil servants as well as business and political leaders. It is a symbol of French Republican meritocracy and it is committed to disseminating knowledge to the widest audience and to promoting equal opportunity. The ENSL brings together several laboratories at the cutting edge of science and working on different fields of natural sciences and humanities.

**Contact and application:**

By e-mail only to François Leulier ([francois.leulier@ens-lyon.fr](mailto:francois.leulier@ens-lyon.fr)): CV, cover letter and contact details of 3 references.