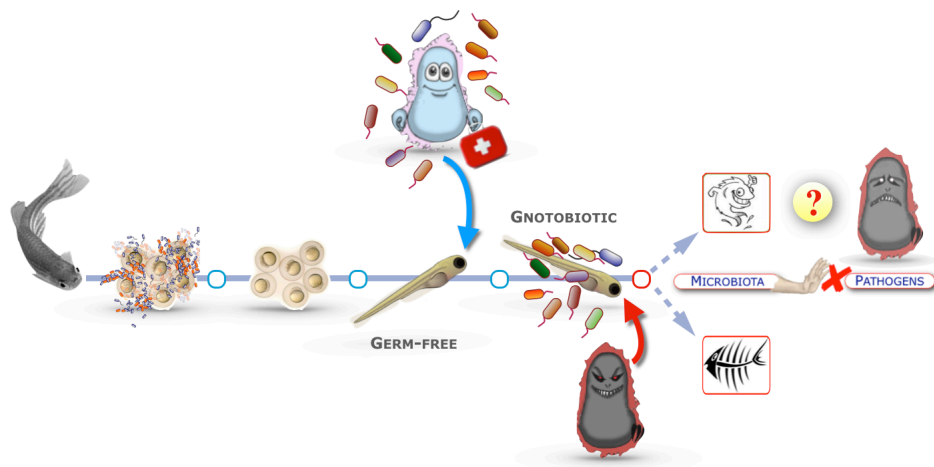


## Postdoctoral Position - JM Ghigo Laboratory

### DETERMINANTS OF MICROBIOTA-MEDIATED RESISTANCE TO INFECTION IN ZEBRAFISH

The Ghigo laboratory at Institut Pasteur, Paris, France is recruiting a postdoctoral fellow. Our laboratory studies biofilm-specific properties and bacterial interference in mixed-species communities. Using a controlled model of infection in conventional and germ-free zebrafish, we recently showed that 10 bacterial species from the zebrafish microbiota are sufficient to fully protect re-conventionalized larvae against the fish pathogen *Flavobacterium columnare*. We now seek to investigate the molecular as well as ecological mechanisms involved in resistance to infection by *F. columnare* and other fish pathogens.



**The project** will involve characterizing key determinants of microbiota-based resistance to infection using bacterial genetics, fish immunology, genomics, quantitative analysis of bacterial dynamics and imaging. We expect this project to provide insights into the molecular events underlying pathogen exclusion in a controlled multispecies *in vivo* context. These findings will contribute to the emerging field of experimental ecology and will help engineer probiotics or host-beneficial microbiota in situations relevant to aquaculture and beyond.

**The environment:** During this 2 year+ position (starting date flexible), the applicant will be supported by experienced lab mates in a full English-speaking environment. She/he will have access to all core facilities, with many opportunities to hone her/his research skills and interdisciplinary thinking in the vibrant Institut Pasteur community.

**Qualifications:** We are looking for an outstanding candidate with a PhD (awarded or near completion) in the biological sciences and with a strong interest in multi-species molecular microbiology. Previous experience in host-microbe interactions, microbiota genomics, metabolism and evolution biology would be highly valued, but not required.

**How to apply:** interested applicants should submit a brief description of their research experience and interests, a detailed CV and contact information of two or three references to [jmghigo@pasteur.fr](mailto:jmghigo@pasteur.fr)

**Our WEB site:** [:https://research.pasteur.fr/en/team/genetics-of-biofilms/](https://research.pasteur.fr/en/team/genetics-of-biofilms/)