Louvain Institute of Biomolecular Science and Technology - LIBST

1 Research scope

Our societies face major challenges such as cancer, neurodegenerative disease, obesity, viral and bacterial infections, pollution, frequent and severe droughts, declining microbial, plant and animal biodiversity. The Louvain Institute of Biomolecular Science and Technology (LIBST) addresses these challenges by investigating molecular and cellular mechanisms underlying physiological processes in bacteria, yeasts, plants and animals, and, from this knowledge, bring societal benefits and industrial applications. To promote high quality basic and applied research projects, the LIBST aims at attracting talented young researchers and helping them develop their project and favor the setting up of interdisciplinary collaborations.

2 Research topics

The LIBST aims at discovering, understanding and applying biological mechanisms at the molecular and cellular levels using state-of-the-art technologies. The LIBST fields of investigation range from the molecule to the organism and include:

- Developmental and pathological processes in animals
- Mechanisms of bacterial and viral infections, and resistance to antibiotics
- Microbial adhesion and biofilm formation
- Single molecule biophysics
- Protein and genome evolution, enzymes and co-factors
- Transposition in bacteria and recombination in yeast
- Discovering new nutrients and bioactive compounds that improve health
- Mechanisms of resistance to environmental pollutants
- Membrane transporters, trafficking and degradation in yeasts and plants
- Response to oxidative stress in animal cells
- Plant development and cellular farming
- Plant and animal biodiversity
3 Technical facilities

The LIBST manages three technological platforms whose mission is to provide support to researchers of the whole scientific community:

- **ANCA**: a platform for husbandry, breeding and experimental procedures of vertebrate models. It is divided into two zones: a conventional rodent facility and a fish/amphibians housing facility ([https://uclouvain.be/en/research-institutes/libst/anca](https://uclouvain.be/en/research-institutes/libst/anca))

4 Key numbers

The LIBST comprises ca. 130 members, among whom more than half are PhD students or postdocs, 21 permanent academic staff members, ca. 30 administrative and technical staff members. About 10 PhD thesis are defended yearly and ca. 60 peer-reviewed articles published in international journals.

Since 2013 members of the LIBST have been managing or participating in the following projects:

- 1 European ERC advanced grant
- 2 European ERC starting grants
- 2 European Innovative Training Networks
- 4 Belgian Inter-University Attraction Pole networks
- 1 Belgian Excellence of Science grant
- 1 WELBIO advanced grant
- 38 projects of the National Fund for Scientific Research
- 19 regional research projects
- 23 projects sponsored by Belgian and foreign private funds

5 Contact

Head of the institute: François CHAUMONT - president-libst@uclouvain.be
Administrative coordinator: Michèle ROCHAT - michele.rochat@uclouvain.be
Secretary: Véronique LEBRUN - veronique.lebrun@uclouvain.be

“Physics studies the infinitely small, astronomy studies the infinitely large and biology studies the infinitely complex” (A. Goffeau).

Address: Louvain Institute of Biomolecular Science and technology
          Croix du Sud 4, Bte L7.D7.O1
          B-1348 Louvain-la-Neuve, Belgium

UCLouvain University