CBH Graduate School
Université Grenoble Alpes

CHEMISTRY
BIOLOGY

LABORATORY OF FUNDAMENTAL AND APPLIED BIOENERGETICS

UMR 1055 UGA Université Grenoble Alpes Inserm

Energy homeostasis *Mitochondria* *Nutrition* *Regenerative Medicine*
AMP-activated protein kinase *NME proteins*

KEY FIGURES:

8 permanent researchers and lecturers

10 technical and administrative staff

9 PhD students and postdoctoral researchers

25 publications per year (on average)

2 patents over the last 5 years

OVERVIEW

The *Laboratory of Fundamental and Applied Bioenergetics* (LBFA) has developed a unique set of skills in metabolic research over its 20 years of existence, with expertise in energy homeostasis and mitochondrial function. Its projects range from fundamental topics (kinases and signaling, cell death) to applied research (preventive and therapeutic strategies in human health). The lab follows an integrative and systemic approach from molecular to clinical levels.

RESEARCH TOPICS

- **Mechanisms involved in the regulation of cellular energy status and energy homeostasis; structure and function of AMP-activated protein kinases and NME proteins.**
- **Mitochondrial physiology; use of beta cells in regenerative medicine; mechanisms of cell death (mitochondrial permeability transition).**
- **Effects of nutrition and exercise on metabolic regulation; role of nutrition and dietary supplements on health, well-being, and aging; muscle function, transgenerational transmission, epigenetic mechanisms.**

https://lbfa.univ-grenoble-alpes.fr/