

Prof. Yoshihisa Hirota

Laboratory name

Laboratory of Biochemistry

Keyword

Molecular Nutrition Research of Vitamin K, GTP Sensor, Cancer Research

Tasks in the laboratory

【Molecular Nutrition Research of Vitamin K】

Our research is aimed at elucidating the entire mechanism of vitamin K metabolism and excretion in vivo. In particular, we are investigating the conversion mechanism of vitamin K, and the contribution of related enzymes to diseases at the molecular level.

We are also conducting research on brain diseases and vitamin K through the elucidation of the differentiation mechanism of brain neurons induced by vitamin K.

【GTP sensor and cancer research】

Our research group, a global team from the US and Japan, has identified the sensor of GTP. We have generated transgenic mice with GTP sensors and are conducting phenotypic analysis.

We will also study the relationship between cancer and GTP sensors in the future.

Program period

2 to 6 months (Entry in August or September / February or March)

Eligibility-school year

- Third year undergraduate
- Fourth year or higher undergraduate
- First year master degree
- Second year or higher master degree
- First year doctoral degree
- Second year doctoral degree
- Third year or higher doctoral degree

Eligibility-student's major/fields

- Mechanical
- Chemistry
- Material
- Electrical
- Electronic
- Computer Science
- Lifescience
- Mathematical
- Civil Engineering
- Architecture
- Engineering and design

Required skills

Communication skills (Japanese or English)

Desired skills (Preferred skills)

Basic techniques for cell culture, Animal breeding, Dissection, Gene and protein

URL: https://www.shibaura-it.ac.jp/en/research/lab/systems/bioscience/yoshihisa_hirota.html