# Anesthesiology

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### **Major Scientific Interests of the Group**

Research topics in Anesthesiology include wide variety of physiology, anatomy, pharmacology, and autonomic neurology. In addition, alterations of physiological conditions caused by various kinds of surgical procedures extend scope of investigations from cardiovascular, respiratory, renal, endocrinology and neurological physiology to clinical pathophysiology.

# **Projects for Regular Students in Doctoral or Master's Programs**

- 1) Autonomic alterations due to various types of general and regional anesthesia
- 2) Taylor-made anesthesia and drug regimen
- 3) Alterations in neurophysiology in various types of stress, including pain
- 4) Global cerebral ischemia following resuscitation

## Study Programs for Short Stay Students (one week – one trimester)

- 1) Learn some of the fundamental autonomic testing
- 2) Investigate tissue preparations of cerebral ischemia and chronic pain models

### **Selected Publications**

- 1) Nakayama S, et al. Glibenclamide and Therapeutic Hypothermia Have Comparable Effect on Attenuating Global Cerebral Edema Following Experimental Cardiac Arrest. Neurocritical Care 11; 1-9, 2017
- 2) Fukuda T, et al. Postoperative daily living activities of geriatric patients administered general or spinal anesthesia for hip fracture surgery: A retrospective cohort study. Journal of Orthopaedic Surgery 1; 1-9, 2018