



Makoto TANAKA

Faculty of Medicine

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Lab web page : <http://www.md.tsukuba.ac.jp/clinical-med/anesthesiology/>

Forest of Scholars : <https://ura.sec.tsukuba.ac.jp/unit-members?kid=50236634>

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Theme

- Baroreflex Responses and Circulatory Regulation
- Safety of Epidural Anesthesia and Pain Medicine

Keyword Baroreflex, Epidural, Analgesia

Highlight

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

Other Faculty Members

Associate Professor : Shinichi INOMATA
Sumii YAMAMOTO

Assistant Professor : Soichiro YAMASHITA
Tsuyoshi SATSUMAE, Shin NAKAYAMA
Takeru SHIMIZU

Applications and Prospects

- Our goal is to augment safety of clinical anesthesia and postoperative patients' satisfaction.

Literature, intellectual property, work

- 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
- 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