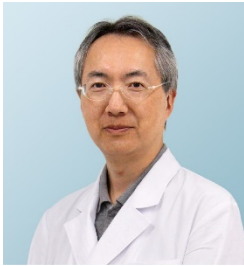


## 麻酔科学（田中 誠）

## Anesthesiology (TANAKA Makoto)



TANAKA Makoto, M.D., Ph. D.  
Professor  
Department of Anesthesiology,  
Institute of Medicine,  
University of Tsukuba

E-mail address: mtanaka@md.tsukuba.ac.jp

URL: <http://www.md.tsukuba.ac.jp/clinical-med/anesthesiology/>

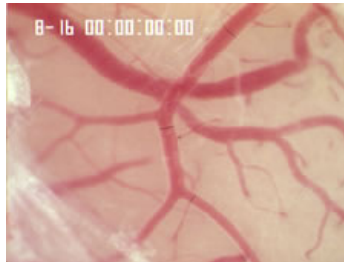
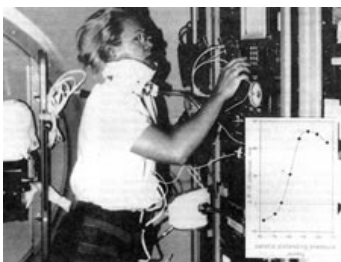


## 侵襲を科学し恒常性を維持する

手術侵襲や麻酔では、生体に大きな侵襲（疼痛、出血、組織破壊、バイタルサインの変動等）が加わります。麻酔とは、こうした侵襲から生命を守り、恒常性を維持する役割を担っています。研究テーマには脳循環、循環反射、麻酔効果の遺伝学的解析、各種麻酔法の安全性、急性・慢性疼痛制御、麻酔薬の中枢神経作用と薬理、麻酔薬の毒性等様々な分野が含まれます。

## Mechanism of Surgical Stress and Anesthesia

Surgical stress and anesthesia produces various responses including acute pain, hemorrhage, tissue damage, fluctuations in vital signs. Our important goal is to protect anesthetized humans from these various types of stress and maintain homeostasis during anesthesia and surgery. In our laboratory, we focus on investigations, such as cerebral circulation (focal and global ischemia), circulatory reflex responses, genetic analysis of anesthetic effects, safety of various anesthetic techniques, acute and chronic pain mechanism, CNS effects of anesthetic drugs and their toxicity, etc.



- [Combined Treatment with Hydrophilic and Lipophilic Statins Improves Neurological Outcomes Following Experimental Cardiac Arrest in Mice.](#)

**Nakayama S**, Taguchi N, Isaka Y, Nakamura T, Tanaka M. *Neurocrit Care*. 2019 Oct 7. doi: 10.1007/s12028-019-00862-w. [Epub ahead of print]

- [CYP2C19 genotype affects diazepam pharmacokinetics and emergence from general anesthesia.](#)

**Inomata S**, Nagashima A, Itagaki F, Homma M, Nishimura M, Osaka Y, Okuyama K, Tanaka E, Nakamura T, Kohda Y, Naito S, Miyabe M, Toyooka H. *Clin Pharmacol Ther*. 2005 Dec;78(6):647-55.

- [Influence of menstrual cycle on baroreflex control of heart rate: comparison with male volunteers.](#)

**Tanaka M**, Sato M, Umehara S, Nishikawa T. *Am J Physiol Regul Integr Comp Physiol*. 2003 Nov;285(5):R1091-7. Epub 2003 Jul 24.