General Summary

The functions of the Department of Anesthesiology are to provide quality patient care, to teach, and to perform research in perioperative medicine, intensive care medicine, and comprehensive pain management. In 2012 we made further advances and great achievements with the support of our faculty, institutional administration, and the Dean of The Jikei University. Below we highlight some of our research achievements in 2012.

Research Activities

Research continues as a growing and important component of the department’s activities. The department is committed to enhancing academic productivity and resources by dedicating time to research and granting clinical access to research cases. The investigators have been successful each year in obtaining peer-reviewed research grants, such as Grants-in-Aid for Scientific Research (kakenhi) and contract grants. The department continues to build on the strengths of several outstanding programs: cardiovascular anesthesia, thoracic anesthesia, pediatric anesthesia, regional anesthesia, neuroanesthesia, obstetric anesthesia, intensive care medicine, and comprehensive pain management. Faculty recruitment is targeted at individuals with demonstrated academic and research activities as well as excellent clinical management and teaching skills. In 2012, the department was able to invite Naohito Shimoyama, M.D., from Tokyo Medical College as a full professor. Dr. Shimoyama is a nationally recognized expert in palliative medicine. He is expected to develop comprehensive palliative care for cancer patients, a first for The Jikei University, in close collaboration with our existing outpatient pain clinic and acute pain service. Our faculty and residents were both well represented at the Japanese Society of Anesthesiologists’ annual meeting in Sapporo and at the American Society of Anesthesiologists’ annual meeting in Washington, D.C. In addition, members of the department continue to be invited as visiting professors or guest speakers at national and international meetings. Listed below are the ongoing research projects in which the principal investigators are faculty members of the Department of Anesthesiology.

Doctor Hidano’s research focus has been on searching for preoperative factors to predict intraoperative and postoperative deep vein thrombosis in surgical patients. This study will help us identify patients at high risk for postoperative pulmonary emboli, which can...
sometimes be fatal. Doctor Taniguchi has been interested in temperature regulation during surgery and its effects on postoperative outcomes, such as shivering. Doctor Uchino continues to be active in clinical research in the intensive care unit and has been extremely productive in the field of acute kidney injury. Our pain clinic physicians continue to play a pivotal role in establishing practice guidelines for patients with neuropathic pain. Their particular interest has been postmastectomy pain. Basic science investigations included studies of the effects of neuromuscular blocking agents on the central nervous system (Dr. Uezono), studies of the effects of sustained release of intrathecal morphine (Dr. Kondo), mechanisms of anesthetic postconditioning in renal mitochondria (Dr. Mio), in-vivo nanoimaging techniques in cardiac disease (Dr. Terui), and the mechanisms of the effects of valproic acid on the treatment of chronic pain (Dr. Hobo).

The appended bibliography of the department shows a wide range of investigative and scholarly activities over the past year.

**Publications**


**Reviews and Books**