Department of Emergency Medicine

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General Summary

- 1. Education system for junior residents in emergency medicine
- 2. Establishing a database of severe traumatic brain injury in Japan
- 3. The etiology of syncope
- 4. Research on laboratory assessment of myocardial infarction in the emergency room
- 5. Managing the course of Immediate Cardiac Life Support
- 6. Managing the course of Japan Advanced Trauma Evaluation and Care
- 7. Providing logistical support to the Japan Boxing Commission
- 8. Basic research on traumatic brain injury
- 9. Basic and clinical research on oxidative stress and emergency medicine
- 10. Advice to local authorities on plans for disaster medicine
- 11. Creation of the Disaster Medical Assistance Team deployment system
- 12. Management of the hospital emergency response drill, including Code Blue (Stat
- Call) and the Rapid Response System
- 13. Managing the Jikei Airway Management course for Patient safety (JAMP)

Research Activities

1. Supervision and development of ultrasound devices for the diagnosis and treatment of cerebrovascular disorders

- 2. Director of the Japan Neurotrauma Data Bank Committee
- 3. Prognostic value of heart fatty acid-binding protein for patients with chest symptoms in the emergency room
- 4. Research committee on higher cerebral function after traumatic brain injury

5. Research committee on impact biomechanics in automobile accidents (Society of Automotive Engineers of Japan, Inc.)

6. Publication of a revised edition of *Guidelines for the Treatment and Management of Severe Head Injury* (The Japan Society of Neurotraumatology)

- 7. Research group on cerebrospinal fluid in cases of traumatic intracranial hypotension
- 8. Management of the Japan Advanced Trauma Evaluation and Care Course
- 9. Basic research on traumatic brain injury and oxidative stress
- 10. Basic research on heat stroke and neuronal injury

11. Development of therapy against free radicals in patients with acute neuronal conditions

12. Development of educational system in emergency medicine, including usage of simulation training

Publications

Saito O, Wang Z, Mitsumura H, Ogawa T, Iguchi Y, Yokoyama M. Substantial fluctuation of acoustic intensity transmittance through a bonephantom plate and its equalization by modulation of ultrasound frequency. *Ultrasonics.* 2015; **59**: 94-101.

Yamada S, Oikawa S, Komatsu T, Hirai T, Dohi K, Ogawa T. Early initiation of steroid pulse therapy for neuromyelitis optica in an emergency room setting. Acute Medicine & Sugery. 2016; **3:** 171-

3. Epub 2015 Aug 27.

Reviews and Books

Mitsumura H, Iwami T, Mitani Y, Takeda S, Takatsuki S. Aiming for zero deaths: prevention of sudden cardiac death in schools-statement from the AED Committee of the Japanese Circulation Society. *Circ J.* 2015; **79:** 1398-401.