

## Research Center for Medical Sciences Division of Molecular Epidemiology

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### General Summary

Despite having the same disease diagnosis, some patients may be cured but some may not. This difference cannot be understood with experimental medicine. On the other hand, clinical practice might also not provide the answer. We combined molecular biology and epidemiology to create the Division of Molecular Epidemiology, to clarify the etiology of disease and to predict factors affecting survival.

### Research Activities

#### *The Jikei clinical research course*

We held 20 seminars about strategies for clinical studies for healthcare practitioners at The Jikei University. In 2015, small-group study courses targeting postgraduate students will be started from the principles of epidemiology and biostatistics by reading textbooks and by analyzing real clinical data with STATA software (StataCorp LP, College Station, TX, USA) and designing clinical studies. Our goal is for postgraduate students to develop the skills to construct hypotheses, design protocols, monitor trials, and analyze data.

#### *Original studies*

1. Randomized trial of vitamin D supplement
2. Elective class of global health
3. Randomized trial to prevent food allergy

### Publications

**Yuki I, Kambayashi Y, Ikemura A, Abe Y, Kan I, Mohamed A, Dahmani C, Suzuki T, Ishibashi T, Takao H, Urashima M, Murayama Y.** High-resolution C-Arm CT and metal artifact reduction software: a novel imaging modality for analyzing aneurysms treated with stent-assisted coil embolization. *AJNR Am J Neuroradiol.* 2016; **37**: 317-23.

**Mafune A, Iwamoto T, Tsutsumi Y, Nakashima A, Yamamoto I, Yokoyama K, Yokoo T, Urashima M.** Associations among serum trimethylamine-N-oxide (TMAO) levels, kidney function and infarcted coronary artery number in patients undergoing cardiovascular surgery: a cross-sectional study. *Clin Exp Nephrol.* 2016; **20**: 731-9. Epub 2015 Dec 16.

**Nakashima A, Ohkido I, Yokoyama K, Mafune A, Urashima M, Yokoo T.** Protonp pump inhibitor

use and magnesium concentrations in hemodialysis patients: a cross-sectional study. *PLoS One.* 2015; **10**: e0143656.

**Tokunaga T, Sakashita M, Haruna T, Asaka D, Takeno S, Ikeda H, Nakayama T, Seki N, Ito S, Murata J, Sakuma Y, Yoshida N, Terada T, Morikura I, Sakaida H, Kondo K, Teraguchi K, Okano M, Otori N, Yoshikawa M, Hirakawa K, Haruna S, Himi T, Ikeda K, Ishitoya J, Iino Y, Kawata R, Kawauchi H, Kobayashi M, Yamasoba T, Miwa T, Urashima M, Tamari M, Noguchi E, Ninomiya T, Imoto Y, Morikawa T, Tomita K, Takabayashi T, Fujieda S.** Novel scoring system and algorithm for classifying chronic rhinosinusitis: the JESREC Study. *Allergy.* 2015; **70**: 995-1003.

**Ebisawa M, Terada A, Sato K, Kurosaka F, Kondo N, Sugizaki C, Morikawa A, Nishima S,**

**Urashima M.** Intermittent and episode-driven use of pranlukast to reduce the frequency of wheezing in atopic children: a randomized, double-blind,

placebo-controlled trial. *World Allergy Organ J.* 2015; **8**: 11.