

# Special Seminar

共催：医学セミナー/医科学セミナーⅢ  
第74回免疫学セミナー

## Role of gut microbiota in health and disease

**Wed. February 13**

**17:00-18:30**

Health and Medicine Science Innovation Bldg.  
8th-floor Auditorium

健康医科学イノベーション棟8階 講堂

Guest Speaker

**Dr. Yun-Gi Kim**

Research Center for Drug Discovery,  
Faculty of Pharmacy, Keio University

**Abstract:** In human intestine, 100 trillion bacteria comprising more than 100 different species live together in dense, interdependent communities, which is known as gut microbiota. Gut microbiota performs numerous important functions such as nutrient acquisition, development and maintenance of gut immune system, and protection against exogenous pathogens. Innovation of analytical technologies including next generation sequencing and '-omics' (transcriptomic, proteomic and metabolomic) approaches allowed us to get much deeper insights into the functional role of gut microbiota. As a result, there has been growing evidence that imbalances in gut microbial communities, described as dysbiosis, are associated with pathogenesis of both intestinal and extra-intestinal disorders. In this seminar, I would like to introduce recent findings in the reciprocal crosstalk between host and gut microbiota in health and diseases.

**References:** Kim YG et al. *Science*. 2017; 356(6335): 315-319.  
Kim D et al. *Nat Med*. (2016). 22(5):524-30.  
Kim YG et al. *Cell Host Microbe*. 15(1):95-102 (2014)



This seminar is hosted by:

**Ph.D. Program in Human Biology**

School of Interactive and Global Majors (SIGMA)

Email: [sigma@un.tsukuba.ac.jp](mailto:sigma@un.tsukuba.ac.jp) ext.: 7081



University of Tsukuba