

## CURRICULUM VITAE

**NAME:** Shin-Ichiro Karaki  
**BIRTH:** April 21, 1974  
**AFFILIATION:** Laboratory of Physiology  
Graduate Division of Nutritional and Environmental Sciences, Graduate School of Integrated  
Pharmaceutical and Nutritional Sciences  
University of Shizuoka, Japan

### MAJOR RESEARCH INTERESTS:

Gastrointestinal physiology, neuroscience, endocrinology and immunology

**EDUCATION:** B. Sc. Faculty of Pharmaceutical Sciences  
University of Shizuoka (1998)  
M. Sc. Graduate School of Nutritional and Environmental Sciences  
University of Shizuoka (2000)  
Ph.D. Graduate School of Nutritional and Environmental Sciences  
University of Shizuoka (2003)

### RESEARCH AND PROFESSIONAL EXPERIENCE:

2003.4-2007.3 Research Associate, Laboratory of Physiology (Prof. Atsukazu Kuwahara), Department of Environmental Health Sciences, Graduate School of Nutritional and Environmental Sciences / Institute for Environmental Sciences, University of Shizuoka  
2007.4-2012.3 Assistant Professor, Laboratory of Physiology (Prof. Atsukazu Kuwahara), Department of Environmental Health Sciences, Graduate School of Nutritional and Environmental Sciences / Institute for Environmental Sciences, University of Shizuoka  
2012.4-present Assistant Professor, Laboratory of Physiology (Prof. Atsukazu Kuwahara), Department of Environmental Health Sciences, Graduate Program of Integrated Pharmaceutical and Nutritional Sciences / Institute for Environmental Sciences, University of Shizuoka

#### [Additional]

2004.10-2004.12 Visiting Researcher, Department of Anatomy and Cell Biology (Prof. John B. Furness), Faculty of Medicine, Dentistry and Health Sciences, University of Melbourne, Australia  
2008.11-2008.12 Visiting Researcher, Department of Biochemistry and Molecular Biology (Prof. Vadivel Ganapathy), Medical College of Georgia, USA

### SELECTED PUBLICATIONS (First and Corresponding Author):

1. **Iizuka Y, Kuwahara A, Karaki SI.\*** Role of PGE<sub>2</sub> in the colonic motility: PGE<sub>2</sub> generates and enhances spontaneous contractions of longitudinal smooth muscle in the rat colon. *J Physiol Sci* (2013 in press).
2. **Karaki SI, Kuwahara A.** Propionate-induced epithelial K<sup>+</sup> and Cl<sup>-</sup>/HCO<sub>3</sub><sup>-</sup> secretion and free fatty acid receptor 2 (FFA2, GPR43) expression in the guinea pig distal colon. *Pflugers Arch* **461**: 141-152, 2011.
3. **Karaki SI, Kuwahara A.** Role of short-chain fatty acids and their receptors in colonic motility. *Bioscience Microflora* **29**: 31-40, 2010.
4. **Karaki SI, Kuwahara A.** Free fatty acid receptors and their physiological roles in the colon. *Medycyna Wet* **66**: 147-155, 2010.
5. **Karaki SI, Tazoe H, Hayashi H, Kashiwabara H, Tooyama K, Suzuki Y, and Kuwahara A.** Expression of the short-chain fatty acid receptor, GPR43, in the human colon. *J Mol Histol* **39**: 135-142, 2008.
6. **Karaki SI, Kaji I, Otomo Y, Tazoe H, Kuwahara A.** The tight junction component protein, claudin-4, is expressed by enteric neurons in the rat distal colon. *Neurosci Lett* **428**: 88-92, 2007.
7. **Karaki S, Mitsui R, Hayashi H, Kato I, Sugiya H, Iwanaga T, Furness JB, Kuwahara A.** The short chain fatty acid receptor, GPR43, is expressed by enteroendocrine cells and mucosal mast cells in the rat intestine. *Cell Tissue Res* **324**: 353-360, 2006.
8. **Karaki S, Kuwahara A.** Regulation of intestinal secretion involved in the interaction between neurotransmitters and prostaglandin E<sub>2</sub>. *Neurogastroenterol Motil* **16** suppl 1: 96-99, 2004.
9. **Hosoda Y,\* Karaki S,\* Shimoda Y, Kuwahara A.** Substance P-evoked Cl<sup>-</sup> secretion in guinea pig distal colonic epithelia: interaction with PGE<sub>2</sub>. *Am J Physiol* **283**: G347-G356, 2002. \* Contributed equally
10. **Karaki S, Hosoda Y, Kadowaki M, Kuwahara A.** Effects of adenosine or 5-HT-evoked ion transport in guinea pig

distal colon. In: *FALK SYMPOSIUM 112 Neurogastroenterology From the Basics to the Clinics*. Krammer HJ, and Singer MV (eds), Kluwer Academic Publishers, 251-254, 2000.