

YoungJae Jo

School of Applied Life Science
Kyungpook National University
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Education

Mar. 2018 ~ Feb. 2020	Kyungpook National University School of Applied Life Science	Daegu, Korea
	Thesis: <i>Optimal multiplex qPCR assay with novel TaqMan primer-probe set for profiling human gut microbiota</i> Advisor: Jae Ho Shin M.S. in Applied Life Science (GPA: 4.21/4.3)	
Mar. 2012 ~ Feb. 2018	Kyungpook National University School of Applied Life Science	Daegu, Korea
	Thesis: <i>Isolation Lactic acid Bacteria (LAB) from various Korean traditional fermentation foods</i> B.S. in Applied Life Science (GPA: 3.19/4.3)	

Research Interests

- Microbiome
- Metagenomics
- Diet-gut microbiota associations
- Microbial Tracking
- Gut-Brain axis

Publications (SCIE/ESCI)

1. **YoungJae Jo**, Setu Bazie Tagele, Huy Quang Pham, Yeon Gyun Jung, Jerald Conrad Ibal, Seung Dae Choi, Gi-Ung Kang, Sowon Park, Yunkoo Kang, Seung Kim, Hong Koh, Jae-Ho Shin, "In Situ Profiling of the Three Dominant Phyla Within the Human Gut Using TaqMan PCR for Pre-Hospital Diagnosis of Gut Dysbiosis.", *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*, (2020)
2. Chang Eon Park, Yeong-Jun Park, Min-Chul Kim, Min-Kyu Park, Yeon Gyun Jung, Seung-Dae Choi, **YoungJae Jo**, Gi-Ung Kang, Min-Ji Kim, Qing X. Li, Brandon A. Yoza, Kgu-Hwan Kim, Hee Cheon Park, Jae-Ho Shin, "The first complete mitochondrial genome sequence of the korean endemic catfish *Silurus microdorsalis* (Actinopteri, Siluriformes, Siluridae)", *MITOCHONDRIAL DNA PART B-RESOURCES*, (2020)
3. Ye-Ji Hwang, Jin-Soo Son, Soo-Yeong Lee, Yuxi He, **YoungJae Jo**, Jae-Ho Shin, Sa-Youl Ghim, "*Nocardioides sambongensis* sp. nov., isolated from Dokdo Islands soil.", *INTERNATIONAL JOURNAL OF SYSTEMATIC AND EVOLUTIONARY MICROBIOLOGY*, (2020)

Preprint

1. YeonGyun Jung, Dorsaf Kerfahi, Huy Quang Pham, HyunWoo Son, Jerald Conrad Ibal, Min-Kyu Park, Yeong-Jun Park, Chang Eon Park, Seung-Dae Choi, **YoungJae Jo**, Min-Chul Kim, Min Ji Kim, Gi Ung Kang, Hyung Woo Jo, Hyunju Yun, Bora Lee, Clara Yongjoo Park, Eun Soo Kim, Sang-Jun Kim, Jae-Ho Shin, "Although host-related factors are important for the formation of gut microbiota, environmental factors cannot be ignored.", *BioRxiv*

Patents

1. **YoungJae Jo**, Yeongyun Jung, Seung-Dae Choi, and Jae-Ho Shin. "Designing of TaqMan-qPCR primer and probe set for rapid diagnosis of human microbial community of intestinal microorganisms" (Korea patent application no. : 10-2019-0024956)
2. Seung-Dae Choi, **YoungJae Jo**, Minji Kim, Yeongyun Jung and Jae-Ho Shin. "Methods of artificial proliferation of intestinal microbial communities derived from human gut and use of gut microorganisms grown therefrom" (Korea patent application no. : 10- 2019-0024956)
3. Seung-Dae Choi, Yeongyun Jung, **YoungJae Jo**, Minji Kim and Jae-Ho Shin. "Method for mimicking culture of animal-derived intestinal microbial communities and use of intestinal microorganisms grown the reform" (Korea patent application no. : 10-2019-0024957)
4. Minji Kim, **YoungJae Jo**, Yeon-Gyun Jung, GiUng Kang and Jae-Ho Shin. "A novel *Labrys neptuniae* KNU-23 and its associated gene sequence, which can be used as plant growth promoting bacterium and an antiseptic for root rot disease of ginseng. Isolation of Plant growth-promoting activation" (Korea patent application no. : 10-2019-0078622)

Conference

1. Poster presentation in July 2019 CSHL (Cold Spring Harbor Laboratory) microbiome meeting - presentation title : Set up the optimal TaqMan qPCR method for the screening of human gut microbiota

Research Experience

1. Research Internship at Molecular Genetics and Soybean Genomics Laboratory, Division of Plant Sciences, University of Missouri, USA (Jun. 2015 ~ Dec. 2015)

Awards and Honors

1. Research Assistant scholarship (RAS) (Jan. 2019. ~ Dec. 2019) : This scholarship supports for graduate students who are paid as research assistants on sponsored projects
2. Teaching Assistant scholarship (TAS) (Mar. 2019. ~ Jun. 2019) : This scholarship supports for graduate students who are paid as teach assistants on class (Microbiology, Bioinformatics)
3. Honors scholarship (Spring semester, 2019) : This scholarship is awarded to students with outstanding academic achievement
4. Honors scholarship for Freshmen (Spring semester, 2018) : This scholarship is awarded to a freshman with outstanding academic achievement

Projects

1. Microbial reference genome sequencing and comparative genomic analysis for agriculture and human health
2. Effects of genetic and dietary factors on the composition of human intestinal microbial community
3. Development of precision therapeutic fecal microbiota transplantation (FMT) for ulcerative colitis

Skills and Techniques

- Specific primer design, Multiplex qPCR
- Genome assembly
- NGS machine running (Ion Torrent, Miseq)
- Microbiome analysis (QIIME II, Calypso)
- R programming
- Anaerobic culture