

Dongeun Yong, M.D., Ph.D.

Professor, Yonsei University College of Medicine;

Director of Department of Laboratory Medicine,
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Editorial Committee, Annals of Clinical Microbiology,
The Korean Society of Clinical Microbiology;

Chief Executive and Technology Officer of Microbiotix, Inc.;

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Education and Appointment

Period	Affiliation
1986.3 - 1992.2	Yonsei University College of Medicine (YUMC)
1992.2 - 1995.4	Military Service, Korean Army
1995.5 - 2000.2	Training in Dept. of Lab. Medicine, YUMC
2000.2	Specialist Board in Laboratory Medicine, Korean Ministry of Health and Welfare
1999.3 - 2001.8	Korea University Medicine College (Ph.D.)
2003.9 - 2007.2	Assistant Professor Dept. of Laboratory Medicine, YUMC
2006.9 - 2008.8	Postdoc. Research Fellow, Cardiff University, UK
2007.3 - 2013.3	Associate Professor Dept. of Laboratory Medicine, YUMC
2019.3 - present	Researcher, President Research Institute of Bacterial Resistance
2011.11-2012.2	Mini MBA, Yonsei University
2013.3 - present	Professor Dept. of Laboratory Medicine, YUMC

Specialty and Research Field of Interest

Dr. Dongeun Yong is Professor of Laboratory Medicine at Yonsei University College of Medicine, Seoul, Korea since March of 2013. He has previously worked in the same department as a specialist in and professor of Laboratory Medicine. He completed his Ph.D. in Biochemistry at Korea Univ. Med. Coll. Seoul, Korea (Sep of 2002). After then, he spent two years at the Cardiff University (Wales, UK) as a research fellow to research the carbapenem resistance mechanisms of gram-negative bacteria (Sep of 2006 - Aug of 2008) and characterized the novel metallo-beta-lactamase, NDM-1 & AIM-1.

He has actively worked in the field of 'In vitro evaluation of new antimicrobial agents', 'Characterizing novel beta-lactam resistance', 'Epidemiology of antibiotic resistant bacteria', 'Structure and activities of metallo-beta-lactamases', and 'control the antimicrobial resistance by using bacteriophage'

He believes that the clinical microbiologist should not only be involved in the clinics-supporting role for diagnosing infections but also serve as an important contributor to all components for the drug/ device development process. Therefore, his interests have also been on the discovery of novel alternative drugs or targets using deep sequencing and bioinformatics. His achievements in the science field have been published in the international and domestic Scientific Journals.

Main research topics:

- a) In vitro evaluation for new antimicrobial agents
- b) Characterizing novel beta-lactam resistance
- b) Epidemiology of antimicrobial-resistant bacterial infections
- d) Determining the structure and activities of metallo-beta-lactamases
- e) Discover and develop the novel antimicrobial target and alternative antibacterial agents, including bacteriophage

Publication as PI (2018-2022)

SN	Title	Journal	Year
1	Substantial Improvement in Nontuberculous Mycobacterial Identification Using ASTA MicroIDSys Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry with an Upgraded Database	ANNALS OF LABORATORY MEDICINE	2022
2	Rapid Bacterial Detection in Urine Using Laser Scattering and Deep Learning Analysis	MICROBIOLOGY SPECTRUM	2022
3	Rapid antimicrobial susceptibility testing based on EUCAST guideline for E. coli, K. pneumoniae, and S. aureus	INTERNATIONAL JOURNAL OF ANTIMICROBIAL AGENTS	2021
4	Rapid and accurate clinical testing for COVID-19 by nicking and extension chain reaction system-based amplification (NESBA)	Biosens Bioelectron	2021
5	Evaluation of Five Automated Urine Analyzers as Screening Instruments for Enhancing Diagnostic Efficiency in Urinary Tract Infection	Annals of Clinical Microbiology	2021
6	Laboratory Aspects of Donor Screening for Fecal Microbiota Transplantation at a Korean Fecal Microbiota Bank	ANNALS OF LABORATORY MEDICINE	2021
7	Role of AmpG in the resistance to β -lactam agents, including cephalosporins and carbapenems: candidate for a novel antimicrobial target	Ann Clin Microbiol Antimicrob	2021
8	In vitro activity of a novel siderophore-cephalosporin LCB10-0200 (GT-1), and LCB10-0200/avibactam, against carbapenem-resistant Escherichia coli, Klebsiella pneumoniae, Acinetobacter baumannii, and pseudomonas aeruginosa strains at a tertiary hospital in Korea	Pharmaceuticals (Basel)	2021
9	Proof of the triple prerequisite conditions which are essential for carbapenem resistance development in Klebsiella pneumoniae by using radiation-mediated mutagenesis	FEMS Microbiol Lett	2021
10	Development of Colonic Organoids Containing Enteric Nerves or Blood Vessels from Human Embryonic Stem Cells	Cells	2020
11	임상 뇨 검체에서 변법 EUCAST 신속 직접 항균제 감수성 시험법의 평가	Annals of Clinical Microbiology	2020
12	Determination of Colistin Resistance by Simple Disk Diffusion Test Using Modified Mueller-Hinton Agar	ANNALS OF LABORATORY MEDICINE	2020
13	The First Case of Ochrobactrum pseudogrignonense Bacteremia in Korea	ANNALS OF LABORATORY MEDICINE	2020
14	한국인 환자에서 장관 감염성 원충의 검출을 위한 BD MAX Enteric Parasite Panel 과 Seegene Allplex Gastrointestinal Parasite Assay 의 비교 평가	Annals of Clinical Microbiology	2020
15	국제 논문 색인 등재를 위한 새출발	Annals of Clinical Microbiology	2020
16	Evaluation of Xpert Carba-R Assay v.2 to Detect Carbapenemase Genes in Two Hospitals in Korea	Annals of Clinical Microbiology	2020
17	In vitro activity of a novel siderophore- cephalosporin, GT-1 and serine-type β -lactamase inhibitor, GT-055, against escherichia coli, klebsiella pneumoniae and acinetobacter spp. Panel strains	Antibioitcs (Basel)	2020
18	Resistome Profiles, Plasmid Typing, and Whole-Genome Phylogenetic Tree Analyses of Bla(NDM-9) and Mcr-1 Co-Harboring Escherichia coli ST617 from a Patient without a History of Farm Exposure in Korea	PATHOGENS	2019
19	Application of the Whole Genome-Based Bacterial Identification System, TrueBac ID, Using Clinical Isolates That Were Not Identified With Three Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry (MALDI-TOF MS) Systems	ANNALS OF LABORATORY MEDICINE	2019

20	Serotype Distribution and Antimicrobial Resistance of Invasive and Noninvasive <i>Streptococcus pneumoniae</i> Isolates in Korea between 2014 and 2016	ANNALS OF LABORATORY MEDICINE	2019
21	Network Integrative Genomic and Transcriptomic Analysis of Carbapenem-Resistant <i>Klebsiella pneumoniae</i> Strains Identifies Genes for Antibiotic Resistance and Virulence	MSYSTEMS	2019
22	Two Novel Bacteriophages Improve Survival in <i>Galleria mellonella</i> Infection and Mouse Acute Pneumonia Models Infected with Extensively Drug-Resistant <i>Pseudomonas aeruginosa</i>	APPLIED AND ENVIRONMENTAL MICROBIOLOGY	2019
23	Efficacy of bacteriophage treatment against carbapenem-resistant <i>Acinetobacter baumannii</i> in <i>Galleria mellonella</i> larvae and a mouse model of acute pneumonia	BMC MICROBIOLOGY	2019
24	Phenotypic and Genotypic Characterization of <i>Acinetobacter</i> spp. Panel Strains: A Cornerstone to Facilitate Antimicrobial Development	FRONTIERS IN MICROBIOLOGY	2019
25	Same-Day Identification and Antimicrobial Susceptibility Testing of Bacteria in Positive Blood Culture Broths Using Short-Term Incubation on Solid Medium with the MicroFlex LT, Vitek-MS, and Vitek2 Systems	ANNALS OF LABORATORY MEDICINE	2018
26	Utility of Conventional Culture and MALDI-TOF MS for Identification of Microbial Communities in Bronchoalveolar Lavage Fluid in Comparison with the GS Junior Next Generation Sequencing System	ANNALS OF LABORATORY MEDICINE	2018
