

## Je-Hyun Baek, Ph.D.

Position : Director

Department : R&D Center for Clinical Mass Spectrometry

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### Education

yyyy.mm-yyyy.mm	degree	affiliation
2001.09-2007.08	Ph.D.	Korea University (Life Science & Biotechnology)
1998.03-2000.02	Master	Ajou University (Biochemistry)
1991.03-1998.02	Bachelor	Ajou University (Chemistry)

### Professional Experience

yyyy.mm-yyyy.mm	position	affiliation
2018.06-present	Director	Seegene Medical Foundation, R&D Center for Clinical Mass Spectrometry
2018.03-2018.04	Research Professor	Kyung Hee University
2013.04-2018.01	Director/Head	Diatech Korea, R&D Division
2012.03-2013.03	Research Professor	Seoul National University, Molecular Medicine and Biopharmaceutical Sciences (WCU) & Medical Research Center
2010.02-2012.01	Postdoc	Department of Neurobiology, Physiology and Behavior, UC Davis (USA)
2007.09-2010.01	Senior. Res. Scientist	KIST, Functional Proteomic Center
2001.09-2007.08	Research Scientist	KIST, Functional Proteomic Center
2004.06-2004.09	Visiting Scholar	Institute for Systems Biology at Seattle (USA),
2000.11-2001.08	Research Associate	KIST, Protein Strain Research Center

### Academic Society

yyyy.mm-yyyy.mm	position	society
2020.10 -present	Committee Member	Korea Human Proteome Organization (KHUPO)
2014.09 -present	Committee Member	Korea Association of Research for Pharmaceutical Analysis (Korea Drug Research Association)
2014.01-present	Chair	Mass Spectrometry Generation (MSG)

### Publications (Recent 5 years)

- (1) Nutrient-specific proteomic analysis of the mucin degrading bacterium *Akkermansia muciniphila*. Ji-Young Lee, Hyeon-Su Jin, Kyoung Su Kim, Je-Hyun Baek, Bong-Soo Kim, Dong-Woo Lee *Proteomics*. (2022) Feb;22(3): e2100125.
- (2) Optimization of a lysis method to isolate periplasmic proteins from Gram-negative bacteria for clinical mass spectrometry. Dong Huey Cheon, Saeyoung Lee, Won Suk Yang, Seohyun

- Hwang, Heejung Jang, Min Jin Kim, Je-Hyun Baek, *Proteomics Clin Appl.* (2021) Nov;15(6): e2100044.
- (3) Record of North American boreal forest fires in northwest Greenland snow. Jung-Ho Kang, Heejin Hwang, Sang-Jin Lee, Sung-Deuk Choi, Jin-Soo Kim, Sangbum Hong, Soon Do Hur, Je-Hyun Baek, *Chemosphere.* (2021) Mar 6;276:130187. (1)
  - (4) Measuring fucosylated alpha-fetoprotein in hepatocellular carcinoma: A comparison of  $\mu$ TAS and parallel reaction monitoring. Kwang Hoe Kim, Sang Yoon Lee, Je-Hyun Baek, Soo-Youn Lee, Jin Young Kim, & Jong Shin Yoo, *Proteomics Clin Appl.* (2021) Mar 25:e2000096.
  - (5) SWATH-MS analysis of cerebrospinal fluid to generate a robust battery of biomarkers for Alzheimer's disease., Sun Ah Park, Jin Myung Jung, Jun Sung Park, Jeong Ho Lee, Bumhee Park, Hyung Jun Kim, Jeong-Ho Park, Won Seok Chae, Jee Hyang Jeong, Seong Hye Choi, and Je-Hyun Baek, *Scientific Report.* (2020) May 4;10(1):7423.
  - (6) Direct detection of intact *Klebsiella pneumoniae* carbapenemases produced by Enterobacterales using MALDI-TOF MS., Eun-Jeong Yoon<sup>1</sup>, Eun Hee Lee, Dong Hwi Hwang, Hyukmin Lee, Je-Hyun Baek\* and Seok Hoon Jeong\*., *J Antimicrob Chemother.* (2020) May 1;75(5):1174-1181.
  - (7) Subunits of the vacuolar H<sup>+</sup>-ATPase complex, Vma4 and Vma10, are essential for virulence and represent potential drug targets in *Candida albicans*. Kim SW, Park YK, Joo YJ, Chun YJ, Hwang JY, Je-Hyun Baek, Kim *J. Fungal Biol.* (2019) Oct;123(10):709-722.
  - (8) Quantitative proteomic analysis of aqueous humor from patients with drusen and reticular pseudodrusen in age-related macular degeneration, Je-Hyun Baek, Daehan Lim, Kyu Hyung Park, Jae-Byoung Chae, Hyeon Jang, Jonghyun Lee, Hyewon Chung, *BMC Ophthalmology* (2018) 18:289
  - (9) Identification of Matrix Metalloproteinase-1-Suppressive Peptides in Feather Keratin Hydrolysate. Hyeon-Su Jin, Kyeongseop Song, Je-Hyun Baek, Jae-Eun Lee, Da Jeong Kim, Gae-Won Nam, Nam Joo Kang, and Dong-Woo Lee. *J Agric Food Chem.* (2018) 66 (48), p12719-12729
  - (10) Ssb2 is a novel factor in regulating synthesis and degradation of Gcn4 in *Saccharomyces cerevisiae*., Youjin Jung, Ki Moon Seong, Je-Hyun Baek and Joon Kim\*, *Mol Microbiol.* (2018) Dec;110(5):728-740
  - (11) S-1-Induced Lacrimal Drainage Obstruction and its Association with Ingredients/Metabolites of S-1 in Tears and Plasma, Namju Kim, Jin Won Kim, Je-Hyun Baek, Jin-Soo Kim, Ho-Kyung Choung, Tae-Yong Kim, Kyung-Hun Lee, Yung-Jue Bang, Sang In Khwarg, Sang-Hoon Ahn, Do Joong Park, Hyung-Ho Kim, Jae-Yong Chung, Soyeon Ahn, Keun-Wook Lee. *Cancer Res Treat.* (2018) Jan;50(1):30-39.