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Position : Professor

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Education

1994.03-1997.08	Ph. D.	College of Pharmacy, Seoul National University, Seoul, Korea
1992.03-1994.02	M. S.	College of Pharmacy, Seoul National University, Seoul
1987.03-1991.08	B. S.	College of Pharmacy, ChungNam National University, Daejeon

Professional Experience

2005.02-present	Professor	Dept. of Molecular Medicine School of Medicine, Kyungpook National University
2012.1-2013.1	Visiting Professor	Dept. of Chemical Physiology The Scripps Research Institute, La Jolla, USA
2002.7- 2005.2	Research Assistant Professor	Division of Molecular and Life Sciences POSTECH, Pohang, Korea
1998.7-2002.6	Post doctoral research fellow	Dept. of Biological Chemistry & Molecular Pharmacology Harvard Medical School, Boston, USA
1997.9-1998.6	Post doctoral research fellow	College of Pharmacy Seoul National University, Seoul, Korea

Academic Society

2016.03-present	Member	Korean Society of Molecular and Cellular Biology (KSMCB)
2012.01-present	Member	American Association for Cancer Research(AACR)
2008.01-present	Science Secretary	The Korean Society of Applied Pharmacology
2006.01-present	Member	The Korean Human Proteome Organization(KHUPO)
2006.01-present	Member	The Pharmaceutical Society of Korea (PSK)

Publications (Since 2011)

1. Kim YY, Je IG, Kim MJ, Kang BC, Choi YA, Baek MC, Lee B, Choi JK, Park HR, Shin TY, Lee S, Yoon SB, Lee SR, Khang D, Kim SH. 2-Hydroxy-3-methoxybenzoic acid attenuates mast cell-mediated allergic reaction in mice via modulation of the FcεRI signaling pathway. *Acta pharmacologica Sinica*. 2016 Nov 28 [Epub ahead of print]
2. PG Moon, JE Lee, YE Cho, SJ Lee, YS Chae, JH Jung, IS Kim, HY Park, MC Baek. Fibronectin on circulating extracellular vesicles as a liquid biopsy to detect breast cancer. *Oncotarget*. 2016 Jun 28. 7(26): 40189-40199
3. Lee JK, Lee S, Baek MC, Lee BH, Lee HS, Kwon TK, Park PH, Shin TY, Khang D, Kim SH. Association between perfluorooctanoic acid exposure and degranulation of mast cells in allergic inflammation. *Journal of applied toxicology : JAT*. 2016 sep 29 [Epub ahead of print]
4. KS Oh, MC Baek, WK Kang. Quantitative determination of sulfisoxazole and its three N-acetylated metabolites using HPLC-MS/MS, and the saturable pharmacokinetics of sulfisoxazole in mice. *Journal of Pharmaceutical and Biomedical Analysis*. 2016 Sep 10. 129(1):332-338
5. Min G, Ku SK, Jeong S, Baek MC, Bae JS. Suppressive effects of methylthiouracil on polyphosphate-mediated vascular inflammatory responses. *Journal of cellular and molecular medicine*. 2016 jun 13. 20(12):2333-2340
6. Jin M, Choi JK, Choi YA, Kim YY, Baek MC, Lee BH, Jang YH, Lee WJ, Lee SJ, Kim do W, Lee HS, Park EK, Lee S, Park ZY, Kim SH. 1,2,4,5-Tetramethoxybenzene Suppresses House Dust Mite-Induced Allergic Inflammation in BALB/c Mice. *Int Arch Allergy Immunol*. 2016 jul. 170(1):35-45
7. H Shrestha, T Yuan, Y He, PG Moon, N Shrestha, T Ryu, SY Park, YC Cho, CH Lee, MC Baek, S Cho, S Simkhada, H Kim, K Kim. Investigation of the molecular mechanism of δ-catenin ubiquitination: Implication of β-TrCP-1 as a potential E3 ligase. *Biochimica et Biophysica Acta (BBA)*. 2016 Sep. 1863(9):2311-2321
8. Moon PG, Lee JE, Cho YE, Lee SJ, Jung JH, Chae YS, Bae HI, Kim YB, Kim IS, Park HY, Baek MC. Identification of Developmental Endothelial Locus-1 on Circulating Extracellular Vesicles as a Novel Biomarker for Early Breast Cancer Detection. *Clinical cancer research*.

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9. Jung B, Kang H, Lee W, Noh HJ, Kim YS, Han MS, Baek MC, Kim J, Bae JS. Anti-septic effects of dabrafenib on HMGB1-mediated inflammatory responses. *BMB Reports*. 2016 Apr. 49(4):214-219
10. Park JH, Lee JE, Moon PG, Baek MC. PUGNAc induces protein ubiquitination in C2C12 myotube cells. *Cell Biochem Funct*. 2015 Dec;33(8):525-33.
11. Lee JE, Moon PG, Cho YE, Kim YB, Kim IS, Park H, Baek MC. Identification of EDIL3 on extracellular vesicles involved in breast cancer cell invasion. *Journal of Proteomics*. 2016 Jan 10. 131:17-28
12. Ku SK, Baek MC*, Bae JS*. Anti-inflammatory effects of methylthiouracil in vitro and in vivo. *Toxicol Appl Pharmacol*. 2015 Nov 1;288(3):374-86.
13. Kwak S, Ku SK, Kang H, Baek MC*, Bae JS*. Methylthiouracil, a new treatment option for sepsis. *Vascul Pharmacol*. 2015 Aug 1. pii: S1537-1891(15)00173-1.
14. Baek MC, Jung B, Kang H, Lee HS, Bae JS. Novel insight into drug repositioning: Methylthiouracil as a case in point. *Pharmacol Res*. 2015 Sep;99:185-93
15. Lee JE, Moon PG, Lee IK, Baek MC. Proteomic Analysis of Extracellular Vesicles Released by Adipocytes of Otsuka Long-Evans Tokushima Fatty (OLETF) Rats. *Protein J*. 2015 Jun;34(3):220-35
16. Lee EJ, Moon PG, Baek MC, Kim HS. Comparison of the Effects of Matrix Metalloproteinase Inhibitors on TNF- α Release from Activated Microglia and TNF- α Converting Enzyme Activity. *Biomol Ther (Seoul)*. 2014 Sep;22(5):414-9.
17. Kim JH, Kim JH, Cho YE, Baek MC, Jung JY, Lee MG, Jang IS, Lee HW, Suk K. Chronic sleep deprivation-induced proteome changes in astrocytes of the rat hypothalamus. *J Proteome Res*. 2014 Sep 5;13(9):4047-61
18. Lee EJ, Han JE, Woo MS, Shin JA, Park EM, Kang JL, Moon PG, Baek MC, Son WS, Ko YT, Choi JW, Kim HS. Matrix metalloproteinase-8 plays a pivotal role in neuroinflammation by modulating TNF- α activation. *J Immunol*. 2014 Sep 1;193(5):2384-93
19. Zhang R, Kang KA, Piao MJ, Kim KC, Zheng J, Yao CW, Cha JW, Maeng YH, Chang WY, Moon PG, Baek MC, Hyun JW. Epigenetic alterations are involved in the overexpression of glutathione S-transferase π -1 in human colorectal cancers. *Int J Oncol*. 2014 Sep;45(3):1275-83.
20. Cho YE, Moon PG, Baek MC. An integrated proteomic and transcriptomic approach to understanding azathioprine- induced hepatotoxicity in rat primary hepatocytes. *Electrophoresis*. 2014 Mar;35(6):911-22.
21. Kim BH, Moon PG, Lee JE, Lee S, Kim SK, Lee JK, Kim SH, Baek MC. Identification of potential serum biomarkers in mercury-treated mouse using a glycoproteomic approach. *Int. J. Toxicol*. 2013; 32(5):368-375
22. Lee JE, Park JH, Moon PG, Baek MC. Identification of differentially expressed proteins by treatment with PUGNAc in 3T3-L1 adipocytes through analysis of ATP-binding proteome.

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23. Jeong YT, Kim YD, Jung YM, Park DC, Lee DS, Ku SK, LI X, Lu Y, Chao GH, Kim KJ, Lee JY, Baek MC, Kang W, Hwan SL, Chang HW. Chang HW. Low molecular weight fucoidan (LMWF) improves ER stress-reduced insulin sensitivity through AMPK activation in L6 myotubes and restores lipid homeostasis in a mouse model of type 2 diabetes. *Mol. Pharmacol.* 2013; 84(1):147-157
24. Moon PG, Kwack MH, Lee JE, Cho YE, Park JH, Hwang D, Kim MK, Kim JC, Sung YK, Baek MC. Proteomic analysis of balding and non-balding mesenchyme-derived dermal papilla cells from androgenetic alopecia patients using on-line two-dimensional reversed phase-reversed phase LC-MS/MS. *J. Proteomics* 2013; 85:174-191
25. Zhang Y, Fonslow BR, Shan B, Baek MC, Yates JR. Protein Analysis by Shotgun/Bottom-up Proteomics. *Chem. Rev.* 2013; 113(4):2343-94
26. Cho YE, Moon PG, Lee JE, Singh T, Kang W, Lee HC, Lee MH, Kim SH, Baek MC. Integrative analysis of proteomic and transcriptomic data for identification of pathways related to simvastatin-induced hepatotoxicity. *Proteomics*, 2013; 13(8):1257-75
27. Seo M, Kim JH, Cho YE, Baek MC, Suk K. Hypothermic regulation of astrocyte proteome profile in experimental stroke. *Electrophoresis.* 2012 Dec;33(24):3835-48
28. Song MN, Moon PG, Lee JE, Na M, Kang W, Chae YS, Park JY, Park H, Baek MC. Proteomic analysis of breast cancer tissues to identify biomarker candidates by gel-assisted digestion and label-free quantification methods using LC-MS/MS. *Arch Pharm Res.* 2012 Oct;35(10):1839-47
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30. He X, Bonaparte N, Kim S, Acharya B, Lee JY, Chi L, Lee HJ, Paik YK, Moon PG, Baek MC, Lee EK, Kim JH, Kim IS, Lee BH. Enhanced delivery of T cells to tumor after chemotherapy using membrane-anchored, apoptosis-targeted peptide. *J Control Release.* 2012 Sep 28;162(3):521-8
31. Kim JH, Cho YE, Seo M, Baek MC, Suk K. Glial proteome changes in response to moderate hypothermia. *Proteomics.* 2012 Aug;12(15-16):2571-839.
32. Noh K, Kim E, Jeong T, Na M, Baek MC, Liu KH, Park PH, Shin BS, Kang W. Simultaneous determination of glimepiride and its metabolites in human plasma by liquid chromatography coupled to a tandem mass spectrometry. *Arch Pharm Res.* 2011 Dec;34(12):2073-8
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35. Moon PG, Lee JE, You S, Kim YL, Baek MC. Proteomic analysis of urinary exosomes from patients of IgA Nephropathy and Thin Basement Membrane Nephropathy. *Proteomics* 2011; 11(12):2459-75
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