



## Lee, Seul Ah

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### RESEARCH AREAS

Natural Product Chemistry  
Purification and isolation of bioactive compounds from natural products  
Structural elucidation of compounds isolated from plants, mushrooms, and microorganisms  
Secondary metabolites from poisonous mushrooms  
World's Universities with Real Impact (WURI)

### EDUCATION

- (2015-2020) Ph.D. Natural Product Chemistry, School of Pharmacy, Sungkyunkwan University, Korea
- (2007-2011) B.Sc, Biology, York University, Canada

### EXPERIENCE

- (2020-2022) Post-doc., Korea Polar Research Institute (KOPRI), Korea
- (2014-2015) Researcher, School of Pharmacy, Sungkyunkwan University, Korea

### PUBLISHED JOURNALS

- Lee, S.; Jeong, S. Y.; Nguyen, D. L.; So, J. E.; Kim, K. H.; Kim, J. H.; Han, S. J.; S. -S. Suh.; Lee, J. H.; Youn, U. J. Stereocalpin B, a New Cyclic Depsipeptide from the Antarctic Lichen *Ramalina terebrata*. *Metabolites* **2022**, 12, 141.
- Lee, S.; Alishir, A.; Kim, T. W.; Kang, D. -M.; Ryoo, R.; Pang, C.; M. -J. Ahn; Kim, K. H. First Chemical Investigation of Korean Wild Mushroom, *Amanita hemibapha* subsp. *javanica* and the Identification of Anti-*Helicobacter pylori* Compounds. *Pharmaceuticals* **2022**, 15, 152.
- Lee, S.\*; Kim, T. W.\*; Lee, Y. H.; Kang, D. -M.; Ryoo, R.; Ko, Y. -J.; Ahn, M. -J.; Kim, K. H. Two New Fatty Acid Derivatives, Omphalotols A and B and Anti-*Helicobacter pylori* Fatty Acid Derivatives from Poisonous Mushroom *Omphalotus japonicus*. *Pharmaceuticals* **2022**, 15, 139.

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- Kim, D.; Park, H. J.; Kim, M.; Lee, S.; Hong, S. G.; Kim, E.; Lee, H. Temperature sensitivity of Antarctic soil-humic substance degradation by cold-adapted bacteria. *Environmental Microbiology* **2022**, *24*, 265-275.
- Lee, S.\*; Yu, J. S.\*; Lee, S. R.\*; Kim, K. H. Non-peptide secondary metabolites from poisonous mushrooms: overview of chemistry, bioactivity, and biosynthesis. *Nat. Prod. Rep.* **2021**, advance article.
- Ha, S. K.\*; Kang, M. C.\*; Lee, S.\*; Darlami, O.; Shin, D.; Choi, I.; Kim, K. H.; Kim, S. Y. Generation of stilbene glycoside with promising cell rejuvenation activity through biotransformation by the entomopathogenic fungus *Beauveria bassiana*. *Biomedicines* **2021**, *9*, 5, 555.
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- Park, Y. J.\*; Jeon, M. S.\*; Lee, S.\*; Kim, J. K.; Jang, T. S.; Chung, K. H.; Kim, K. H. Anti-fibrotic effects of brevilin A in hepatic fibrosis via inhibiting the STAT3 signaling pathway. *Bioorg. Med. Chem. Lett.* **2021**, *41*, 127989.
- Byun, M. Y.; Kim, D.; Youn, U. J.; Lee, S.; Lee, H. Improvement of moss photosynthesis by humic acids from Antarctic tundra soil. *Plant Physiol. Biochem.* **2021**, *159*, 37-42.
- Lee, S.; Lee, D.; Ryoo, R.; Kim, J. -C.; Park, H. B.; Kang, K. S.; Kim, K. H. Calvatianone, a sterol possessing a 6/5/6/5-fused ring system with a contracted tetrahydrofuran B-ring, from the fruiting bodies of *Calvatia nipponica*. *J. Nat. Prod.* **2020**, *83*, 9, 2737-2742.
- Lee, S.; Kim, M. -J.; Lee, B. S.; Ryoo, R.; Kim, H. K.; Kim, K. H. Cumulative effects of constituents from the mushroom *Calvatia nipponica* on the contractility of penile corpus cavernosum smooth muscle. *Mycobiology* **2020**, *48*, 153-156.
- Lee, S.; Ryoo, R.; Choi, J. H.; Kim, J. -H.; Kim, S. -H.; Kim, K. H. Trichothecene and tremulane sesquiterpenes from a hallucinogenic mushroom *Gymnopilus junonius* and their cytotoxicity. *Arch. Pharm. Res.* **2020**, *43*, 214-223.
- Lee, S. R.; Kang, H.; Yoo, M. J.; Yu, J. S.; Lee, S.; Yi, S. A.; Beemelmans, C.; Lee, J.; Kim, K. H. Anti-adipogenic Pregnane Steroid from a *Hydractinia*-associated Fungus, *Cladosporium sphaerospermum* SW67. *Nat. Prod. Sci.* **2020**, *26*, 230-235.
- Lee, S.\*; Lee, J. C.\*; Subedi, L.; Cho, K. H.; Kim, S. Y.; Park, H. -J.; Kim, K. H. Bioactive compounds from the seeds of *Amomum tsaoko* Crevost et Lemaire, a Chinese spice as inhibitors of sphingosine kinases, SPHK1/2. *RSC Adv.* **2019**, *9*, 33957.
- Lee, S.\*; Lee, D.\*; Baek, S. C.; Jo, M. S.; Kang, K. S.; Kim, K. H. (3 $\beta$ ,16 $\alpha$ )-3,16-Dihydroxypregn-5-en-20-one from the twigs of *Euonymus alatus* (Thunb.) Sieb. exerts anti-inflammatory effects in LPS-stimulated RAW-264.7 macrophages. *Molecules* **2019**, *24*, 3848.
- Lee, S.\*; Lee, S.\*; Roh, H. -S.; Song, S. -S.; Ryoo, R.; Pang, C.; Baek, K. -H.; Kim, K. H. Cytotoxic constituents from the sclerotia of *Poria cocos* against human lung adenocarcinoma cells by inducing mitochondrial apoptosis. *Cells* **2018**, *7*, 116.
- Lee, S.; Choi, E.; Yang, S. -M.; Ryoo, R.; Moon, E.; Kim, S. -H.; Kim, K. H. Bioactive compounds from sclerotia extract of *Poria cocos* that control adipocyte and osteoblast differentiation. *Bioorg. Chem.* **2018**, *81*, 27-34.
- Huh, J. Y.\*; Lee, S.\*; Ma, E. -B.; Eom, H. J.; Baek, J.; Ko, Y. -J.; Kim, K. H. The effects of phenolic glycosides from *Betula platyphylla* var. *japonica* on adipocyte differentiation and mature adipocyte metabolism. *J. Enzyme Inhib. Med. Chem.* **2018**, *33*, 1167-1173.
- Lee, S.; Lee, D.; Lee, J. C.; Kang, K. S.; Ryoo, R.; Park, H. -J.; Kim, K. H. Bioactivity-guided isolation of anti-inflammatory constituents of the rare mushroom *Calvatia nipponica* in LPS-stimulated RAW264.7 macrophages. *Chem. Biodivers.* **2018**, *15*, e1800203.
- Lee, S.\*; Lee, D.\*; Park, J. Y.; Seok, S.; Jang, T. S.; Park, H. B.; Shim, S. H.; Kang, K. S.; Kim, K. H. Anti-gastritis effects of *Armillariella tabescens* (Scop.) Sing. and the identification of its anti-inflammatory metabolites. *J. Pharm. Pharmacol.* **2018**, *70*, 404-412.

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- Lee, S. R.; Park, Y. J.; Han, Y. B.; Lee, J. C.; Lee, S.; Park, H. -J.; Lee, H. -J.; Kim, K. H. Isoamericanic acid B from *Acer tegmentosum* as a potential phytoestrogen. *Nutrients* **2018**, *10*, 1915.
- Baek, J.; Roh, H. -S.; Baek, K. -H.; Lee, S.; Lee, S.; Song, S. -S.; Kim, K. H. Bioactivity-based analysis and chemical characterization of cytotoxic constituents from Chaga mushroom (*Inonotus obliquus*) that induce apoptosis in human lung adenocarcinoma cells. *J. Ethnopharmacol.* **2018**, *224*, 63-75.
- Kang, H. R.; Yun, H. S.; Lee, T. K.; Lee, S.; Kim, S. -H.; Moon, E.; Park, K. -M.; Kim, K. H. Chemical characterization of novel natural products from the roots of Asian rice (*Oryza sativa*) that control adipocyte and osteoblast differentiation. *J. Agric. Food Chem.* **2018**, *66*, 2677-2684.
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- Lee, S.\*; Park, J. Y.\*; Lee, D.; Seok, S.; Kwon, Y. J.; Jang, T. S.; Kang, K. S.; Kim, K. H. Chemical constituents from the rare mushroom *Calvatia nipponica* inhibit the promotion of angiogenesis in HUVECs. *Bioorg. Med. Chem. Lett.* **2017**, *27*, 4122-4127.
- Lee, S.; Lee, D.; Lee, S. O.; Ryu, J. -Y.; Choi, S. -Z.; Kang, K. S.; Kim, K. H. Anti-inflammatory activity of the sclerotia of edible fungus, *Poria cocos* Wolf and their active lanostane triterpenoids. *J. Funct. Foods* **2017**, *32*, 27-36.
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