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Research Career

- May 2019 – present Senior Researcher, New Drug Development Center, Daegu-Gyeongbuk Medical Innovation Foundation (DGMIF), Daegu, Republic of Korea
- Jan 2016 – Apr 2019 Research Associate/Postdoctoral Associate, The Scripps Research Institute - Scripps Florida, Jupiter, Florida, United States
Research Advisor: Prof. Thomas Kodadek
- Apr 2014 – Dec 2015 Researcher, Research Institute of Pharmaceutical Sciences, Seoul National University, Seoul, Republic of Korea
Research Advisor: Prof. Young-Ger Suh

Education

- Mar 2008 – Feb 2014 Ph.D. in Pharmacy
College of Pharmacy, Seoul National University, Seoul, Republic of Korea
Dissertation: Total Synthesis of (-)-Deguelin and Development of Novel Deguelin-Based Hypoxia-Inducible Factor-1 alpha (HIF-1 α) Inhibitors Targeting Angiogenesis
Research Advisor: Prof. Young-Ger Suh
- Mar 2004 – Feb 2008 B.S. in Manufacturing Pharmacy
College of Pharmacy, Seoul National University, Seoul, Republic of Korea

Peer-reviewed Journal Articles

27. **Novel hypoxia-inducible factor 1 α (HIF-1 α) inhibitors for angiogenesis-related ocular diseases: Discovery of a novel scaffold via ring-truncation strategy.** [H. An](#); S. Lee; J. M. Lee; D. H. Jo; J. Kim; Y.-S. Jeong; M. J. Heo; C. S. Cho; H. Choi; J. H. Seo; S. Hwang; J. Lim; T. Kim; H. O. Jun; J. Sim; C. Lim; J. Hur; J. Ahn; H. S. Kim; S.-Y. Seo; Y. Na; S.-H. Kim; J. Lee; J. Lee; S.-J. Chung; Y.-M. Kim; K.-W. Kim; S. G. Kim; J. H. Kim and Y.-G. Suh, *J. Med. Chem.* **2018**, 61, 9266-9286.
26. **Conformation-enabled total syntheses of ohmyungsamycins A and B and structural revision of**

- ohmyungsamycin B**. J. Hur; J. Jang; J. Sim; W. S. Son; H.-C. Ahn; T. S. Kim; Y.-H. Shin; C. Lim; S. Lee; H. An; S.-H. Kim; D.-C. Oh; E.-K. Jo; J. Jang; J. Lee and Y.-G. Suh, *Angew. Chem. Int. Ed.* **2018**, 57, 3069-3073.
25. **Stereoselective synthesis of 1,4,5-tri-cis-guaiane sesquiterpene: First total synthesis of (-)-dendroside C aglycon**. J. Sim; H. Park; J. Lim; I. Yoon; C. Lim; H. An; H. Yun; H. J. Choi and Y.-G. Suh, *Org. Lett.* **2018**, 20, 586-589
24. **Asymmetric total synthesis of (+)-(3E)-pinnatifidenyne via abnormally regioselective Pd(0)-catalyzed endocyclization**. H. S. Kim; T. Kim; J. Ahn; H. Yun; C. Lim; J. Jang; J. Sim; H. An; Y.-J. Surh; J. Lee and Y.-G. Suh, *J. Org. Chem.* **2018**, 83, 1997-2005.
23. **DNA-compatible solid-phase combinatorial synthesis of β -cyanoacrylamides and related electrophiles**. K. Pels; P. Dickson; H. An and T. Kodadek, *ACS Comb. Sci.* **2018**, 20, 61-69.
22. **Total synthesis of (+)-brasilenyne via concise construction of an oxonane framework containing a 1,3-cis,cis-diene**. C. Lim; J. Ahn; J. Sim; H. Yun; J. Hur; H. An; J. Jang; S. Lee and Y.-G. Suh, *Chem. Commun.* **2018**, 54, 467-470.
21. **Asymmetric total synthesis of (+)-Intricenyne via an endocyclization route to oxocane skeleton**. J. Ahn; C. Lim; H. Yun; H. S. Kim; S. Kwon; J. Lee; S. Lee; H. An; H.-g. Park and Y.-G. Suh, *Org. Lett.* **2017**, 19, 6642-6645.
20. **Asymmetric synthesis of vinylogous beta-amino acids and their incorporation into mixed backbone oligomers**. H. Wu[#]; H. An[#]; S. Mo and T. Kodadek, *Org. Biomol. Chem.* **2017**, 15, 3255-3264. (# Equal contribution)
19. **Identification and structural analysis of new Nrf2 activators by mechanism-based chemical transformation of 15-Deoxy- $\Delta^{12,14}$ -PGJ₂**. K. Kim; J.-M. Park; N.-J. Kim; S.-J. Kim; H. Moon; H. An; J. Lee; H.-J. Park; Y.-J. Surh and Y.-G. Suh, *ChemBioChem* **2016**, 17, 1900-1904.
18. **Identification of a novel circadian clock modulator controlling BMAL1 expression through a ROR/REV-ERB-response element-dependent mechanism**. J. Lee; S. Lee; S. Chung; N. Park; G. H. Son; H. An; J. Jang; D.-J. Chang; Y.-G. Suh and K. Kim, *Biochem. Biophys. Res. Commun.* **2016**, 469, 580-586.
17. **Deguelin analogue SH-1242 inhibits Hsp90 activity and exerts potent anticancer efficacy with limited neurotoxicity**. S.-C. Lee; H.-Y. Min; H. Choi; S. Y. Bae; K. H. Park; S. Y. Hyun; H. J. Lee; J. Moon; S.-H. Park; J. Y. Kim; H. An; S.-J. Park; J. H. Seo; S. Lee; Y.-M. Kim; H.-J. Park; S. K. Lee; J. Lee; J. Lee; K.-W. Kim; Y.-G. Suh and H.-Y. Lee, *Cancer Res.* **2016**, 76, 686-699.
16. **Divergent synthetic route to new cyclopenta[c]pyran iridoids: Syntheses of jatamanin A, F, G and J, gastrolactone and nepetalactone**. J. Sim; I. Yoon; H. Yun; H. An and Y.-G. Suh, *Org. Biomol. Chem.* **2016**, 14, 1244-1251.
15. **Diastereoselective total synthesis of (-)-galiellalactone**. T. Kim; Y. T. Han; H. An; K. Kim; J. Lee and

Y.-G. Suh, *J. Org. Chem.* **2015**, 80, 12193-12200.

14. **Identification of small molecule inhibitors of the STAT3 signaling pathway: Insights into their structural features and mode of action.** K. Kim; S.-J. Kim; Y. T. Han; S.-J. Hong; [H. An](#); D.-J. Chang; T. Kim; B. Lim; J. Lee; Y.-J. Surh and Y.-G. Suh, *Bioorg. Med. Chem. Lett.* **2015**, 25, 5444-5448.
13. **Synthesis and biological evaluation of novel homoisoflavonoids for retinal neovascularization.** H. D. Basavarajappa; B. Lee; H. Lee; R. S. Sulaiman; [H. An](#); C. Magana; M. Shadmand; A. Vayl; G. Rajashekar; E.-Y. Kim; Y.-G. Suh; K. Lee; S.-Y. Seo and T. W. Corson, *J. Med. Chem.* **2015**, 58, 5015-5027.
12. **Total synthesis of (-)-deguelin via an iterative pyran-ring formation strategy.** S. Lee; [H. An](#); D.-J. Chang; J. Jang; K. Kim; J. Sim; J. Lee and Y.-G. Suh, *Chem. Commun.* **2015**, 51, 9026-9029.
11. **Synthesis and synthesis-based structural elucidation of (-)-Macrosphelides J and K.** [H. An](#); S.-H. Kim; H. Kim; K. Kim; J. Sim; J. Jang; S.-M. Paek; Y.-G. Suh and H. Yun, *Heterocycles* **2015**, 91, 970-988.
10. **Fine tuning of 4,6-bisphenyl-2-(3-alkoxyanilino)pyrimidine focusing on the activity-sensitive aminoalkoxy moiety for a therapeutically useful inhibitor of receptor for advanced glycation end products (RAGE).** Y. T. Han; K. Kim; D. Son; [H. An](#); H. Kim; J. Lee; H.-J. Park; J. Lee and Y.-G. Suh, *Bioorg. Med. Chem.* **2015**, 23, 579-587.
9. **Efficient strategy for the stereoselective synthesis of 2,3-disubstituted benzo[α]quinolizidine alkaloids: concise synthesis of (-)-protoemetinol.** H. Moon; [H. An](#); J. Sim; K. Kim; S.-M. Paek and Y.-G. Suh, *Tetrahedron Lett.* **2015**, 56, 608-611.
8. **Design and synthesis of a macrosphelide A-biotin chimera.** H. Yun; J. Sim; [H. An](#); J. Lee; H. S. Lee; Y. K. Shin; S.-M. Paek and Y.-G. Suh, *Org. Biomol. Chem.* **2014**, 12, 7127-7135.
7. **Hypoxia-mediated retinal neovascularization and vascular leakage in diabetic retina is suppressed by HIF-1 α destabilization by SH-1242 and SH-1280, novel hsp90 inhibitors.** D. H. Jo; [H. An](#); D.-J. Chang; Y.-Y. Baek; C. S. Cho; H. O. Jun; S.-J. Park; J. H. Kim; H.-Y. Lee; K.-W. Kim; J. Lee; H.-J. Park; Y.-M. Kim; Y.-G. Suh and J. H. Kim, *J. Mol. Med.* **2014**, 92, 1083-1092.
6. **Pyrazole-5-carboxamides, novel inhibitors of receptor for advanced glycation end products (RAGE).** Y. T. Han; K. Kim; G.-I. Choi; [H. An](#); D. Son; H. Kim; H.-J. Ha; J.-H. Son; S.-J. Chung; H.-J. Park; J. Lee and Y.-G. Suh, *Eur. J. Med. Chem.* **2014**, 79, 128-142.
5. **Glucal-conjugated sterols as novel vascular leakage blocker: Structure-activity relationship focusing on the C₁₇-side chain.** K. Kim; S. Maharjan; C. Lim; N.-J. Kim; V. Agrawal; Y. T. Han; S. Lee; [H. An](#); H. Yun; H.-J. Choi; Y.-G. Kwon and Y.-G. Suh, *Eur. J. Med. Chem.* **2014**, 75, 184-194.
4. **Microwave-assisted synthesis of 3-substituted indoles via intramolecular arene-alkene coupling of o-iodoanilino enamines.** W.-I. Lee; J.-W. Jung; J. Sim; [H. An](#) and Y.-G. Suh, *Tetrahedron* **2013**, 69, 7211-7219.

3. **Design, synthesis, and biological evaluation of novel deguelin-based heat shock protein 90 (HSP90) inhibitors targeting proliferation and angiogenesis.** D.-J. Chang; H. An; K.-s. Kim; H. H. Kim; J. Jung; J. M. Lee; N.-J. Kim; Y. T. Han; H. Yun; S. Lee; G. Lee; S. Lee; J. S. Lee; J.-H. Cha; J.-H. Park; J. W. Park; S.-C. Lee; S. G. Kim; J. H. Kim; H.-Y. Lee; K.-W. Kim and Y.-G. Suh, *J. Med. Chem.* **2012**, 55, 10863-10884.
2. **Design, synthesis and insight into the structure–activity relationship of 1, 3-disubstituted indazoles as novel HIF-1 inhibitors.** H. An; N.-J. Kim; J.-W. Jung; H. Jang; J.-W. Park and Y.-G. Suh, *Bioorg. Med. Chem. Lett.* **2011**, 21, 6297-6300.
1. **Design, synthesis and identification of novel colchicine-derived immunosuppressant.** D.-J. Chang; E.-Y. Yoon; G.-B. Lee; S.-O. Kim; W.-J. Kim; Y.-M. Kim; J.-W. Jung; H. An and Y.-G. Suh, *Bioorg. Med. Chem. Lett.* **2009**, 19, 4416-4420.

Book Chapters

1. **Synthesis and screening of bead-displayed combinatorial libraries.** T. M. Doran, P. Dickson, J. M. Ndungu, P. Ge, I. Suponitsky-Kroyter, H. An and T. Kodadek, in *Methods in Enzymology*, ed. A. K. Shukla, Academic Press, **2019**, vol. 622, pp. 91-127.

Patents

4. Novel compound or pharmaceutically acceptable salt thereof, and pharmaceutical composition containing same as active ingredient. Y.-G. Suh; D.-J. Chang; H. An; K.-W. Kim; Y.-M. Kim and H.-Y. Lee, **European Patent No. 2,871,187 B1**, SNU R&DB Foundation, 2017.
3. Compound or pharmaceutically acceptable salt thereof, and pharmaceutical composition containing same as active ingredient. Y.-G. Suh; H. An; S. Lee; K.-W. Kim; H.-Y. Lee; S. G. Kim and J. H. Kim, **United States Patent No. 9,745,280 B2**, SNU R&DB Foundation, 2017.
2. A novel Deguelin derivatives or its pharmaceutically acceptable salts and pharmaceutical composition containing the same as an active ingredient. Y.-G. Suh; D.-J. Chang; H. An and K.-W. Kim, **Korea Patent No. 10-1414722**, SNU R&DB Foundation, 2014.
1. A novel Deguelin derivatives or its pharmaceutically acceptable salts and pharmaceutical composition containing the same as an active ingredient. Y.-G. Suh; D.-J. Chang; H. An and K.-W. Kim, **Korea Patent No. 10-1269097**, SNU R&DB Foundation, 2013.