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OR19 – Rh(III)-Catalyzed Synthesis and Functionalization of *N*-Heterocycles via C–H Bond Activation

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With considerable progress in medicinal chemistry, the construction of heterocycles has receiveed increasing attention in the past decades. In particular, *N*-heterocycles such as indoles, indolines, indazoles, and cinnolinones are widely found to be biologically relevant scaffold in natural products, pharmaceuticals, agrochemicals, and functional materials. Therefore, the directing group-assisted *N*-heterocycles synthesis via C–H bond activation is highly attractive in pharmaceutical industry. Recently, our groups reported the rhodium-catalyzed tandem heterocycle formation and functionalization via C–H activation reaction of anilines, hydrazines, azobenzenes, and etc. Moreover, we recently focused the construction of other *N*-heterocycles via tandem C–C bond formation followed by intramolecular cyclization.[1]

We herein describe a brief summary of our recent works and present progress works to synthesize other biologically relevant heterocycles via C-H activation.

Reference

1. (a) Han, S.; Shin, Y.; Sharma, S.; Mishra, N. K.; Park, J.; Kim, M.; Kim, M.; Jang, J.; Kim, I. S. *Org. Lett*. **2014**, *16*, 2494. (b) Sharma, S.; Han, S. H.; Han, S.; Ji, W.; Oh, J.; Lee, S.-Y.; Oh, J. S.; Jung, Y. H.; Kim, I. S. *Org. Lett*. **2015**, *17*, 2852. (c) Mishra, N. K.; Choi, M.; Jo, H.; Oh, Y.; Sharma, S.; Han,S. H.; Jeong, T.; Han, S.; Lee, S.-Y.; Kim, I. S. *Chem. Commun.*, **2015**, *51*, 17229. (d) Jeong, T.; Han, S. H.; Han, S.; Sharma, S.; Park, J.; Lee, J. S.; Kwak, J. H.; Jung, Y. H.; Kim, I. S. *Org. Lett*. **2016**, *18*, 232.