S01-2 Total synthesis of (+)-stachyflin, a potent anti-influenza A virus agent

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(+)-Stachyflin (**1**), isolated from the *Stachybotrys* sp. RF-7260 by the Shionogi research group in 1997, exhibits potent anti–influenza A virus activity. We have recently achieved the total synthesis of (+)-**1** in a convergent manner. The key steps of the synthesis are *(i)* coupling reaction of the isoindolinone segment **2** with (+)-5-methyl-Wieland–Miescher ketone (**3**) (**2**+**3** → **4**), *(ii)* sequential $BF_3{\cdot}OEt_2$–induced epoxide-opening/rearrangement/cyclization reaction (**5**→**6**), and *(iii)* deprotection of the *N*-3,4-dimethoxybenzyl (DMB) group using hypervalent iodine reagent (PIFA) (**6**→**1**). In this symposium, we will report in full detail our first enantioselective total synthesis of (+)–**1**.