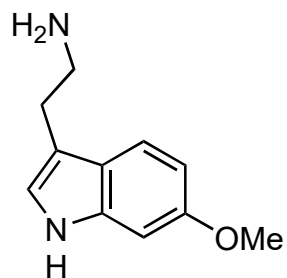


# Total Synthesis of (±)-Trigonoliimine C via Oxidative Rearrangement of an Unsymmetrical Bis-Tryptamine

Qi, X.; Bao, H.; Tambar, U. K.\*  
*J. Am. Chem. Soc.* **2011**, *133*, 10050–10053.



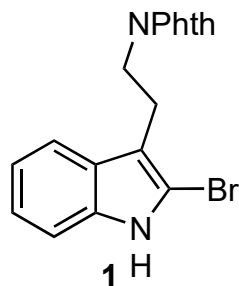
1-5



6-8

**Trigonoliimine C**

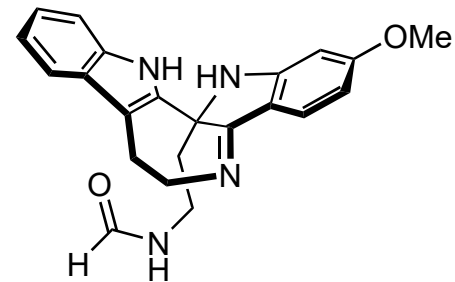
- 1)  $\text{HCO}_2\text{Et}$
- 2)  $\text{Boc}_2\text{O}$ , DMAP, DMF
- 3) LiTMP then  $\text{Bu}_3\text{SnCl}$
- 4) **1**,  $\text{Pd}(\text{PPh}_3)_4$
- 5)  $\text{PhI}(\text{TFA})_2$ , MeCN,  $\text{H}_2\text{O}$



- 6) HCl in dioxane, wet DMA,  $150\text{ }^\circ\text{C}$
- 7)  $\text{H}_2\text{NNH}_2$ , MeOH, DCM
- 8)  $\text{Ti}(\text{O}i\text{-Pr})_4$ , THF

*Bonus step: what reaction will you expect if you treat intermediate A with  $\text{Sc}(\text{OTf})_3$ , DMF,  $150\text{ }^\circ\text{C}$ ?*

6) Please name the reaction



**Trigonoliimine C**