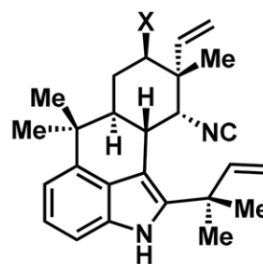


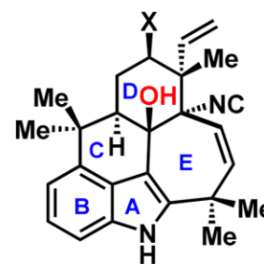
Total Synthesis of (–)-Ambiguine P

Johnson, R. E.; Ree, H.; Hartmann, M.; Lang, L.; Sawano, S.; Sarpong, R., *J. Am. Chem. Soc.* **2019**, *141*, 2233-2237.

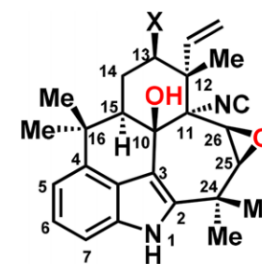
- Isolated from *Fischerella ambigua* in 1992; no previously reported syntheses of ambiguines 3-11.
- Comprehensive biological studies have not been undertaken, though other hapalindoles exert a broad spectrum of biological activities.
- Most ambiguines possess a fused pentacyclic scaffold with a characteristic seven membered ring.



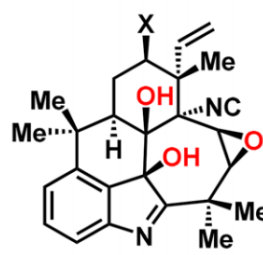
ambiguine A (1): X=Cl
ambiguine H (2): X=H



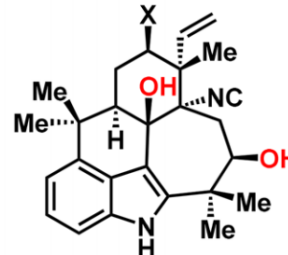
ambiguine K (3): X=Cl
ambiguine L (4): X=H



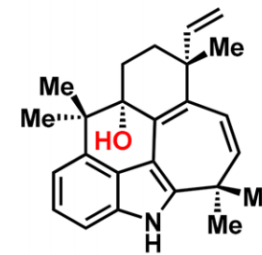
ambiguine E (5): X=Cl
ambiguine I (6): X=H



ambiguine D (7): X=Cl
ambiguine J (8): X=H



ambiguine M (9): X=Cl
ambiguine N (10): X=H



ambiguine P (11)

12 March 2019
Jeremy Armand

Retrosynthetic Analysis

