



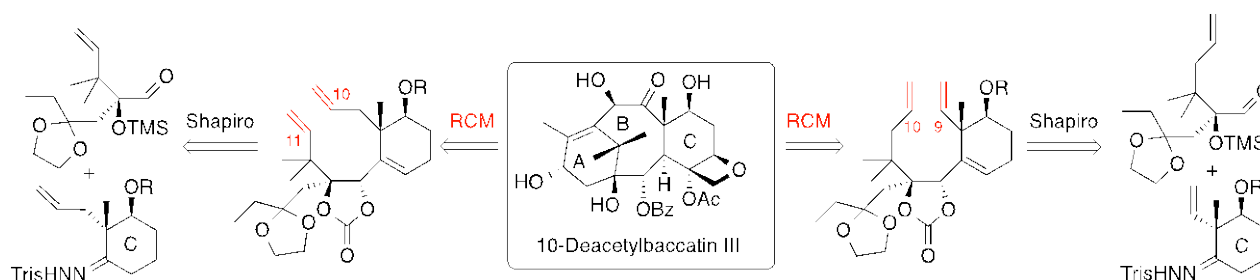
Conférence - CEISAM - UMR CNRS 6230

22 mai 2014
10h30 - Salle Marie Curie

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"Le taxol : synthèse et métathèse"

Taxol and Taxotere are powerful antitumor agents which have been approved by the FDA in the United States in 1994 and 1995 respectively, and which are used against a number of important human cancers. These two compounds can be prepared by hemisynthesis from 10-deacetylbaccatin III. We envisioned two retrosyntheses for this product, involving a ring-closing metathesis (RCM) to close the eight-membered B ring between C9 and C10 or C10 and C11, and a Shapiro coupling to synthesize the RCM precursors.



A diastereoselective synthesis of RCM precursors will be discussed, as well as the formation of cycloctenes encompassing the BC-ring system of Taxol. Finally, an ene-yne-ene cascade metathesis leading directly to the ABC tricycle of Taxol will be presented.

<http://www.chem.gla.ac.uk/staff/joellep/>

- 1) (a) Bourgeois, D.; Pancrazi, A.; Ricard, L.; Prunet, J. *Angew. Chem. Int. Ed.* **2000**, *39*, 725-728. (b) Bourgeois, D.; Mahuteau, J.; Pancrazi, A.; Nolan, S. P.; Prunet, J. *Synthesis* **2000**, 869-882.
- 2) (a) Schiltz, S.; Ma, C.; Ricard, L.; Prunet, J. *J. Organomet. Chem.* **2006**, *691*, 5438-5443. (b) Ma, C.; Schiltz, S.; Le Goff, Xavier F.; Prunet, J. *Chem. Eur. J.* **2008**, 7314-7323.