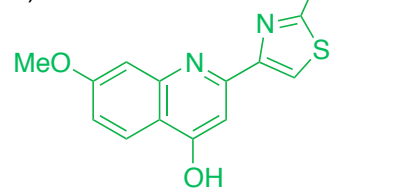


**BILN 2061**

a) LiOH (1.3 eq.), THF (89%)  
 b) *p*-BrC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>Cl,  
 TEA, cat. DMAP, CH<sub>2</sub>Cl<sub>2</sub> (93%)

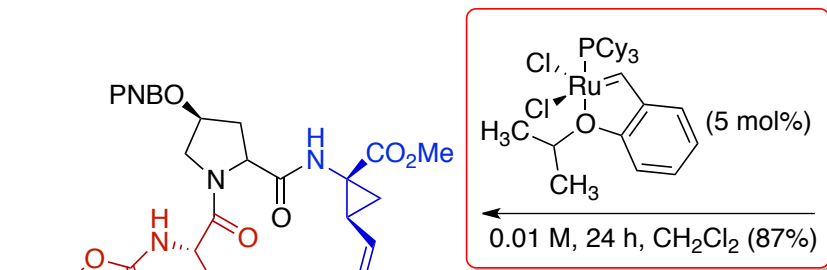
c)



Cs<sub>2</sub>CO<sub>3</sub>, NMP (84%);  
 LiOH (2 eq.), THF, H<sub>2</sub>O (90%)

**Synthetic Shortcomings:**

- S<sub>N</sub>2* Assembly of Quinoline Heterocycle:
- double inversion is inefficient



**Synthetic Shortcomings:**

*Cross-Metathesis (RCM):*

- high dilution
- high catalyst loading
- long reaction time
- epimerization risk

