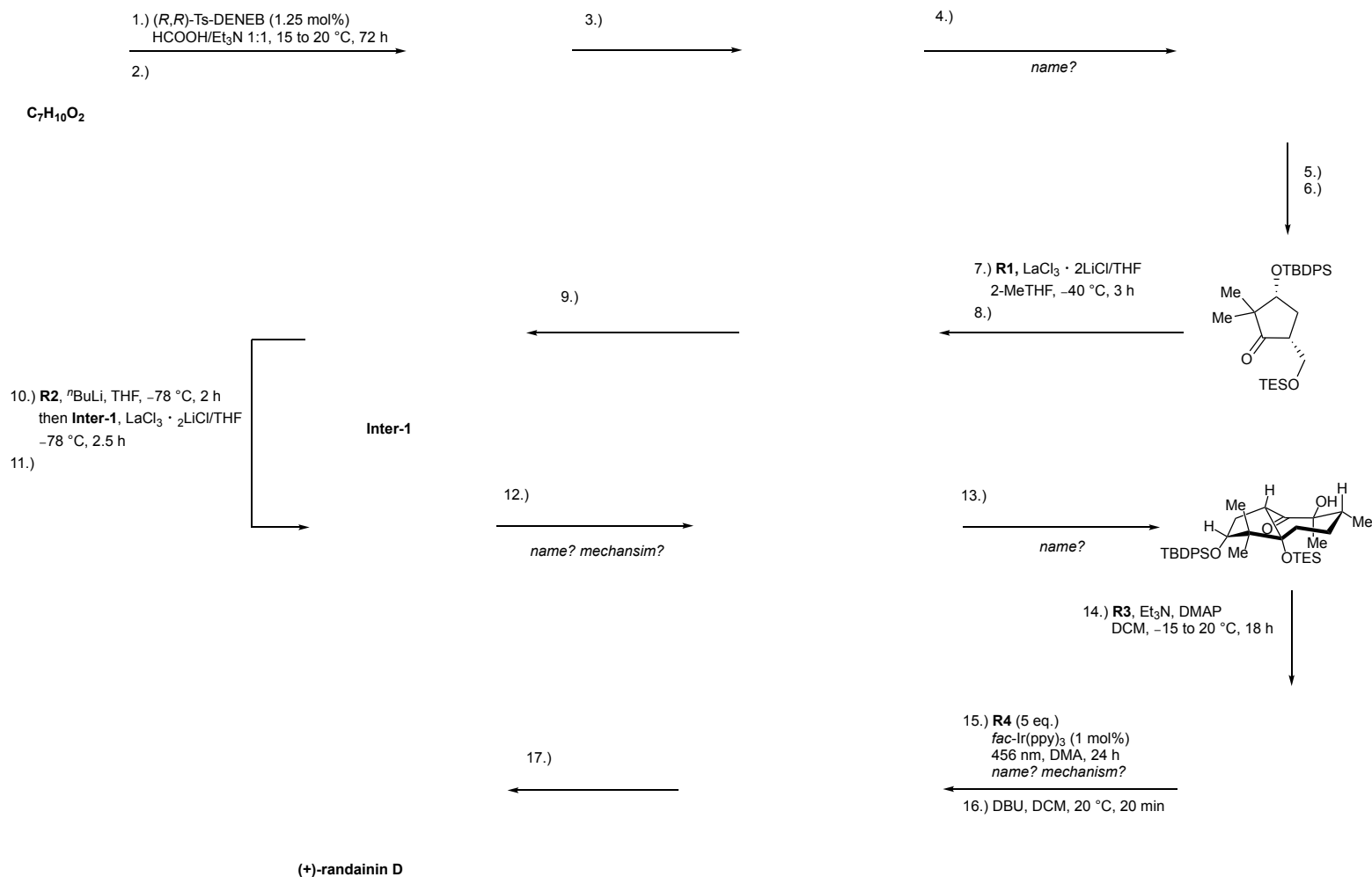
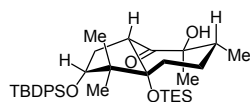


# E256: Synthesis of (+)-randainin D and (+)-barekoxide



Other attempted pathway for key step::



18.) **R5**, Et<sub>3</sub>N, DMAP  
DCM, -20 to 20 °C, 18 h  
19.) CsF  
ACN, 70 °C, 18 h

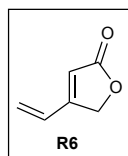
20.) **R6**, [Ir(dF(CF<sub>3</sub>)ppy)<sub>2</sub>(dtbpy)]PF<sub>6</sub> (2 mol%)  
456 nm, DMF:DME 1:3, H<sub>2</sub>O (10 eq.)  
*name? mechanism?*  
21.) DBU, DCM, 20 °C, 30 min

protodeoxygenation product

22.)  
**C<sub>4</sub>H<sub>4</sub>O<sub>3</sub>**



23.)  
*name?*

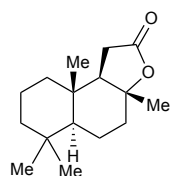
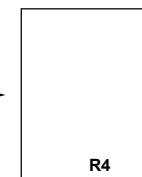


24.) Ph<sub>2</sub>Se<sub>2</sub>, NaBH<sub>4</sub>  
EtOH, 20 °C  
then AcOH, 0 °C, 2 h

Inter-2

25.) Ph<sub>6</sub>Sn<sub>2</sub>, <sup>t</sup>BuLi  
THF, -20 °C  
then Inter-2

26.) *m*-CPBA, DCM  
NaHCO<sub>3</sub>, H<sub>2</sub>O, r.t., 5 h



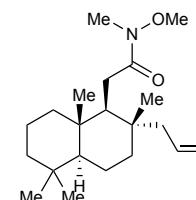
(+)-sclareolide

27.)

28.)



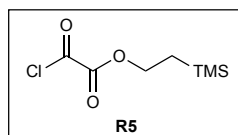
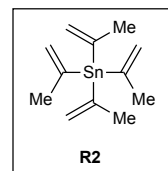
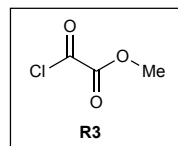
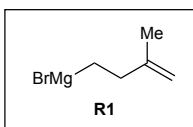
29.)   
(5 eq.)  
*fac*-Ir(ppy)<sub>3</sub> (1 mol%)  
456 nm, DMA, 24 h  
*name?*



30.) **R2**, <sup>t</sup>BuLi, THF  
-78 °C, 2 h  
then Inter-3

31.)

*name?*



32.) ZnI<sub>2</sub>, Et<sub>3</sub>SiH  
C<sub>2</sub>H<sub>4</sub>Cl<sub>2</sub>, 20 °C, 48 h  
33.) *m*-CPBA, DCM, 0 °C, 2 h

(+)-barekoxide