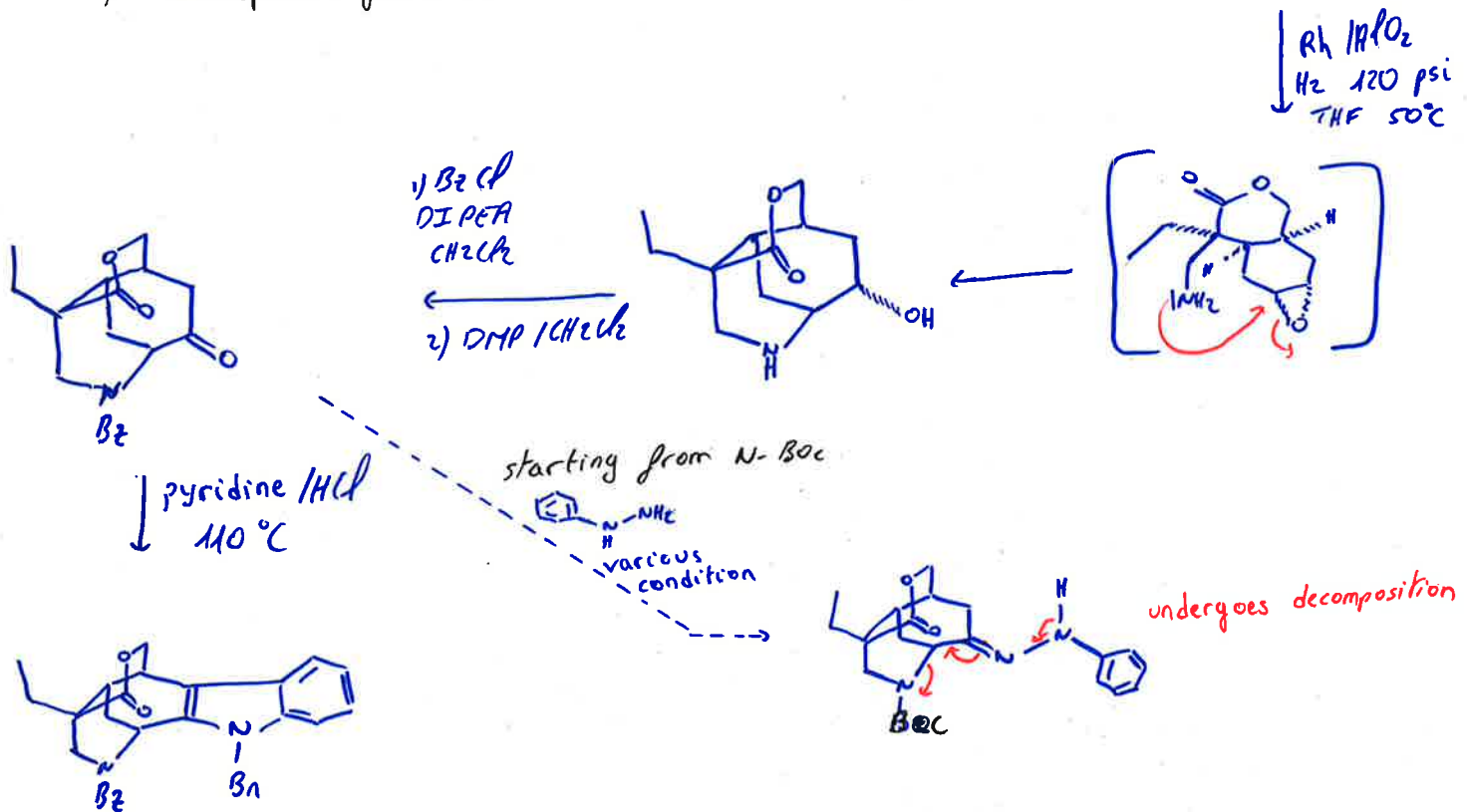
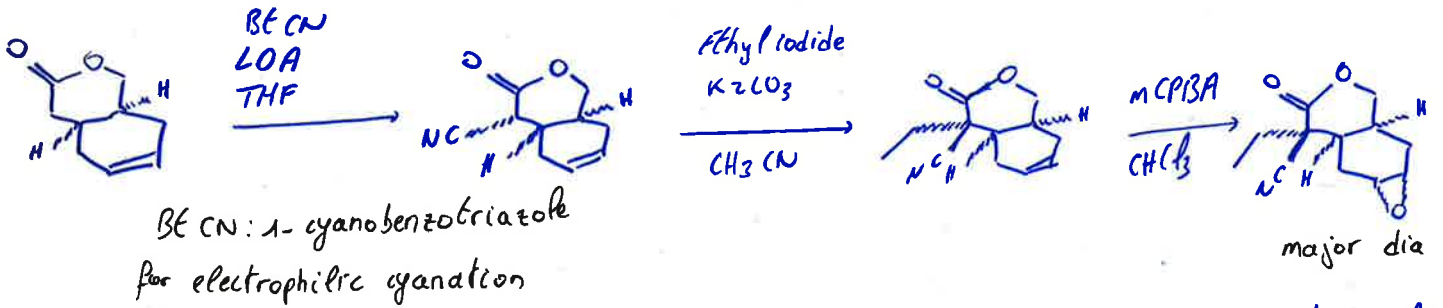


Access to (+)-scholarisine A

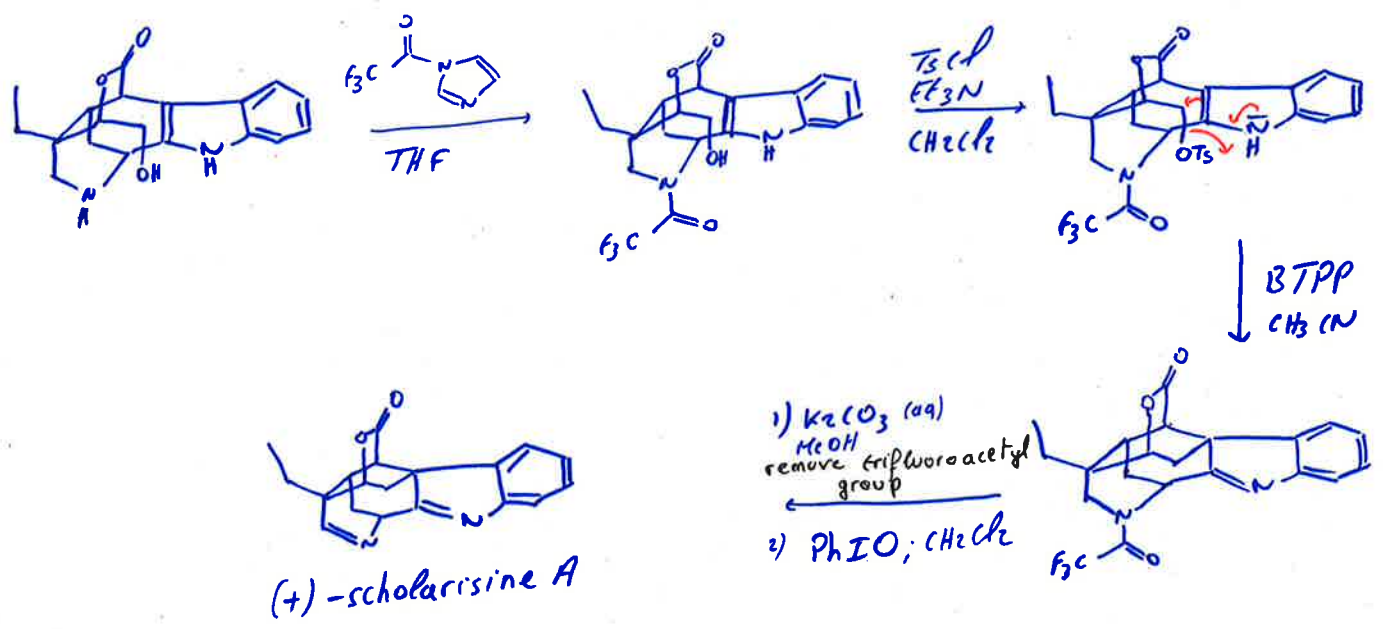
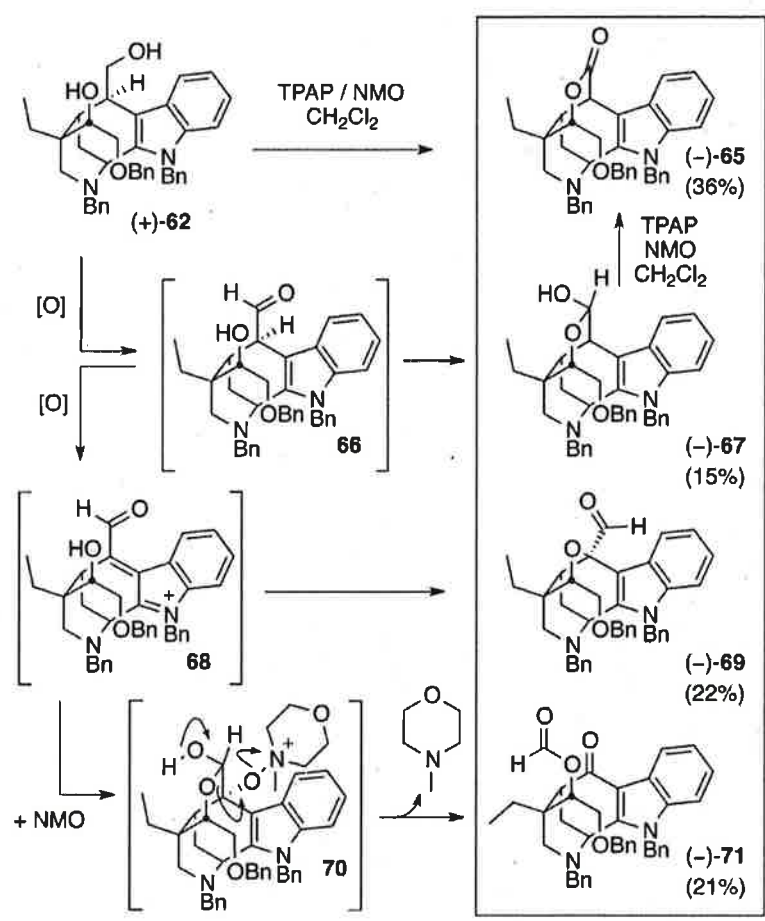
Group Meeting - Exercise 18
Beltran Raphaël

• First total synthesis of (+)-scholarisine A by Amos B. Smith & co-workers.

Part 1.

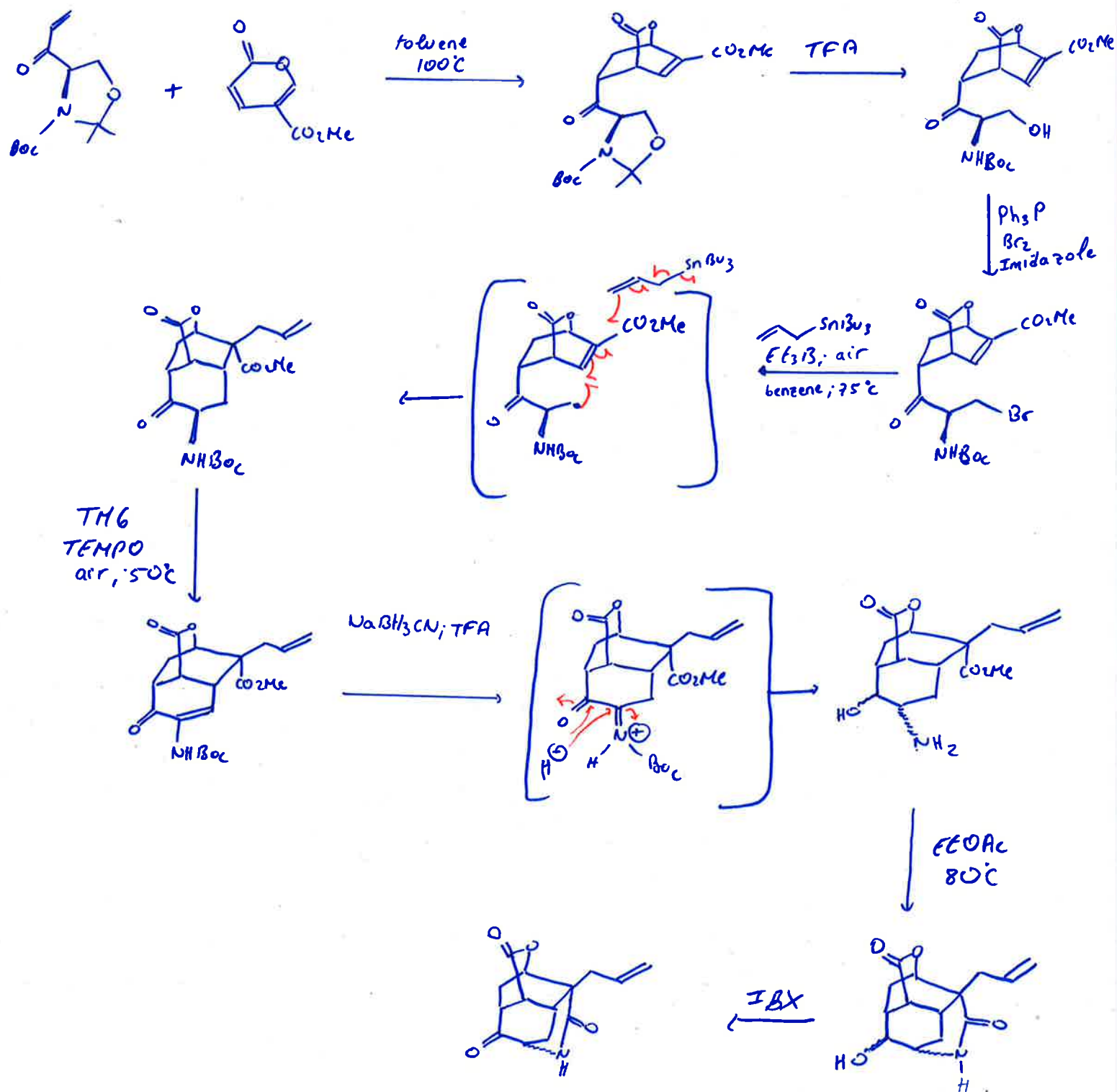


Part 2.

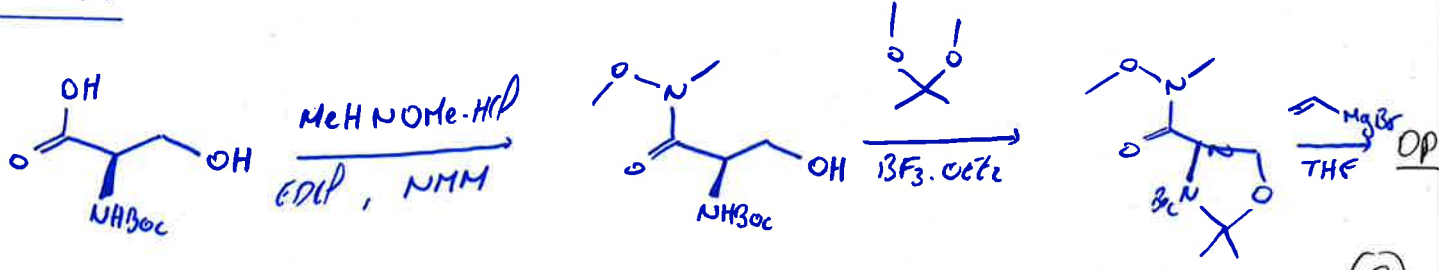


• Second total synthesis of (+)-scholarisine A by Scott A. Snyder and co-workers.

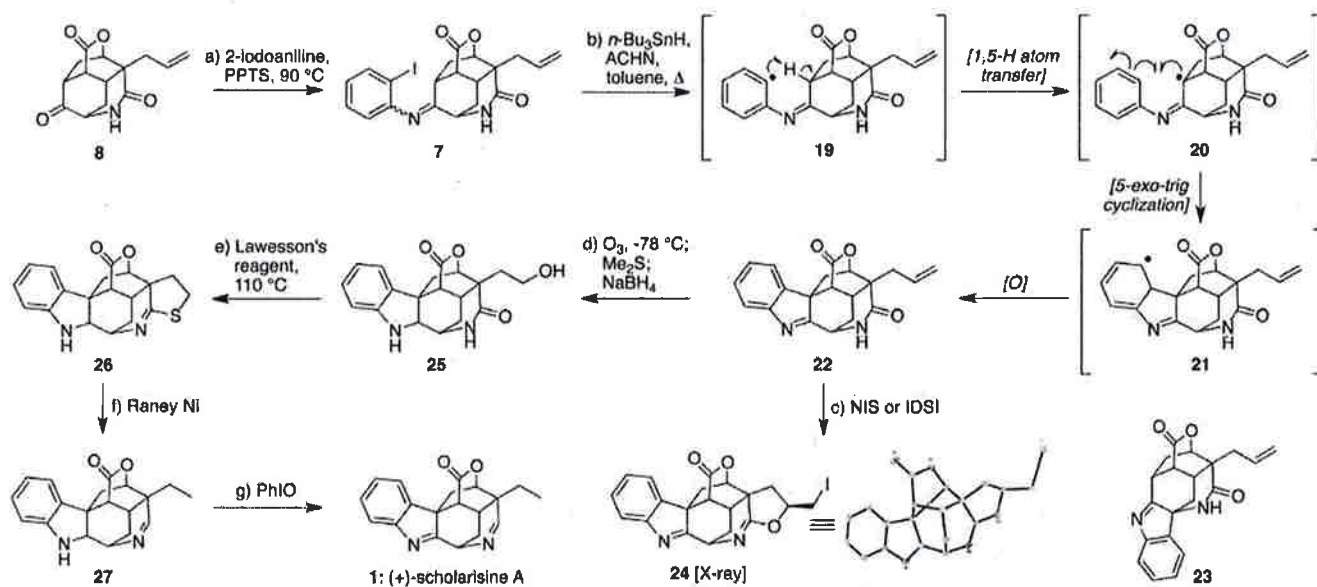
Part 1.



Part 2.



Part 3.



“Reagents and conditions: (a) 2-iodoaniline (1.1 equiv), PPTS (0.09 equiv), PhMe, THF, 4 Å m.s., 90 °C, 18 h; (b) $n\text{-Bu}_3\text{SnH}$ (1.2 equiv), ACHN (1.2 equiv), toluene, 110 °C, 4.5 h, 25% (3 steps), 22:23 = 3.0:1.0; (c) NIS (2.0 equiv), CH_2Cl_2 , 23 °C, 20 h, 72% or IDSI (1.7 equiv), CH_2Cl_2 , -20 °C, 45 min, 27%; (d) O_3 , CH_2Cl_2 , MeOH, -78 °C, 2 min; Me_2S (22 equiv), -78 → 23 °C; NaBH_4 (2.6 equiv), EtOH, CH_2Cl_2 , -40 → -10 °C, 1.5 h, 68%; (e) Lawesson's Reagent (2.1 equiv), THF, toluene, 110 °C, 16 h, 47%; (f) Raney Ni, THF, 23 °C, 1 h, 86%; (g) PhIO (5.4 equiv), CH_2Cl_2 , 23 °C, 98%. PPTS = pyridinium 4-toluenesulfonate, ACHN = 1,1'-azobis(cyclohexanecarbonitrile), NIS = *N*-iodosuccinimide, IDSI = $(\text{Et}_2\text{Si})_2\text{Cl}\cdot\text{SbCl}_6$.