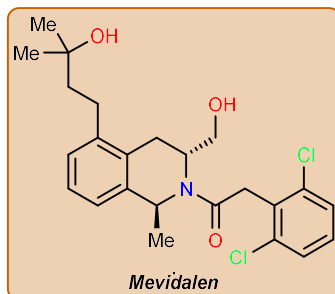


Introduction

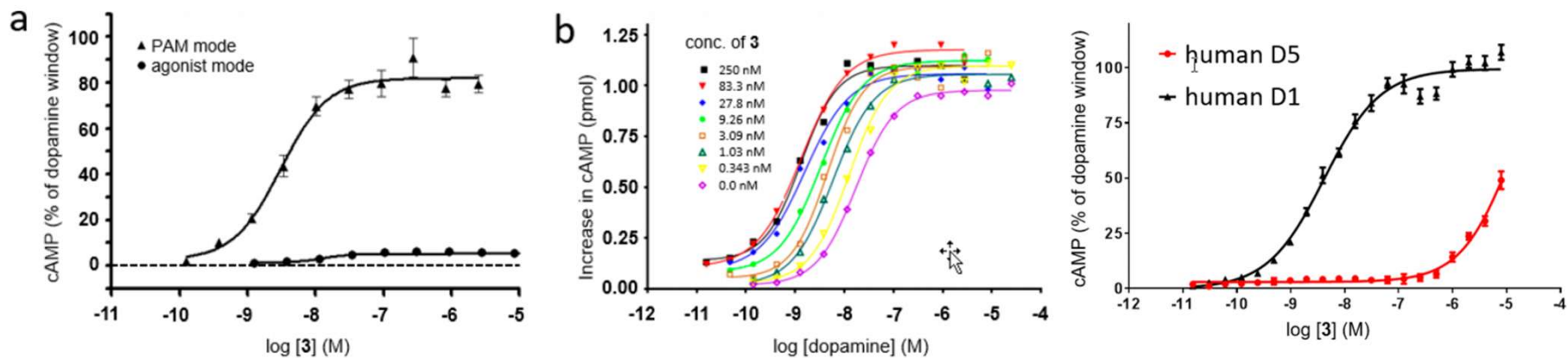


Lilly

- Mevidalen (LY3154207) is a D1-positive allosteric modulator developed by Eli Lilly that is currently in phase two clinical trials for Lewy Body Dementia
- Compared to orthosteric D1 modulators, it is believed that it might be more safe and selective because of its allosteric nature
- To date, five synthesis campaigns (two discovery, three process), have been accomplished.

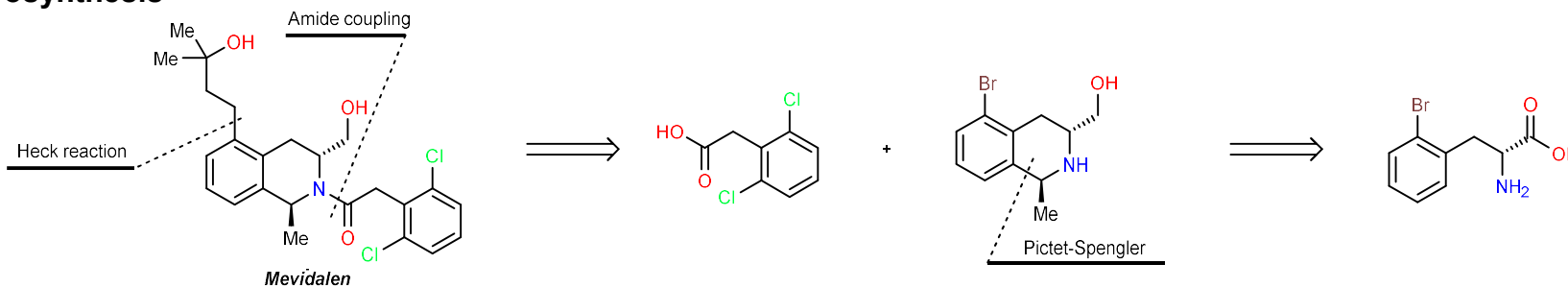
Richardson, J. *OPRD* **2020**, 24, ASAP: <https://dx.doi.org/10.1021/acs.oprd.0c00229>; for discovery, see Hao, J. *J. Med. Chem.* **2019**, 62, 8711-8732. <https://doi.org/10.1021/acs.jmedchem.9b01234>

Initial studies on D1 receptor: response and selectivity

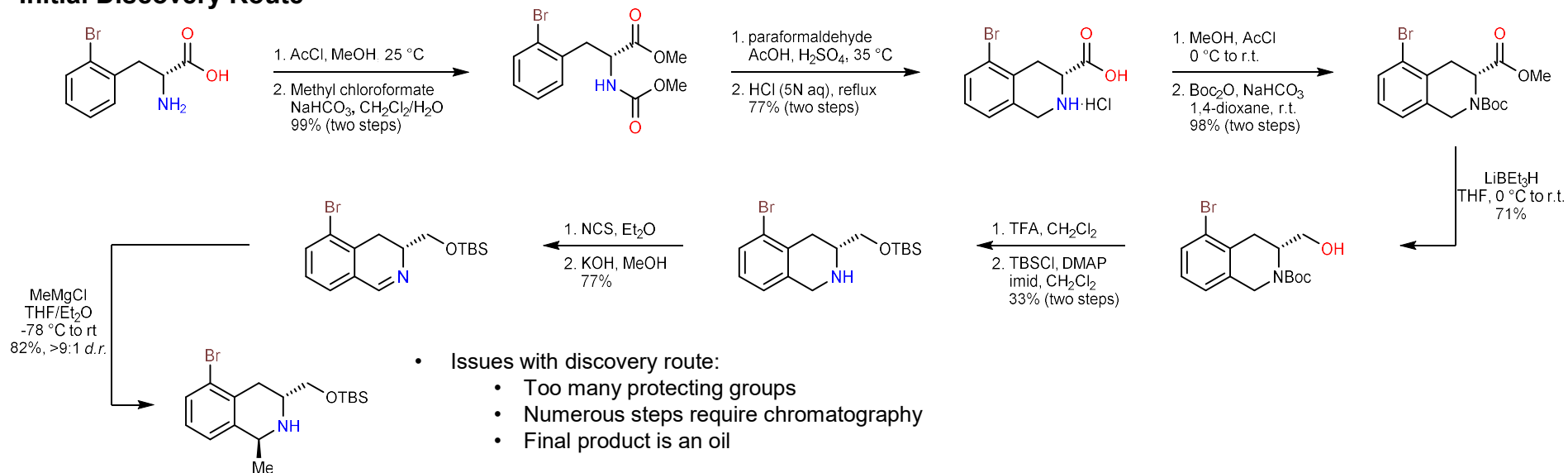


Hao, J. *J. Med. Chem.* **2019**, 62, 8711-8732. <https://doi.org/10.1021/acs.jmedchem.9b01234>

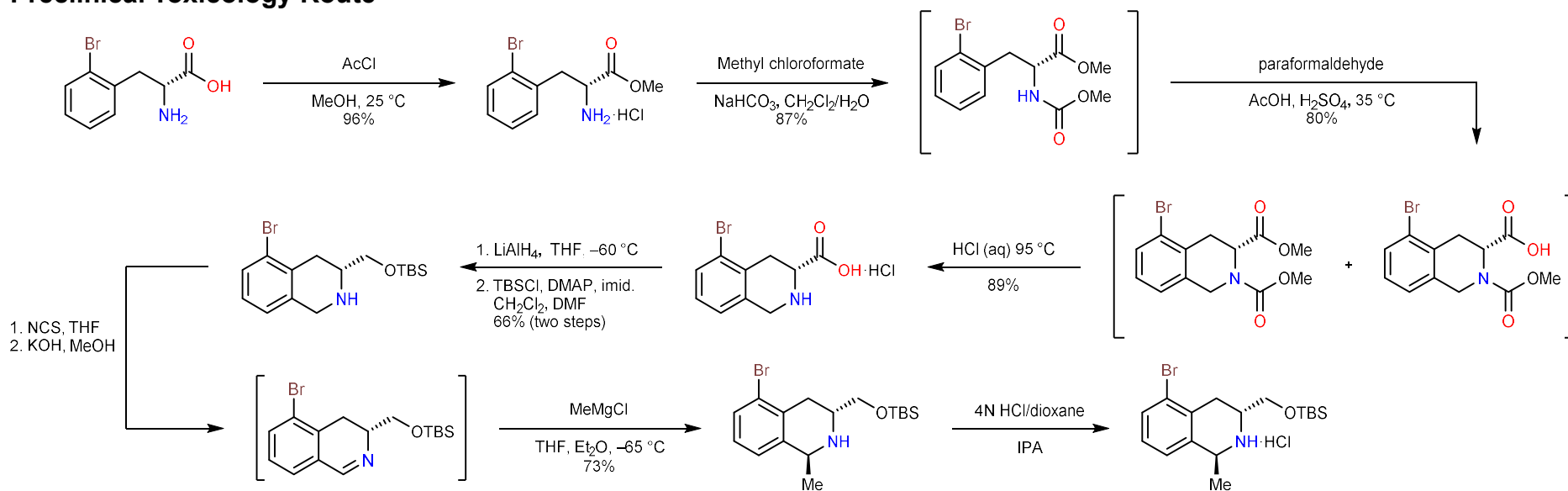
Retrosynthesis



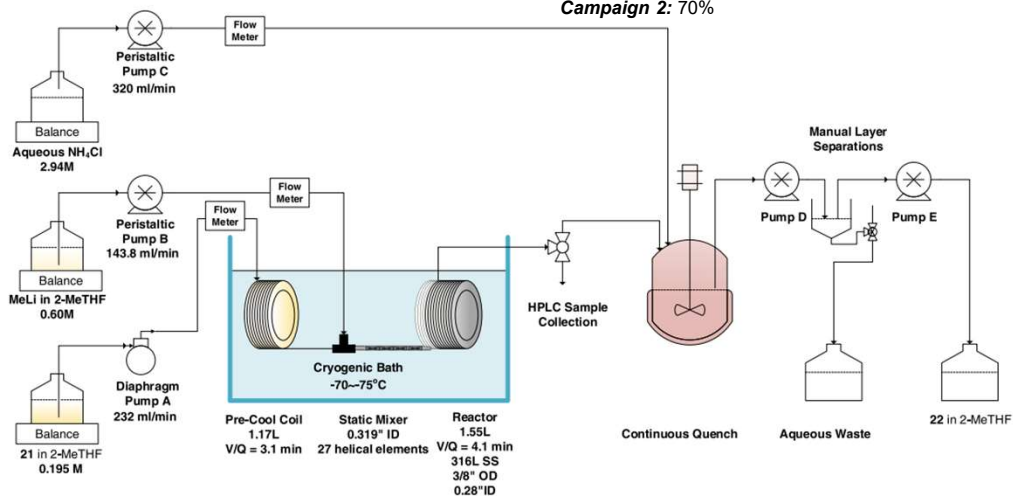
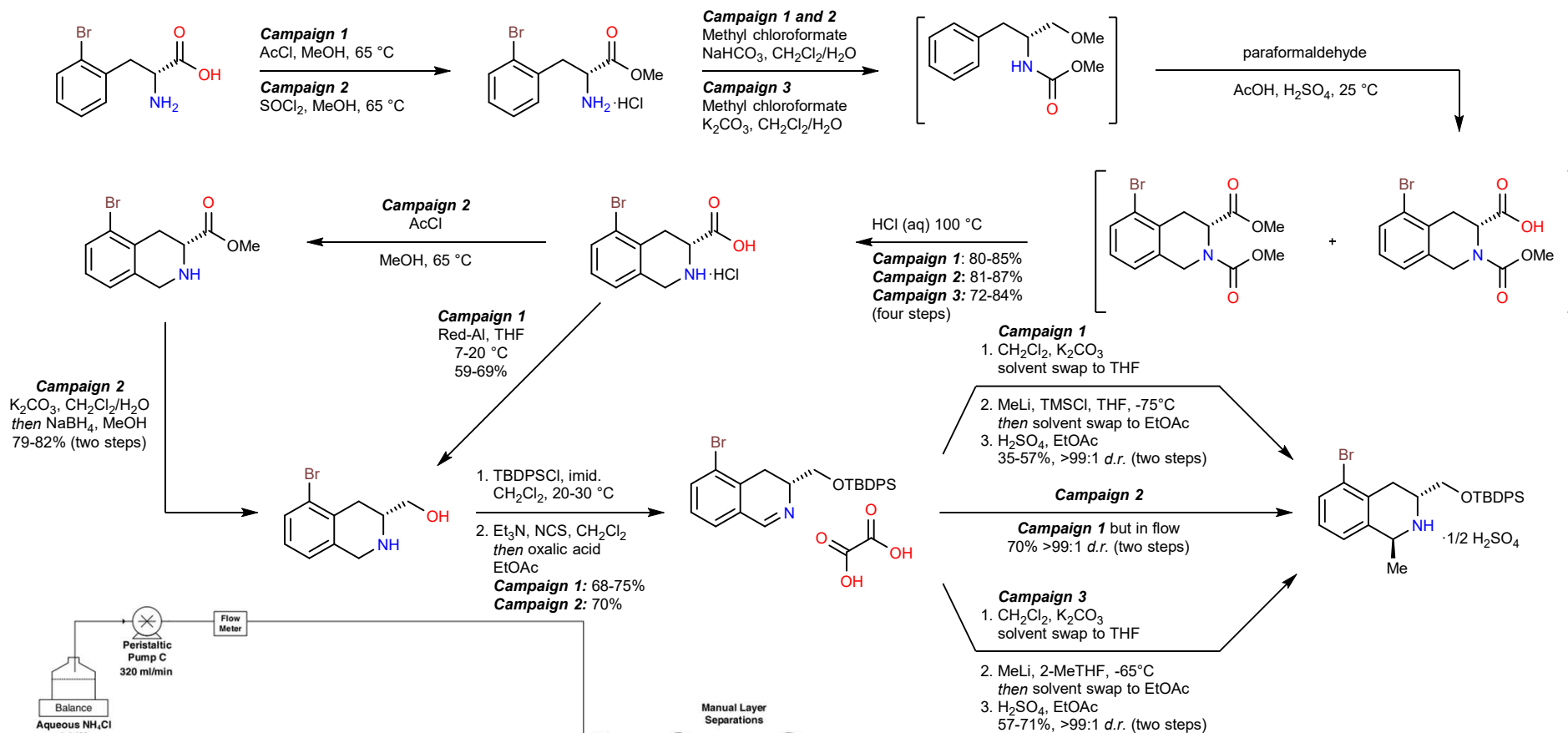
Initial Discovery Route



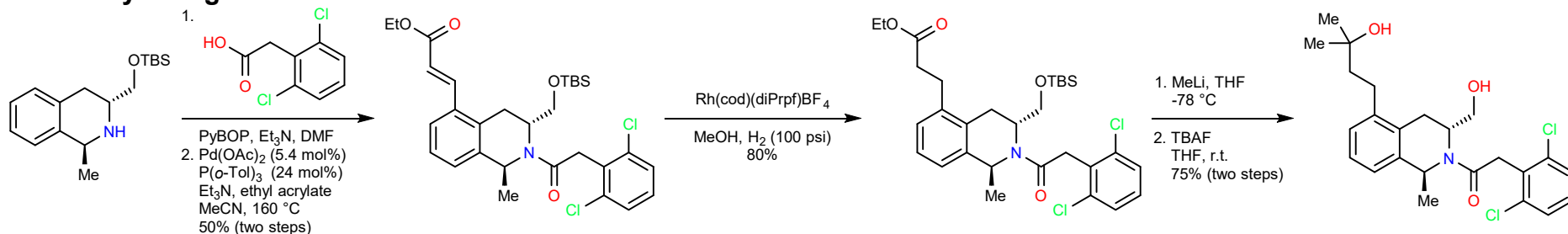
Preclinical Toxicology Route



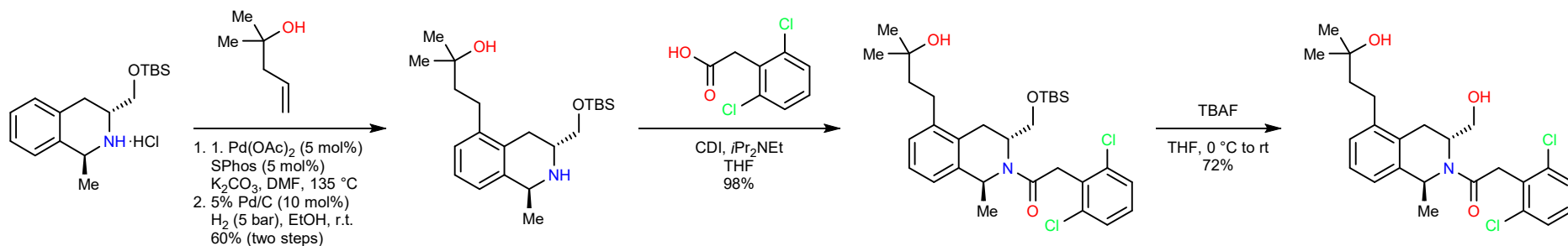
Process Routes



Discovery: Endgame



Preclinical Toxicity: Endgame



Process: Endgame

