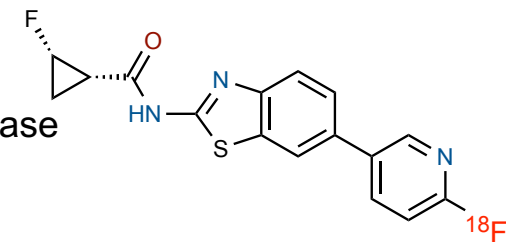


PET Imaging in Parkinson's Disease

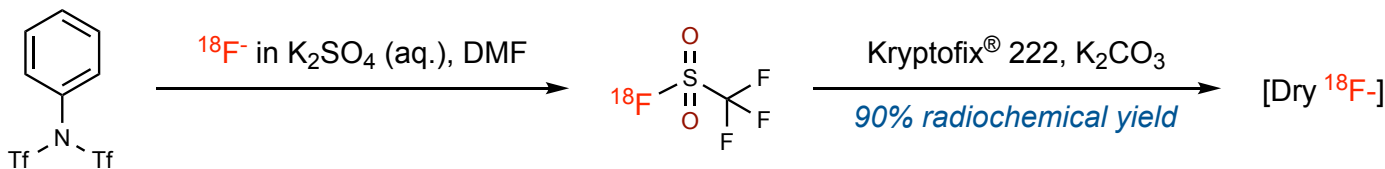
- Activated Abelson non-receptor tyrosine kinase (c-Abl) plays a role in neurodegenerative diseases like Parkinson's
 - C-Abl directly phosphorylates proteins that are central in Parkinson's disease (PARKIN, α -synuclein)
- Inhibition of c-Abl has shown promise as a way to treat Parkinson's
 - The effect of c-Abl in disease progression and its therapeutic potential is unknown
- Imaging of the complex with PET may provide insight into c-Abl's role in Parkinson's



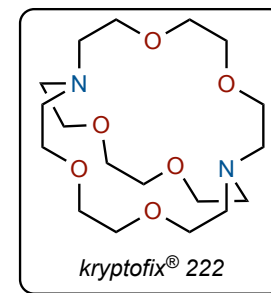
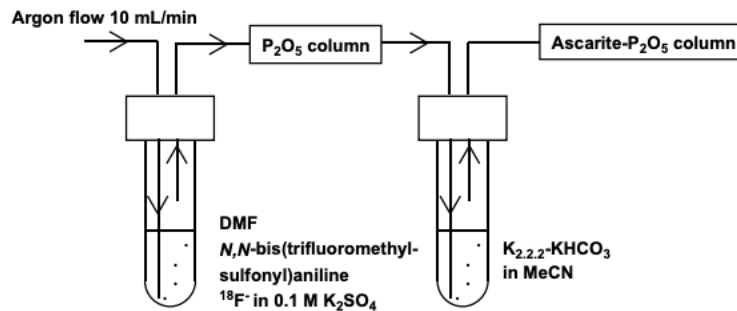
*¹⁸F-labelled
C-Abl inhibitor*

[¹⁸F] Labelling – Half life of 110 minutes

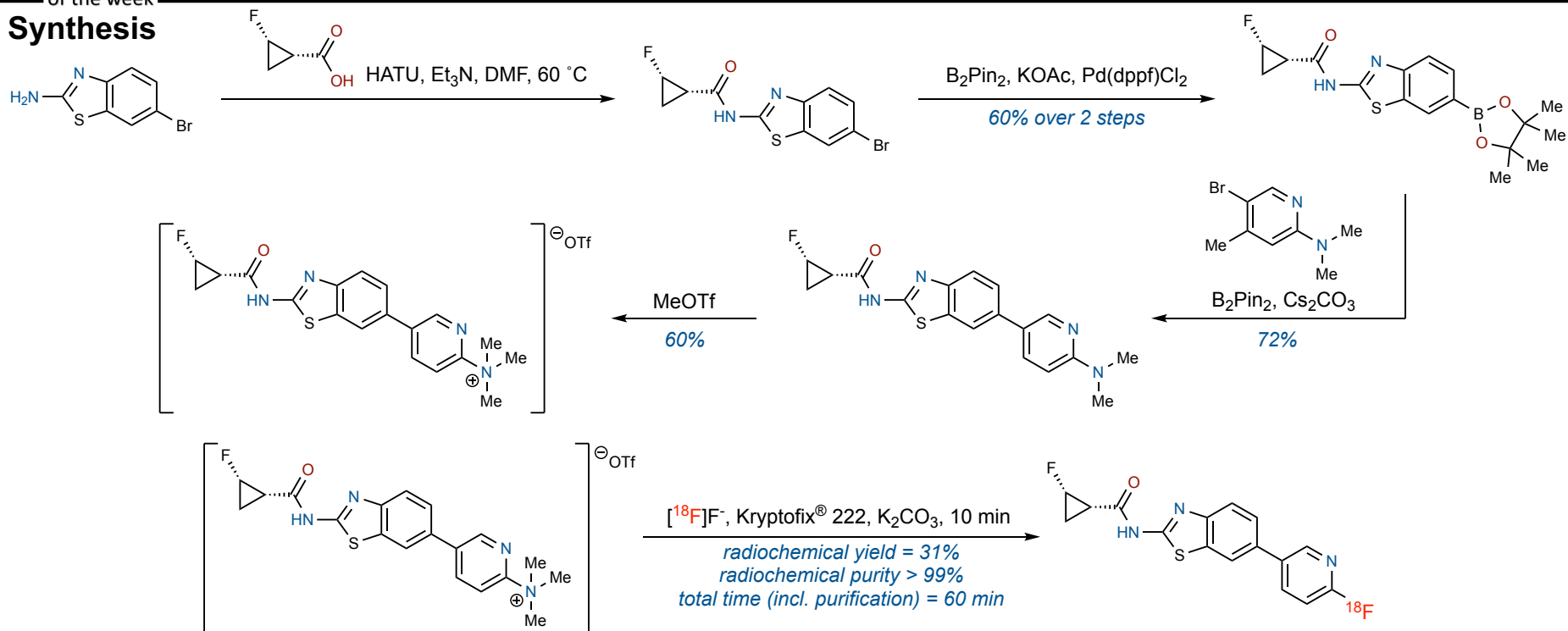
[¹⁸F] is generated by proton bombardment of [¹⁸O]water and passed into the following reaction:



Gaseous triflyl fluoride can be blown into a dry solution of kryptofix[®] 222 and base
 This water-free labelled fluoride (dry ¹⁸F-) can be used for substitution reactions.
 This process avoids azeotropic drying of fluoride and improves radiochemical yield.



Synthesis



Access to this PET imager allowed for stability and binding optimization

