The identification of potential PET ligands for alpha-synuclein fibrils

- \(\alpha\)-Synuclein – 140 a.a. protein found mainly in presynaptic terminals
- \(\alpha\)-Synuclein aggregates - hallmark for Parkinson’s disease (PD) pathology
- Michael J. Fox Foundation funded consortium to develop PET ligands for \(\alpha\)-synuclein
- Developed two HTS competition binding assays for aggregated \(\alpha\)-synuclein fibrils
- Radioligand binding assays developed with \(\alpha\)-synuclein fibrils and with PD tissue
- Identified series of compounds with high affinity for aggregated \(\alpha\)-synuclein
- Compounds with high affinity for patient PD tissue
- Radiolabelled examples prepared and demonstrate selectivity for PD over AD tissue
- Basis established for further optimization of lead series