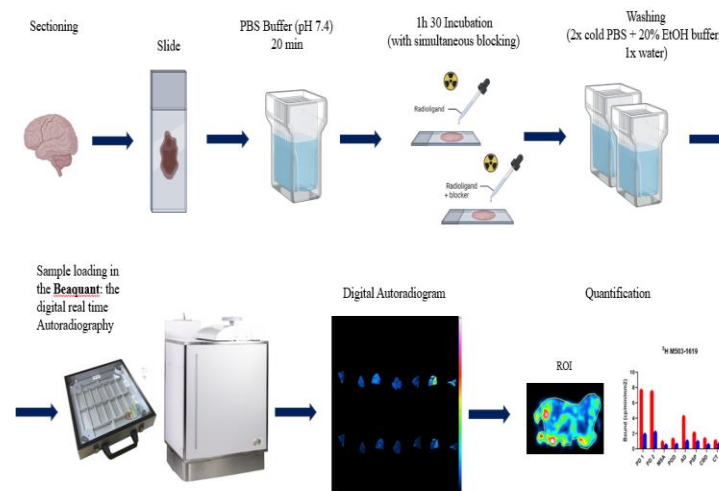


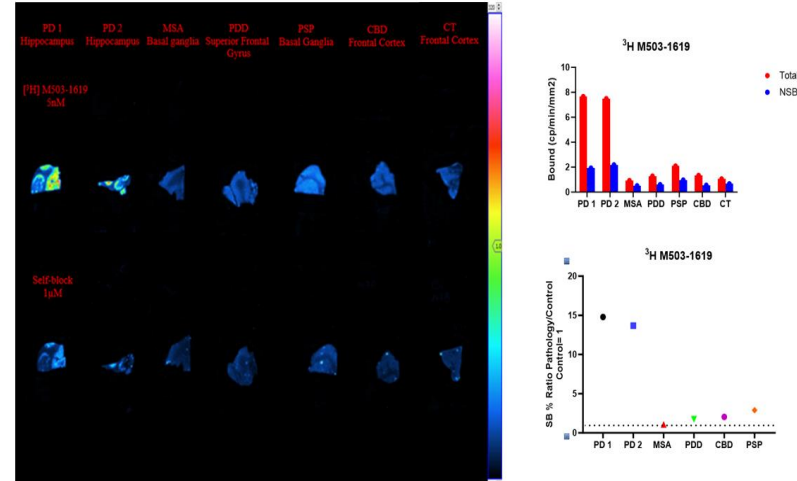
Introduction

- The accumulation of aggregated α -synuclein is a pathological hallmark of Parkinson’s disease (PD) and other synucleinopathies, such as dementia with Lewy bodies and multiple system atrophy (MSA).
- The ability to image α -synuclein deposition in the brain would be key for the diagnosis of synucleinopathies, to monitor the disease progression over time, and to facilitate the development of novel treatments.
- Here within, we report the in vitro characterization of two potential radioligands for the detection of α -synuclein respectively in Parkinson’s disease and multiple system atrophy.

Experimental procedure

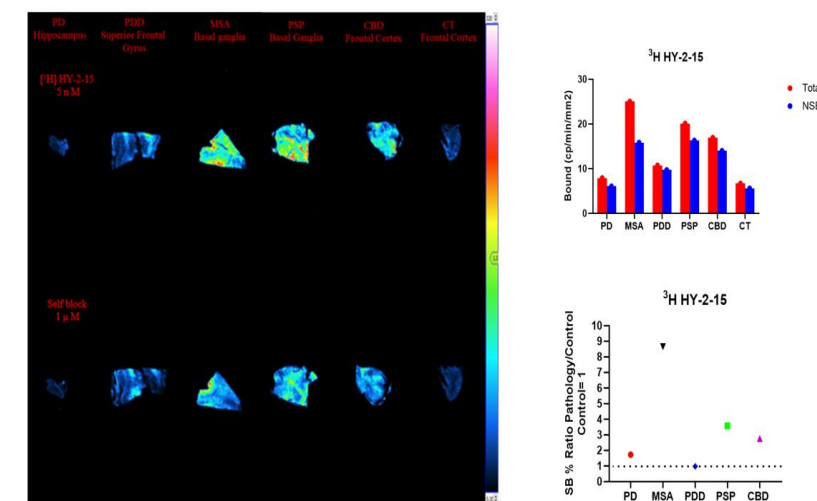


[³H] M503-1619 in vitro real time autoradiography



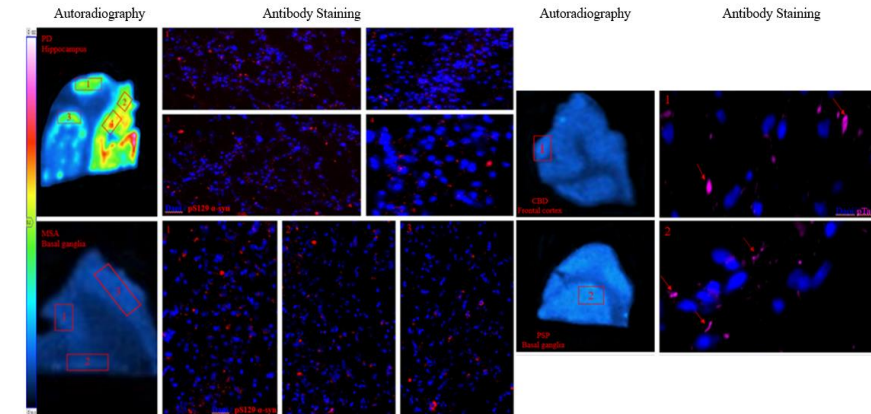
[³H] M503-1619 specific binding on brain tissue from different α -synucleinopathy and tauopathy cases.

[³H] HY-2-15 in vitro real time autoradiography

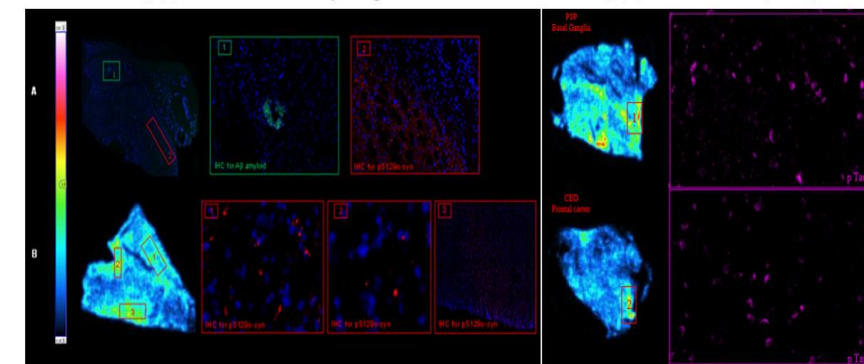


[³H] HY-2-15 specific binding on brain tissue from different α -synucleinopathy and tauopathy cases.

[³H] M503 and [³H] HY-215 Immunohistochemistry study



[³H] M503-1619 autoradiography on human brain sections from different cases and its colocalization with pS129 α -synuclein and ptau (AT8) IHC.



[³H] HY-2-15 autoradiography on human brain sections from different cases and its colocalization with pS129 α -synuclein and ptau (AT8) IHC.

Conclusions

- [³H] HY-2-15 showed potential for imaging GCIs in MSA patients, while [³H] M503-1619 for Lewy bodies in PD.

Acknowledgement

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