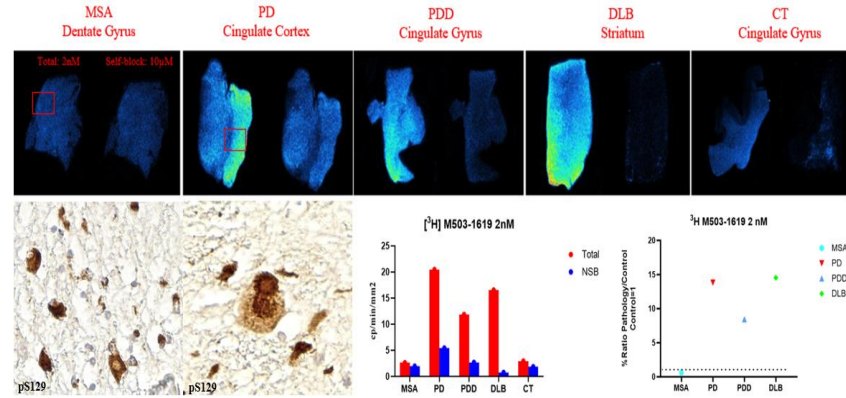


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### Introduction

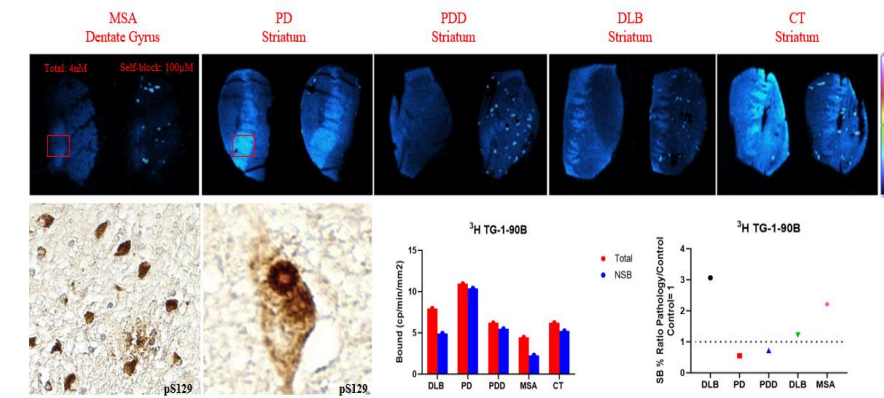
• **Goal:** to characterize the in vitro binding properties of 3 radioligands for imaging  $\alpha$ -syn aggregates in postmortem samples of the synucleinopathies: [<sup>3</sup>H]TG-190B (Site 2), [<sup>3</sup>H]HY-2-15 (Site 9), and [<sup>3</sup>H]M503-1619 (Site 9).

### [<sup>3</sup>H] M503-1619 *in vitro* real time autoradiography



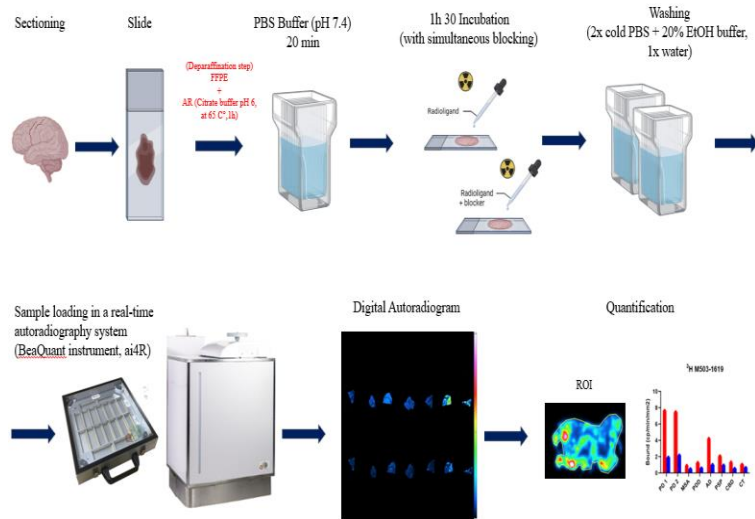
- Autoradiogram showing Total, NS and relative specific binding ratio of [<sup>3</sup>H] M503-1619 in FFPE human brain sections from synucleinopathies. Co-localization of the ARG signal with pS129 a-syn staining.

### [<sup>3</sup>H] TG-1-90B *in vitro* real time autoradiography

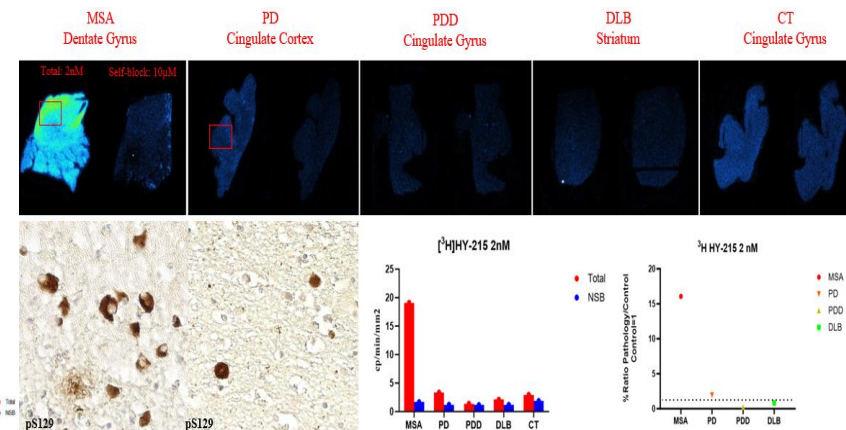


- Autoradiogram showing Total, NS and relative specific binding ratio of [<sup>3</sup>H]Tg-1-90B in FFPE human brain sections from synucleinopathies. Co-localization of the ARG signal with pS129 a-syn staining.

### Experimental procedure



### [<sup>3</sup>H] HY-2-15 *in vitro* real time autoradiography



- Autoradiogram showing Total, NS and relative specific binding ratio of [<sup>3</sup>H] HY-2-15 in FFPE human brain sections from synucleinopathies. Co-localization of the ARG signal with pS129 a-syn staining.

### Conclusions

- Site 2 ligand Tg-1-90B is able to detect  $\alpha$ -syn inclusions in PD and DLB patients but the NSB is high. M503-1619 preferentially recognize  $\alpha$ -syn aggregates in PD, PDD and DLB brain tissue over  $\alpha$ -syn lesions in MSA patients. HY-2-15 autoradiography supports its use for imaging  $\alpha$ -syn in MSA patients. The reason for the discrepancy in the behavior of the Site 9 radioligands is not clear.

### Acknowledgement

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