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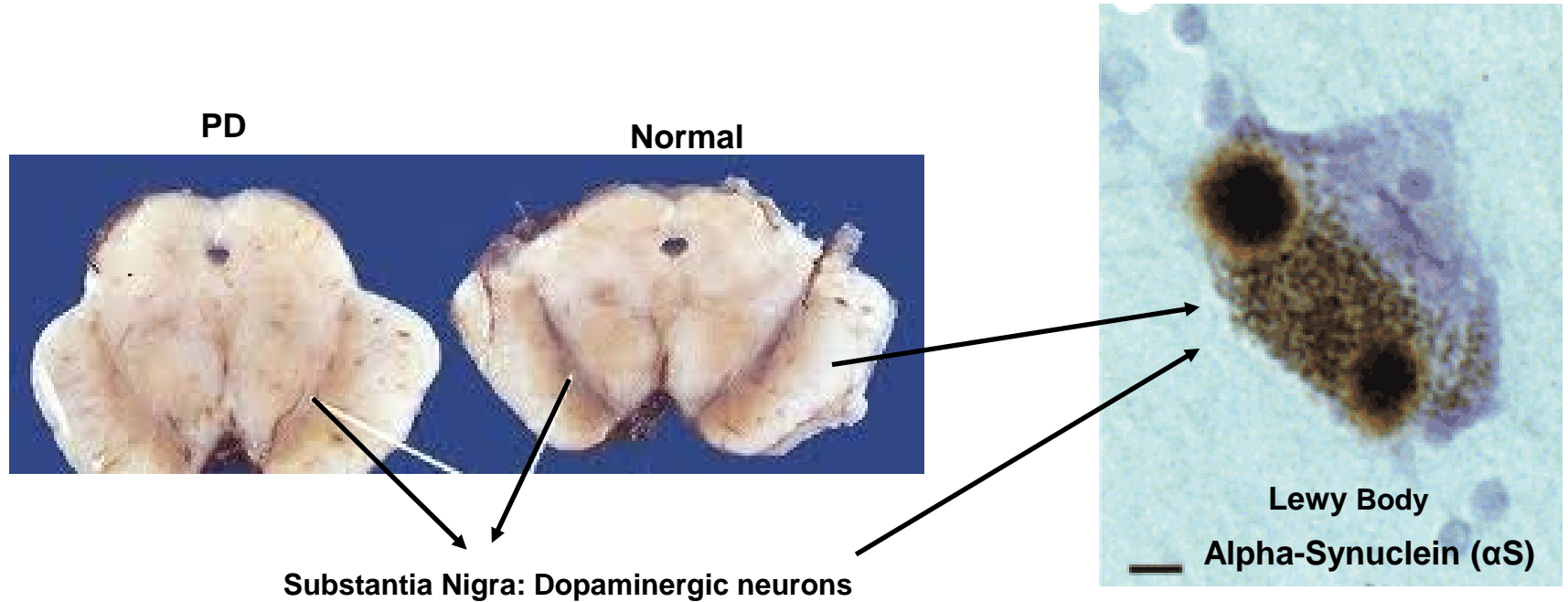
Methods in Neurobiology

An Update on Parkinson's Disease

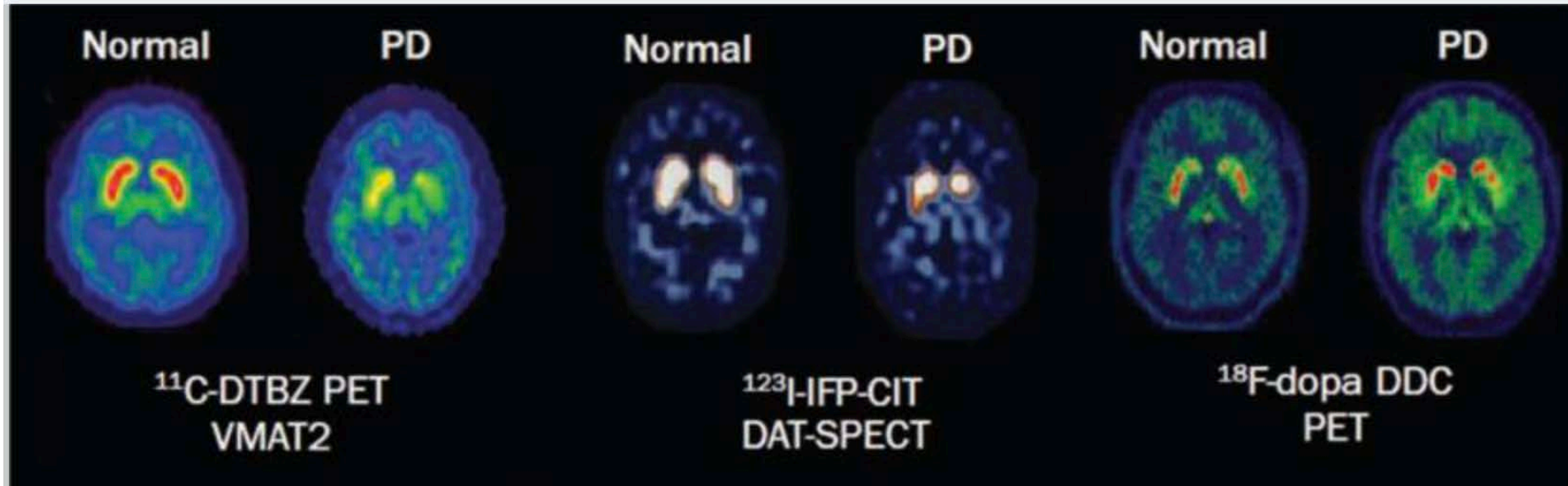


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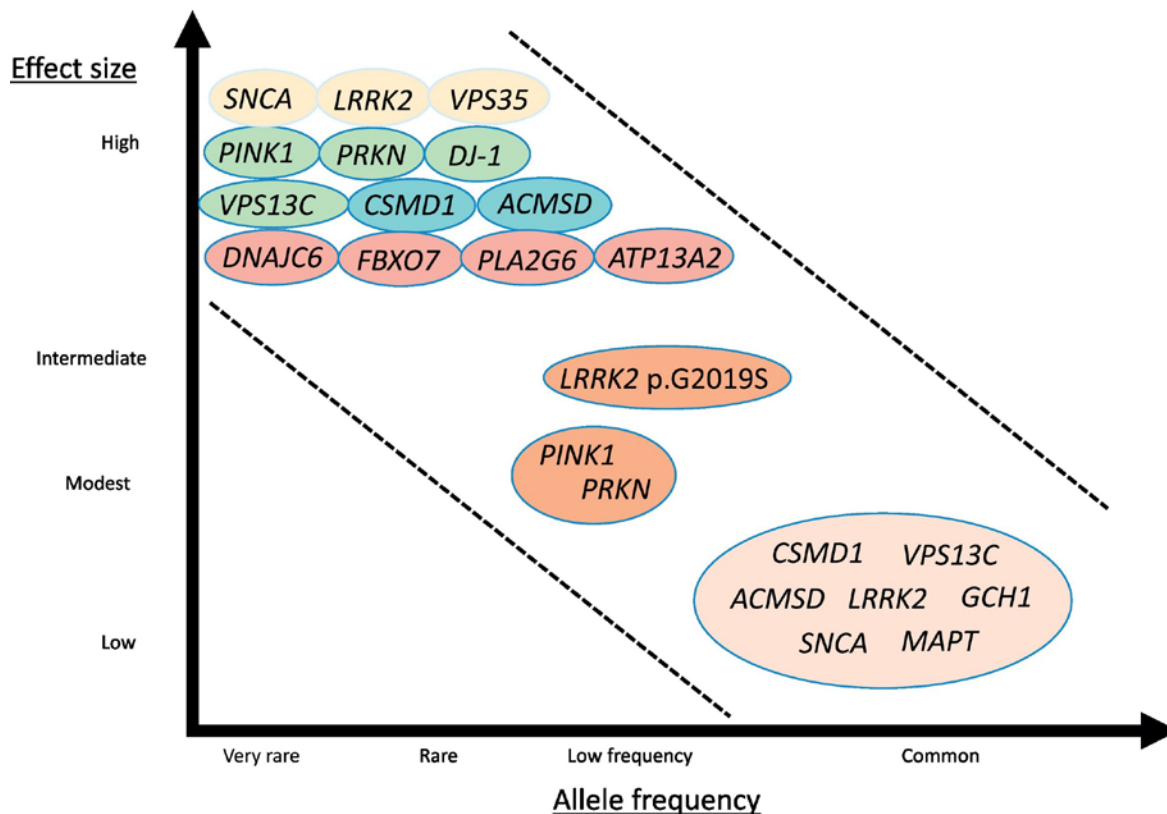
Classic pathology hallmarks of PD



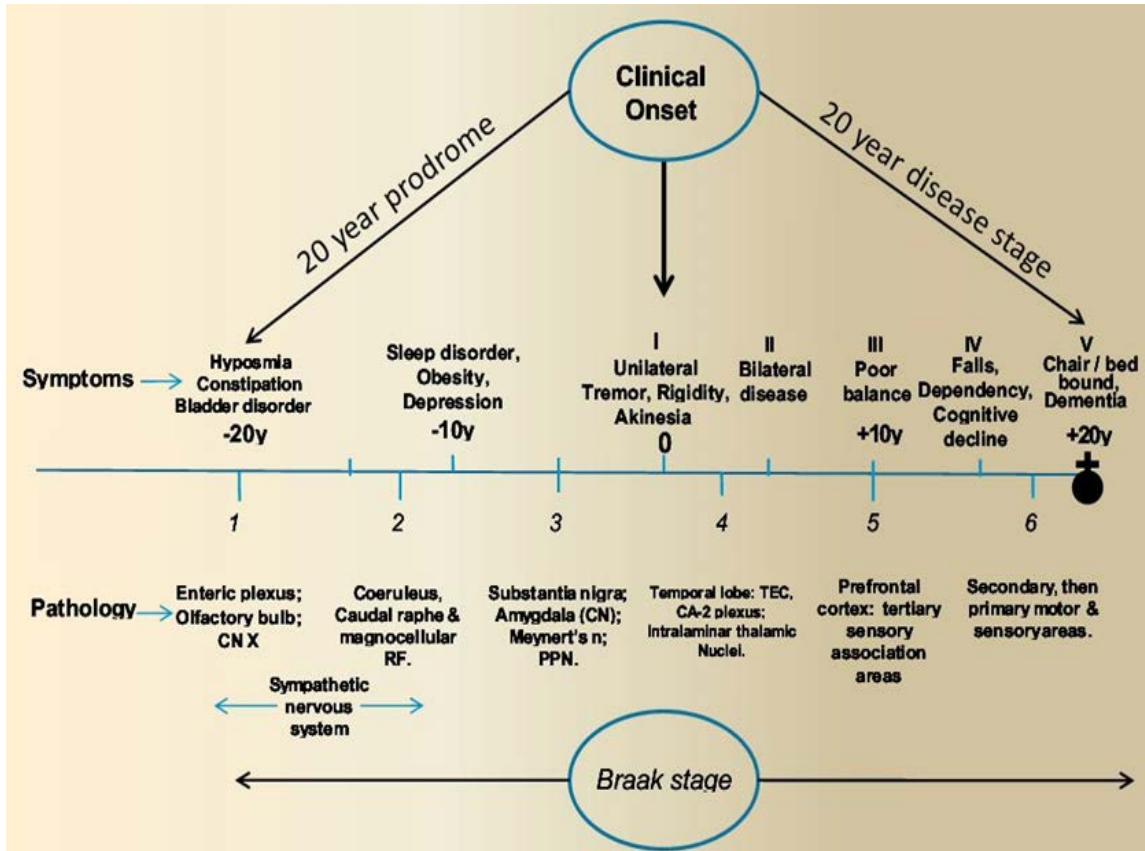
Neuroimaging in PD



Genes associated with PD

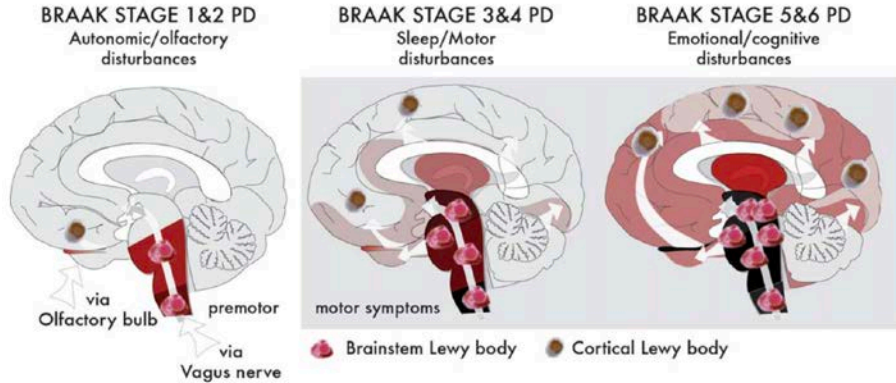


PD non motor symptoms and Braak staging



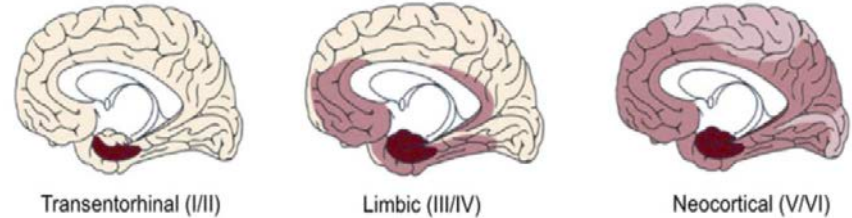
Braak staging in PD and AD

PD

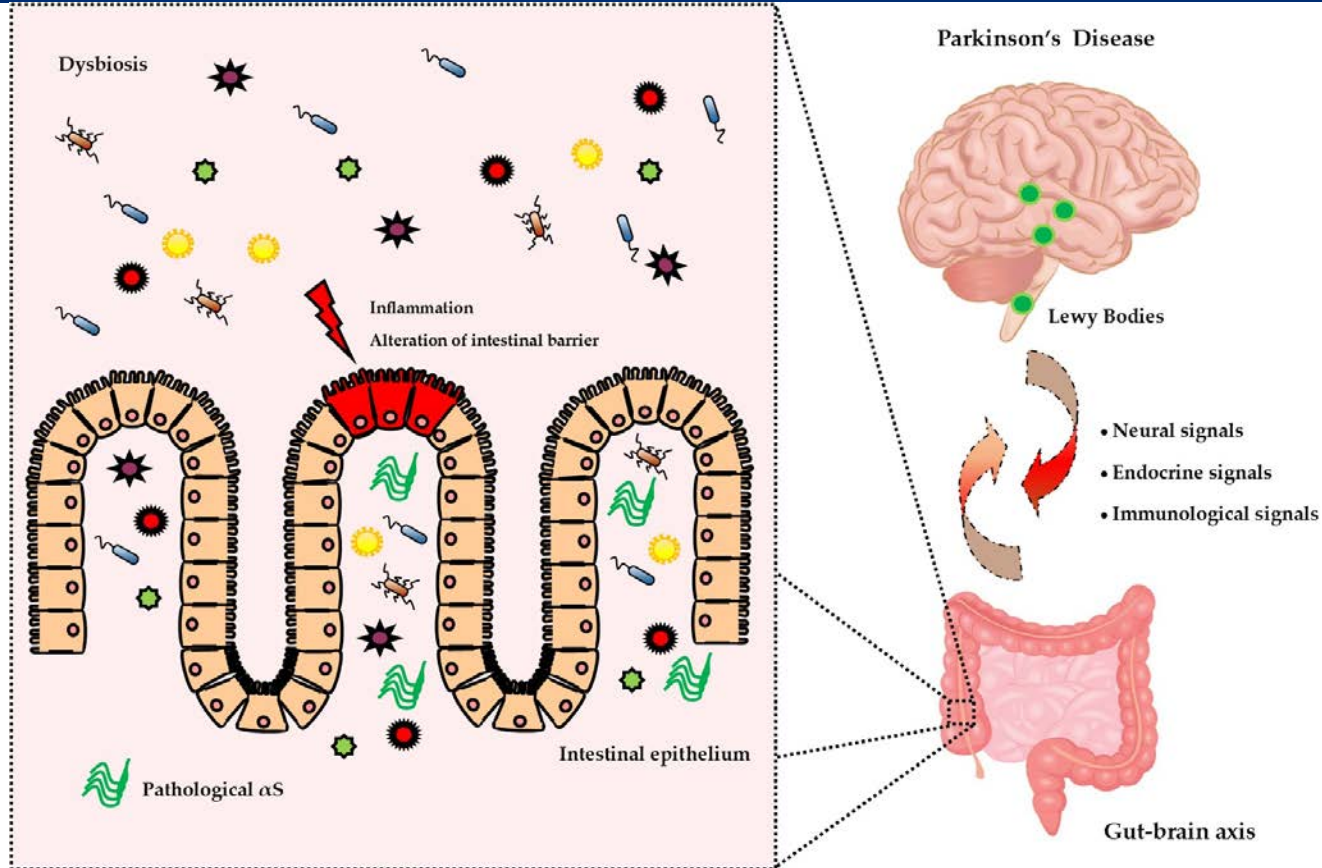


AD

A. Braak stages (post mortem)



Gut-brain axis in PD



References

Slide	Reference
2	
3	Pagano G, Niccolini F, Politis M. 2016 Imaging in Parkinson's disease. Clin Med (Lond). 16(4):371-375.
4	Reed, X., Bandrés-Ciga, S., Blauwendraat, C., Cookson, M.R. 2019 The role of monogenic genes in idiopathic Parkinson's disease. Neurobiology of Disease, 124, 230-239.
5	Hawkes, C.H., Del Tredici, K., Braak, H. 2010. A timeline for Parkinson's disease. Parkinsonism & Related Disorders, 16 (2), 79-84.
6	Heiko Braak, Kelly Del Tredici, Udo Rüb, Rob A.I de Vos, Ernst N.H Jansen Steur, E Braak., E. 2004 Staging of brain pathology related to sporadic Parkinson's disease, Neurobiology of Aging, 24 (2): 197-211. Schöll, M., Maass, A., Mattsson-Carlsson, N., Ashton, N., Blennow, K., Zetterberg, H., Jagust, W. 2018 Biomarkers for tau pathology. Molecular and Cellular Neuroscience. 97, 18-33.
7	Miraglia, F.; Colla, E. 2019 Microbiome, Parkinson's Disease and Molecular Mimicry. Cells, 8, 222.



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