IMPRiND – Inhibiting Misfolded Protein Propagation in Neurodegenerative Diseases – is an international consortium that aims to map and target critical steps in the propagation of misfolded tau and α-synuclein proteins, considered the main culprits of neurodegeneration in Alzheimer’s and Parkinson’s disease respectively.

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Alzheimer’s and Parkinson’s diseases are age-related neurodegenerative disorders without cure. They are characterized by the progressive loss of brain cells often along interconnected networks. Recent evidence suggests that this progressive march of pathological lesions may be due to the release and uptake of specific aggregated proteins which act as templates for further aggregation once inside cells. How-ever, a complete understanding of such events and the under-pinning cellular mechanisms is still lacking. IMPRiND aims to fill this knowledge gap and develop tools and assays for targeting these pathways to pave the way for novel therapeutics that could delay the progression of Alzheimer’s and Parkinson’s disease.

In Alzheimer’s disease, affected patients suffer from a progressive loss of memory whereas in Parkinson’s disease the most prominent symptoms relate to slowness of movement as well as memory decline in some of the patients. Today, over 45 million people worldwide live with dementia and up to 10 million with Parkinson’s disease. It is estimated that the number of patients with neurodegenerative brain diseases will increase to 131.5 million by 2050 (World Alzheimer Report 2015). The burden on caregivers who are often family members is huge. With an estimated 160 billion Euros of costs of care annually in Europe alone, this translates into a high socioeconomic burden.

IMPRiND is part of the Innovative Medicines Initiative (IMI) which is working to improve health by speeding up the development of, and patient access to, the next generation of medicines, particularly in areas where there is an unmet medical or social need. It does this by facilitating collaboration between the key players involved in health-care research, including universities, pharmaceutical companies, other companies active in healthcare research, small and medium-sized enterprises (SMEs), patient organisations, and medicines regulators.

IMI is a partnership between the European Union and the European pharmaceutical industry, represented by the European Federation of Pharmaceutical Industries and Associations (EFPIA).

IMPRiND started in March 2017 and will run until February 2021.