

Título del Proyecto	<b>Activity and connectivity drive neuronal vulnerability and disease progression in Parkinson's disease</b>
Nº de expediente asignado / grant number	ASAP-020505
Abstract	<p>Specific brain circuits that are highly melanized with age are primarily affected, particularly early in Parkinson's disease (PD). Models incorporating this aspect of PD have only been developed recently and show that increased neuromelanin (NM) production causes neurodegenerative changes consistent with PD. The regulators of cellular NM metabolism have not been determined, the effect of NM on normal activity in these pathways has not been defined (circuitry assessment), the potential for NM aggregates to increase <math>\alpha</math>-synuclein (aSyn) accumulation has not been evaluated, and the impact of extracellular NM on detrimental inflammatory processes has not been assessed (brain-body interactions). We will test whether activity in melanized brain circuits is a dominant factor in the initiation of PD and sustains its progression by seeding pathology in connected regions and providing the stimulus for chronic inflammation. We will also assess whether manipulating NM production and/or brain circuit activity can ameliorate these deficits.</p>
Entidad Financiadora	Aligning Science Across Parkinson's (ASAP)
Convocatoria:	2021 Program: ASAP CRN 2021: Circuitry and Brain-body Interactions
Importe de la ayuda	\$ 2.391.546,9
Fechas de ejecución del proyecto	01/11/2021 - 31/10/2024

*Aligning Science Across Parkinson's (ASAP) is a coordinated research initiative to advance targeted basic research for Parkinson's disease. Its mission is to accelerate the pace of discovery and inform the path to a cure through collaboration, research-enabling resources, and data sharing. The Michael J. Fox Foundation for Parkinson's Research is ASAP's implementation partner and issued the grant.*



Enlaces:

<https://www.michaeljfox.org/grant/activity-and-connectivity-drive-neuronal-vulnerability-and-disease-progression-parkinsons>