

**From**

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In Parkinsons disease the protein aggregate is called alpha synuclein. Some neat research that shows the protein aggregates to be dependent on intracellular pH.

Still think that the proteins may or may not have anything to do with the pathology. They could be a good marker in some way.

(see below)

Mitochondrial translocation of  $\alpha$ -synuclein is promoted by intracellular acidification

Mitochondrial dysfunction plays a central role in the selective vulnerability of dopaminergic neurons in Parkinson's disease (PD) and is influenced by both environmental and genetic factors. Expression of the PD protein  $\alpha$ -synuclein or its familial mutants often sensitizes neurons to oxidative stress and to damage by mitochondrial toxins. This effect is thought to be indirect, since little evidence physically linking  $\alpha$ -synuclein to mitochondria has been reported. Here, we show that the distribution of  $\alpha$ -synuclein within neuronal and non-neuronal cells is dependent on intracellular pH. Cytosolic acidification induces translocation of  $\alpha$ -synuclein from the cytosol onto the surface of mitochondria.