

# BACKGROUND

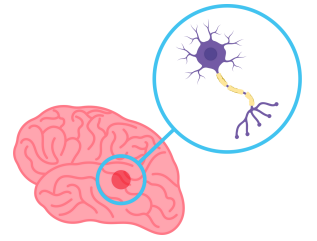
MILLIONS OF PEOPLE AROUND THE WORLD HAVE PARKINSON'S.

1



2

PATHOLOGY INCLUDES DOPAMINE DEGENERATION IN THE SUBSTANTIA NIGRA, INCREASING OXIDATIVE STRESS AND ALPHA-SYNUCLEIN AGGREGATION.



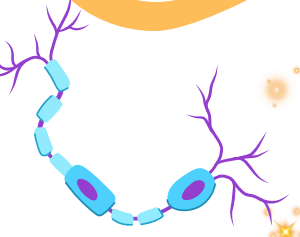
CURCUMIN HAS ANTI-INFLAMMATORY PROPERTIES AND HAS SHOWN TO HAVE NEUROPROTECTIVE EFFECTS ON PD MODELS.

3



4

GOLD NANOPARTICLES ALLOW EFFICIENT DRUG DELIVERY AND DEMONSTRATE SIGNS OF INCREASED DOPAMINE LEVELS AND REDUCED ROS LEVELS.



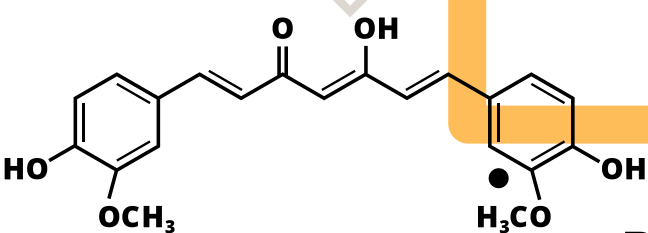
5

6-OHDA, A NEUROTOXIN, WILL BE USED TO MODEL OXIDATIVE STRESS AND INCREASING ROS IN C.ELEGANS.

6

C. ELEGANS IS UTILIZED AS THE MODEL ORGANISM DUE TO ITS SHORT LIFESPAN AND SIMPLICITY.

## TREATMENT



Plain curcumin

Plain gold nanoparticles

• Curcumin+Gold Nanoparticles