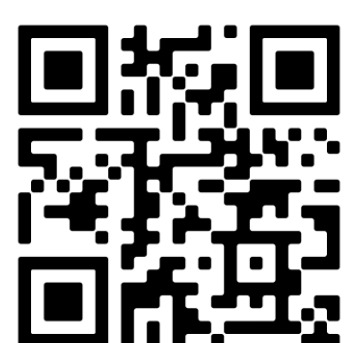


Informing the Development of Parkinson's Disease Therapeutics

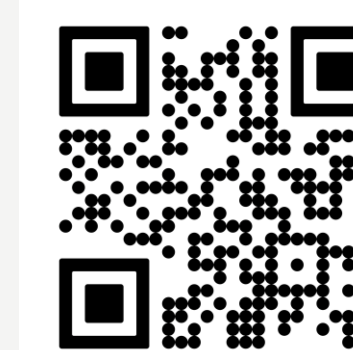
Dustin Heiden

School of Medicine

University of Colorado Anschutz Medical Campus
Dept. of Immunology and Microbiology



LinkedIn



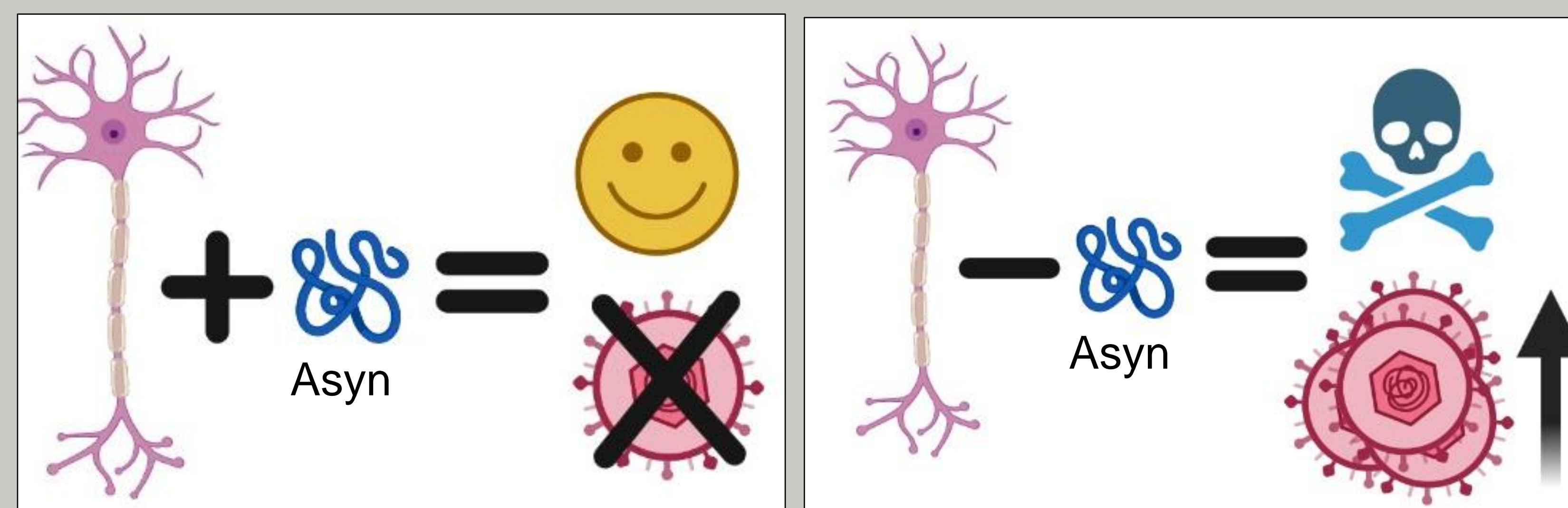
Beckham
Lab

The Social Burden of Parkinson's Disease

- Parkinson's Disease (PD) affects about 1 million people in the US, with cases projected to double by 2030.
- The economic burden of PD in the US is currently \$52 billion/year.
- Non-medical costs of PD is \$10,000/individual per year and is not covered by insurance.



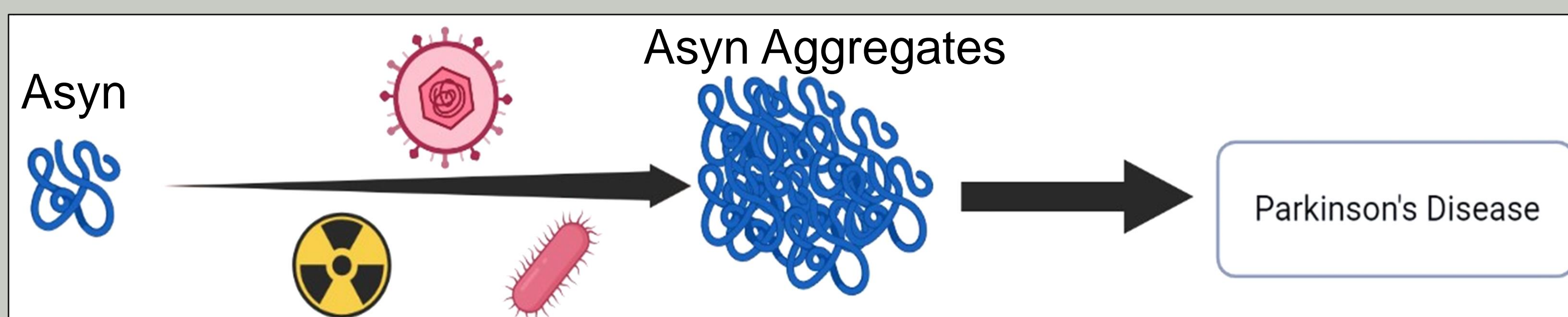
Alpha Synuclein and Viral Infections



- Neurons lacking alpha synuclein have more viral particles and succumb to viral infection.
- Alpha synuclein supports anti-viral, inflammatory pathways in neurons.

What Causes Parkinson's Disease?

- PD development is characterized by the aggregation of the neuron-specific protein, alpha synuclein, in the brain.
- Alpha synuclein (Asyn) aggregation is induced by many factors including viral infection and inflammation (below).



Future Therapeutics

- There are currently no medical interventions that halt the development of PD or cure PD.
- Our research suggests that future PD therapeutics should target inflammatory pathways to reduce alpha synuclein aggregation in the brain.