Simplified Approach to Alzheimer's Research:

1. Key Area 1: Mitochondrial Efficiency and ATP Synthesis
    - Focus: Restoring mitochondrial balance and increasing ATP production.
    - Action:
        - Model mitochondrial efficiency: Use real-world data from Alzheimer's patients and simulations of ATP synthesis impacted by fission/fusion imbalances.
        - Prediction: Pre- and post-Pentazocine treatment simulations to demonstrate how Sigma-1 receptor activation can restore energy output.
    - Specific Data Provided:
        - Current ATP yield in Alzheimer's neurons: ~30% less efficient due to disrupted PMF.
        - Post-intervention simulation: ~25-30% ATP recovery when mitochondrial dynamics are restored.
2. Key Area 2: Neurovascular Coupling and NO Bioavailability
    - Focus: How AngIV restores neurovascular function and impacts nitric oxide (NO) levels.
    - Action:
        - Demonstrate impact on NO bioavailability: Quantify the effect of AngIV on mitochondrial proton gradient stability and energy production.
        - Prediction: Post-AngIV treatment shows a 20-25% improvement in NO bioavailability leading to enhanced neuronal activity and cognitive function.
    - Specific Data Provided:
        - Pre-treatment NO bioavailability: ~40% reduction.
        - Post-treatment NO bioavailability improvement: ~80% normalized after AngIV intervention.
3. Key Area 3: Cognitive Recovery and Neurogenesis
    - Focus: Link between improved ATP production, neurogenesis, and cognitive function recovery.
    - Action:
        - Connect ATP recovery to cognitive function: Use ATP production models to show how energy recovery enhances synaptic plasticity and memory.
        - Prediction: A ~15% increase in synaptic plasticity and neurogenesis in hippocampal neurons post-intervention.
    - Specific Data Provided:
        - Pre-treatment dendritic arborization: ~20% reduction in length.
        - Post-treatment dendritic recovery: ~90% restored after AngIV treatment.

https://cosmicvibe.vgcats.com/
Scott Ramsoomair
September 26, 2024