## Neurodegeneration, Parkinson's Disease, Epigenetics

**Hallmarks of Neurodegeneration**
- Amyloid Plaque in Alzheimer’s Disease
- Neurofibrillary Tangle Formation in Alzheimer’s
- ATP-dependent Chromatin Remodeling
- Autophagy Signaling
- DNA Methylation
- Dopamine Signaling in Parkinson's Disease
- Writers & Erasers of Histones H2A, H2B, and H4
- Epigenetic Writers and Erasers of Histone H3
- Inflammasome Signaling

**Jak/Stat: IL-6 Receptor Signaling**
- m6A RNA Regulatory Diagram
- mTOR Signaling
- Neuronal and Glial Cell Markers
- NF-κB Signaling
- Regulation of Apoptosis
- RNA Lifecycle
- Senescence Signaling
- TREM2 Signaling
- Vesicle Trafficking Presynaptic Signaling

---

**BioLegend’s immunology portfolio provides numerous resources to complement neuroinflammation research, which involves signaling proteins, receptors, and cells.**

- [Neuroinflammation webpage](#)
- [Neuroinflammation brochure](#)

Understanding and tracking neuronal cell death is a key component of neuroinflammation and neurodegeneration studies.

- [Cell death reagents](#)
- [Cell health and proliferation webpage](#)

It is vital to understand the hundreds of proteins that coordinate the basis for higher nervous system functions, such as cognition, memory, and movement.

- [Products for synapse](#)
- [Synaptic function webpage](#)

Dysregulation of autophagy can have fatal consequences for cells, which is why it has been linked to diseases like cancer, neurodegeneration, and pathogenic infections.

- [Autophagy webpage](#)
- [Aggrephagy and Protein Aggregate Degradation](#)

Aside from ATP generation, mitochondria are critical for axon branching, synaptic function, and general glial cell function and neuronal repair.

- [Products for mitochondria](#)
- [Mitochondria Ejection and Astrocyte Cleanup](#)

Studies are identifying how epigenetics can help neural cells with information storage and circuit regulation, and prevent neurodegenerative diseases.

- [Products for epigenetics](#)
- [Epigenetic Modification](#)

---

## Neuropeptides, Alzheimer’s Disease, Multiple Sclerosis, Opioids

### Alzheimer’s Disease
- Beta-Amyloid (X-28)
- Beta-Amyloid (1-40)
- Beta-Amyloid (1-42)
- Beta-Amyloid (X-40)
- Beta-Amyloid (X-42)
- Beta-Amyloid Peptide Fragments
- Cathepsin D and E FRET Substrate
- Colivelin
- Humanin, HN
- Neurogranin
- Tau

### Multiple Sclerosis
- Myelin Oligodendrocyte Glycoprotein (MOG)
- Myelin Basic Protein (MBP)
- Myelin Proteolipid Protein (PLP)
- Peripheral Myelin Protein P0 (180-199), mouse

### Neuropeptides
- Galanin, human
- Neuropeptide S, NPS, human
- Neuropeptide S, NPS, mouse
- [Leu31, Pro34] Neuropeptide Y, human, rat
- Neuropeptide Y, human, rat
- Orexin A, bovine, human, mouse, rat
- Orexin B, human
- Orexin B, mouse/rat
- Secretoneurin

### Opioids
- β-casomorphin (1-7)
- Deltorphin A
- Dynorphin A (1-17)