

BIO303
The Saylor Foundation's "Retrograde Degeneration"

Retrograde degeneration is neuronal degeneration in the opposite direction of anterograde degeneration. When a nerve axon is cut, crushed, or frozen, the part of the axon that remains connected to the neuronal cell body undergoes damage and may begin to degenerate. Damage to the axon causes pathologic changes in the cell body of the neuron proximal to the axon lesion. These changes include chromatolysis. Chromatolysis is the disruption and dispersion of Nissl bodies, which are large granular bodies in the neuronal cell thought to be involved in neurotransmitter synthesis. This disruption of Nissl bodies is associated with cytoskeletal rearrangement and accumulation of intermediate filaments. Neuron cell bodies with disrupted Nissl bodies become large and vesicular.

