**FIG 1. THE CASCADE OF EVENTS LEADING TO ALZHEIMER’S LESIONS**

- **Soluble fragments of amyloid-β trigger excitotoxic release of glutamate**
  - Insoluble deposits of amyloid-β accumulate in the extracellular space
  - Synaptic connections degenerate
  - Death of neurons

- **Cascade of excitotoxicity**
  - Release of toxic levels of the neurotransmitter glutamate
  - ‘Scaffold’ protein tau forms neuritic tangles within cytoplasm of neurons
  - Astrocytes are less able to break down amyloid-β and glutamate
  - Synaptic connections degenerate
  - Death of neurons

- **Signs and symptoms of dementia**
  - Loss of neurons in areas such as hippocampus affects short-term memory
  - Loss of synaptic plasticity and ability to learn new things
  - Increasing difficulty in performing tasks of everyday living