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Autore	William C. Cho
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Sommario/riassunto	<p>Neurodegeneration is characterized by the progressive loss of neural tissue that result in various neurodegeneration-initiated cerebral failures and complex diseases such as Alzheimer's disease, Parkinson's disease, Huntington's disease. All these medical conditions are accompanied by the disruption of blood-brain barrier (BBB). The BBB is an interface, separating the brain from the circulatory system and protecting the central nervous system from potentially harmful chemicals while regulating transport of essential molecules and maintaining a stable environment. Owing to the inability of the neurons to regenerate on their own after neurodegeneration or severe damage to the neural tissue, neurodegenerative disorders do not have natural cures on their own. Neuroregeneration is a viable way to curb neurodegeneration. One of the current approaches is stem cell-based therapy that has been shown to be potentially helpful for the application of neuronal cell replacement for neuroregeneration. It is vital that the neurodegenerative disorder being detected at an early stage as it can provide a chance for treatment that may be helpful to prevent further progression of the fatal disease. Thus, research has focused on developing effective non-invasive diagnostic methods for early detection of these disorders. Molecular diagnostics can provide a powerful method to detect and diagnose various neurological disorders. Such diagnosis can enhance early detection, provide subsequent medical counsel based on medical pathway, as well as to</p>

gain better insight of neurogenesis and hopefully eventual cure of the neurodegenerative diseases. With research reports, reviews, mini-reviews and commentary, this research topic covers a wide range of areas in neurodegeneration research, including diagnosis and prognosis; regulating central nervous system; biomarkers and brain injury induced neurobehavioral outcomes among other timely reports on neurodegeneration.

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