

Special Issue

Brain Insulin Resistance in Neurodegenerative Disorders and Its Treatments

Message from the Guest Editor

Insulin signaling plays many vital roles in the brain, including promotion of neuronal development, inhibition of apoptosis and autophagy, facilitation of protein synthesis, and regulation of food intake, energy metabolism, synaptic plasticity, and cognition. Reduced responsiveness to insulin in the brain can thus have serious consequences. Indeed, evidence of brain insulin resistance has been reported in five neurodegenerative disorders—Alzheimer’s disease, Down syndrome, Parkinson’s disease dementia, Pick’s disease, and multiple system atrophy—as well as in traumatic brain injury. The same may be true for other neurodegenerative disorders in which systemic, but not brain, insulin resistance has been tested and found. This suggests that brain insulin resistance could be a common therapeutic target in diverse neurodegenerative disorders, all of which still lack fully effective disease-modifying treatments.

This Special Issue welcomes reviews and original research articles on cells and animal model studies on the etiology, mechanisms, and effects of brain insulin resistance in neurodegenerative disorders and on treatments being developed for them.

Guest Editor

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About the Journal

Message from the Editorial Board

Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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