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Glial Cells and Energy Intake: A Field That Is Gaining Weight

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Message from the Guest Editors

The control of body weight is complex and involves numerous factors controlling both the intake and expenditure sides of the energy balance equation. The brain contributes to the control of energy balance by integrating information linked to nutritional status which arises from peripheral organs. So far, most research on this field has focused on neuronal signaling, while the role of glial cells has been poorly explored. Our view of glial cells has evolved considerably over recent decades and these cells are now recognized as partners of neurons in contributing to brain functioning. Emerging evidence also suggests a significant role for glia (astrocytes, tanycytes, and microglia) in the control of energy balance. This Special Issue will be devoted to the recent advances in the role of glial cells in the regulation of energy balance, with a special emphasis on glial plasticity; the transport of nutrients, neurotransmitters, and hormones; glial receptor expression and responsiveness to metabolic signal; and gliotransmitter release. Original research articles and reviews are welcome.









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