Special Issue

Adipocyte Functionality in Whole-Body Metabolic Regulation

Message from the Guest Editor

Adipose tissue functionality plays a key role in the regulation of whole-body metabolism. Functional adipose tissue can effectively expand to store excess nutrients during caloric overload. Besides this energy storage function, adipose tissue secretes a large number of cytokines and hormones (commonly referred to as adipokines) that affect immunological and metabolic processes locally and systemically. However, these adipose tissue functions are often impaired in obesity. While healthy adipose tissue displays appropriate interplay between different adipose tissue-resident cells such as adipocytes and macrophages, obese dysfunctional adipose tissue is characterized by overactive innate and adaptive immune responses in addition to disturbed adipokine release. Moreover, dysfunctional adipose tissue may also display altered mitochondrial function as well as enhanced adipocyte hypertrophy, implying reduced recruitment of new adipocytes. In this Special Issue of *IJMS*, the focus will be on expanding adipose tissue and the resulting issues that trigger loss of proper immune regulation and adipocyte dysfunction.

Guest Editor

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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