Special Issue

Research on Adipose Tissue Metabolism and Thermogenesis

Message from the Guest Editors

Adipose tissue, traditionally regarded as a passive energy reservoir, is now recognized as a dynamic organ with significant metabolic and endocrine functions. It exists in two primary forms: white adipose tissue (WAT), which stores energy, and brown adipose tissue (BAT), specialized in energy dissipation as heat through thermogenesis.

Non-shivering thermogenesis mediated by BAT and beige adipocytes is crucial for maintaining energy homeostasis and body temperature. Dysregulation in adipose tissue metabolism, such as impaired lipolysis or mitochondrial dysfunction, can disrupt thermogenic activity, contributing to metabolic disorders like obesity and type 2 diabetes. Understanding the mechanisms governing adipose tissue metabolism and its relationship to thermogenesis not only deepens our knowledge of metabolic physiology but also opens avenues for innovative therapeutic strategies. This Special Issue brings together cutting-edge research exploring these processes, aiming to advance the field and inspire novel interventions for metabolic health.

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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