

Special Issue

Cellular Stress, Inflammation, and Metabolic Dysfunction in the Progression of MASLD

Message from the Guest Editor

Steatotic liver diseases (SLD), driven by alcohol, energy-dense foods (metabolic dysfunction-associated steatotic liver disease, MASLD), or toxicants, has greatly increased in the past 50 years, reaching approximately 30% of U.S. adults. Increased MASLD prevalence is linked to the obesity epidemic and its associated metabolic syndrome, whose incidence parallels that of MASLD. MASLD starts as steatosis, characterized by the accumulation of triglycerides; however, it can progress to metabolic dysfunction-associated steatohepatitis (MASH), characterized by inflammatory infiltration and fibrosis, accompanied by ballooning hepatocyte degeneration. Progression of hepatosteatosis to MASH is complex; it proceeds via a “multiple-hit” mechanism, in which the first hit is TG accumulation, with secondary hits being mitochondrial dysfunction, endoplasmic reticulum (ER), oxidative stress, and endotoxemia. The focus of this Special Issue of *Biomolecules* will be on the most recent advances related to MASLD caused by different types of stressors and mechanistic events that lead to MASLD development.

Guest Editor

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Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

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