Special Issue

Peptides of Natural Origin as Leads for Drug Discovery: From Native Structures to Peptidomimetics, Peptide-Conjugates, and Peptide-Nanoparticles 2.0

Message from the Guest Editor

More than 60 peptide therapeutics are currently marketed worldwide, another ca. 170 are in various stages of clinical development, and more than 200 others are at preclinical stages. The predominant therapeutic areas are in metabolic diseases and oncology, followed by infections; cardiovascular, respiratory, renal, and gastrointestinal disorders; pain; the CNS; and dermatology. The year 2017 was exceptional for peptide and peptidomimetic drugs, with six approved, in comparison with one in 2016: angiotensin II (for the control of blood pressure), etelcalcetide (for secondary hyperparathyroidism), plecanatide (for chronic idiopathic constipation), abaloparatide (for osteoporosis), semaglutide (for type 2 diabetes mellitus), and macimorelin (for GH deficiency).

In this issue, we intend to present the recent trends in peptide drug discovery, from naturally occurring peptides to peptidomimetics, from therapeutic applications to the new opportunities enabled by conjugation with biomaterials and nanotechnology.

Guest Editor

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