Special Issue

Chemical and Synthetic Biology Approaches in Cancer Immunotherapy

Message from the Guest Editors

Cancer immunotherapy is a promising and effective treatment strategy for different types of cancer in clinic. It is a broad concept that includes therapies based on antibodies, chimeric antigen receptor T cells, natural killer cells, bacteria, viruses, etc. Thus, interdisciplinary methods, such as chemical and synthetic biology approaches, facilitate the development of immunooncology. Recent chemical and synthetic biology advances have provided great opportunities for basic and translational studies of novel cancer immunotherapies, including the development of proteolysis targeting chimeric technology, molecular glues, etc., for mechanistic research, and the engineering of gene circuits in therapeutic cells. This Special Issue aims to provide a broad survey of the most recent advances in the methodology development and applications of chemical and synthetic biology approaches in cancer immunotherapy. Original research articles or reviews focused on basic or translational studies that discuss new chemical probes, drug leads. cancer vaccines, methodologies, and synthetic biology systems for immuno-oncology are welcome.

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As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts and novel materials. Pushing the boundaries of the discipline, we invite papers on multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

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