



Application of Natural and Pseudo Natural Products in Drug Discovery and Development

Collection Editor:

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Message from the Collection Editor

Natural products (NPs) and NP-based semi-synthetic compounds have recently regained increased attention by the scientific community due to their great structural and chemical diversity. Notably, NP-based molecules are valid sources for drug lead compounds because 60% of chemotherapeutic agents originate from natural products. On the other hand, pseudo-natural products (PNPs) combine natural product (NP) fragments in novel and intriguing arrangements which are not accessible via biosynthesis pathways. Moreover, they can be regarded as non-biogenic fusions of NP-derived fragments. Scientists have established new synthesis principles to go beyond the chemical space explored by nature by combining the principles of biology-oriented synthesis (BIOS) and fragment-based compound design. Interestingly, scaffolds from different NPs are combined and reconnected into new alternative molecular scaffolds, so-called pseudo-natural products.

The aim of this topical collection on natural product (NP)- and pseudo-natural product (PNP)-based drug discovery is to underline the most recent discoveries and progress in all fields of biological sciences dealing with NPs and PNPs.

