Editorial: Food/Diet Supplements from Natural Sources: Current Status and Future Challenges from a Pharmacological Perspective

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Nowadays, several natural products are used as food additives even if complete knowledge of their properties is not well performed. Often, several techniques can be employed to improve extractions, work up, and isolation/purification of bioactive from natural sources. These findings are well-reported and exposed in the S. Dall'Acqua et al., H.I. Ahmad et al., and X. Li. These Authors report new extraction procedures and chemical profiles able to justify specific biological activities with the phytocomplex. From an industrial point of view, the availability of procedures and knowledge (firstly developed in laboratory scale) is essential to obtain the scale-up and adequate quality control, particularly to the innovative instrument configurations able to improve, not only the analytical performances (especially sensitivity and selectivity) but also to reduce solvents consumption, timeper-analysis, ruggedness, following the GAC (Green Analytical Chemistry) guidelines. Specifically, this research topic focuses on the biological activities of a specific plant-derived material and the discovery of innovative activities and new biological targets. In this field, more interesting are the paper from Y. Zhang et al, De Jin et al, T. Blažević et al, Y. Chang et al, K. Schreck and M.F. Melzig. Furthermore, in Pharmacology and Ethnopharmacology, the focus on specific effects ideally on identifiable targets was devoted to this collection. Specifically, some papers report interesting approaches/applications of natural products on health protection, as J. Wang et al., Y. Ye et al., Manjing Jiang et al., and P.Y.A. Yong et al. In this Research Topic, were also present works on food supplements (J. Chen and K.W.K. Tsim), an interesting paper related to a very recent problem related to the naturally derived products that are not fully identified and regulated by current legislation, especially concerning heavy metals (A. Puścion-Jakubik et al.). Another essential element present in this Topic collection is the presence of 2 review papers referring the first to the trends of adulterated and illegal food supplements in the EU based on the warnings of the Rapid Alert System for Food and Feed (D. Koncz et al.) and the potential of edible and herbal plants for the prevention and management of COVID-19 (S. Li et al.).

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