

Current status of natural product industry and its commercial application to health functional foods

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Natural product substances have historically served as the most significant source of new leads for pharmaceutical development. They can also be prepared by chemical synthesis(both semisynthesis and total synthesis) and have played a important role in the field of organic chemistry by providing synthetic targets. Recently, they have also been extended for commercial purpose to refer to medicinal products, health functional foods, dietary supplements and cosmetics from natural sources. A large number of currently prescribed drugs have been either directly derived from or inspired by natural products. However, with the advent of robotics, bioinformatics, high throughput screening(HTS), molecular biology-biotechnology, combinatorial chemistry, in silico(molecular modeling) and other methodologies, the pharmaceutical industry has largely moved away from plant derived natural products as a source for leads and prospective drug candidates. The strategy for natural product industry is now changing from drug approaches to health foods by identifying effective natural products as preparations. In Korea, a lot of development of natural product based drugs have been done, but very few on health functional foods. The concept of natural product based health foods is not active components as lead compounds but standardized extracts or preparation mixed with other medicinal plants. The representative material has been recently known to be a standardized ginseng extract " Ginsana G 115 " developed by Swiss Pharmaton company. The purpose of this presentation is to underline how natural products research continues to make significant contributions in the domain of discovery and development of new health functional foods. It is proposed to present the development of high value added health food or health functional foods through scientific investigation on efficacy and standardization of new materials form natural products.

Key words : Natural products, Health functional foods, Standardized materials