

The Present Status and Future of Food Chemopreventive Research for Cancer in Japan

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Summary

Recently, great attention has been paid to foodstuffs by consumers because of the various chemical constituents which may inhibit or promote the development of human diseases, including cancer.

Neoplasia is due to combined environmental and genetic factors and occurs mostly in older people.

From the most up-to-date statistics, about 320,000 people, 1 out of 3 of the total, die from this disease yearly in Japan. Causal factors in the environment have been epidemiologically studied and the evidence points to diet is an important factor for about 30 to 35 % of cases, which is the almost same as for tobacco. Therefore, diet, and possible chemoprevention by dietary factors is an important issue for cancer prevention.

Since the term cancer chemoprevention was coined in 1976 by Michael B. Sporn, extensive experimental studies have been conducted. However, while the findings have underscored the potential of chemoprevention, actual progress in implementation has been slow. Further, there are scientific and regulatory barriers affecting preventive agent development, as well as difficulties with patient and public perceptions regarding clinical trial participation and drug compliance, insurance policy and practical barriers affecting reimbursement for prevention agents, and intellectual property and patent laws affecting research and development as well as recovery of investment.

This article provides a comprehensive and up-to-date report of the field of cancer chemoprevention in Japan.