

S40-5 System Chemotherapy: Approach toward Overcoming Multifactorial Diseases from Medicinal Chemistry

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Pharmaceutical sciences in Japan have served health and the welfare of human by conducting the studies for "science and application of medicines". However, there is still a lot of illness that has no effective chemotherapy established such as metabolic syndrome, emerging-/re-emerging infectious diseases, cancers, Alzheimer disease. In other words, drug development is needed for the illness that is hard to be cured now. Many of these are multifactorial diseases, which cannot be easily treated with molecule target drugs and evidence-based medicine (EBM). For example, although many molecular targets for development of anti-metastasis agents have been identified, cancer metastasis cannot be controlled and cured. Natural products and the related compounds have provided excellent resources for several intractable diseases. I believe that it is the time to start remodeling of cocktail medical treatment for the establishment of system chemotherapy by scientific approaches including bio- and chemoinformatics technologies.

In the symposium, a concept of 'system chemotherapy' will be discussed by focusing on the approach of medicinal chemistry to overcome multifactorial diseases.