

## **Development for the Medicinal Chemistry Based on Biologically Active Natural Products in the Subtropical Zone**

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In April, 2005, the independent administrative institution, “Japan Society for the Promotion of Sciences,(JSPS)” has initiated the “Asia and Africa Science Platform Program” which is a new project aimed to establish core research institutions concerned with relevant fields, in addition, to foster young researchers, by building sustainable relations with counterpart core institutions from Asian and African countries. Applications for the new projects have been announced to the public. In March, 2006, our applied research topic was adopted for the new project of JSPS and Meiji Pharmaceutical University was selected as one of the core institutions.

In this project, we consider natural sources existing in partner countries to be the most important factor in the production of medicine. We will search for target compounds and analyze their structure, by screening biologically active natural products. Additionally we will design a functional molecule and create a process of retrieving a large supply of target compounds based on the bioprospecting strategy. (Bioprospecting is the search for potentially useful organic compounds in living things that will have some pharmaceutical or medical use.)

By operating these researches, we will focus on the basis of academic researches which are necessary for the development of the pharmaceutical and medical products industry in partner countries.

There are four selected research topics as followed: 1). Development of New Antitumor Agents based on Marine Natural Products; 2) Developments of New Anticoagulants and Anti-VEGF 3) Molecular Epidemiological Investigation of Emerging Infectious Diseases and Development of Novel Diagnosis and Therapeutic Agents; 4) Medicinal Chemistry on Biologically Active Natural Products from the Traditional Condiments and Medicines.

This presentation will provide one of results for development of tetrahydroisoquinoline marine natural products.