

Natural Products Chemistry and Chemical Biology

天然物化学とケミカルバイオロジー

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During the past 15 years, pharmaceutical industry research into natural products has declined, in part because of an emphasis on high-throughput screening of synthetic libraries. Recently there is substantial decline in new drug approvals. Concurrently, chemical biology involving in the small molecules regulating subcellular events and even *in vivo*, arose as a new research field during a past decade. Given the specific biological activity of natural products, the novel natural product will arguably continue to contribute on the development of chemical probes, imaging tools and medicines. From the point of view, the significance of novel natural products having specific biological activity is increasing.

Recently, the emerging tools such as new screening methods, metabolic engineering, molecular biology and synthetic biology offer exciting technologies for new natural product chemistry. Above all, the resource is so vast as to seem unlimited.

In this symposium, the recent studies of new natural product chemistry and development to chemical biology will be discussed. We hope to discuss and share the future of natural products chemistry in pharmaceutical sciences with most current and cutting-edge lectures.