

Strengthening Japan's Drug Discovery Capabilities Through Drug Discovery Systems Research

Studying medical drug discovery processes, strategies, and ecosystems from a global perspective, using the findings to support drug discovery research and contribute to policymaking

Japan's international competitiveness in drug discovery is weak. One reason for this is drug discovery startups are not nurtured adequately in Japan. Other countries are establishing ecosystems that provide professional support for university researchers and business startups aspiring to drug discovery, and these are rapidly generating new pharmaceutical products. This research project involves surveying and analyzing drug discovery management approaches and drug discovery ecosystems across the world and applying them to improve drug discovery capabilities in Japan.



Principal Investigator

OKUYAMA Ryo

Professor, College of International Management
Ritsumeikan Asia Pacific University

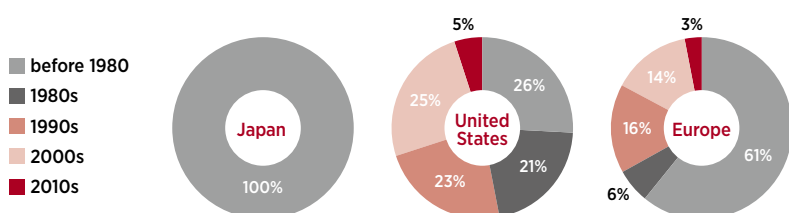
"I pursue my own academic research and support drug discovery research in the hope of improving Japan's drug discovery capabilities."

One of the few professionals in Japan with expertise in drug discovery processes and their management

Doing research on drug discovery management and drug discovery ecosystems demands knowledge of both pharmaceutical sciences and management, but there are very few researchers who are experts in both fields, and prior research is scarce. This is one of the reasons that it has not been possible to institute fundamental measures to strengthen drug discovery capabilities in Japan.

I, the principal investigator on this project, hold doctoral degrees in both pharmaceutical sciences and technology management,

and have experience working both in drug discovery research management as the global research head of a major pharmaceutical company, and in academia as a researcher in drug discovery innovation ecosystems. Applying my research findings to date and my many years of experience and knowhow, I continue to pursue highly unique partnerships with startups and drug discovery researchers, and with specialized authorities and companies.



The rise of drug discovery startups across the world and Japan's late start

This is a comparison of the years of establishment of companies in the United States, Europe, and Japan that produced new drugs approved by the U.S. Food and Drug Administration (FDA) between 2017 and 2021. In the US, 74% of new drugs were produced by startups and new companies established since 1980. On the other hand, 100% of new drugs from Japan were produced by "veteran" companies established before 1980

Aiming to support drug discovery research and propose a "Japan-style drug discovery innovation system"

Research findings will be deployed in the following two ways in order to strengthen Japan's drug discovery capabilities.

(1) In the field of drug discovery research, which demands advanced knowledge, know-how, and strategy, my professional expertise in drug discovery processes and management will be applied to provide startups and drug discovery researchers with practical advice and complementary support from an impartial standpoint.

(2) Based on analysis of drug discovery innovation ecosystems across the world, I will provide advice and proposals to policymakers, specialized authorities/associations, companies, and other stakeholders, toward the formulation of a "Japan-style drug discovery innovation system."

The drug discovery process, and the drug discovery management approach needed by academic researchers and startups pursuing this process

