

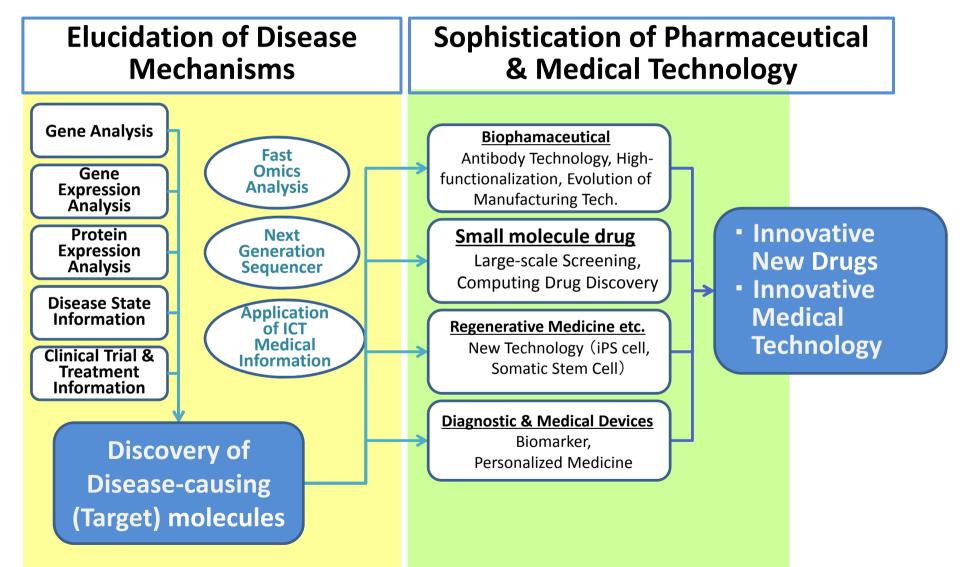
Outline of Comprehensive Collaboration with IFReC

CHUGAI PHARMACEUTICAL CO., LTD.
Executive Vice President
Yutaka Tanaka

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Global Trends in the R&D of Pharmaceutical & Medical Technology





Chugai's Strategy for Drug Discovery

CHUGAI

~Technology-driven Approach~

Next-generation (high functionalized) Antibodies

Diseasecausing Molecule

Selection of proper Drug Discovery **Target**

Development of Innovative Drug Discovery **Technology**

Small molecule Drugs

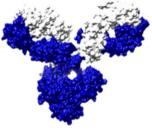
Middle molecule Drugs

Academia Research network

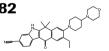
Joint Satellite Research Lab.

Matching of Technology & Target

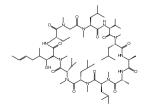
Antibody mw: 150.000



Small Molecule Alectinib, mw: 482



Middle Molecule Cyclic Peptide, mw: ~1,000~



Solution for Unmet Medical Needs

Value from the Collaboration of IFReC & Chugai

CHUGAI

~ Innovation created by the fusion of IFReC's cutting-edge Immunology research and Chugai's Drug Discovery Technology ~

IFReC

Great Source of Drug
Discovery Seeds with the
world's most advanced
Immunology, Bioimaging &
Bioinfomatics Resources



Chugai

Drug Discovery Approach
driven by Innovative
Technology capable of
applying Various Drug
Discovery Targets

- Understand the mechanism of Immune Disease
 - Identify Innovative new Target Molecule

Lead the Global Immunology Community

Create Innovative New Drugs

Framework of IFReC-Chugai Comprehensive Collaboration

CHUGAI

∼New academia-industry alliance collaborating from the stage of autonomous basic research at IFReC∼

Roche A member of the Roche group

IFReC Autonomous Research

- Uncontrolled Cutting-edge Immunology Research by IFReC Researchers
- Periodical Disclosure of Autonomous Research Results* to Chugai

Comprehensive Collaboration Agreement

Contribution for Research fund 10 bn. yen/yr. x 10 years

Disclosure of Research Results

1st refusal right for Joint research

*: Excluding ongoing collaboration projects with 3rd Parties

Joint Research

 Collaboration Lab: Interaction of Researchers, Conducting Joint Research Specific Joint Research Agreement

Chugai Project

 Goal: A number of Creative Innovative Projects

Innovative New Drugs