



Live Locally, Grow Globally

Osaka University

Freedom and enthusiasm. Where people grow and dream.



Tekijuku(適塾) Koan Ogata(緒方洪庵)
A pioneer in Japanese modern medical science



Innovation by fusion

World leading immunologists

Kishimoto



Order of culture
NAS member


Akira



The imperial prize

A pioneer in imaging

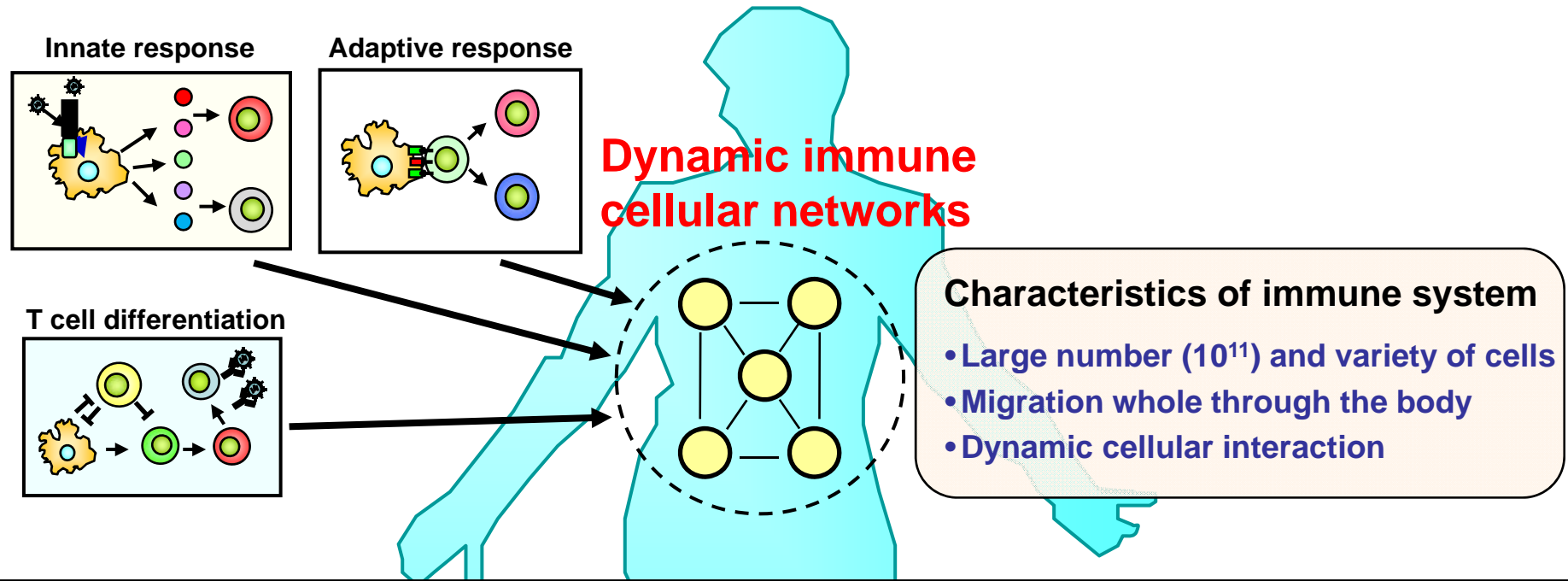
Yanagida



The imperial prize

Immunology Frontier Research Center
World Premier Initiative (WPI) Program

Why is a spatiotemporal approach important in immunology?



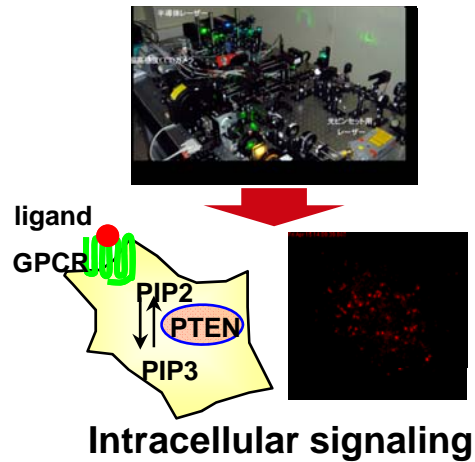
A variety of immune cells move around and form a dynamic network in the body
Individual cells are influenced by interacting with other cells in the network

The balance of immune responses in the body cannot be deduced from isolated cell studies

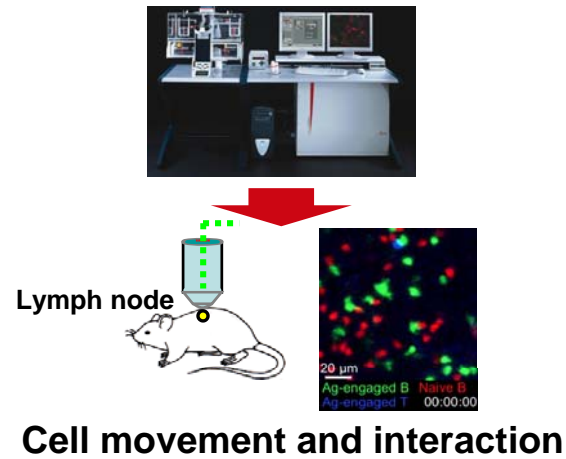
Imaging of spatiotemporal immune reactions in the body

Development of imaging techniques

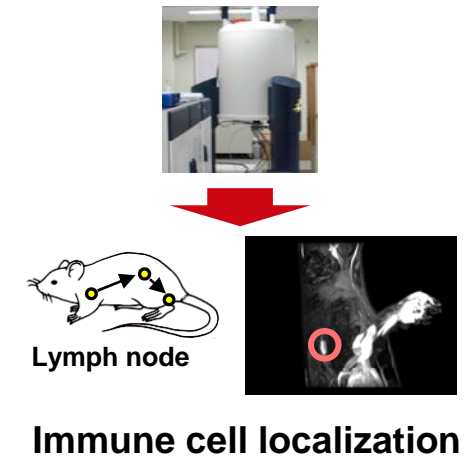
Single molecule imaging



Multiphoton microscopy



MRI (11.7T)



From immuno-imaging to translational research

Imaging of the immune system

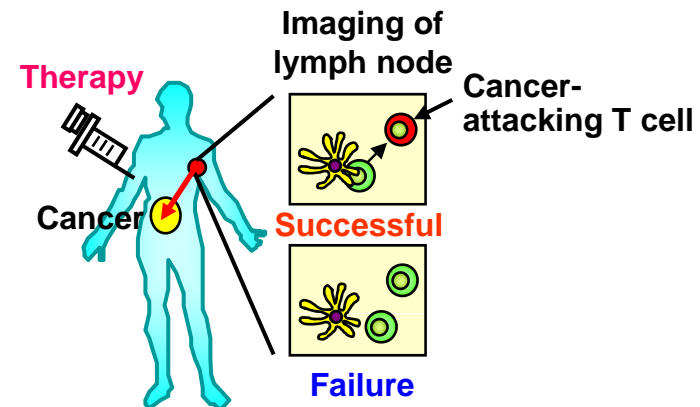
Patterning of immune cell dynamics

Normal Cancer Allergy
Autoimmune disease

Diagnosis and treatment of
immune diseases

Cancer Infectious disease
Allergy Autoimmune disease

Evaluation of cancer
immunotherapy



Organization chart

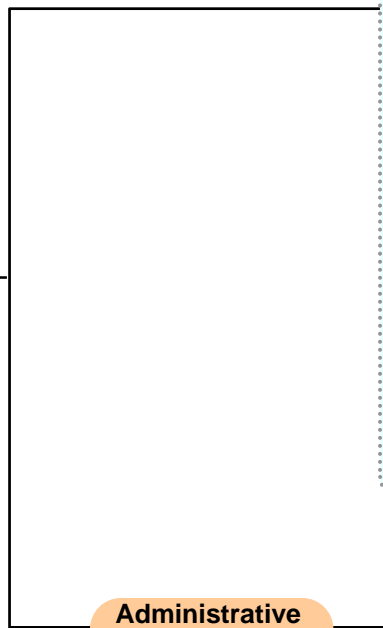
International
Advisory
Review Board

Director
Shizuo Akira

Management
Committee

Deputy Director

Board of
Representatives



Core Research Groups

Immunology Groups

- Host Defense (Shizuo Akira)
- Immunoglycobiology (Taroh Kinoshita)
- Immunopathology (Atsushi Kumanogoh)
- Immunochemistry (Hisashi Arase)
- Immune Regulation (Tadamitsu Kishimoto)
- Developmental Immunology (Toshio Hirano)
- Immunodynamics (Masayuki Miyasaka)
- Mucosal Immunology (Kiyoshi Takeda)
- Molecular Immunology (Hitoshi Kikutani)
- Experimental immunology (Shimon Sakaguchi)
- Cell Signaling (Takashi Saito)
- Lymphocyte Differentiation (Tomohiro Kurosaki)
- Lymphocyte Development (Fritz Melchers)
- Gastrointestinal Immunology (Jang Myong Ho)

Imaging Groups

- Single Molecule Imaging (Toshio Yanagida)
- Biomedical Optics (Junji Seki)
- Biofunctional Imaging (Yoshichika Yoshioka)
- Nano-bio Materials (Takashi Jin)
- Information System (Yutaka Hata)

Cooperative Institutions

Overseas

- National Institutes of Health
- New York University
- Stanford University
- California Institute of Technology
- Harvard University
- University of California San Francisco

Domestic

- RIKEN**
- Institute for Frontier Medical Sciences, Kyoto University

Research Management Section

General Affairs Section

Accounting Section