

Research Activities

M E X T : Ministry of Education, Culture, Sports, Science and Technology
M H L W : Ministry of Health, Labour and Welfare
M E T I : Ministry of Economy, Trade and Industry
M O E : Ministry of the Environment
J S T : Japan Science and Technology Agency
A M E D : Japan Agency for Medical Research and Development
N A R O : National Agriculture and Food Research Organization
N I B I O : National Institute of Biomedical Innovation

■ Promotion Plan for the Platform of Human Resource Development for Cancer (MEXT)

Funding Period	Partner Organizations	Program	Responsible Department
2012- 2016	Sapporo Medical University, Hokkaido University, Asahikawa Medical University, Health Sciences University of Hokkaido	Training Program for Medical Personnel Responsible for the Hokkaido Cancer Care	Graduate School of Medicine

■ Project for Developing Innovation Systems (MEXT)

Funding Period	Program	Grantee
2012- 2016	Regional Innovation Strategy Support Program - HOKUDAI R&BP - Health Innovation Project Centered on Patient-friendly Cutting-edge Medical Technology Researcher : Hiroki Shirato, M.D., Ph.D. Professor, Department of Radiation Medicine	Keizo Yamaguchi, Ph.D. President

■ Initiative for Accelerating Regulatory Science in Innovative Drug, Medical Device, and Regenerative Medicine (MHLW)

Funding Period	Project	General Research Representative
2012- 2016	Initiative for Accelerating Regulatory Science in Innovative Drug, Medical Device, and Regenerative Medicine	Kiyohiro Houkin, M.D., Ph.D. Director, Hokkaido University Hospital

■ Activity in International Standardization in the Governmental Strategic Field (METI)

Funding Period	Project	Leader/R&D Chief
2014- 2016	International Standardization Regarding Real-time Control System and Related Things in Radiotherapy for Moving Targets	Hiroki Shirato, M.D., Ph.D. Professor, Department of Radiation Medicine

■ Feasibility Study of the Ministry of the Environment (Cooperative Government Offices: MHLW, MEXT)

Funding Period	Collaborating Research Institutes in Hokkaido	Project	Hokkaido Regional Center Representative
2011- 2032 Survey period: 21 years (recruitment: 3 years follow-up: 13 years analysis: 5 years)	Hokkaido University Sapporo Medical University Asahikawa Medical University The Japanese Red Cross Hokkaido College of Nursing	Japan Environment and Children's Study	Reiko Kishi, M.D., Ph.D., M.P.H. Specially Appointed Invited Professor, Center for Environmental and Health Sciences

■ Environment Research and Technology Development Fund of MOE

Funding Period	Project	Project Representative
2014- 2016	Environmental Chemical Exposure in Early Life and the Neurodevelopment of Children: the Role of Environment, Gene and Epigenome.	Reiko Kishi, M.D., Ph.D., M.P.H. Specially Appointed Invited Professor, Center for Environmental and Health Sciences
2015- 2017	Effect of Fetal Exposure to Endocrine Disruptor on Sex Differentiation, Gonadal Function and Puberty: Elucidation of Gene-Environment Interaction on Sexual Development	Nobuo Shinohara, M.D., Ph.D. Professor, Department of Renal and Genitourinary Surgery

■ Strategic Basic Research Programs (PRESTO) (JST)

Funding Period	Program	Leader
2013- 2016	Imaging, Control, and Reconstruction of Cellular Network in Master Circadian Clock	Ryosuke Enoki, Ph.D. Assistant Professor, Research Center for Cooperative Projects

■ Next Generation Technology Transfer Program (NexTEP) (JST)

Funding Period	Program	Leader
2014- 2023	Animal Experiment for Mechanism Elucidation in a Novel Cartilage Tissue Engineering Technique Using Ultra-purified Alginate Gel	Norimasa Iwasaki, M.D., Ph.D. Professor, Department of Orthopedic Surgery

■ The Center of Innovation (COI) Program (JST)

Funding Period	Program	Leader
2013–2021	Innovative Food & Healthcare MASTER	Tamakoshi Akiko, M.D., Ph.D. Professor, Department of Public Health

■ Science for Science Technology Innovation Policy (JST)

Funding Period	Program	Project Director
2016–2017	Realizing Policymaking Process of Infectious Disease Control using Mathematical Modeling Techniques	Hiroshi Nishiura, M.D., Ph.D. Professor, Department of Hygiene and Cellular Preventive Medicine

■ Translational Research Network Program (AMED)

Funding Period	Organization	Project	Representative
2012–2016	Hokkaido Organization for Translational Research (Hokkaido University, Sapporo Medical University, Asahikawa Medical University)	All Hokkaido Translational Research Project for Advanced Medicine	Keizo Yamaguchi, Ph.D. President

■ Project for Global Discovery of the Brain Function Network through Innovative Technology (AMED)

Funding Period	Commissioned Project	Leader
2014–2016	Development of the Basic Technology for Routing Neural Circuit Analysis and Its Optimization for Marmoset Brain Analysis	Masahiko Watanabe, M.D., Ph.D. Professor, Department of Anatomy and Embryology

■ Strategic Basic Research Programs (CREST) (AMED)

Funding Period	Program	Leader
2013–2018	Identification of Novel Scavenging System in Organisms and Its Therapeutic Application	Masaharu Nishimura, M.D., Ph.D. Professor, Department of Respiratory Medicine

■ Strategic Basic Research Programs (CREST) (JST)

Funding Period	Program	Research Director
2016–2019	Detecting premonitory signs and real-time forecasting of pandemic using big biological data	Hiroshi Nishiura, M.D., Ph.D. Professor, Department of Hygiene and Cellular Preventive Medicine

■ Development of Medical Devices and Systems for Advanced Medical Services (AMED)

Funding Period	Program	Grantee
2014–2016	Research and Development of the Advanced Medical System by use of Medical Information/Research and Development of Navigation System for Cancer Diagnosis and Treatment	Hiroki Shirato, M.D., Ph.D. Professor, Department of Radiation Medicine
2015–2018	Development of Next-generation High-precision Particle Radiotherapy that Integrates a Microparticulate Tumor Marker and Real-time D Perspective Projection	Hiroki Shirato, M.D., Ph.D. Professor, Department of Radiation Medicine

■ Program for the Creation of Medical Innovation through Industry-Academia Collaboration as a Part of the Medical Research Result Development Project: Acceleration Transformative Research for Medical Innovation (ACT –M) (AMED)

Funding Period	Commissioned Project	Leader
2015–2017	[¹⁸ F] DiFA: New Hypoxic PET tracer for Innovative Cancer Diagnosis	Tohru Shiga, M.D., Ph.D. Associate Professor, Department of Nuclear Medicine

■ Integration Research for Agriculture and Interdisciplinary Fields (NARO)

Funding Period	Program	Research Representative
2014–2016	Assessment of Japanese Diet and its Influence on Health	Akiko Tamakoshi, M.D., Ph.D. Professor, Department of Public Health
2014–2016	Beneficial Effects of Japanese Diet on Stress Relief and Brain Functions	Ichiro Kusumi, M.D., Ph.D. Professor, Department of Psychiatry

■ Grant to Assist Research and Development of Orphan Drugs and Orphan Medical Devices (NIBIO)

Funding Period	Program	Development Representative
2014–2016	Treatment of Revertant Mosaicism-based Autologous Cultured Epidermal Sheet Transplantation for Refractory Congenital Skin Disorders	Hiroshi Shimizu, M.D., Ph.D. Professor, Department of Dermatology

■ Special Expenditures (MEXT)

Funding Period	Faculties	Project	Leader
2013–2017	Creative Research Institution Faculty of Advanced Life Science Graduate School of Medicine	Better Quality of Living through Novel Soft and Wet Materials- Interdisciplinary Center for Polymer Materials Science and Regenerative Medicine	Kazushige Kawabata, Ph.D. Director, Executive Office for Research Strategy
2014–2018	Global Institution for Collaborative Research and Education— GI –CoRE Research Center for Zoonosis Control	Creation of a Global Brain Circulation Center for Resolving Global Issues	Keizo Yamaguchi, Ph.D. President
2015–2018	Global Institution for Collaborative Research and Education— GI –CoRE Graduate School of Medicine	Creative Medical Research through Quantum Medical Science and Engineering: Challenge to Provide Cancer Treatment Free of Relapse	Keizo Yamaguchi, Ph.D. President
2016–2020	Graduate School of Medicine	Plan to Nurture Individuals with Forensic Medical Knowledge for Cause-of-Death Investigation	Masanori Kasahara, M.D., Ph.D. Dean