# **Education and Research Programs**

Data as of July 1, 2019

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

(Amount granted: more than 10 million yen)

Funding Period	Partner Organizations	Program	Responsible Department
2017-2021	Sapporo Medical University Hokkaido University Asahikawa Medical University Health Sciences University of Hokkaido	Hokkaido Promotion Plan for the Platform of Human Resource Development for Cancer	Faculty of Medicine

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

Funding Period	Project	Leader/R&D Chief
2017-2019		Hiroki Shirato, M.D., Ph.D. Professor, Department of Proton Beam Therapy Medicine

#### Project of the Ministry of the Environment (Cooperative Government Offices: MHLW, MEXT)

Funding Period	Collaborating Research Institutes in Hokkaido	Project	Hokkaido Regional Center Representative
2010–2032 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 (ERCA)

Funding Period	Project	Project Representative
2017-2019	Combined Exposures to Environmental Chemicals and Effects on Allergies and Immunity	Atsuko Araki, Ph.D. Specially Appointed Associate Professor, Center for Environmental and Health Sciences

#### ■ 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

#### COI STREAM (JST)

Funding Period	Name of the Site	Leader
2013-2021	Innovative Food & Healthcare MASTER	Project Leader: Masanori Yoshino, Hitachi, Ltd. Research Leader: Akiko Tamakoshi, M.D., Ph.D. Professor, Department of Public Health

#### Translational Research Strategic Promotion Program (Subsidy for Medical Research and Development Promotion) (AMED)

Funding Period	Principal Investigator	Co-Investigator	Project Name	Applicant
2017-2021	Hokkaido University	Sapporo Medical University Asahikawa Medical University	Formation of an Open Access Center of Excellence for the Sustainable Creation of Medical Innovations	Toyoharu Nawa, Ph.D. President

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

Funding Period	Commissioned Project	Leader
2017-2020	Mapping the Structure and Function of the Cortico-basal Ganglia Network in Marmosets by Use of Pathway-specific Labeling and Manipulation Technology	Miwako Yamasaki, M.D., Ph.D. Associate Professor, Department of Anatomy

# Strategic Basic Research Programs (CREST) (JST)

Funding Period	Program	Research Director
2016-2019	Detecting Premonitory Signs and Real-time Forecasting of Pandemics Using Big Biological Data	Hiroshi Nishiura, M.D., Ph.D. Professor, Department of Hygiene

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

Funding Period	Program	Research Representative
2017-2021	Development of Intraoperative On-the-fly Therapeutic Decision Support System during Quantum Beam Surgery (QBS) and post-QBS Surgical Operation	Shinichi Shimizu, M.D., Ph.D. Professor, Department of Radiation Medical Science and Engineering

# Project of Translational and Clinical Research Core Centers (AMED)

Funding Period	Commissioned Project	Leader
2018-2020	Development of Reparative Material for Intervertebral Disc Regeneration	Hideki Sudo, M.D., Ph.D. Specially Appointed Associate Professor, Department of Advanced Medicine for Spine and Spinal Cord Disorders
2018-2020	Establishing Non-clinical POC of Real-world Adaptive Proton Beam Therapy System that Develops Motion Tracking Technology and Acquires Temporal Change of Three-dimensional Shape and Position of Cancer According to the Course of Time	Shinichi Shimizu, M.D., Ph.D. Professor, Department of Radiation Medical Science and Engineering

# Research Program for Health Behavior Modification by Utilizing IoT (AMED)

Funding Period	Commissioned Project	Leader
2018-2019	Research to Prevent Disease Progression in Hypertension Using Self-care Support Application with Wearable IoT Device	Toshihisa Anzai, M.D., Ph.D. Professor, Department of Cardiovascular Medicine

### Advanced Research & Development Programs for Medical Innovation (AMED)

Funding Period	Commissioned Project	Leader
2018-2021	Study of the Cellular and Cell Adhesion Molecule Mechanisms Underlying Peripheral Nerve Axon Regeneration	Ken Kadoya, M.D., Ph.D. Specially Appointed Associate Professor, Department of Advanced Research for Locomotor System

# Practical Research Project for Rare/Intractable Diseases (AMED)

Funding Period	Commissioned Project	Leader
2018-2020	Natural History of Multiple System Atrophy and the Development of Novel Biomarkers	Ichiro Yabe, M.D., Ph.D. Associate Professor, Department of Neurology

#### Practical Research for Innovative Cancer Control (AMED)

Funding Period	Commissioned Project	Leader
2019	Establishment of Standard Therapy for Acute Lymphoblastic Leukemia in ChildrenAtsushi Manabe, M.D., Ph.D. Professor, Department of Pediatrics	
2019-2021	Efficacy of Rikkunshito on Chemotherapy-Induced Nausea and Vomiting in Patients with Uterine Corpus or Cervical Cancer Treated with Cisplatin-Based Regimen - Placebo-Controlled, Double-Blind, Randomized Confirmatory Study	

# Special Expenditures (MEXT)

Funding Period	Faculties	Project	Leader
2014-2019	Global Institution for Collaborative Research and Education (GI-CoRE) Faculty of Medicine Research Center for Zoonosis Control	Creation of a Global Brain Circulation Center for Resolving Global Issues	Toyoharu Nawa, Ph.D. President
2016-2020	Faculty of Medicine	Plan to Nurture Individuals with Forensic Medical Knowledge for Cause-of-Death Investigation	Mitsuhiro Yoshioka, M.D., Ph.D. Dean
2016-2020	Global Institution for Collaborative Research and Education (GI-CoRE) Faculty of Advanced Life Science Faculty of Medicine Research Institute for Electronic Science Hokkaido University Hospital	Creation of an International Collaborative Research and Education Center for Soft Matter: Establishment of the International Graduate School of Soft Matter	Toyoharu Nawa, Ph.D. President
2019-2023	Global Institution for Collaborative Research and Education (GI-CoRE) Faculty of Medicine	Real-world Medical Research through the Fusion of Quantum Science, Information Science and Advanced Medical Biology - Striving for World-leading Cancer Treatment in a New Age	Toyoharu Nawa, Ph.D. President