## Education and Research Programs (Amount granted: more than 10 million yen)

Data as of July 1, 2022

MEXT: Ministry of Education, Culture, Sports, Science and Technology

M E T I: Ministry of Economy, Trade and Industry

J S T: Japan Science and Technology Agency

AMED: Japan Agency for Medical Research and Development

## ■ Industry-Academia Joint Project of Human Resources Development for the Acceleration of AI Research Development in the Field of Healthcare (MEXT)

Funding Period	Partner Organizations	Project	Research Director
2020-202	Tohoku University Hokkaido University Okayama University	Human Resources Development Program "Cutting Edge AI Research Development for the Solution of Global × Local Medical Problems"	KUDO Kohsuke, M.D., Ph.D. Professor, Department of Diagnostic Imaging

#### ■ Strategic Basic Technology Upgrading Support Project (METI Hokkaido)

Funding Period	Project	Leader/R&D Chief
2020-2022	Development of automated stem cell culturing machine system for regenerative medicine against cerebral infarction	KAWABORI Masahito, M.D., Ph.D. Assistant Professor, Department of Neurosurgery

#### ■ Grant-in-Aid for University Reform (MEXT)

Fundi Perio	ng d	Project	Leader/R&D Chief
2021-20	022	With Corona era	TAKAHASHI Makoto, M.D., Ph.D. Professor, Center for Medical Education and International Relations

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

Funding Period	Project	Leader/R&D Chief
2020-2022		SHIRATO Hiroki, M.D., Ph.D. Director, Global Center for Biomedical Science and Engineering

#### ■ JST PRESTO

Funding Period	Program	Research Director
2021–2023	Inter-cell Interactions Responsible for Sleep and Hibernation	NORIMOTO Hiroaki, Ph.D. Associate Professor, Department of Cellular and Molecular Pharmacology

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

Funding Period	Program	Research Representative
2021-2026	Study of host cell membrane and ion dynamics during virus infection	OHBA Yusuke, M.D., Ph.D. Professor, Department of Cell Physiology

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

Funding Period	Program	Research Representative
2020-2022	Early MRI Diagnosis of Amyotrophic Lateral Sclerosis using Stable Isotope of Oxygen-17	KUDO Kohsuke, M.D., Ph.D. Professor, Department of Diagnostic Imaging
2020-2022	Elucidation of the Pathogenesis and Risk Factors of Bullous Pemphigoid	UJIIE Hideyuki, M.D., Ph.D. Professor, Department of Dermatology
2021-2023	An Investigator-initiated Clinical Trial of Spinocerebellar Ataxia Type 1 (SCA1) Gene Therapy Based on Molecular Mechanisms	YABE Ichiro, M.D., Ph.D. Professor, Department of Neurology

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

Funding Period	Program	Research Representative
2020-2022	Establishment of Standard Therapy for Acute Lymphoblastic Leukemia in Children	MANABE Atsushi, M.D., Ph.D. Professor, Department of Pediatrics
2020-2022	The Development of New Treatment of Superselective Intra-Arterial Infusion of Cisplatin and Concomitant Radiotherapy for Patients with Locally Advanced Maxillary Sinus Cancer	HOMMA Akihiro, M.D., Ph.D. Professor, Department of OtolaryngologyHead and neck Surgery
2022-2024	A multi-institutional randomized phase III trial to confirm the superiority of pelvic and para-aortic lymphadenectomy over pelvic lymphadenectomy for endometrial cancer at risk of lymph node metastasis	WATARI Hidemichi, M.D., Ph.D. Professor, Department of Obstetrics and Gynecology

#### ■ Research Program on Hepatitis / Program for Basic and Clinical Research on Hepatitis (AMED)

Funding Period	Program	Research Representative
2020-2022	Screening of Prognostic Biomarker by Comprehensive Serum and Liver Tissue Glycomics	SAKAMOTO Naoya, M.D., Ph.D. Professor, Department of Gastroenterology and Hepatology

# ■ Research Program on Hepatitis / Program on the Innovative Development and Application of New Drugs for Hepatitis B (AMED)

Funding Period	Program	Research Representative
2022-2024	High-throughput screening of antiviral seed compounds by using HBV cell culture and antiviral response reporter models	SAKAMOTO Naoya, M.D., Ph.D. Professor, Department of Gastroenterology and Hepatology
2022-2024	Development of genome-editing drugs of adenovirus vector expressing eight multiplex guide RNAs using models of HBV replication in humanized mice and of HBV carcinomas	FUKUHARA Takasuke, M.D., Ph.D. Professor, Department of Microbiology and Immunology
2022-2024	Study of the clinical significance of previous infection with HBV in HCC and the molecular mechanism of hepatocarcinogenesis in HBc antibody positive patients	TAKETOMI Akinobu, M.D., Ph.D. Professor, Department of Gastroenterological Surgery I

#### ■ Project for Promotion of Cancer Research and Therapeutic Evolution (P-PROMOTE) (AMED)

Funding Period	Program	Research Representative
2022-2023	Development of hydrogel-based regulation of tumor heterogeneity for basis of novel cancer diagnosis and therapy	TANAKA Shinya, M.D., Ph.D. Professor, Department of Cancer Pathology

#### ■ Japan Program for Infectious Diseases Research and Infrastructure (AMED)

Funding Period	Program	Research Representative
2020-2022	Elucidation of Properties and Evolutionary Mechanisms of Virome Involved in Progression of Pathogenesis	FUKUHARA Takasuke, M.D., Ph.D. Professor, Department of Microbiology and Immunology

#### ■ Research Project for Practical Applications of Regenerative Medicine (AMED)

Funding Period	Program	Research Representative
2021-2023	Research for intracerebral transplantation of advanced interventional regenerative product made of bone marrow mesenchymal stem cells and recombinant scaffold against patient with chronic cerebral hemorrhage (RAINBOW-HX)	FUJIMURA Miki, M.D., Ph.D. Professor, Department of Neurosurgery
2022-2024	Exploratory clinical trial on the safety and capability of REC/dMD-001 in lumbar canal stenosis	SUDO Hideki, M.D., Ph.D. Specially Appointed Professor, Department of Advanced Medicine for Spine and Spinal Cord Disorders

### ■ Translational Research Program (AMED)

Funding Period	Program	Research Representative
2022-2023	bydrogel	ONO Masayoshi, M.D., Ph.D. Assistant Professor, Department of Gastroenterology and Hepatology

## ■ Medical Device Research and Development Programs Focused on Technology Transfers (AMED)

Funding Period	Program	Research Representative
2022-2024	Study of the development for new medical device program supporting	NAGAI Toshiyuki, M.D., Ph.D. Associate Professor, Department of Cardiovascular Medicine

## ■ Special Expenditures (MEXT)

Funding Period	Faculties	Project	Leader
2021–2025	Faculty of Medicine	Project for the Promotion of Cause of Death Investigation and Comprehensive Human Resources Development through Multi- disciplinary Collaboration	HATAKEYAMA Shigetsugu, M.D., Ph.D. Dean

