International Joint Research Projects Selected for FY 2023

(1) Development of Cutting-Edge Medical Therapies (7 Projects)

New Projects (1 Projects)

Selected Year	Project Number	Area	Principal Investigator	Position	Affiliation	Project Title	IMSUT Host Researcher	Project Member(s) (Institution / Department)
2023	K23-1050	1	Roland Beckmann	Professor	University Munich LMU	Structural basis of ribosome associated quality control	Toshifumi Inada	University Munich LMU, LMU, University of Munich LMU, The Institute of Medical Science, The University Of Tokyo

Continuing Projects (6 Projects)

Selected Year	Project Number	Area	Principal Investigator	Position	Affiliation	Project Title	IMSUT Host Researcher	Project Member(s) (Institution / Department)
2023	K22-1039	1	Xiyun Yan	Professor	Institute of Biophysics, Chinese Academy of Sciences	Ferritin nanocaged doxorubicin for targeted hepatocellular carcinoma therapy	Yasushi Kawaguchi	Institute of Biophysics, Chinese Academy of Sciences, School of Basic Medical Sciences, Zhengzhou University, Division of Molecular Virology, Research Center for Zoonosis Control, Hokkaido University, The Institute of Medical Science, The University of Tokyo
2023	K22-1040	1	Yunwen Zheng	Professor	Guangdong Provincial Key Laboratory of Large Animal Models for Biomedicine, and School of Biotechnology and Health Sciences, Wuyi University	Reconstruction of human liver in Fah–/–Rag2–/–IL2rg–/– rats with hiPSC derived liver organoids	Taniguchi Hideki	Guangdong Provincial Key Laboratory of Large Animal Models for Biomedicine, and School of Biotechnology and Health Sciences, Wuyi University, Division of Regenerative Medicine, Yokohama City University, School of Biotechnology and Health Sciences, Wuyi University, The Institute OF Medical Science, The University Of Tokyo
2023	K22-1041	1	Estelle DUPREZ	Professor	Centre de Recherche en Cancérologie de Marseille / Institut Paoli Calmettes	Inflammation, hematopoietic aging, and clonal drift: deciphering the role of the transcription factor PLZF	Atsushi Iwama	Centre de Recherche en Cancérologie de Marseille / Institut Paoli Calmettes, IRCMS, Kumamoto University, The Institute of Medical Science, The University of Tokyo
2023	K22-1072	1	Emmanuelle Passegue	Professor	Columbia University Irving Medical Center	Development of novel therapeutics targeting hematopoietic stem cell (HSC) aging	Atsushi Iwama	Columbia University Irving Medical Center, Stem Cell and Mol Med, National Center for Global Health and Medicine / Research Institute, The Institute of Medical Science, The University of Tokyo
2023	K22-1059	1	Jacques-Olivier COQ	Professor	Centre National de la Recherche Scientifique	Mesenchymal Stromal Cell Therapy to Prevent Neurodevelopmental Disorders related to Low-Birth-Weight	Tokiko Nagamura-Inoue	Centre National de la Recherche Scientifique, Department of Cell Processing and Transfusion, Kyoto Women's University/Department of Food and Nutrition, Aix Marseille University, Division of Metagenome Medicine, The Institute of Medical Science, The University of Tokyo
2023	K22-1073	1	Adam Clifford Wilkinson	Associate professor	University of Oxford	Hematopoietic stem cell rejuvenation therapies	Atsushi Iwama	University of Oxford, Center for Stem Cell Biology and Regenerative Medicine, University of Tsukuba, Laboratory of Stem Cell Therapy, Faculty of Medicine, University of Tsukuba, The Institute of Medical Science, The University of Tokyo

(2) Genome/Cancer/Disease Systems Biology (10 Projects)

New Projects (6 Projects)

Selected Year	Project Number	Area	Principal Investigator	Position	Affiliation	Project Title	IMSUT Host Researcher	Project Member(s) (Institution / Department)
2023	K23-2074	2	Jiangning Song	Associate professor	Monash University	Artificial intelligence-enabled cancer diagnosis, type classification and mutation prediction by leveraging deep learning and histopathology image analysis	Seiya Imoto	Monash University, Human Genome Center, University of Cambridge, Garvan Institute for Medical Research, Sydney, Aichi Cancer Center Research Institute, Nagoya, Monash University/Department of Biochemistry and Molecular Biology, The Institute OF Medical Science, The University Of Tokyo
2023	K23-2042	2	Kinoshita Masaki	Senior Research Fellow	University of Nottingham	Identification of the cellular behavior in xenogenic environment in interspecies chimaera	Kobayashi Toshihiro	University of Nottingham, National Institute for Physiological Sciences, Nara Medical University, The Institute of Medical Science, The University of Tokyo
2023	K23-2090	2	Pierre-Antoine Defossez	Professor	CNRS/Univ Paris	Genome stability and DNA methylation	Makoto Nakanishi	CNRS/Univ Paris, Cancer cell Biology, Yokohama City University/Stuructural Biology Laboratory, The Institute of Medical Science, The University of Tokyo
2023	K23-2097	2	Leyi Wei	Professor	Shandong University	Developing interpretable deep learning-based methods for the functional prediction of biological sequences	Kenta Nakai	Shandong University, Shandong University, School of Software, RIKEN Center for Integrative Medical Science, The Institute OF Medical Science, The University Of Tokyo
2023	K23-2093	2	Gozde Korkmaz	Assistant professor	School of Medicine, Koç University	Functional interrogation of house-keeping enhancers’ role in cancer	Kenta Nakai	School of Medicine, Koç University, Institute for Life and Medical Sciences, Kyoto University, Functional Analysis in silico, Human Genome Center, The Institute OF Medical Science, The University Of Tokyo
2023	K23-2091	2	Watcharin Loilome	Associate professor	Khon Kaen University, Faculty of Medicine	Establishment of drug testing system for a precision medicine in cholangiocarcinoma	Yoshinori Murakami	Khon Kaen University, Faculty of Medicine, Khon Kaen University School of Medicine / Dept of Biochemistry, Khon Kaen University School of Medicine / Dept of Surgery, Khon Kaen University School of Medicine/ Cholangiocarcinoma Center, Khon Kaen University School of Medicine / Cholangiocarcinoma Center, Tsukuba University Grad. Schl. Med. / Dept of Pathology, Division of Molecular Pathology, The Institute OF Medical Science, The University Of Tokyo

Continuing Projects (4 Projects)

Selected Year	Project Number	Area	Principal Investigator	Position	Affiliation	Project Title	IMSUT Host Researcher	Project Member(s) (Institution / Department)
2023	K22-2043	2	Patrick Tan	Professor	Duke-NUS Medical School	Understanding of epigenetic heterogeneity in intractable cancers	Tatsuhiro Shibata	Duke-NUS Medical School, Department of Surgery, Kyushu University Beppu Hospital, Division of Cancer Biology, Nagoya University Graduate School of Medicine, Laboratory of Molecular Medicine, The Institute of Medical Science, The University of Tokyo
2023	K22-2056	2	Xiaodong He	Lecturer	Shandong University	Functional polarization of tumour-associated macrophages by tumor microenvironment	Makoto Nakanishi	Shandong University, Cancer Cell Biology, Institute of Medical Science, University of Tokyo, The Institute of Medical Science, The University of Tokyo
2023	K22-2057	2	Heinrich Leonhardt	Professor	Ludwig Maximilians University Munich	Regulation and Function of DNA methylation	Makoto Nakanishi	Ludwig Maximilians University Munich, Cancer Cell Biology, Yokohama City University/Stuructural Biology lab, The Institute of Medical Science, The University of Tokyo
2023	K22-2103	2	Iwei Yeh	Associate professor	University of California, San Francisco	The development of acral melanoma model and a novel early diagnostic method based on stem cell dynamics	Emi K Nishimura	University of California, San Francisco, Division of Aging and Regeneration, Tokyo Medical and Dental University, The Institute of Medical Science, The University of Tokyo

(3) Infectious Diseases and Immunology (12 Projects)

New Projects (3 Projects)

Selected Year	Project Number	Area	Principal Investigator	Position	Affiliation	Project Title	IMSUT Host Researcher	Project Member(s) (Institution / Department)
2023	K23-3044	3	Jacelyn Mei San Loh	Senior Research Fellow	University of Auckland	Development of a mucosal vaccine against Strep A infections	Ken J ISHII	University of Auckland, University of Auckland, Department of Molecular Medicine and Pathology - Infection and Immunity, Chiba University Hospital, Department of Human Mucosal Vaccinology, Chiba University Hospital, Department of Human Mucosal Vaccinology and HanaVax, The Institute of Medical Science, The University of Tokyo
2023	K23-3086	3	Eicke Latz	Professor	University of Bonn	The role of lysosomal RNase T2 in RNA-sensing Toll-like receptor responses	Kensuke Miyake	University of Bonn, Div Innate Immunity, Dep Microbiol. Immunol., Wakayama Medical University, The Institute of Medical Science, The University of Tokyo
2023	K23-3095	3	Jiri Zahradnik	Principal Investigator	Charles University	Prediction and monitoring of SARS-CoV-2 emerging lineages	Kei Sato	Charles University, The Institute of Medical Science, The University of Tokyo

Continuing Projects (9 Projects)

Selected Year	Project Number	Area	Principal Investigator	Position	Affiliation	Project Title	IMSUT Host Researcher	Project Member(s) (Institution / Department)
2023	K22-3062	3	Catherine Jia-Yun Tsai	Postdoctoral fellow	University of Auckland	Harnessing the group A streptococcus pilus to develop novel universal influenza vaccines	Ken J ISHII	University of Auckland, University Of Auckland, Department of Human Mucosal Vaccinology, Chiba University Hospital, Influenza Virus Research Center, National Institute of Infectious Diseases (NIID), The Institute of Medical Science, The University of Tokyo
2023	K22-3076	3	Anna Katharina Simon	Professor	Oxford University	Elucidation of mechanisms involved in tissue specific immunity during infection and vaccination	Cevayir Coban	Oxford University, Kennedy Institute of Rheumatology, University of Oxford, Malaria Immunology, The Institute of Medical Science, The University of Tokyo
2023	K22-3068	3	Kensuke Hirasawa	Professor	Memorial University of Newfoundland	Programmed cell death induced by human coronavirus infection	Yasushi Kawaguchi	Memorial University of Newfoundland, Division of Molecular Virology, Department of Microbiology and Immunology, Research Centre for Asian Infectious Disease, Department of Clinical Laboratory Sciences, School of Health Sciences, Fukushima Medical University, Division of BioMedical Sciences, Faculty of Medicine, Memorial University of Newfoundland, The Institute of Medical Science, The University of Tokyo
2023	K22-3045	3	Peter Ernst	Professor	University of California, San Diego	Development of mucosal vaccines designed for infant based on the understanding of the infantile nasopharyngeal and gut mucosal immune system	Ken J ISHII	University of California, San Diego, University of California, San Diego (UCSD), Chiba University/Future Medicine Education and Research Organization, Chiba University Hospital/Department of Human Mucosal Vaccinology, Chiba University / Inovative Medicine, Wakayama Medical University / Department of Pediatrics, Wakayama Medical University / Department of Otolaryngology, The Institute of Medical Science, The University of Tokyo
2023	K22-3046	3	Warren Leonard	NIH Distinguished Investigator	National Institutes of Health (NIH)	Control of T cell and NK cell exhaustion to overcome viral infection and cancer development	Satoshi Takahashi	National Institutes of Health (NIH), National Institutes of Health (NIH), Project Division of Clinical Precision Research Platform, Graduate School of Pharmaceutical Sciences, Graduate School of Medicine, The Institute of Medical Science, The University of Tokyo
2023	K22-3063	3	Peter Katsikis	Professor	Erasmus University Medical Center	Human Systems Immunology of vaccine and immunotherapy	Ken J ISHII	Erasmus University Medical Center, (2) Division of Vaccine Science, Department of Microbiology and Immunology, International Vaccine Design Center (vDesC), The Institute of Medical Science, The University of Tokyo
2023	K22-3069	3	Zhihai Qin	Professor	Institute of Biophysics, Chinese Academy of Sciences	To study the molecular mechanism of COVID-19 protein ORF3a to stimulate the production of cytokine in macrophages	Yasushi Kawaguchi	Institute of Biophysics, Chinese Academy of Sciences, Research Institute for Microbial Diseases (RIMD), Osaka University, The Institute of Medical Science, The University of Tokyo
2023	K22-3058	3	Florent Ginhoux	Senior PI	AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH (A*STAR)	Investigating Putative Dendritic Cell Precursors (pre-DC) with Neutrophil Progenitor Properties	Kenta Nakai	AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH (A*STAR), Senior PI, A*STAR, Division of Vaccine Science, Department of Microbiology and Immunology, Kyoto University, Human Genome Center, Functional analysis in silico, The Institute OF Medical Science, The University Of Tokyo
2023	K22-3082	3	Kaixia Mi	Professor	Institute of Microbiology, Chinese Academy of Sciences	Analysis of the mechanisms of co-infection with Mycobacterium and HIV in human macrophage linage cells	Yasushi Kawaguchi	Institute of Microbiology, Chinese Academy of Sciences, Division of Molecular Virology, Research Center for Asian Infectious Diseases, The Institute of Medical Science, The University of Tokyo