

International Joint Research Projects Selected for FY 2025

(1) Development of Cutting-Edge Medical Therapies (8 Projects)

New Projects (2 Projects)

Selected Year	Project Number	Area	Principal Investigator	Position	Affiliation	Project Title	IMSUT Host Researcher	Project Member(s) (Institution / Department)
2025	K25-1168	1	Jacques-Olivier COQ	Professor	Centre National de la Recherche Scientifique	Mechanisms of Action of Mesenchymal Stromal Cell Therapy in Newborn Rats from Pregnant Rats with Intrauterine "Augmented Inflammation"	Tokiko Nagamura-Inoue	Centre National de la Recherche Scientifique, Aix Marseille Université, Institute of Movement Sciences, Marseille, Kyoto Women's University, Dept of Food & Nutrition, Kyoto, Department of Pediatrics, Division of Neonatology, International University of Health and Welfare Narita Hospital, Dept of Pediatrics, The Institute of Medical Science, The University of Tokyo
2025	K25-1185	1	Iwei Yeh	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, Institute of Science Tokyo, 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)
2025	K24-1116	1	Estelle DUPREZ	Professor	Centre de Recherche en Cancérologie de Marseille / Institut Paoli Calmettes	Deciphering and targeting EZH2 non-canonical activities to overcome therapy resistance in acute myeloid leukemia.	Atsushi Iwama	Centre de Recherche en Cancérologie de Marseille / Institut Paoli Calmettes, IRCMS, Kumamoto University, Div. Stem Cell and Molecular Medicine, The Institute of Medical Science, The University of Tokyo
2025	K24-1115	1	Haiping He	Associate professor	Department of Hematology, Wuhu Hospital, East China Normal University	The study of primed-umbilical cord-derived mesenchymal stromal cells to improve immunosuppressive properties in the treatemnet of GVHD	Tokiko Nagamura-Inoue	Department of Hematology, Wuhu Hospital, East China Normal University, Health Science Center, East China Normal University, Department of Cell Processing and Transfusion, The Institute of Medical Science, The University of Tokyo
2025	K24-1117	1	Patricia Ernst	Professor	University of Colorado/Anschutz Medical Campus	Functional interplay between endogenous MLL1/KMT2A and MLL-fusion oncoproteins	Atsushi Iwama	University of Colorado/Anschutz Medical Campus, University of Colorado/Anschutz Medical Campus, National Cancer Center Tsuruoka Metabolomics Laboratory, The Institute of Medical Science, The University of Tokyo
2025	K24-1114	1	Yoichi Kosodo	Professor	Korea Brain Research Institute	Uncovering human neural differentiation by advanced multi-omics for the regeneration of brain function	Yasushi Saeki	Korea Brain Research Institute, RIKEN Cluster for Pioneering Research (CPR), Hiroshima University/Graduate School of Integrated Sciences for Life, Division of Protein Metabolism, National Cancer Center Research Institute / Department of Proteomics, The Institute of Medical Science, The University of Tokyo
2025	K24-1118	1	Daniel Nicodemus Wilson	Professor	University of Hamburg	Structures of the Gcn2 kinase on the ribosome	Toshifumi Inada	University of Hamburg, Division of RNA and gene regulation, The Institute of Medical Science, The University of Tokyo
2025	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

New Projects (12 Projects)

Selected Year	Project Number	Area	Principal Investigator	Position	Affiliation	Project Title	IMSUT Host Researcher	Project Member(s) (Institution / Department)
2025	K25-2117	2	Tan Bee Huat Lain	Professor	National Cancer Center Singapore	An integrated analysis of molecular genomic and metagenomic data in Asian colorectal cancer through international collaboration	Tatsuhiro Shibata	National Cancer Center Singapore, Department of Cancer Genome Informatics, Graduate School of Medicine, Osaka University, Division of Cancer Genomics, National Cancer Center Research Institute, The Institute of Medical Science, The University of Tokyo
2025	K25-2170	2	Marco Scutari	Senior Researcher (equivalent to Associate Professor)	Dalle Molle Institute for Artificial Intelligence / University of Applied Sciences and Arts of Southern Switzerland (SUPSI)	Large-scale gene regulatory network estimation from single-cell transcriptome based on high-performance computing	Seiya Imoto	Dalle Molle Institute for Artificial Intelligence / University of Applied Sciences and Arts of Southern Switzerland (SUPSI), Division of Health Medical Intelligence, Laboratory of Sequence Analysis, Aichi Cancer Center, Graduate School of Medicine, Hirosaki University, Faculty of Mathematics, Kyushu University, The Institute OF Medical Science, The University Of Tokyo
2025	K25-2171	2	Jiangning Song	Professor	Monash University	Deep learning-based approaches for non-coding variant effect prediction	Seiya Imoto	Monash University, Human Genome Center, Aichi Cancer Center / Division of Cancer Systems Biology, Monash University / Monash Biomedicine Discovery Institute, The Institute OF Medical Science, The University Of Tokyo
2025	K25-2153	2	Yasuhiro Arimura	Assistant professor	Fred Hutchinson Cancer Center	Structural basis of the DNA methylation maintenance	Makoto Nakanishi	Fred Hutchinson Cancer Center, Division of Cancer Cell Biology, The Institute of Medical Science, The University of Tokyo
2025	K25-2183	2	Jacqui Anne McGovern	Assistant professor	Queensland University of Technology	Humanizing the Rat Immune System: A Transformative Tool for Preclinical Cancer Research	Tomoji Mashimo	Queensland University of Technology, The Institute of Medical Science, The University of Tokyo
2025	K25-2169	2	Heinrich Leonhardt	Professor	Ludwig Maximilians University Munich	Regulatory mechanism of maintenance DNA methylation	Makoto Nakanishi	Ludwig Maximilians University Munich, Cancer Cell Biology, Yokohama City University/Structural Biology Laboratory, Graduate School of Medical Life Science, Ludwig-Maximilians-Universität München/Faculty of Biology,, The Institute of Medical Science, The University of Tokyo
2025	K25-2173	2	Natini Jinawath	Associate professor	Faculty of Medicine Ramathibodi Hospital, Mahidol University	Establishing pre-clinical models to study functions of intellectual disability associated caused by a variant in the synaptotagmin 4 (SYT4) gene	Yoichi Furukawa	Faculty of Medicine Ramathibodi Hospital, Mahidol University, Division of Translational Medicine, Chakri Naruebodindra Medical Institute, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Pre-clinic, Chakri Naruebodindra Medical Institute, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Ramathibodi Comprehensive Cancer Center, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Division of Clinical Genome Research, Human Genome Center, Center for Genomic Medicine, Kyoto University, Graduate School of Medicine, The Institute OF Medical Science, The University Of Tokyo
2025	K25-2187	2	Adam Clifford Wilkinson	Assistant professor	University of Cambridge	Development and interrogation of novel blood cancer model systems	Satoshi Yamazaki	University of Cambridge, University of Kyoto, Institute of Science Tokyo, Division of Clinical Precision Research Platform, Division of Cell Regulation, Division of Strm Cell and Molecular Medicine, The Institute of Medical Science, The University of Tokyo
2025	K25-2172	2	Warren Leonard	NIH Distinguished Investigator	National Institutes of Health (NIH)	Novel Treatment of AML by Combination of Chemotherapy and CD112-Targeted Immunotherapy	Satoshi Takahashi	National Institutes of Health (NIH), National Instittues of Health (NIH), Graduate School of Pharmaceutical Sciences, Graduate School of Frontier Sciences, The Institute of Medical Science, The University of Tokyo
2025	K25-2174	2	Elizabeth Ann Lipke	Professor	Auburn University	Tissue-engineered VivoSpheres for cancer modeling and drug screening	Yoichi Furukawa	Auburn University, Div. Clinical Genome Research, Div. Health Medical Intelligence, Auburn University / Dept. of Chemical Engineering, The Institute OF Medical Science, The University Of Tokyo
2025	K25-2184	2	Byeong-Cheol Kang	Professor	Seoul National University Hospital	Establishment of Humanized, Tumor Xenograft, and PDX Rat Model for Translational Research	Tomoji Mashimo	Seoul National University Hospital, Seoul National University College of Medicine, The Institute of Medical Science, The University of Tokyo
2025	K25-2188	2	Chen Li	Associate professor	Zhejiang University School of Medicine	Investigation of drug molecular representation using advanced AI models and its application in drug-target identification	Seiya Imoto	Zhejiang University School of Medicine, Division of Health Medical Intelligence, Division of Cancer Systems Biology, Aichi Cancer Center, 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)
2025	K24-2120	2	Lee-Yung Shih	Professor	Chang Gung Memorial Hospital at Linkou	Exploration of the functional role of FOXPI in the development of secondary myelofibrosis	YAUSHITO Nannya	Chang Gung Memorial Hospital at Linkou, Division of Hematology-Oncology, Chang Gung Memorial Hospital at Linkou, The Institute of Medical Science, Division Hematopoietic Disease Control, Kyoto University, Department of Pathology and Tumor Biology, Division of Hematopoietic Disease Control, The Institute OF Medical Science, The University Of Tokyo
2025	K24-2121	2	Astari Dwiranti	Associate professor	Universitas Indonesia	Cell Technology for Testing Indonesian Natural Products as Anticancer and Antiaging Agents	Makoto Nakanishi	Universitas Indonesia, Department of Internal Medicine, Dr. Cipto Mangunkusumo General Hospital, Faculty of Medicine, Universitas Indonesia, Division of Surgical Oncology, Department of Surgery, Dr. Cipto Mangunkusumo General Hospital, Faculty of Medicine, Universitas Indonesia, Division of Thoracic Oncology, Department of Pulmonary Disease, Persahabatan Central General Hospital, Faculty of Medicine, Universitas Indonesia, Osaka University, Department of Biomolecular Science and Engineering, The Institute of Scientific and Industrial Research, Osaka University, University of Indonesia, The Department of Biology at the Faculty of Mathematics and Natural Sciences, The Institute of Medical Science, The University of Tokyo
2025	K23-2090	2	Pierre-Antoine Defossez	Professor	CNRS/Univ Paris	Genome stability and DNA methylation	Makoto Nakanishi	CNRS/Univ Paris, National Institute of Genetics, Cancer cell Biology, Yokohama City University/Structural Biology Laboratory, CNRS/Univ. of Paris, The Institute of Medical Science, The University of Tokyo
2025	K24-2122	2	Hironori Funabiki	Professor	The Rockefeller University	Regulation of DNA methylation on the nucleosome	Makoto Nakanishi	The Rockefeller University, Division of Cancer Cell Biology, Yokohama City University, The Institute of Medical Science, The University of Tokyo

(3) Infectious Diseases and Immunology (11 Projects)

New Projects (9 Projects)

Selected Year	Project Number	Area	Principal Investigator	Position	Affiliation	Project Title	IMSUT Host Researcher	Project Member(s) (Institution / Department)
2025	K25-3118	3	Miyu Moriyama	Associate Research Scientist	Yale University	Development of a Universal Influenza Vaccine	Takeshi Ichinohe	Yale University, Division of Global Epidemiology, International Institute for Zoonosis Control, Hokkaido University, Laboratory of Nano-Design for Innovative Drug Development, Graduate School of Pharmaceutical Sciences, Osaka University, National Research Center for the Control and Prevention of Infectious Diseases (CCPID), Nagasaki University, The Institute of Medical Science, The University of Tokyo
2025	K25-3119	3	Catherine Jia-Yun Tsai	Postdoctoral fellow	University of Auckland	A new vaccine strategy to combat RSV infection	Ken J ISHII	University of Auckland, Chiba University, The Institute of Medical Science, The University of Tokyo
2025	K25-3120	3	Gavin J Smith	Professor	Duke-NUS Medical School	Preparing for the next pandemic through international collaboration from Asia	Kei Sato	Duke-NUS Medical School, Duke-NUS Medical School, The Institute of Medical Science, The University of Tokyo
2025	K25-3146	3	Xiyun Yan	Professor	Institute of Biophysics, Chinese Academy of Sciences	Nanozymes for Tumor Catalytic Immunotherapy	Yasushi Kawaguchi	Institute of Biophysics, Chinese Academy of Sciences, Zhengzhou University, Institute of Biophysics, CAS, The Institute of Medical Science, The University of Tokyo
2025	K25-3159	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), University of California, San Diego (UCSD), Chiba University, Wakayama Medical University, The Institute of Medical Science, The University of Tokyo
2025	K25-3165	3	Silvia Marina Vidal	Professor	McGill University	Harnessing CRISPR-Cas9 and DNA Repair Pathways (COMBI-CRISPR) for Temporally Inducible IFNAR1 Mouse Models to Advance Vaccine Research for Severe Viral Diseases	Tomoji Mashimo	McGill University, Institut Pasteur du Japon, The Institute of Medical Science, The University of Tokyo
2025	K25-3167	3	Shi Yi	Professor	Guangzhou National Laboratory	Development of viral inhibitors targeting envelope proteins	Yasushi Kawaguchi	Guangzhou National Laboratory, Institute of Microbiology, Chinese Academy of Sciences, National Institute for Viral Disease Control and Prevention, Chinese Center for Disease Control and Prevention, Beijing Ditan Hospital, Capital Medical University, The Institute of Medical Science, The University of Tokyo
2025	K25-3175	3	Jelena Bezbradica	Associate professor	Kennedy Rheumatology Institute, Oxford University	Crossroads between inflammasomes and adaptive immune responses	Cevayir Coban	Kennedy Rheumatology Institute, Oxford University, Malaria Immunology, Oxford University, The Institute of Medical Science, The University of Tokyo
2025	K25-3190	3	Peter Katsikis	Professor	Erasmus University Medical Center	Employing molecular and systems approaches for human vaccine and immunotherapy development against cancer and infectious diseases	Ken J ISHII	Erasmus University Medical Center, Erasmus MC, University Medical Center/Immunology, Oxford University/SND school of pathology, Division of Vaccine Science, Department of Microbiology and Immunology, International Vaccine Design Center (vDesC), Institute for Quantitative Biosciences, Hyogo College of Medicine/Immunology, The Institute of Medical Science, The University of Tokyo

Continuing Projects (2 Projects)

Selected Year	Project Number	Area	Principal Investigator	Position	Affiliation	Project Title	IMSUT Host Researcher	Project Member(s) (Institution / Department)
2025	K24-3123	3	Mayda Gursel	Professor	Izmir Biomedicine and Genome Center	Immunopathology of, and Response to, Protozoan Parasites	Cevayir Coban	Izmir Biomedicine and Genome Center, Malaria Immunology, The Institute of Medical Science, The University of Tokyo
2025	K24-3124	3	Jesus Hernandez	Professor	Centro de Investigación en Alimentación y Desarrollo, A.C.	Discovery of antibodies with potential therapeutic applications aided by machine learning and artificial intelligence.	Kenta Nakai	Centro de Investigación en Alimentación y Desarrollo, A.C., Laboratory of Functional Analysis in silico, Centro de Investigación en Alimentación y Desarrollo, AC/ Laboratory of Immunology, The Institute OF Medical Science, The University OF Tokyo