

FY2022 Adopted International Joint Research Projects

New Projects ( 32 Projects)

(1) Joint Research Area: Development of Cutting Edge Medical Therapies ( 8 Projects)

Adoption year	IDNo.	Principal Investigator	PI's Institution	Project Title	IMSUT Host Researcher
2022	K1001	John F. Tisdale	Cellular and Molecular Therapeutics Branch, National Heart, Lung, and Blood Institute, National Institutes of Health	Development of a small-size $\beta$ -globin vector for efficient vector production and gene marking	Naoya Uchida
2022	K1002	Masato Yamamoto	Department of Surgery, University of Minnesota	Development of a CD133-targeted adenoviral vector system	Takashi Okada
2022	K1003	Jacques-Olivier Coq	Institut des Sciences du Mouvement, UMR7287 CNRS/Aix-Marseille Univ.	Mesenchymal Stromal Cell Therapy to Prevent Neurodevelopmental Disorders related to Low-Birth-Weight	Tokiko Nagamura-Inoue
2022	K1004	Emmanuelle Passegué	Columbia University Irving Medical Center (CUMC)	Development of novel therapeutics targeting hematopoietic stem cell (HSC) aging	Atsushi Iwama
2022	K1005	Dr. Adam Wilkinson	University of Oxford	Hematopoietic stem cell rejuvenation therapies	Atsushi Iwama
2022	K1006	Estelle Duprez	Centre de Recherche en Cancérologie de Marseille (CRCM), Institut-Paoli Calmettes (IPC), U1068 INSERM	Inflammation, hematopoietic aging, and clonal drift: deciphering the role of the transcription factor PLZF	Atsushi Iwama
2022	K1007	Jianda HU	Fujian Medical University Union Hospital/Department of Hematology	Development of novel investigational HLA-A24 restrictive cancer vaccine for multiple myeloma	Hiroshi YASUI
2022	K1008	Yun-Wen Zheng	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 <sup>-/-</sup> /Rag2 <sup>-/-</sup> /IL2rg <sup>-/-</sup> rats with hiPSC derived liver organoids	Hideki Taniguchi

(2) Joint Research Area: Genome/Cancer/Disease Systems Biology ( 12 Projects)

Adoption year	IDNo.	Principal Investigator	PI's Institution	Project Title	IMSUT Host Researcher
2022	K2001	Jacob Corn	ETH Zurich	Development of a novel off-target detection tool for CRISPR-Cas3	Tomoji Mashimo
2022	K2002	Konrad Hochedlinger	Massachusetts General Hospital	Modulating epigenetic regulation to promote muscle regeneration and rejuvenation	Yasuhiro Yamada

2022	K2003	Hyeseong Cho	Ajou University School of Medicine	Elucidation of mechanisms underlying eukaryotic DNA repair and transcription	Makoto Nakanishi
2022	K2004	Heinrich Leonhardt	University Munich	Regulation and Function of DNA methylation	Makoto Nakanishi
2022	K2005	Xiao-dong He	Cheeloo College of Medicine, Shandong University	Functional polarization of tumour-associated macrophages by tumor microenvironment	Makoto Nakanishi
2022	K2006	Iwei Yeh	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
2022	K2007	Miguel A. Esteban	Guangzhou Institutes of Biomedicine and Health, Chinese Academy of Sciences	Dissecting in vivo reprogramming at the single cell level for efficient cell fate control	Yasuhiro Yamada
2022	K2008	Watcharin Loilome	Khon Kaen University, Faculty of Medicine	Multi-omic analysis toward an understanding of therapeutic response for a precision medicine in cholangiocarcinoma	Yoshinori Murakami
2022	K2009	Jiangning SONG	Monash University, Biochemistry & Mol Biology	Artificial intelligence-enabled cancer diagnosis, type classification and mutation prediction by leverage deep learning and histopathology image analysis	Seiya IMOTO
2022	K2010	Xiyun Yan	Institute of Biophysics, CAS	Ferritin nanocaged doxorubicin for targeted hepatocellular carcinoma therapy	Yasushi Kawaguchi
2022	K2101	Patrick Tan	Duke-NUS Medical School Singapore	Understanding of epigenetic heterogeneity in intractable cancers	Tatsuhiko Shibata
2022	K2102	Leyi WEI	Shandong University	Dual learning based generative adversarial networks for imputation of single-cell RNA-seq data	Kenta Nakai

(3) Joint Research Area: Infectious Diseases and Immunology (12 Projects)

Adoption year	IDNo.	Principal Investigator	PI's Institution	Project Title	IMSUT Host Researcher
2022	K3001	Kensuke Hirasawa	Memorial University of Newfoundland, Canada	Programmed cell death induced by human coronavirus infection	Yasushi Kawaguchi
2022	K3002	Daniel Sauter	Institute for Medical Virology and Epidemiology of Viral Diseases, University Hospital Tübingen	Regulation of cellular gene expression by endogenous retroviruses in infectious and non-infectious diseases	Kei Sato

2022	K3003	Peter Katsikis	Department of Immunology, Erasmus MC, University Medical Center Rotterdam	Human Systems Immunology of vaccine and immunotherapy	Ken J. ISHII
2022	K3004	Eicke Latz	Institut für Angeborene Immunität Universitätsklinik Bonn, Universität Bonn	The impact of DNases on alveolar hemorrhage	Kensuke Miyake
2022	K3005	Omar Abdel-Wahab	Memorial Sloan Kettering Cancer Center	Clonal hematopoiesis and a variety of related disorders in the aged population	Yasuhito Nannya
2022	K3006	Anna Katharina (Katja) SIMON	Kennedy Institute of Rheumatology, Oxford University	Elucidation of mechanisms involved in tissue specific immunity during infection and vaccination	Cevayir COBAN
2022	K3007	Florent Ginhoux	Singapore Immunology Network (SigN), A*STAR	Investigating Putative Dendritic Cell Precursors (pre-DC) with Neutrophil Progenitor Properties	Kenta Nakai
2022	K3008	Catherine Tsai	University of Auckland	Harnessing the group A streptococcus pilus to develop novel universal influenza vaccines	Ken Ishii
2022	K3009	Peter B. Ernst	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 Ishii
2022	K3010	Warren J. Leonard	National Institutes of Health (NIH)	Control of T cell and NK cell exhaustion to overcome viral infection and cancer development	Satoshi Takahashi
2022	K3011	Zhihai Qin	Institute of Biophysics, CAS	To study the molecular mechanism of COVID-19 protein ORF3a to stimulate the production of cytokine in macrophages	Yasushi Kawaguchi
2022	K3012	Kaixia Mi	Institute of Microbiology, Chinese Academy of Sciences	Analysis of the mechanisms of co-infection with Mycobacterium and HIV in human macrophage lineage cells	Yasushi Kawaguchi