Research Programs Introduction 2016

Strategic Basic Research Programs

CREST

Research Area	Research Supervisor Dupty Research Supervisor		First Year
Scientific Innovation for Energy Harvesting Technology	Kenji Taniguchi Hiroyuki Akinaga	Emeritus Professor, Osaka University Principal Research Manager, National Institute of Advanced Industrial Science and Technology (AIST)	FY2015
Creation of Innovative Core Technology for Manufacture and Use of Energy Carriers from Renewable Energy	Koichi Eguchi	Professor, Graduate School of Engineering, Kyoto University	FY2013
Phase Interface Science for Highly Efficient Energy Utilization	Katsunori Hanamura	Professor, Graduate School of Engineering, Tokyo Institute of Technology School of Engineering	FY2011
Creation of Essential Technologies to Utilize Carbon Dioxide as a Resource Through the Enhancement of Plant Productivity and the Exploitation of Plant Products	Akira Isogai	Professor Emeritus, Nara Institute of Science and Technology.	FY2011
Establishment of Core Technology for the Preservation and Regeneration of Marine Biodiversity and Ecosystems	Isao Koike	Professor Emeritus, The University of Tokyo	FY2011
Creation of Basic Technology for Improved Bioenergy Production through Functional Analysis and Regulation of Algae and Other Aquatic Microorganisms	Tadashi Matsunaga	President, Tokyo University of Agriculture and Technology	FY2010
Creative Research for Clean Energy Generation Using Solar Energy	Masafumi Yamaguchi	Dtstinguished Professor, Toyota Technological Institute	FY2009
Innovative Technology and System for Sustainable Water Use	Shinichiro Ohgaki Mikio Yoda	President, Japan Water Research Center Senior Chief Engineer, Information & Control Systems Company, Hitachi Limited	FY2009
Creation of fundamental technologies contribute to the elucidation and application for the robustness in plants against environmental changes	Satoshi Tabata	Director and Vice Chairman of the Board of Trustees, Kazusa DNA Research Institute	FY2015
Innovative Technology Platforms for Integrated Single Cell Analysis	Sumio Sugano	Professor, Graduate School of Frontier Sciences, The University of Tokyo	FY2014
Structural Life Science and Advanced Core Technologies for Innovative Life Science Research	Keiji Tanaka	Director, Tokyo Metropolitan Institute of Medical Science	FY2012
Creation of Fundamental Technologies for Understanding and Control of Biosystem Dynamics	Tadashi Yamamoto	Professor, Okinawa Institute of Science and Technology (OIST)	FY2011
Advanced core technology for creation and practical utilization of innovative properties and functions based upon optics and photonics	Ken-ichi Kitayama	Professor, Graduate school of Engineering, Osaka University	FY2015
Innovative catalysts and creation technologies for the utilization of diverse natural carbon resources	Wataru Ueda	Professor, Department of Material and Life Chemistry, Faculty of Engineering, Kanagawa University	FY2015
Development of Atomic or Molecular Two-Dimensional Functional Films and Creation of Fundamental Technologies for Their Applications	Atsushi Kurobe	Senior Fellow, Corporate Research & Development Center, Toshiba Corporation	FY2014
Innovative Nano-electronics through Interdisciplinary Collaboration among Material, Device and System Layers	Takayasu Sakurai Naoki Yokoyama	Professor, Institute of Industrial Science, The University of Tokyo Fellow, FUJITSU LABORATORIES LTD.	FY2013
Creation of Innovative Functional Materials with Advanced Properties by Hyper-nano-space Design	Tohru Setoyama	Executive Officer Fellow, Mitsubishi Chemical Corporation	FY2013
Establishment of Molecular Technology towards the Creation of New Functions	Hisashi Yamamoto	Professor,Chubu University/Emeritus Professor,University of Chicago	FY2012
Creation of Innovative Functions of Intelligent Materials on the Basis of the Element Strategy	Kohei Tamao	Science Advisor / Director, Global Research Cluster, RIKEN	FY2010
Modeling Methods allied with Modern Mathematics	Takashi Tsuboi	Professor, Graduate School of Mathematical Sciences, The University of Tokyo	FY2014
Intelligent Information Processing Systems Creating Co-Experience Knowledge and Wisdom with Human-Machine Harmonious Collaboration	Norihiro Hagita	Board Director, Director, Social Media Research Laboratory Group, Advanced Telecommunications Research Institute International	FY2014
Advanced Application Technologies to Boost Big Data Utilization for Multiple-Field Scientific Discovery and Social Problem Solving	Yuzuru Tanaka	Professor, Graduate School of Information Science and Technology, Hokkaido University	FY2013
Advanced Core Technologies for Big Data Integration	Masaru Kitsuregawa Etsuya Shibayama	Director General, National Institute of Informatics Professor, The University of Tokyo	FY2013
Creation of Fundamental Theory and Technology to Establish a Cooperative Distributed Energy Management System and Integration of Technologies Across Broad Disciplines Toward Social Application	Masayuki Fujita	Professor, Tokyo Institute of Technology	FY2012
Development of System Software Technologies for post-Peta Scale High Performance Computing	Mitsuhisa Sato	Deputy Project Leader , RIKEN Advanced Institute for Computational Science	FY2010
Creation of Human-Harmonized Information Technology for Convivial Society	Toyoaki Nishida	Professor, Graduate School of Informatics, Kyoto University	FY2009

PRESTO

Research Area	Research Supervisor		Research Term
Scientific Innovation for Energy Harvesting Technology	Kenji Taniguchi Hiroyuki Akinaga	Emeritus Professor, Osaka University Principal Research Manager, National Institute of Advanced Industrial Science and Technology (AIST)	FY2015
Creation of Innovative Core Technology for Manufacture and Use of Energy Carriers from Renewable Energy	Koichi Eguchi	Professor, Graduate School of Engineering, Kyoto University	2013-2018
Phase Interfaces for Highly Efficient Energy Utilization	Katsunori Hanamura	Professor, Graduate School of Engineering, Tokyo Institute of Technology	2011-2017
Creation of Essential Technologies to Utilize Carbon Dioxide as a Resource through the Enhancement of Plant Productivity and the Exploitation of Plant Products	Akira Isogai	Professor Emeritus, Nara Institute of Science and Technology	2011-2016
Photoenergy Conversion Systems and Materials for the Next Generation Solar Cells	Shuzi Hayase	Professor, Kyushu Institute of Technology	2009-2016
Chemical Conversion of Light Energy	Haruo Inoue	Executive Director / Professor, Center for Artificial Photosynthesis, Tokyo Metropolitan University	2009-2016
Creation of next-generation fundamental technologies for the control of biological phenomena in field-grown plants	Kiyotaka Okada	Professor, Faculty of Agriculture, Ryukoku University	2015-2020
Innovative Technology Platforms for Integrated Single Cell Analysis	Itaru Hamachi	Professor, Graduate School of Engineering, Kyoto University	2014-2019
Creation of Innovative Technology for Medical Applications Based on the Global Analyses and Regulation of Disease-Related Metabolites	Yoshiya Oda	President, Biomarkers and Personalized Medicine Core Function Unit , Eisai Product Creation Systems	2013-2018
Elucidation and Regulation in the Dynamic Maintenance and Transfiguration of Homeostasis in Living Body	Masato Kasuga	President, National Center for Global Health and Medicine	2012-2017
Structural Life Science and Advanced Core Technologies for Innovative Life Science Research	Soichi Wakatsuki	Professor, SLAC National Accelerator Laboratory / Stanford University	2012-2017
Design and Control of Cellular Functions	Hiroki R. Ueda	Professor, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo	2011-2017
Elucidation and Control of the Mechanisms Underlying Chronic Inflammation	Kiyoshi Takatsu	Director, Toyama Prefectural Institute for Pharmaceutical Research	2010-2016
Development and Function of Neural Networks	Fujio Murakami	Professor Emeritus, Osaka University	2009-2016
Understanding Life by iPS Cells Technology	Shin-ichi Nishikawa	Advisor, JT Biohistory Research Hall / President, All About Science Japan	2009-2016
Fully-controlled photons and their proactive usage for new era creation (FRONTIER)	Ken-ichi Ueda	Professor Emeritus, The University of Electro-Communications	2015-2020
Science and Creation of Innovative Catalysts	Hiroshi Kitagawa	Professor, Department of Chemistry, Graduate School of Science, Kyoto University	2015-2020
Innovative Nano-Electronics through Interdisciplinary Collaboration among Material, Device and System Layers	Takayasu Sakurai Naoki Yokoyama	Professor, Institute of Industrial Science, The University of Tokyo (Deputy Research Supervisor) Fellow, FUJITSU LABORATORIES LTD.	2013-2018
Hyper-Nano-Space Design toward Innovative Functionality	Kazuyuki Kuroda	Professor, Faculty of Science and Engineering, Waseda University	2013-2018
Molecular technology and creation of new functions	Takashi Kato	Professor, School of Engineering, The University of Tokyo	2012-2017
New Materials Science and Element Strategy	Hideo Hosono	Professor, Materials and Structures Laboratory / Frontier Research Center / Materials Research Center for Element Strategy, Tokyo Institute of Technology)	2010-2016
Advanced Materials Informatics through Comprehensive Integration among Theoretical, Experimental, Computational and Data-Centric Sciences	Shinji Tsuneyuki	Professor, School of Science, The University of Tokyo	2015-2020
Innovational technical basis for cultivation in cooperation with information science	Seishi Ninomiya	Vice Director, Professor, Institute for Sustainable Agro-ecosystem Services, Graduate School of Agricultural and Life Sciences, The University of Tokyo	2015-2020
Collaborative Mathematics for Real World Issues	Hiroshi Kokubu	Professor, Graduate School of Science, Kyoto University	2014-2019
Design of Information Infrastructure Technologies Harmonized with Societies	Hiroto Yasuura	Executive Vice President / Professor, Kyushu University	2014-2019
Advanced Core Technologies for Big Data Integration	Masaru Kitsuregawa Etsuya Shibayama	Director General, National Institute of Informatics (Deputy Research Supervisor) Professor, The University of Tokyo	2013-2018
Information Environment and Humans	Toru Ishida	Professor, Graduate School of informatics, Kyoto University	2009-2016

ERATO

Research Project	Research Director		Resarch Term (FY)
ASANO Active Enzyme Molecule	Yasuhisa ASANO	Professor, Biotechnology Research Center, Toyama Prefectural University	2011-2016
NOMURA Microbial Community Control	Nobuhiko NOMURA	Professor, Faculty of Life and Environmental Sciences, University of Tsukuba	2015-2020
SATO Live Bio-Forecasting	Thomas N. SATO	Director, The Thomas N. Sato BioMEC-X Laboratories, Advanced Telecommunications Research Institute International (ATR)	2013-2018
TOUHARA Chemosensory Signal	Kazushige TOUHARA	Professor, Graduate School of Agricultural and Life Sciences, The University of Tokyo	2012-2017
SAITOU Totipotent Epigenome	Mitinori SAITOU	Professor, Graduate School of Medicine, Kyoto University	2011-2016
SOMEYA Bio-Harmonized Electronics	Takao SOMEYA	Professor, Graduate School of Engineering, The University of Tokyo	2011-2016

Research Project	Research Director		Resarch Term (FY)
YAMAMOTO Atomhybrid	Kimihisa YAMAMOTO	Professor, Laboratory for Chemistry and Life Science, Tokyo Institute of Technology	2015-2020
SAITOH Spin Quantum Rectification	Eiji SAITOH	Professor, Advanced Institute for Materials Research (WPI-AIMR) / Institute for Materials Research, Tohoku University	2014-2019
MOMOSE Quantum Beam Phase Imaging	Atsushi MOMOSE	Professor, Institute of Multidisciplinary Research for Advanced Materials, Tohoku University	2014-2019
ADACHI Molecular Exciton Engineering	Chihaya ADACHI	Professor / Director, Center for Organic Photonics and Electronics Research, Kyushu University	2013-2018
ISOBE Degenerate π-Integration	Hiroyuki ISOBE	Professor, Advanced Institute for Materials Research, Tohoku University	2013-2018
ITAMI Molecular Nanocarbon	Kenichiro ITAMI	Director, Institute of Transformative Bio-molecules (WPI-ITbM), Nagoya University / Professor, Department of Chemistry, Graduate School of Science, Nagoya University	2013-2018
MINOSHIMA Intelligent Optical Synthesizer	Kaoru MINOSHIMA	Professor, Graduate School of Informatics and Engineering, The University of Electro-Communications	2013-2018
AKIYOSHI Bio-Nanotransporter	Kazunari AKIYOSHI	Professor, Graduate School of Engineering, Kyoto University	2011-2016
KANAI Life Science Catalysis	Motomu KANAI	Professor, Graduate School of Pharmaceutical Sciences, The University of Tokyo	2011-2016
KAWAHARA Universal Information Network	Yoshihiro Kawahara	Associate Professor, Graduate School of Information and Communication Engineering, The University of Tokyo	2015-2020
ISHIGURO Symbiotic Human-Robot Interaction	Hiroshi ISHIGURO	Distinguished Professor, Graduate School of Systems Innovation, Osaka University / Visiting Director, Hiroshi Ishiguro Laboratories, Advanced Telecommunications Research Institute International (ATR)	2014-2019
KAWARABAYASHI Large Graph	Ken-ichi KAWARABAYASHI	Professor, National Institute of Informatics	2012-2017

ACCEL

R&D Project Name	Research Director		R&D Term
Creation of the Functional Materials on the Basis of the Inter-Element-Fusion Strategy and Their Innovative Applications	Hiroshi Kitagawa	Professor, Graduate School of Science, Kyoto University	2015～
Realization and development of innovative information processing system and application using near-field coupling integration technology	Tadahiro Kuroda	Professor, Faculty of Science and Technology, Keio University	2015～
Reinforcement of Resiliency of Concentrated Polymer Brushes and Its Tribological Applications – Development of Novel "Soft and Resilient Tribology (SRT)" System	Yoshinobu Tsujii	Professor, Institute for Chemical Research, Kyoto University	2015～
Development of flexible nitride semiconductor devices with PSD	Hiroshi Fujioka	Professor, Institute of Industrial Science, The University of Tokyo	2014～
Fundamentals and Applications of Diamond Electrodes	Yasuaki Einaga	Professor, Department of Chemistry, Keio University	2014～
Development of Key Chemical Processes of Extremely High Efficiency with Super-Performance Heterogeneous Catalysts	Yasuhiro Uozumi	Professor, Institute for Molecular Science	2014～
Molecular Basis of Symbiotic Networks and its Application	Masayoshi Kawaguchi	Professor, National Institute for Basic Biology	2014～
Embodied Media Technology based on Haptic Primary Colors	Susumu Tachi	Professor Emeritus, The University of Tokyo / Project Research Fellow, Institute of Gerontology	2014～
Innovative Molecular Structure Analysis based on Self-Assembly Technology	Makoto Fujita	Professor, School of Engineering, The University of Tokyo	2014～
Three-Dimensional Integrated Circuits Technology Based on Vertical BC-MOSFETs and Its Advanced Application Exploration	Tetsuo Endoh	Director of Center for Innovative Integrated Electronic Systems, Tohoku University	2014～
The Nanospace Science of PCP for Molecular Control	Susumu Kitagawa	Director/Professor, Institute for Integrated Cell-Material Sciences (iCeMS), Kyoto University	2013～
"Photonic Crystal Surface-Emitting Semiconductor Laser" -Towards Realization of High Power and High Brightness Operation	Susumu Noda	Professor, School of Engineering, Kyoto University	2013～
Materials Science and Application of Electrides	Hideo Hosono	Professor, Materials and Structures Laboratory/Frontier Research Center/Materials Research Center for Element Strategy, Tokyo Institute of Technology	2013～

ALCA

Technology area	Title	Research Supervisor			First Year
Solar Cell and Solar Energy Systems	Development of High-Efficiency Polymer-Based Solar Cells	Itaru Osaka	RIKEN	Senior Research Scientist	H26
	Electricity generation by combination of solar-pumped lasers and PV devices specially designed for monochromatic laser light	Tomoyoshi Motohiro	Nagoya University	Professor	H25
	Printable organic solar cell based on liquid crystal science	Masanori Ozaki	Osaka university	Professor	H23
	Advanced solar energy utilization systems based on high-temperature photonics	Hiroo Yugami	Tohoku University	Professor	H23

Technology area	Title	Research Supervisor			First Year
Superconducting Systems	Development of REBCO fully superconducting rotary machines	Masataka Iwakuma	Kyushu University	Professor	H26
	Removing Iron Oxide Particles from Boiler Feed-Water of Thermal Power Plants	Shigehiro Nishijima	Osaka university	Professor	H25
	Waste-Heat Recovery Thermoacoustic System with Achievement of 60% of Carnot Efficiency	Shinya Hasegawa	Tokai University	Junior associate professor	H25
	System of Superconducting Rotating Machines for Transport Equipments that Supports Low Carbon Society	Taketsune Nakamura	Kyoto University	Associate Professor	H24
	Superconductor Electronic System Combined with Optics and Spintronics	Akira Fujimaki	Nagoya University	Professor	H23
Electric Storage Devices	Development of graphene-based carbon materials for high-rate perfomance and high-capacity negative electrode of lithium ion battery	Yoshiaki Matsuo	University of Hyogo	Associate Professor	H26
	In-situ Study of Lithium-ion (De) intercalation by Using Interface Ion Conduction Microscope for Creation of High-performance LIBs	Tomokazu Matsue	Tohoku University	Professor	H25
	Development of metal-free, Li-ion-air batteries	Yuki Yamada	The University of Tokyo	Assistant professo	H24
	Development of innovative high-energy-density magnesium battery	Tetsu Ichitsubo	Kyoto University	Associate Professor	H23
	Development of high-power all-solid-state battery under the concept of "in-situ" formation	Yasutoshi Iriyama	Nagoya University	Professor	H23
	Development of a Reversible Solid Oxide Electrolysis Cell for Efficient Hydrogen Production and Power Generation in the Fuel Cell Mode	Hiroyuki Uchida	University of Yamanashi	Professor	H23
	Novel rechargeable non-lithium batteries using ionic liquids melting at middle-ranged temperatures	Rika Hagiwara	Kyoto University	Professor	H23
Ultra Heat-Resistant Materials and High Quality Recycled Steel	High temperature materials based on multi-element bcc solid solutions	Seiji Miura	Hokkaido University	Professor	H26
	Progressive Design and Advanced Casting Process for MoSiB-Base Ultra-High Temperature Materials	Kyosuke Yoshimi	Tohoku University	Professor	H25
	Innovative Thermal Radiation Reflection Coatings for Future Thermal Managing Applications	Yutaka Kagawa	The University of Tokyo	Professor	H23
Biotechnology	Artificial control of cytoplasmic streaming as a platform system for plant biomass enhancement	Motoki Tominaga	Waseda University	Assistant Professor	H26
	Methane/methanol conversion by an innovative bioprocess using gas phase microbial reaction	Katsutoshi Hori	Nagoya University	Professor	H26
	Genetic engineering of cyanobacterial transcriptional regulators and circadian clocks for succinate production.	Takashi Osanai	Meiji University	Senior Assistant Professor	H25
	Multidimensional improvement of plant biomass productivity based on artificially induced heterosis technology	Keiichi Mochida	RIKEN	Team Leader	H25
	Development of novel crop protection technology which can confer durable disease resistance to various crop species	Yoshiteru Noutoshi	Okayama University	Associate Professor	H24
	Generation of diatom factory through physiolomics toward a novel energy source	Yasuhiro Kashino	University of Hyogo	Associate Professor	H23
Innovative Energy-Saving and Energy-Producing Chemical Processes	Development of CO_2 separation membranes driven by the pKa shift of stimuli-responsive nanogel particles	Yu Hoshino	Kyushu University	Associate Professor	H26
	Application of internal condensation reactor system for highly efficient methanol synthesis process	Kohji Omata	Shimane University	Professor	H25
	Depolymerization of lignocellulose catalyzed by activated carbons	Atsushi Fukuoka	Hokkaido University	Professor	H25
	Innovative low-temperature and high-speed growth process for high-quality SiC single crystal films	Yuji Matsumoto	Tohoku University	Professor	H25
	Irreversible hydrolysis of esters and direct transformation of alkenes directing toward energy reduction of water separation	Makoto Tokunaga	Kyushu University	Professor	H24
	Development of Synthetic Promoters for Accerelation of Biomass Production	Yoshiharu Y. Yamamoto	Gifu University	Professor	H24
	Development of Magnetic Heat Pump with Layered Active Magnetic Regenerator	Tsuyoshi Kawanami	Kobe University	Associate Professor	H26
	Development of Trilateral steam cycle for waste heat recovery	Naoki Shikazono	The University of Tokyo	Professor, Director of Collaborative Research Center for Energy Engineering	H24

Technology area	Title	Research Supervisor			First Year
Innovative Technology Area	Development of high efficiency silicon/perovskite two-terminal tandem solar cells	Takeshi Noda	National Institute for Materials Science	Group Leader	H27
	Integration of nanostructures in crystalline silicon solar cells for advanced management of photons and carriers	Noritaka Usami	Nagoya University	Professor	H23
	Low-cost High Temperature Superconducting Wire	Toshiya Doi	Kyoto University	Professor	H23
	Development of Metal Hydride/Air Secondary Battery	Masatsugu Morimitsu	Doshisha University	Professor	H24
	Development of 300Wh/kg capacitor by using peculiar properties and nano-layering of graphene.	Tang Jie	National Institute for Materials Science	Group Leader	H23
	The plant breeding revolution through the development of artificial apomixis induction technique	Masaru Ohme-Takagi	Saitama University	Professor	H27
	Genome-based research and development of thermo-tolerant microbes aiming at low-cost fermentation	Kazunobu Matsushita	Yamaguchi University	Professor	H23
	Development of highly-ordered vegetational bioprocess utilizing symbiotic interactions in rhizosphere	Masaaki Morikawa	Hokkaido University	Professor	H23
	Energy-saving CO_2 Capture Process with Phase Separation Solvent	Hiroshi Machida	Nagoya University	Assistant professor	H27
	Lignocellulose refinery using ionic liquids and radicals	Kenji Takahashi	Kanazawa University	Professor	H23
	Development of high-efficiency vertical deep-UV LED becoming the substitute of germicidal mercury lamps	Hideki Hirayama	RIKEN	Chief Scientist	H27
	Spacially Imaged Iris-plane Ultra Low Power Consumption Display	Tohru Kawakami	Tohoku University	Guest Associate Professor	H24
	Development of high-efficient and high-intensity lighting using hollow nanoparticles	Masayoshi Fuji	Nagoya Institute of Technology	Professor	H24
Next Generation Batteries (Special Priority Research Area)	All-solid-state battery team	Masahiro Tatsumisago	Osaka Prefecture University	Professor	H25
	Lithium-sulfur battery team	Yoshimi Kubo	National Institute for Materials Science	Team Leader, Lithium-Air Battery Specially Promoted Research Team, GREEN	H25
	Advanced next generation batteries team	Kiyoshi Kanamura	Tokyo Metropolitan University	Professor	H25
	Common platform research team	Kiyoshi Kanamura	Tokyo Metropolitan University	Professor	H25
White Biotechnology (Special Priority Research Area)	Change of raw materials of basic compounds by the combination of microbial conversion and catalytic technology	Takashi Arai	Daicel Corporation	General Manager	H27
	Innovative Synthesis of High-performance Bioplastics from Polysaccharides	Tadahisa IWATA	The University of Tokyo	Professor	H27
	Catalytic production of carboxylic acids and alcohols from biomass-derived carbohydrates	Kiyotaka NAKAJIMA	Hokkaido University	Associate Professor	H27
	Development of bioprocess using marine microbial enzymes for efficient lignin degradation and catalytic generation of super-urushiol from lignin monomers	Yukari Ohta	Japan Agency for Marine-Earth Science and Technology	Senior Resea r ch Scientist	H27
	Microbial production of biocompatible plastic from lignocellulosic biomass	Ken'ichiro Matsumoto	Hokkaido University	Associate Professor	H27
	New Development of Natural Rubber by the Technological Innovation of Vulcanization	Yuko Ikeda	Kyoto Institute of Technology	Professor	H27
	Sugar-independent bioproduction of muconic acid	Tomonori Sonoki	Hirosaki University	Associate Professor	H27
	Production and application of highly functional biosurfactants for performance improvement of bioplastics	Hiroshi Habe	National Institute of Advanced Industrial Science and Technology	Group Leader	H27
	Microbial conversion of a biofuel waste biomass to polymer raw materials	Toshiaki Nakajima-Kambe	University of Tsukuba	Professor	H27
	Interfacial Asymmetric Organocatalysis Mediated by Cellulose Nanofibers	Takuya Kitaoka	Kyushu University	Professor	H27
	Preparation of Cellulose Nanofiber Composite Plastic Foam with Ultralight and High Insulation performances	Masahiro Ohshima	Kyoto University	Professor	H27
	"SHINAYAKA" Polymer Composite with Cellulose Nanofiber	Takashi Nishino	Kobe University	Professor	H27
Biomass useful component (Enabling Technology Project)	Building new wood in wood-less plant	Nobutaka Mitsuda	National Institute of Advanced Industrial Science and Technology	Senior Researcher	H23
	Promotion of photosynthesis and plant productivity through manipulation of stomatal aperture	Toshinori Kinoshita	Nagoya University	Professor	H22
	Ethanol Production with Acetic Acid Fermentation from Lignocellulosics	Shiro Saka	Kyoto University	Professor	H22

Technology area	Title	Research Supervisor			First Year
Bio-based plastic(Enabling Technology Project)	Nanobio design for solid-degrading enzymes: CO_2 bypass carbon cycling	Mitsuo Umetsu	Tohoku University	Professor	H23
	Generation of Super-engineering Plastics Using Microbial Biomass	Tatsuo Kaneko	Japan Advanced Institute of Science and Technology	Professor	H22
	Development of Multifunctional Heterogeneous Catalysts	Michikazu Hara	Tokyo Institute of Technology	Professor	H24
	Production of single-aromatic chemicals from poly-aromatic compounds in nature	Takao Masuda	Hokkaido University	Professor	H24
High quality GaN substrate (Enabling Technology Project)	Over 8-inch large-diameter GaN wafers for energy-saving devices	Yusuke Mori	Osaka university	Professor	H24
Next generation power plant material (Enabling Technology Project)	Development of direct and complete recycling method for single crystal turbine aerofoils	Hiroshi Harada	National Institute for Materials Science	Senior Scientist with Special Missions	H25
	Development of next-generation ultra-heat-resistant ferritic steel through efficient use of nitrogen	Hideharu Nakashima	Kyushu University	Professor	H23
	Development of ultra heat-resistant MoSi2-based multi-phase single-crystal alloys through combining brittle phases on the basis of interface functionalization	Haruyuki Inui	Kyoto University	Professor	H22
	Design principle of super heat-resistant steels applicable to innovative 800℃ class A-USC power plants	Masao Takeyama	Tokyo Institute of Technology	Professor	H22
Light weight material (Enabling Technology Project)	Development of Low-Cost High Performance Wrought Magnesium Alloy	Shigeharu Kamado	Nagaoka University of Technology	Professor	H24
	Development of the novel ceramics having self-healing function for turbine blade	Wataru Nakao	Yokohama National University	Associate Professor	H24
	Nobel Titanium Powder Production Process for Lightweight and Anticorrosive Society	Tetsuya Uda	Kyoto University	Professor	H22
Electric equipment with superconducting system (Enabling Technology Project)	Development of low cost and high performance MgB2 wires that support the future hydrogen society	Hiroaki Kumakura	National Institute for Materials Science	Senior Scientist with Special Missions	H22
	Liquid Hydrogen Cooled Superconducting Power Apparatus for Innovative Energy Infrastructure	Yasuyuki Shirai	Kyoto University	Professor	H22
	Development of the Low-Cost REBCO Long Coated Conductor	Kaname Matsumoto	Kyushu Institute of Technology	Professor	H22
Next generation smart community (Enabling Technology Project)	Development of organic inorganic hybrid high performance solar cells	Tsutomu Miyasaka	Toin University of Yokohama	Professor	H25
	Development of non-vacuum processing for high efficiency next-generation thin-film solar cells	Akira Yamada	Tokyo Institute of Technology	Professor	H22
	Development and Evaluation of Carbon Alloys with Electrocatalytic Activity for Cathode Reaction in Proton Exchange Membrane Fuel Cell	Jun-ichi Ozaki	Gunma University	Professor	H22
	Advanced Hybrid Capacitor based on Dual Electrolyte Technology	Wataru Sugimoto	Shinshu University	Professor	H22
	Pt-free Fuel Cell Vehicle using Liquid Fuel as Storage Medium of Electricity	Susumu Yamaguchi	Daihatsu Motor CO.,LTD.	Chief Coordinator	H22
	Development of multi-purpose insulation materials based on organic-inorganic hybrid aerogels	Kazuki Nakanishi	Kyoto University	Associate Professor	H22

RISTEX

Research Area	Research Supervisor		Research Term
Creating a Safe and Secure Living Environment in the Changing Public and Private Spheres	Hajime YAMADA	Professor, Faculty of Economics, Toyo University	2015-2020
Designing a Sustainable Society through Intergenerational Co-creation	Takashi OMORI	Professor, Faculty of Environmental Studies, Tokyo City University	2014-2019
Creating Community-based Robust and Resilient Society	Haruo HAYASHI	President National Research Institute for Earth Science and Disaster Prevention	2012-2017
Science of Science, Technology and Innovation Policy	Akira MORITA	Director-General, National Institute of Population and Social Security Research	Launched FY2011
Service Science, Solutions and Foundation Integrated Research Program	Norihisa DOI	Professor Emeritus, Keio University	Launched FY2010
Implementation-Support Program (Call for proposal Type)	Azusa TOMIURA	Former Auditor, Tokyo Institute of Technology	Launched FY2007
Implementation-Support Program (R&D results integrated Type)	Tateo ARIMOTO	Professor, The National Graduate Institute for Policy Studies (GRIPS)	Launched FY2013