

Research Programs Introduction 2015

Strategic Basic Research Programs

CREST

Research Area	Research Supervisor Dupty Research Supervisor		First Year
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	Nobuhide KASAGI	Professor Emeritus The University of Tokyo / Principal Fellow, CRDS, JST	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	Distinguished 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 Innovative Technologies to Control Carbon Dioxide Emissions	Itaru YASUI	Professor Emeritus, The University of Tokyo	FY2008
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
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
Enhancing Applications of Innovative Optical Science and Technologies by Making Ultimate Use of Advanced Light Sources	Tadashi ITOH	Professor / Vice Director, Institute for Nano Science and Design, Osaka University	FY2008
Creation of Nanosystems with Novel Functions Through Process Integration	Jun'ichi SONE	Principal Fellow, CRDS, JST	FY2008
Development of High-Performance Nanostructures for Process Integration	Masahiro IRIE	Professor Emeritus, Kyushu University	FY2008
Modeling Methods allied with Modern Mathematics	Takashi TSUBOI	Dean / 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	Mitsuhsa SATO	Depty 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
Alliance for Breakthrough between Mathematics and Sciences (ABMS)	Yasumasa NISHIURA	Professor, Tohoku University	FY2008

PRESTO

Research Area	Research Supervisor		Research Term
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	Nobuhide KASAGI	Professor Emeritus, The University of Tokyo / Principal Fellow, CRDS, JST	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
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	2010-2015
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
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	2011-2016
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	Specially Appointed Professor, Osaka University	2009-2016
Epigenetic Control and Biological Functions	Tsunehiro MUKAI	President, Nishikyushu University / Professor Emeritus, Saga University	2009-2015
Understanding Life by iPS Cells Technology	Shin-ichi NISHIKAWA	Advisor, JT Biohistory Research Hall / President, All About Science Japan	2008-2015
Decoding and Controlling Brain Information	Mitsuo KAWATO	Director/ATR Fellow, ATR Brain Information Communication Research Laboratory Group	2008-2015
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
Nanosystem and Emergent Functions	Yoshihito OSADA	Group Director, Advanced Science Institute, RIKEN	2008-2015
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, Graduate School of Science, 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
Synthesis of Knowledge for Information Oriented Society	Hideyuki NAKASHIMA	President, Future University-Hakodate	2008-2015

ERATO

Research Project	Research Director		Research Term (FY)
ASANO Active Enzyme Molecule	Yasuhisa ASANO	Professor, Biotechnology Research Center, Toyama Prefectural University	2011-2016
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	Mitunori 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
HIGASHIYAMA Live-Holonic	Tetsuya HIGASHIYAMA	Professor, Graduate School of Science, Nagoya University	2010-2015
MURATA Lipid Active Structure	Michio MURATA	Professor, Graduate School of Science, Osaka University	2010-2015
SAITOH Spin Quantum Rectification	Eiji SAITOH	Professor, Advanced Institute for Materials Research (WPI-AIMR) / Institute for Materials Research, Tohoku University	2014-2019

Research Project	Research Director		Resarch Term (FY)
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
IYODA Supra-integrated Material	Tomokazu IYODA	Professor, Frontier Research Center, Tokyo Institute of Technology	2010-2015
KATORI Innovative Space-Time	Hidetoshi KATORI	Professor, The Graduate School of Engineering, The University of Tokyo / Chief Scientist, RIKEN	2010-2015
TAKEUCHI Biohybrid Innovation	Shoji TAKEUCHI	Professor, Institute of Industrial Science, The University of Tokyo	2010-2015
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
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	2014
	Development of the high-efficiency photovoltaic rectenna	Shinji NOZAKI	The University of Electro-Communications	Professor	2013
	Development of organic inorganic hybrid high performance solar cells	Tsutomu MIYASAKA	Toin University of Yokohama	Professor	2013
	Development of organic inorganic hybrid high performance solar cells	Tomoyoshi MOTOHIRO	Nagoya University	Professor	2013
	Realization of all crystalline ideal structure of organic photovoltaics and efficiency maximization by utilizing co-evaporant induced crystallization method	Toshihiko KAJI	National Institutes of Natural Sciences	Assistant Professor	2012
	Integration of nanostructures in crystalline silicon solar cells for advanced management of photons and carriers	Noritaka USAMI	Nagoya University	Professor	2011
	Printable organic solar cell based on liquid crystal science	Masanori OZAKI	Osaka university	Professor	2011
	Development of environment-friendly solar cell made by clathrate compound of group VI elements	Tetsuji KUME	Gifu University	Associate Professor	2011

Technology area	Title	Research Supervisor			First Year
Solar Cell and Solar Energy Systems	Crystal Growth and Interface Control Technology of Group IV Semiconductor Thin Films for Multi-Layered Solar Cell	Osamu NAKATSUKA	Nagoya University	Associate Professor	2011
	Advanced solar energy utilization systems based on high-temperature photonics	Hiroo YUGAMI	Tohoku University	Professor	2011
	Artificial Photosynthesis System	Shunichi FUKUZUMI	Osaka university	Professor	2010
	Development of non-vacuum processing for high efficiency next-generation thin-film solar cells	Akira YAMADA	Tokyo Institute of Technology	Professor	2010
	Smart Innovation on Nitride Semiconductor Solar Cells with Superstructure Magic Alloys: SMART	Akihiko YOSHIKAWA	Chiba University	Professor	2010
Spinodal Nanotechnology for Super-High Efficiency Energy Conversion	Hiroshi KATAYAMA-YOSHIDA	Osaka university	Professor	2010	
Superconducting Systems	Development of REBCO fully superconducting rotary machines	Masataka IWAKUMA	Kyushu University	Professor	2014
	Removing Iron Oxide Particles from Boiler Feed-Water of Thermal Power Plants	Shigehiro NISHIJIMA	Osaka university	Professor	2013
	Waste-Heat Recovery Thermoacoustic System with Achievement of 60% of Carnot Efficiency	Shinya HASEGAWA	Tokai University	Junior associate professor	2013
	System of Superconducting Rotating Machines for Transport Equipments that Supports Low Carbon Society	Taketsune NAKAMURA	Kyoto University	Associate Professor	2012
	Low-cost High Temperature Superconducting Wire	Toshiya DOI	Kyoto University	Professor	2011
	Superconductor Electronic System Combined with Optics and Spintronics	Akira FUJIMAKI	Nagoya University	Professor	2011
	Advanced Superconducting Power Conditioning System Using Liquid Hydrogen Cooled MgB ₂ Superconductor for New Energy System	Takataro HAMAJIMA	MAYEKAWA MFG. CO., LTD.	Technical advisor	2010
	Creation of a 120 K superconducting wire through atomic-level control	Kaname MATSUMOTO	Kyushu Institute of Technology	Professor	2010
Electric Storage Devices	Development of graphene-based carbon materials for high-rate performance and high-capacity negative electrode of lithium ion battery	Yoshiaki MATSUO	University of Hyogo	Associate Professor	2014
	Application of complex hydride-based fast ionic conductors to all-solid-state rechargeable devices	Atsushi UNEMOTO	Tohoku University	Lecturer	2013
	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	2013
	Development of Metal Hydride/Air Secondary Battery	Masatsugu MORIMITSU	Doshisha University	Professor	2012
	Development of metal-free, Li-ion-air batteries	Yuki YAMADA	The University of Tokyo	Assistant professo	2012
	Development of innovative high-energy-density magnesium battery	Tetsu ICHITSUBO	Kyoto University	Associate Professor	2011
	Development of high-power all-solid-state battery under the concept of "in-situ" formation	Yasutoshi IRIYAMA	Nagoya University	Professor	2011
	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	2011
	Bottom-Up Fabrication of High Performance Compact Devices Using Single-Crystal Nanocubes	Kazumi KATO	National Institute of Advanced Industrial Science and Technology	Research Group Leader	2011
	Development of 300Wh/kg capacitor by using peculiar properties and nano-layering of graphene.	Tang JIE	National Institute for Materials Science	Group Leader	2011
	Novel rechargeable non-lithium batteries using ionic liquids melting at middle-ranged temperatures	Rika HAGIWARA	Kyoto University	Professor	2011
	Novel metal-air battery using oxide ion conducting nano thickness film	Tatsumi ISHIHARA	Kyushu University	Professor	2010
	Development and Evaluation of Carbon Alloys with Electrocatalytic Activity for Cathode Reaction in Proton Exchange Membrane Fuel Cell	Jun-ichi OZAKI	Gunma University	Professor	2010
	Advanced Hybrid Capacitor based on Dual Electrolyte Technology	Wataru SUGIMOTO	Shinshu University	Professor	2010
Pt-free Fuel Cell Vehicle using Liquid Fuel as Storage Medium of Electricity	Hirohisa TANAKA	Daihatsu Motor CO.,LTD.	Executive Technical Expert	2010	
Ultra Heat-Resistant Materials and High Quality Recycled Steel	High temperature materials based on multi-element bcc solid solutions	Seiji MIURA	Hokkaido University	Professor	2014
	Development of direct and complete recycling method for single crystal turbine aerofoils	Hiroshi HARADA	National Institute for Materials Science	Senior Scientist with Special Missions	2013
	Progressive Design and Advanced Casting Process for MoSiB-Base Ultra-High Temperature Materials	Kyosuke YOSHIMI	Tohoku University	Professor	2013

Technology area	Title	Research Supervisor			First Year
Ultra Heat-Resistant Materials and High Quality Recycled Steel	Development of Low-Cost High Performance Wrought Magnesium Alloy	Shigeharu KAMADO	Nagaoka University of Technology	Professor	2012
	Development of the novel ceramics having self-healing function for turbine blade	Wataru NAKAO	Yokohama National University	Associate Professor	2012
	Innovative Thermal Radiation Reflection Coatings for Future Thermal Managing Applications	Yutaka KAGAWA	The University of Tokyo	Professor	2011
Ultra Heat-Resistant Materials and High Quality Recycled Steel	Development of next-generation ultra-heat-resistant ferritic steel through efficient use of nitrogen	Hideharu NAKASHIMA	Kyushu University	Professor	2011
	Design principle for high-power shape memory alloy operated by waste heat	Tomonari INAMURA	Tokyo Institute of Technology	Associate Professor	2010
	Development of ultra heat-resistant MoSi ₂ -based multi-phase single-crystal alloys through combining brittle phases on the basis of interface functionalization	Haruyuki INUI	Kyoto University	Professor	2010
	New continuous titanium production process for utilization as light vehicle and high corrosion resistance materials	Tetsuya UDA	Kyoto University	Associate Professor	2010
	Design principle of super heat-resistant steels applicable to innovative 800°C class A-USC power plants	Masao TAKEYAMA	Tokyo Institute of Technology	Professor	2010
	Development of multi-purpose insulation materials based on organic-inorganic hybrid aerogels	Kazuki NAKANISHI	Kyoto University	Associate Professor	2010
Biotechnology	Artificial control of cytoplasmic streaming as a platform system for plant biomass enhancement	Motoki TOMINAGA	Waseda University	Assistant Professor	2014
	Methane/methanol conversion by an innovative bioprocess using gas phase microbial reaction	Katsutoshi HORI	Nagoya University	Full Professor	2014
	Genetic engineering of cyanobacterial transcriptional regulators and circadian clocks for succinate production.	Takashi OSANAI	RIKEN	Researcher	2013
	Multidimensional improvement of plant biomass productivity based on artificially induced heterosis technology	Keiichi MOCHIDA	RIKEN	Deputy Team Leader	2013
	Construction of bio-lipid-platform for production of useful polymers from lignocellulosic biomass	Jun SHIMA	Ryukoku University	Professor	2012
	Development of novel crop protection technology which can confer durable disease resistance to various crop species	Yoshiteru NOUTOSHI	Okayama University	Associate Professor	2012
	Nanobio design for solid-degrading enzymes: CO ₂ bypass carbon cycling	Mitsuo UMETSU	Tohoku University	Professor	2011
	Generation of diatom factory through physiomics toward a novel energy source	Yasuhiro KASHINO	University of Hyogo	Associate Professor	2011
	Genome-based research and development of thermo-tolerant microbes aiming at low-cost fermentation	Kazunobu MATSUSHITA	Yamaguchi University	Professor	2011
	Building new wood in wood-less plant	Nobutaka MITSUDA	National Institute of Advanced Industrial Science and Technology	Researcher	2011
	Development of highly-ordered vegetational bioprocess utilizing symbiotic interactions in rhizosphere	Masaaki MORIKAWA	Hokkaido University	Professor	2011
	An innovative Bacillus subtilis cell factory for industrial chemical production with high efficiency and flexibility	Naotake OGASAWARA	Nara Institute of Science and Technology	President	2010
	Generation of Super-engineering Plastics Using Microbial Biomass	Tatsuo KANEKO	Japan Advanced Institute of Science and Technology	Associate Professor	2010
	Promotion of photosynthesis and plant productivity through manipulation of stomatal aperture	Toshinori KINOSHITA	Nagoya University	Professor	2010
	Ethanol Production with Acetic Acid Fermentation from Lignocellulosics	Shiro SAKA	Kyoto University	Professor	2010
	Molecular Breeding for Increasing Biomass Production in the Problem Soils	Naoko K. NISHIZAWA	Ishikawa Prefectural University	Professor	2010
Development of Innovative Regulatory Techniques of Biofilms for production of clean energy	Nobuhiko NOMURA	University of Tsukuba	Associate Professor	2010	
Innovative Energy-Saving and Energy-Producing Chemical Processes	Development of CO ₂ separation membranes driven by the pK _a shift of stimuli-responsive nanogel particles	Yu HOSHINO	Kyushu University	Associate Professor	2014
	Application of internal condensation reactor system for highly efficient methanol synthesis process	Kohji OMATA	Shimane University	Professor	2013
	Depolymerization of lignocellulose catalyzed by activated carbons	Atsushi FUKUOKA	Hokkaido University	Professor	2013
	Innovative low-temperature and high-speed growth process for high-quality SiC single crystal films	Yuji MATSUMOTO	Tohoku University	Professor	2013

Technology area	Title	Research Supervisor			First Year
Innovative Energy-Saving and Energy-Producing Chemical Processes	Development of Exergy Recuperative Reaction and Separation System	Atsushi TSUTSUMI	The University of Tokyo	Professor	2012
	Irreversible hydrolysis of esters and direct transformation of alkenes directing toward energy reduction of water separation	Makoto TOKUNAGA	Kyushu University	Professor	2012
	Development of Multifunctional Heterogeneous Catalysts	Michikazu HARA	Tokyo Institute of Technology	Professor	2012
Innovative Energy-Saving and Energy-Producing Chemical Processes	Production of single-aromatic chemicals from poly-aromatic compounds in nature	Takao MASUDA	Hokkaido University	Professor	2012
	Creation of Innovative Technologies for a Highly-functional Multivalent Cation Battery Using Inclusion Compounds	Kazuhiro YAMABUKI	Yamaguchi University	Assistant Professor	2012
	Development of Synthetic Promoters for Acceleration of Biomass Production	Yoshiharu Y. YAMAMOTO	Gifu University	Professor	2012
	Lignocellulose refinery using ionic liquids and radicals	Kenji TAKAHASHI	Kanazawa University	Professor	2011
	Creation of Catalytic Biomass-refinery without Glycation or Fermentation	Masakazu IWAMOTO	Chuo University	Professor	2010
Innovative Energy-Saving and Energy-Producing Systems and Devices	Development of Catalytic Gasification Process of Biomass at Low Temperature	Takayuki TAKARADA	Gunma University	Professor	2010
	Development of Magnetic Heat Pump with Layered Active Magnetic Regenerator	Tsuyoshi KAWANAMI	Kobe University	Associate Professor	2014
	Spacially Imaged Iris-plane Ultra Low Power Consumption Display	Tohru KAWAKAMI	Tohoku University	Guest Associate Professor	2012
	Proposal of Novel Magnetic Recording with Electric Field Spin Manipulation and Challenge to Ultra High Capacity Recording with Low Power.	Masashi SAHASHI	Tohoku University	Professor	2012
	Development of Trilateral steam cycle for waste heat recovery	Naoki SHIKAZONO	The University of Tokyo	Professor, Director of Collaborative Research Center for Energy Engineering	2012
	Development of high-efficient and high-intensity lighting using hollow nanoparticles	Masayoshi FUJI	Nagoya Institute of Technology	Professor	2012
	Over 8-inch large-diameter GaN wafers for energy-saving devices	Yusuke MORI	Osaka university	Professor	2012
Research Projects (Special Priority Research Areas)	Nanotube flexible electronics with minimal resource consumption	Suguru NODA	Waseda University	Professor	2010
	All-solid-state battery team	Masahiro TATSUMISAGO	Osaka Prefecture University	Professor	2013
	Metal-air battery team	Yoshimi KUBO	National Institute for Materials Science	Team Leader, Lithium-Air Battery Specially Promoted Research Team, GREEN	2013
	Other battery team (mid-and long-terms)	Masayoshi WATANABE	Yokohama National University	Professor	2013
	Other battery team (long-term)	Kiyoshi KANAMURA	Tokyo Metropolitan University	Professor	2013

RISTEX

Research Area	Research Supervisor			Research Term
Designing a Sustainable Society through Intergenerational Co-creation	Kazuhiro UETA	Professor, Graduate School of Economics, Kyoto University		2014-2019
Creating Community-based Robust and Resilient Society	Haruo HAYASHI	Professor, Research Center for Disaster Reduction Systems, Director of the Disaster Prevention Research Institute, Kyoto University		2012-2017
Redesigning Communities for Aged Society	Hiroko AKIYAMA	Professor, Institute of Gerontology, University of Tokyo		2010-2015
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