



December 2, 2024

Japan Science and Technology Agency (JST)
5-3, Yonbancho, Chiyoda-ku, Tokyo 102-8666

JST to fund 32 research projects under the Adopting Sustainable Partnerships for Innovative Research Ecosystem (ASPIRE) Program

The Japan Science and Technology Agency (JST, President HASHIMOTO Kazuhito) has approved funding for 32 new research projects through the "ASPIRE for Top Scientists" and "ASPIRE for Rising Scientists" under the ASPIRE program.

The call for proposals was welcoming applications from Japan-based researchers and international partners funded by eligible counterpart institutions. The seven designated fields were: AI and information, biotechnology, energy, materials, quantum, semiconductors and telecommunications.

A total of 46 proposals were submitted to "ASPIRE for Top Scientists", out of which 14 were selected by expert evaluation (Appendix 1). For "ASPIRE for Rising Scientists", a total of 85 proposals were submitted and 18 were selected (Appendix 2).

For "ASPIRE for Top Scientists", each project is planned to be funded for five years with support of up to 500 million JPY. For "ASPIRE for Rising Scientists", each project is planned to be funded for three years with support of up to 90 million JPY.

Attachments

Appendix 1: ASPIRE for Top Scientists List of the Funded Projects

Appendix 2: ASPIRE for Rising Scientists List of the Funded Projects

Appendix 3: Experts for the Evaluation

Annex 1: Evaluation Criteria for "ASPIRE for Top Scientists"

Annex 2: Evaluation Criteria for "ASPIRE for Rising Scientists"

Enquiries

Director, Department of International Affairs

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ASPIRE for Top Scientists
List of the Funded Projects

■ **AI/Information**

Project Title		Japan-side Principal Investigator
		Partner Principal Investigators
1	International Research Network for Computational Fabrication Fusing Interdisciplinary Information Technologies	IGARASHI Takeo, Professor, Graduate School of Information Science and Technology, The University of Tokyo
		<p>[France] Christian Sandor, Professor, Laboratoire Interdisciplinaire des Sciences du Numérique, Paris-Saclay University</p> <p>[USA] Bo Zhu, Assistant Professor, School of Interactive Computing, Georgia Institute of Technology</p> <p>[USA] Sigrid Adriaenssens, Professor, Department of Civil and Environmental Engineering, Princeton University</p>
2	Building Mathematical Foundation for Cyber Physical Dynamical Systems: Interdisciplinary Research and Human Resource Development on Control with Prediction and Learning	EBIHARA Yoshio, Professor, Department of Information Science and Electrical Engineering, Kyushu University
		<p>[France] Dimitri Peaucelle, Senior Researcher, Decision & Optimization Department, LAAS-CNRS</p> <p>[Italy] Fabrizio Dabbene, Director of Research, IEIIT (Istituto di Elettronica e di Ingegneria dell'Informazione e delle Telecomunicazioni), CNR</p> <p>[Netherlands] W. P. M. H. (Maurice) Heemels, Professor, Department of Mechanical Engineering, Eindhoven University of Technology</p> <p>[Sweden] Karl Henrik Johansson, Swedish Research Council Distinguished Professor, School of Electrical Engineering and Computer Science, KTH Royal Institute of Technology</p>
3	Formation of a Japan-Germany multilayered R&D network for medical x AI and its application to industry creation	KISE Koichi, Professor, Graduate School of Informatics, Osaka Metropolitan University
		[Germany] Andreas Dengel, Executive Director, German Research Center for Artificial Intelligence

4	Establishing an international collaborative research network on human and spatial augmentation	<p>KOIKE Hideki, Professor, School of Computing, Institute of Science Tokyo</p> <hr/> <p><u>Australia</u> Mark Billingham, Professor, Human-Computer Interaction, University of South Australia</p> <p><u>Denmark</u> Barry Brown, Professor, Department of Computer Science, Copenhagen University</p> <p><u>Germany</u> Albrecht Schmidt, Professor, Department of Computer Science, Ludwig-Maximilian's Universität (LMU) in Munich</p> <p><u>Germany</u> Frank Steinicke, Professor, Department of Informatics, Universität Hamburg</p> <p><u>USA</u> Gordon Wetzstein, Associate Professor, Electrical Engineering Department, Stanford University</p> <p><u>USA</u> Kris Kitani, Associate Research Professor, Robotics Institute, Carnegie Mellon University</p>
5	Mental Well-being Intelligence: A Community for Data-driven Mental Well-being Research	<p>YATANI Koji, Associate Professor, Department of Electrical Engineering and Information Systems, Graduate School of Engineering, The University of Tokyo</p> <hr/> <p><u>Australia</u> Mark Billingham, Professor, Science, Technology, Engineering and Mathematics (STEM), University of South Australia</p> <p><u>Australia</u> Tongliang Liu, Associate Professor (Director of Sydney AI Centre), School of Computer Science, The University of Sydney</p> <p><u>Finland</u> Simo Hosio, Associate Professor, Faculty of Information Technology and Electrical Engineering, University of Oulu</p> <p><u>USA</u> Neha Kumar, Associate Professor, The Sam Nunn School of International Affairs and the School of Interactive Computing, Georgia Institute of Technology</p> <p><u>USA</u> Tanzeem Choudhury, Professor (Roger and Joelle Burnell Chair in Integrated Health and Technology) Computing and Information Sciences, Cornell Tech</p>

■ **Biotechnology**

Project Title		Japan-side Principal Investigator
		Partner Principal Investigators
1	Research and development of integrative analyses for marine ecosystem change and establishment of an ocean brain-circulation platform	INAGAKI Fumio, Vice Director/Division Director of Research/Professor, Advanced Institute for Marine Ecosystem Change (WPI-AIMEC), Tohoku University and Japan Agency for Marine-Earth Science and Technology (JAMSTEC)
		<p><u>Germany</u> Sabine Kasten, Professor/Section Head, Section Marine Geochemistry, Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research</p> <p><u>USA</u> Angelique White, Professor, Department of Oceanography, University of Hawaii at Mānoa</p> <p><u>USA</u> ONO Shuhei, Professor, Department of Earth, Atmospheric and Planetary Sciences, Massachusetts Institute of Technology</p> <p><u>USA</u> Shang-Ping Xie, Distinguished Professor and Roger Revelle Chair, Scripps Institution of Oceanography/University of California, San Diego</p>

■ **Energy**

Project Title		Japan-side Principal Investigator
		Partner Principal Investigators
1	Construction of International Data and Analysis Platform for Inorganic Power-storage Materials Informatics with Nano/micro-structure	HIRAYAMA Masaaki, Professor, School of Materials and Chemical Technology, Institute of Science Tokyo
		<p><u>France</u> Laurent Antoni, Senior Fellow Hydrogen, LITEN, Commission for atomic and alternative energies (CEA)</p> <p><u>UK</u> Michael De Volder, Professor, Department of Engineering, University of Cambridge</p> <p><u>USA</u> Andrei Fedorov, Rae S. and Frank H. Neely Chair Professor and Associate Chair for Graduate Studies, George W. Woodruff School of Mechanical Engineering, Georgia Institute of Technology</p> <p><u>USA</u> Michael Gordon, Dept. Chair and Schlinger Professor of Chemical Engineering, Department of Chemical Engineering, University of California, Santa Barbara</p> <p><u>USA</u> Yiguang Ju, Robert Porter Patterson Professor, Department of Mechanical and Aerospace Engineering, Princeton University</p>

■ **Material**

Project Title		Japan-side Principal Investigator
		Partner Principal Investigators
1	Next Generation Mixed-Anion Science: Reaction/Structure Control and New Functions	KAGEYAMA Hiroshi, Professor, Graduate School of Engineering, Kyoto University
		<p>France Laurent Cario, Research Director, Jean Rouxel Materials Institute of Nantes (IMN), Nantes University</p> <p>UK Andrew Goodwin, Professor, Department of Chemistry, University of Oxford</p> <p>UK Michael Hayward, Professor, Department of Chemistry, University of Oxford</p> <p>USA Wenhao Sun, Dow Corning Assistant Professor, College of Engineering, University of Michigan</p>
2	Research network on spintronic materials and devices for the sustainable society (SpinMaD)	HIROHATA Atsufumi, Professor, Center for Science and Innovation in Spintronics, Tohoku University
		Germany Claudia Felser, Director, Department of Topological Quantum Chemistry, Max Planck Institute for Chemical Physics of Solids

■ **Quantum**

Project Title		Japan-side Principal Investigator
		Partner Principal Investigators
1	Joint Franco-Japanese Initiative for Establishing Foundations for Human Resource Development and Quantum Spintronics Technology	OTANI Yoshichika, Professor, Institute for Solid State Physics, The University of Tokyo
		France Lucian Prejbeanu, Executive Director, CEA SPINTEC (Spintronics and Technology of Components)

■ Semiconductors

Project Title		Japan-side Principal Investigator
		Partner Principal Investigators
1	International collaborative research on quantum-classical interface by heterogeneous integration	ISHIKURO Hiroki, Professor, Faculty of Science and Technology, Keio University
		<u>Germany</u> Vadim Issakov, Professor, Director, Institute for CMOS Design, Technical University Braunschweig
2	Creation of Digital Gate Platform for Digital Transformation of Power Semiconductors	TAKAMIYA Makoto, Professor, Institute of Industrial Science, The University of Tokyo
		<u>USA</u> Rolando Burgos, Professor, CPES Director, Center for Power Electronics Systems (CPES), Virginia Tech
3	Versatile Quantum Engineering of Group-IV Alloy Materials for Semiconductor Heterogeneous Integrated Devices	NAKATSUKA Osamu, Professor, Department of Materials Physics, Graduate School of Engineering, Nagoya University, Tokai National Higher Education and Research System
		<u>Belgium</u> Roger Loo, IV epitaxy Principal Member of Technical Staff, Unit Process and Modules, Advanced Patterning, Process & Materials, imec
		<u>Germany</u> Dan Mihai Buca, Group Leader “Group IV epitaxy and Photonics, Peter Gruenberg Institute 9, Forschungszentrum Juelich
		<u>Germany</u> Yuji Yamamoto, Scientist, Technology Department, Group-IV epitaxy process module manager, IHP

■ Telecommunications

Project Title		Japan-side Principal Investigator
		Partner Principal Investigators
1	Global Research Initiative on Wireless Terahertz	Minoru Fujishima, Professor, Graduate School of Advanced Science and Engineering, Hiroshima University

(GROW-THz)	<p data-bbox="616 192 1439 315"><u>Austria</u> Wolfgang Bösch, Dean/Professor, Faculty of Electrical and Information Engineering, Graz University of Technology</p> <p data-bbox="616 322 1150 358"><u>Belgium</u> Piet Wambacq, Fellow, imec</p> <p data-bbox="616 365 1342 488"><u>Finland</u> Aarno Pärssinen, Professor, Faculty of Information Technology and Electrical Engineering, University of Oulu</p> <p data-bbox="616 495 1422 573"><u>Germany</u> Haris Gačanin, Professor, Chair for Distributed Signal Processing, RWTH Aachen University</p> <p data-bbox="616 580 1362 703"><u>USA</u> Predrag Spasojevic, Professor, School of Engineering, Department of Electrical and Computer Engineering, Rutgers University</p>
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ASPIRE for Rising Scientists
List of the Funded Projects

■ **AI/Information**

Project Title		Japan-side Principal Investigator
		Partner Principal Investigators
1	International Brain Circulation Initiative for Context-Aware AI in Software Development	KAMEI Yasutaka, Full Professor, Faculty of Information Science and Electrical Engineering, Kyushu University
		<p><u>Australia</u> Chakkrit Tantithamthavorn, Senior Lecturer, Faculty of Information Technology, Monash University</p> <p><u>Canada</u> Ahmed E. Hassan, Full Professor, School of Computing, Queen's University</p> <p><u>Canada</u> Shane McIntosh, Associate Professor, David R. Cheriton School of Computer Science, University of Waterloo</p> <p><u>Italy</u> Gemma Catolino, Assistant Professor, Department of Computer Science, University of Salerno</p> <p><u>Netherlands</u> Alexander Serebrenik, Full Professor, Department of Mathematics and Computer Science, Eindhoven University of Technology</p> <p><u>Switzerland</u> Gabriele Bavota, Full Professor, Faculty of Informatics, Università della Svizzera Italiana</p> <p><u>USA</u> Lingming Zhang, Associate Professor, Siebel School of Computing and Data Science, University of Illinois Urbana-Champaign</p>

■ **Biotechnology**

Project Title		Japan-side Principal Investigator
		Partner Principal Investigators
1	Establishment of an international research platform for pioneering biosynthesis of a group of unexplored active natural products	AWAKAWA Takayoshi, Team leader, Center for Sustainable Resource Science, RIKEN
		<u>USA</u> Bradley S. Moore, Distinguished Professor, Scripps Institution of Oceanography, University of California, San Diego

2	The development of a multimodality barcoding technique for next-generation spatial genomics and pooled phenotypic screening	OTA Sadao, Associate Professor, Research Center for Advanced Science and Technology, The University of Tokyo
		<u>Canada</u> Peter Zandstra, Professor, Faculty of Medicine and Faculty of Applied Sciences, The University of British Columbia <u>USA</u> Sam Peng, Pfizer Gerald D. Laubach Career Development Assistant Professor, Broad Institute, Department of Chemistry, Massachusetts Institute of Technology
3	Development of functional pseudo-natural peptides by in vitro application of peptide-modifying enzymes	GOTO Yuki, Professor, Department of Chemistry, Kyoto University
		<u>Switzerland</u> Jörn Piel, Professor, Institute of Microbiology, Eidgenössische Technische Hochschule (ETH) Zürich

■ Energy

Project Title		Japan-side Principal Investigator
		Partner Principal Investigators
1	Establishing MONOZUKURI network toward the era of solid-state energy storage devices	OHNO Saneyuki, Associate Professor, Institute of Multidisciplinary Research for Advanced Materials, Tohoku University
		<u>Germany</u> Wolfgang Zeier, Professor, Institute for Inorganic and Analytical Chemistry, University of Münster <u>UK</u> Duncan H. Gregory, Professor, School of Chemistry, University of Glasgow <u>USA</u> Prashun Gorai, Research Assistant Professor, Metallurgical and Materials Engineering, Colorado School of Mines

2	Rising International Research Partnership for Leading Power-to-X Technology	KATAYAMA Yu, Associate Professor, SANKEN, Osaka University
		<p>Italy Simelys Hernandez, Associate Professor, Department of Applied Science and Technology, Politecnico di Torino</p> <p>Spain María Escudero-Escribano, Professor, NanoElectrocatalysis and Sustainable Chemistry, Catalan Institute of Nanoscience and Nanotechnology</p> <p>UK Reshma Rao, Lecturer, Faculty of Natural Sciences, Imperial College London</p> <p>USA Kelsey Stoerzinger, Associate Professor, Department of Chemical Engineering and Materials Science, University of Minnesota</p>
3	Joint Experiment-Theory-Data Science Approach towards Innovative Power-to-X Electrocatalyst Design	SAKAUSHI Ken, Team Leader, Research Center for Energy and Environmental Materials, National Institute for Materials Science
		<p>Canada Xuehua Zhang, Professor (Tier 1 Canada Research Chair), Faculty of Engineering, University of Alberta</p> <p>Denmark Ib Chorkendorff, Professor, Department of Physics, Technical University of Denmark</p>
4	Establishment of an international platform based on the research on concentrated or mixed solvent thermocell and deployment to electrochemical nitrogen reduction	YAMADA Teppei, Professor, Graduate School of Science, The University of Tokyo
		Australia Alexandr Simonov, Associate Professor, School of Chemistry, Monash University

■ **Material**

Project Title		Japan-side Principal Investigator
		Partner Principal Investigators
1	Development of Sustainable Next-Generation Bioimaging Materials utilizing	TAKEDA Youhei, Associate Professor, Graduate School of Engineering, Osaka University

	Thermally Activated Delayed Fluorescence	<p><u>Canada</u> Zachary Hudson, Associate Professor, Department of Chemistry, The University of British Columbia</p> <p><u>Denmark</u> Piotr de Silva, Professor, Department of Energy Conversion and Storage, Technical University of Denmark</p> <p><u>UK</u> Marc Etherington, Assistant Professor, Department of Mathematics, Physics and Electrical Engineering, Northumbria University</p>
2	Dynamic two-dimensional materials based on supramolecular assemblies	<p>FURUKAWA Shuhei, Professor, Institute for Advanced Study, Kyoto University</p> <p><u>Spain</u> Carlos Martí-Gastaldo, Associate Professor, Instituto de Ciencia Molecular (ICMol), University of Valencia</p>
3	New Frontier of Photofunctional Materials Enabled by Spin Control	<p>YANAI Nobuhiro, Professor, Graduate School of Science, The University of Tokyo</p> <p><u>Germany</u> Sabine Richert, Junior group leader, Institute of Physical Chemistry, University of Freiburg</p> <p><u>Korea</u> Lewis Antill, Research Professor, the Institute of Quantum Biophysics (IQB), Sungkyunkwan University (SKKU)</p> <p><u>Sweden</u> Karl Börjesson, Professor, Department of Chemistry and Molecular Biology, University of Gothenburg</p> <p><u>UK</u> Christiane Timmel, Professor, Department of Chemistry, University of Oxford</p> <p><u>UK</u> Claudia Tait, Royal Society University Research Fellow, Department of Chemistry, University of Oxford</p> <p><u>UK</u> Gordon Hedley, Senior Lecturer, School of Chemistry, University of Glasgow</p> <p><u>UK</u> Jenny Clark, Professor, Department of Physics and Astronomy, University of Sheffield</p> <p><u>UK</u> Sam Bayliss, Lecturer, Electronics and Nanoscale Engineering Division, University of Glasgow</p> <p><u>UK</u> Stuart Mackenzie, Professor, Department of Chemistry, University of Oxford</p>

■ Quantum

Project Title		Japan-side Principal Investigator
		Partner Principal Investigators
1	A near-term quantum repeater	TAKEOKA Masahiro, Professor, Department of Electronics and Electrical Engineering, Faculty of Science and Technology, Keio University
		<u>Denmark</u> Ulrik L. Andersen Professor, Department of Physics, Technical University of Denmark (DTU)
2	High-performance qubits based on Penning-trapped electrons for scalable quantum computers	NOGUCHI Atsushi, Team leader, Riken center for Quantum Computing
		<u>Austria</u> Eberhard Widmann, Oesterreichische Akademie der Wissenschaften, Stefan-Meyer-Institut fuer subatomare Physik <u>USA</u> Hartmut Häffner, Professor for Physics, UC Berkeley, and Director, NSF Challenge Institute for Quantum Computation
3	Engineering magnetic functionality in topological matter with charge ordering	HIRSCHBERGER Max, Associate Professor, Department of Applied Physics, School of Engineering, The University of Tokyo
		<u>USA</u> Leslie Schoop, Professor, Department of Chemistry, Princeton University

■ Semiconductors

Project Title		Japan-side Principal Investigator
		Partner Principal Investigators
1	Advanced automatic code optimization via DSL and its compiler for AI infrastructure on edge-cloud computing continuum	SATO Yukinori, Associate Professor, Depart. of Computer Science and Engineering, Toyohashi University of Technology
		<u>USA</u> Saman Amarasinghe, Professor, Dept. of Electrical Engineering and Computer Science, Massachusetts Institute of Technology

2	Realizing Trusted Society by LSI Authenticity Guarantee Platform	SHIOMI Jun, Associate Professor, Graduate School of Information Science and Technology, Osaka University
		<u>USA</u> Alex Orailoglu, Professor, Department of Computer Science and Engineering, University of California, San Diego

■ Telecommunications

Project Title		Japan-side Principal Investigator
		Partner Principal Investigators
1	U.S.-Centered International Joint Research Towards Wireless Networks for Autonomous Mobile Things	SARUWATARI Shunsuke, Associate Professor, Graduate School of Information Science and Technology, Osaka University
		<u>USA</u> Dinesh Bharadia, Associate Professor, Director of Wireless Communication Sensing and Networking Group, Klein Gilhousen Chancellor's Endowed Chair, University of California, San Diego
2	Advanced Electromagnetic Material-Based RF-Wave Environment Design and its Numerical Analysis Method	WAKATSUCHI Hiroki, Associate Professor, Graduate School of Engineering, Nagoya Institute of Technology
		<u>Italy</u> Filiberto Bilotti, Professor and Director of Lab, Antennas and Metamaterials Research Lab, Roma Tre University
		<u>UK</u> Ana Vukovic, Professor and Head, George Green Institute for Electromagnetic Research (GGIEMR), Department of Electrical and Electronic Engineering, The University of Nottingham
		<u>USA</u> Daniel Sievenpiper, Professor, Jacobs School of Engineering, University of California, San Diego

Experts for the Evaluation

■ Program Director

Name	Position and Institution
MIYANO Kenjiro	Emeritus Fellow, National Institute for Materials Science

■ AI and Information

Name	Position and Institution	Role
YAGI Yasushi	Professor, Institute of Scientific and Industrial Research, Osaka University	Program Officer
OKABE Yasuo	Professor/Director, Academic Center for Computing and Media Studies, Kyoto University	Advisor
KATO Kazuhiko	Executive Director, University of Tsukuba	Advisor
SATO Yoshinobu	Professor, Division of Information Science, Nara Institute of Science and Technology	Advisor
SUGIMOTO Akihiro	Professor, Digital Content and Media Sciences Research Division, National Institute of Informatics	Advisor
TAKIZAWA Hotaka	Professor, Institute of Systems and Information Engineering / Director, Academic Computing and Communications Center, University of Tsukuba	Advisor
NAKAMURA Yuichi	Professor, Academic Center for Computing and Media Studies, Kyoto University	Advisor
BABAGUCHI Noboru	Professor/Dean, Faculty of Management and Information Sciences, Fukui University of Technology	Advisor
MAEDA Eisaku	Professor, School of System Design and Technology, Tokyo Denki University	Advisor
MASE Kenji	Designated Professor/Professor Emeritus, Center of Artificial Intelligence, Mathematical and Data Science, Nagoya University	Advisor
MATSUI Tomoko	Professor, Department of Interdisciplinary Statistical Mathematics, The Institute of Statistical Mathematics	Advisor
MINOH Michihiko	Project Leader, Guardian Robot Project, RIKEN Information R&D and Strategy Headquarters, RIKEN / Research Strategy Advisor, RIKEN	Advisor
MORISHIMA Shigeo	Professor, Faculty of Science and Engineering, Waseda University	Advisor
MORITA Hiroshi	Professor, Graduate School of Information Science and Technology, Osaka University	Advisor

■ **Biotechnology**

Name	Position and Institution	Role
TAKEYAMA Haruko	Professor, School of Advanced Science and Engineering, Waseda University	Program Officer
IGARASHI Kiyohiko	Professor, Graduate School of Agricultural and Life Sciences, The University of Tokyo	Advisor
OZAWA Takeaki	Professor, Graduate School of Science, The University of Tokyo	Advisor
KAMIYA Noriho	Professor, Graduate School of Engineering, Kyushu University	Advisor
TAKAGI Masahiro	Professor, Graduate School of Advanced and Science and Technology, Japan Advanced Institute of Science and Technology	Advisor
TAKEDA Mizuho	CEO, Medical Venture Partners, Inc.	Advisor
TABATA Satoshi	Vice-President of the Board of Trustees, and Director, Kazusa DNA Research Institute	Advisor
HASHIMOTO Setsuko	President & CEO, CellSeed Inc.	Advisor
MATSUI Minami	Project Professor, Kihara Institute for Biological Research, Yokohama City University	Advisor
MIYASHITA Hideaki	Professor, Graduate School of Human and Environmental Studies, Kyoto University	Advisor
YURA Kei	Professor, Faculty of Core Research Natural Sciences Division, Ochanomizu University	Advisor
YOSHINO Tomoko	Professor, Institute of Engineering, Tokyo University of Agriculture and Technology	Advisor

■ **Energy**

Name	Position and Institution	Role
KANNO Ryoji	Institute Professor, Institute of Innovative Research, Institute of Science Tokyo	Program Officer
OTOMO Toshiya	Professor, Institute of Materials Structure Science, High Energy Accelerator Research Organization	Advisor
KANEMITSU Yoshihiko	Specially Appointed Professor, Institute for Chemical Research, Kyoto University	Advisor
SAKURAI Yoji	Professor Emeritus, Toyohashi University of Technology	Advisor
SAKAEBE Hikari	Professor, Institute for Materials Chemistry and Engineering, Kyusyu University	Advisor
NAKAMURA Yumiko	Deputy Director, Energy Process Research Institute, Department of Energy and Environment, AIST	Advisor

HORITA Teruhisa	Director, Research Institute for Energy Conservation, Department of Energy and Environment, AIST	Advisor
HONMA Itaru	Professor, Institute of Multidisciplinary Research for Advanced Materials, Tohoku University	Advisor
IBA Hideki	Chief Professional Engineer, Advanced Material Engineering Div., Toyota Motor Corporation	Advisor

■ Materials

Name	Position and Institution	Role
AIDA Takuzo	Deputy Center Director, Center for Emergent Matter Science, RIKEN	Program Officer
ISHIDA Yasuhiro	Team Leader, Center for Emergent Matter Science, RIKEN	Advisor
UCHIDA Kenichi	Distinguished Group Leader, Research Center for Magnetic and Spintronic Materials, National Institute for Materials Science	Advisor
KATAOKA Kazunori	Vice Chairperson, Kawasaki Institute of Industrial Promotion/ Center Director, Innovation Center of Nanomedicine, Kawasaki Institute of Industrial Promotion	Advisor
KATAOKA Jun	Professor, School of Advanced Science and Engineering, Faculty of Science and Engineering, Waseda University	Advisor
KITAGAWA Susumu	Distinguished Professor/ Deputy Director-General, Kyoto University Institute for Advanced Study	Advisor
KITAGAWA Hiroshi	Professor, Graduate School of Science, Kyoto University	Advisor
TAJIMA Keisuke	Team Leader, Center for Emergent Matter Science, RIKEN	Advisor
HAMACHI Itaru	Professor, Graduate School of Engineering, Kyoto University	Advisor
YAMAUCHI Yusuke	Distinguished Professor, Graduate School of Engineering, Nagoya University	Advisor
YAMAGUCHI Shigehiro	Professor, Institute of Transformative Bio-Molecules, Nagoya University	Advisor

■ Quantum

Name	Position and Institution	Role
KAWAKAMI Norio	Visiting Professor, Graduate School of Science and Engineering, Ritsumeikan University	Program Officer
IWAMOTO Satoshi	Professor, Research Center for Advanced Science and Technology, The University of Tokyo	Advisor

KATSUMOTO Shingo	Educational lecturer, Faculty of Science and Engineering, Tokyo City University	Advisor
KOBAYASHI Kensuke	Professor, Graduate School of Science, The University of Tokyo	Advisor
TAKIGAWA Masashi	Associate Researcher, Institute of Materials Structure Science, High Energy Accelerator Research Organization	Advisor
TARUCHA Seigo	Group Director, Center for Emergent Matter Science, RIKEN	Advisor
TOKURA Yasuhiro	Professor, Faculty of Pure and Applied Sciences, University of Tsukuba	Advisor
FUJII Keisuke	Professor, Graduate School of Engineering Science, Osaka University	Advisor
MATSUDA Yuji	Professor, Graduate School of Science, Kyoto University	Advisor
MUKAIYAMA Takashi	Professor, School of Science, Institute of Science Tokyo	Advisor

■ Semiconductor

Name	Position and Institution	Role
AMANO Hideharu	Project Researcher, School of Engineering, Systems Design Lab, The University of Tokyo	Program Officer
IIDA Masahiro	Professor, Research and Education Institute for Semiconductors and Informatics, Kumamoto University	Advisor
IWASAKI Hiroe	Professor, Institute of Engineering, Tokyo University of Agriculture and Technology	Advisor
USAMI Kimiyoshi	Professor, Faculty of Engineering, Shibaura Institute of Technology	Advisor
ENDO Tetsuo	Director, Center for Innovative Integrated Electronic Systems/Professor, Graduate School of Engineering, Tohoku University	Advisor
OKURA Shunsuke	Professor, Department of Electronic and Computer Engineering, Ritsumeikan University	Advisor
KIMOTO Tsunenobu	Professor, Graduate School of Engineering, Kyoto University	Advisor
NAKAMURA Hiroshi	Professor, Graduate School of Information Science and Technology, The University of Tokyo	Advisor
HIRAMOTO Toshiro	Professor, Institute of Industrial Science, The University of Tokyo	Advisor
MOTOHISA Junichi	Director, Research Center for Integrated Quantum Electronics/Professor, Faculty of Information Science and Technology, Hokkaido University	Advisor

■ Telecommunication

Name	Position and Institution	Role
YAMANAKA Naoaki	Specially Appointed Professor, Keio University	Program Officer
UYEMATSU Tomohiko	Professor, School of Engineering, Institute of Science Tokyo	Advisor
OKI Eiji	Professor, Graduate School of Informatics, Kyoto University	Advisor
SASASE Iwao	Emeritus Professor, Keio University	Advisor
SUZUKI Masatoshi	Vice President/ Professor, Chitose Institute of Science and Technology	Advisor
TOMIZAWA Masahito	Senior Executive Vice President and CTO, NTT Innovative Devices Corporation	Advisor
NAKANO Yoshiaki	Professor, Graduate School of Engineering, The University of Tokyo	Advisor
NAMIKI Shu	Research Director, Platform Photonics Research Center, AIST	Advisor
HASEGAWA Hiroshi	Professor, Graduate School of Engineering, Nagoya University	Advisor

Evaluation Criteria for "ASPIRE for Top Scientists"

(1) Relevance and diversity of the research system	<ul style="list-style-type: none"> • Does the research team have a well-balanced composition of expertise, given the objectives of the proposal?
(2) Qualification of the PIs of the research team in Japan and in the partner country	<ul style="list-style-type: none"> • Does the PI have sufficient ability to manage the research? • Does the PI have sufficient research achievements to have potential to join the international top research community, or can be deemed to already be a part of it as shown by high level research achievements? • Does the PI have enough experience of promoting early career researchers through international brain circulation, etc? • Do the PI and team have sufficient qualifications, research facilities, and resources (funds, human and material resources, etc.) to carry out the research activities in accordance with the proposal and purpose of this call?
(3) Relevance and quality of the research content and plan	<ul style="list-style-type: none"> • Are the proposed research activities of a high standard in the research field/area concerned? • Is the proposed research plan expected to lead to research of an international top-level standard? • Are synergy effects expected from conducting international joint research as a part of this project?
(4) Concreteness and relevance of plans for building and expanding international networks	<ul style="list-style-type: none"> • Has the target international top research community been clearly defined and does it match the purpose of this call? • Has an appropriate, concrete, and feasible plan been formulated for the purpose of building, enabling participation in, and developing a top international research community? • Is there sufficient budget for building and expanding the international network, and is there an appropriate budget plan?
(5) Concreteness and feasibility of plans for promoting early career researchers and researcher mobility	<ul style="list-style-type: none"> • Are appropriate goals set for fostering early career researchers through international mobility activities? • Are there plans to involve a sufficient number of early career researchers? • Is an effective developing plan for the early career researchers considered and is the plan suitable for fostering the next generation of top researchers? • Are the roles and length of stay for the outgoing researcher(s) clearly described and appropriate? Is the hosting research institution appropriate and able to sufficiently accommodate the outgoing researcher(s)? • Is the exchange plan feasible, with concrete preparations made involving sufficient coordination with the involved parties in Japan and partner country or countries? • Is the budget sufficiently allocated for promoting early career researchers, and is the budget plan appropriate?

Evaluation Criteria for "ASPIRE for Rising Scientists "

(1) Relevance and quality of the research content and plan	<ul style="list-style-type: none"> • Does the proposal adequately correspond to the purpose of the call? • Are the proposed research activities of a high standard in the research field/area concerned? • Are synergy effects expected from conducting international joint research as a part of this project?
(2) Quality of plans to promote international researcher mobility	<ul style="list-style-type: none"> • Are the research and exchange activity plans of the outgoing researcher in the partner country appropriate and detailed in a concrete manner? • Are the plans for fostering the early career researchers appropriate and sufficiently described in detail? • Are the plans for international and sustainable participation in the research community specific and appropriate?
(3) Appropriateness and level of detail of travel and invitation plans	<ul style="list-style-type: none"> • Is the role of the outgoing researcher in the partner country clear and sufficiently detailed? • Is the research environment in the partner country sufficient for the activities of the outgoing researcher? • Is the role of the researcher to be invited to Japan clear at the host institution? • Is the research environment at the Japan-side host institution sufficient for the activities of the incoming researcher? • Is the exchange plan feasible, with concrete preparations made involving sufficient coordination with the involved parties in Japan and partner country? • Are the amount requested and use of funds based on the content of the international joint research reasonable and sufficient to effectively carry out the plan?
(4) Relevance and diversity of the research system	<ul style="list-style-type: none"> • Does the research team have a well-balanced composition of expertise, given the objectives of the proposal?
(5) Qualification of the PIs of the research team in Japan and in the partner country, as well as the outgoing researcher and researcher to be invited to the Japan-side host institution.	<ul style="list-style-type: none"> • Does the PI have sufficient qualifications, research environment, and resources (funds, human and material resources, etc.) to carry out the research activities in accordance with the proposal and purpose of this call? • Does the background (academic background, professional background, achievements, etc.) of the outgoing researcher and researcher to be invited to the Japan-side host institution have sufficient qualifications to carry out research activities, and are they expected to contribute to promote international researcher mobility and circulation in the future?