

February 26, 2016
Sysmex Corporation

FY2015 Nakatani Award and Research Grant Recipients Announced

The Tokyo-based Nakatani Foundation for Advancement of Measuring Technologies in Biomedical Engineering today announced 3 recipients of The Nakatani Award, 30 recipients of its Technology Development Research Grants and 3 recipient of its Investigative Research Grants for fiscal 2015. Sysmex Corporation (HQ: Kobe; Chairman and CEO: Hisashi Ietsugu) has been a financial supporter of the Foundation for many years.

The Foundation was established in April 1984 as The Nakatani Foundation of Electronic Measuring Technology Advancement, endowed principally by Sysmex and its founder and first president, the late Taro Nakatani, with the goal of "promoting advances in electronic measuring technology as a foundation for industrial technology, in order to contribute to the development of Japanese society and its economy as well as the betterment of national life." On April 1, 2012, the foundation was renamed The Nakatani Foundation for Advancement of Measuring Technologies in Biomedical Engineering. The foundation's activities include the provision of awards for biomedical engineering measurement and related technologies, as well as technology developmental research grants, investigative research grants and technology exchange grants. In fiscal 2014, the foundation also commenced grant activities to promote science education at junior and senior high schools in the aim of expanding the base of education for future researchers.

1. Recipients and research themes

Please see "Recipients of FY2015 Awards"

2. Total amount of grant (Technology Development Research Grants and Investigative Research Grants)

¥267,860,000-

3. Presentation ceremony

Time: February 26, 2016, 13:30

Place: Hamamatsucho Tokyo Kaikan

3. About the Foundation

Name: Nakatani Foundation for Advancement of Measuring Technologies in Biomedical Engineering

Location: 1-2-2 Ohsaki, Shinagawa-ku, Tokyo

URL: <https://www.nakatani-foundation.jp/>

Recipients of FY2015 Awards
Nakatani Foundation
for Advancement of Measuring Technologies in Biomedical Engineering

【 Nakatani Award 】

Grand Prize

(Yen)

Recipient	Position and Affiliation	Prize Theme	Amount
Eiichi Tamiya	Osaka University, Graduate School of Engineering, Department of Applied Physics Professor	Pioneering research on the practical application of biosensors using nano-micro devices	5,000,000

Encouraging Prizes

(Yen)

Recipient	Position and Affiliation	Prize Theme	Amount
Tai Kiuchi	Department of Pharmacology, Kyoto University Faculty of Medicine	Development of super-resolution fluorescence microscopy using probes that repeatedly associate with and dissociate from the targets	2,500,000
Junichi Ushiba	Faculty of Science and Technology, Keio University Associate Professor	Development of Brain-Machine Interface towards assisting recovery of brain's motor function	2,500,000

【 Technology Development Research Grants 】

Development Research Grants

(Yen)

Recipient	Position and Affiliation	Research Theme	Amount
Yasufumi Takahashi	Division of Electrical Engineering and Computer Science Kanazawa University Associate Professor	Development of Nano Electrochemical Microscopy for Single Cell Evaluation	3,000,000
Taketoshi Kajimoto	Department of Molecular and Cellular Biology, Graduate School of Medicine Kobe University Assistant Professor	Research and development of high-performance method for detecting exosomal marker for very early diagnosis of distant metastatic risk	2,800,000

Hitoshi Tatsumi	Department of Applied Bioscience, College of Bioscience and Chemistry, Kanazawa Institute of Technology (KIT) Professor	Improvement and application of super-resolution light microscopy on the imaging of cofilin dependent severing of actin filaments	2,610,000
Masamichi Yamanaka	College of Science, Academic Institute, Shizuoka University Assistant Professor	Development of separation method for large DNAs by electrophoresis using supramolecular hydrogel	3,000,000
Shinya Goto	Department of Medicine (Cardiology), Tokai University School Professor	The innovative development of new method to measure binding force of platelet cell adhesion at the site of vascular injury under arterial blood flow conditions.	3,000,000
Kazuto Takashima	Department of Biological Functions Engineering, Graduate School of Life Science and Systems Engineering, Kyushu Institute of Technology Associate Professor	Miniaturization of high sensitive catheter tactile sensor composed of organic ferroelectrics and establishment of palpation in vivo	3,000,000
Shuji Shimizu	Department of Cardiovascular Dynamics, National Cerebral and Cardiovascular Center senior research fellow	Development of measurement technique of myocardial interstitial microRNA levels using cardiac microdialysis	3,000,000
Hiroyuki Abe	Biochemical Engineering, Graduate School of Science and Engineering, Yamagata University Professor	Development of imaging system for analysis of follicular development in ovarian tissue using optical coherence tomography	3,000,000
Kinichi Nakashima	Department of Stem Cell Biology and Medicine, Graduate School of Medical Science, Kyushu University Professor	Direct reprogramming of mouse microglia into functional neuron and its application for treatment of spinal cord injury	3,000,000
Teruyuki Kondo	Advanced Biomedical Engineering Research Unit, Center for the Promotion of Interdisciplinary Education and Research, Kyoto University Professor	Novel Paramagnetic Metal Oxide Nanoparticles for Use in Dual Photoacoustic and Magnetic Resonance Imaging	3,000,000

Yasuto Naoi	Department of breast and endocrine surgery, graduate school of medicine Osaka University Assistant Professor	Development of a recurrence prediction method of breast cancer based on the multi-gene expression analysis that can be applied to formalin fixed tissue.	3,000,000
Masami Kageshima	Department of Physics, Kansai Medical University Professor	Mechanical Analysis of Cell Sheet for Regenerative Medicine Using Novel Magnetic Indenter	2,550,000
Takao Iwawaki	Education and Research Support Center, Graduate School of Medicine, Gunma University Associate Professor	Development of probe to visualize oxidative stress for clinical application	3,000,000

Junior Researcher Grants

(Yen)

Recipient	Position and Affiliation	Research Theme	Amount
Yusuke Sato	Department of Chemistry, School of Science, Tohoku University Assistant Professor	Design of fluorescent probes for the visualization of intracellular RNA duplexes	1,500,000
Masaaki Koike	Nara Institute of Science and Technology, Graduate School of Biological Science Assistant Professor	Development of novel fluorescent probes for imaging of endoplasmic reticulum stress	1,500,000
Tomomi Aida	Medical Research Institute, Tokyo Medical and Dental University Associate Professor	Development of highly efficient knock-in technology for in vivo genetic biosensing	1,500,000
Masashi Watanabe	Department of Biochemistry, Hokkaido University Graduate School of Medicine Assistant professor	Development of a comprehensive and quantitative method for measuring physiological substrates catalyzed by ubiquitin E3 ligases	1,500,000
Toshihide Takeuchi	ICR, Kyoto University Assistant professor	Comprehensive analysis of exosomal chaperome toward development of diagnostic biomarkers for neurodegenerative diseases	1,500,000
Yoshihide Hattori	Osaka Prefecture University Research Center of BNCT Lecturer	Development of Analytical Method for Boron-Pharmaceuticals Using Fluorescent Boron-Sensor	1,500,000

Kazunori Shimizu	Graduate School of Engineering, Nagoya University Associate Professor	Development of Innervated Skeletal Muscle Microtissue on a Chip	1,500,000
Shinya Yoshida	Department of Bioengineering and Robotics, Tohoku University Research Associate Professor	Development of Ingestible Thermometer Operated by Utilizing Gastric Acid for Daily Measurement of Core Temperature during Sleep.	1,500,000
Mitsuru Yasuda	Kwansei Gakuin University Post Doctoral Fellow	Simultaneous-Multiple and Enhanced-Fluorescence Immunoassays Using an Optical Interference Mirror Slide with a Nano-Multilayered Structure	1,500,000
Hirohito Nishimura	National Cerebral and Cardiovascular Center Research Institute Department of Biochemistry Postdoctoral fellow	Development of molecular and cellular imaging techniques in living animals.	1,500,000

Special Research Grants: multi-year grants (two years)

(Yen)

Recipient	Position and Affiliation	Research Theme	Amount
Katsumasa Fujita	Department of Applied Physics, Osaka University Associate Professor	Development of high-speed Raman microscopy for label-free tissue diagnosis	30,000,000
Hirohide Saito	Kyoto University, CiRA Professor	Synthetic RNA switch to detect and control target live cells for medical applications	30,000,000
Michiyuki Matsuda	Kyoto University Graduate School of Medicine, Department of Pathology and Biology of Diseases Professor	Development of CMOS sensors for the real-time monitoring of protein activities.	30,000,000
Masataka Kinjo	Faculty of Advanced Life Science Hokkaido University Professor	Development of multi-cellular fluorescence correlation spectroscopy for study of pharmacokinetics based on protein-protein interaction in living cell	30,000,000
Hiroshi Ueda	Chemical Resources Laboratory, Tokyo Institute of Technology Professor	Selection of quench-based immunosensors with high performance	29,900,000

Moritoshi Sato	Department of Multi-Disciplinary Sciences, Graduate School of Arts and Sciences, The University of Tokyo Associate Professor	Fluorescent probes for live-cell, super-resolution imaging	28,200,000
Yutaka Yatomi	Department of Clinical Laboratory Medicine, Graduate School of Medicine, The University of Tokyo Professor	Development of a new and practical assay of reduced/oxidized albumin for the clinical introduction	28,000,000

【 Investigative Research Grants 】

(Yen)

Recipient	Position and Affiliation	Research Theme	Amount
Wenxi Chen	Biomedical Information Technology Lab. The University of Aizu Professor	A Comprehensive Survey of Unobtrusive Measurement of Vital Signs	2,800,000
Hideo Wada	Department of Molecular and Laboratory Medicine. Mie University Graduate School of medicine Associated Professor	Evaluation of Hypercoagulable (Pre-thrombotic) state by hemostatic markers	3,000,000
Kenichi Aizawa	Division of Clinical Pharmacology, Department of Pharmacology, Jichi Medical University Associate Professor	Research about development and the clinical application of the low-invasive diagnostic method of the coronary stenosis	3,000,000