

March 11, 2015
Sysmex Corporation

FY2014 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, 27 recipients of its Technology Development Research Grants and 1 recipient of its Investigative Research Grants for fiscal 2014. 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." In April 2012, the Foundation was renamed The Nakatani Foundation for Advancement of Measuring Technologies in Biomedical Engineering. From its inception, the Foundation has provided Technology Development Research Grants, awarding a total of 745 million yen* to 347 research projects over the last 31 years.

1. Recipients and research themes

Please see "Recipients of FY2014 Awards"

2. Presentation ceremony

Time: March 12, 2015, 13:00

Place: IMPERIAL HOTEL, TOKYO (TEIKOKU HOTEL)

3. About the Foundation

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

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

URL: <http://www.nakatani-foundation.jp/> (Japanese only)

* 745 million yen includes the Special Research Grants which are multi-year grants (two years).

Recipients of FY2014 Awards
Nakatani Foundation
for Advancement of Measuring Technologies in Biomedical Engineering

[Nakatani Award]

Grand Prize

N/A

Encouraging Prizes

Recipient	Position and Affiliation	Research Theme	Amount (yen)
Hiroyuki Noji	Professor, Applied chemistry Department of engineering, The University of Tokyo	Development and application of digital counting of biomolecules	2,500,000
Hirohide Saito	Professor Department of Reprogramming Science, Center for iPS Cell Research and Application (CiRA), Kyoto University	Synthetic RNA switch to detect and control target cells	2,500,000
Tsuyoshi Sekitani	Professor, The Institute of Scientific and Industrial Research, Osaka University	Ultraflexible, sheet-type bio-sensors for ultra-low invasive medical applications	2,500,000

[Technology Development Research Grants]

Development Research Grants

Recipient	Position and Affiliation	Research Theme	Amount (yen)
Masahiro Ono	Associate Professor, Graduate School of Pharmaceutical Sciences, Department of Patho-Functional Bioanalysis Kyoto University	Development of SPECT-Imaging Method for Diagnosis and Therapy of Alzheimer's Disease	3,000,000
Tatsuro Goda	Assistant Professor, Institute of Biomaterials and Bioengineering, Tokyo Medical and Dental University	Sensing Nanopores on Plasma Membrane using Cells-Transistor System	3,000,000

Masayoshi Nishiyama	Program-specific Associate Professor, The HAKUBI Center for Advanced Research, Kyoto University	Mechanical modulation of protein molecular machines working in living cells	3,000,000
Ikuro Suzuki	Associate Professor, Department of electronics, Graduate school of engineering, Tohoku Institute of Technology	Development of on-chip measurement techniques of neuronal synaptic function for application of a novel drug assay in human-derived neurons	3,000,000
Kiyoshi Yasukawa	Professor, Division of Food Science and Biotechnology, Graduate School of Agriculture, Kyoto University	Development of novel technology for cDNA synthesis and its application to microarray	3,000,000
Pavillon Nicolas	Specially Appointed Researcher, Immunology Frontier Research Center, Osaka University	Label-free multimodal microscopy for cellular state investigation	2,920,000
Hiroyuki Yoshikawa	Assistant Professor, Department of Applied Physics, Osaka University	Development of micro ELISA chips using a focused laser beam to catch reactions	2,620,000
Hiroshi Sekiya	Assistant professor, Department of Cellular and Molecular Pharmacology, Graduate School of Medicine, The University of Tokyo	Fluorescence ATP imaging of cerebral infarction during expansion of necrotic core	3,000,000
Takashi Azuma	Project Associate Professor, Bioengineering Department, School of Engineering, The University of Tokyo	Advanced Blood Flow Measurement Method using Ultrasound CT (Computed Tomography)	3,000,000
Keiichi Torimitsu	Professor, Department of Bioengineering and Robotics, Graduate School of Engineering, Tohoku University	Chip-on-clothes bioactivity monitoring using flexible silk electrode	3,000,000

Shunrou Fujiwara	Assistant professor, Department of Neurosurgery, Iwate Medical University	Development of non-invasive method to quantitatively measure brain perfusion and metabolism by diffusion weighted magnetic resonance imaging	3,000,000
Kosuke Tsukada	Associate Professor, Department of Applied Physics and Physico-Informatics, Keio University	Development of a tissue hypoxia sensor and application to tumor detection without imaging agent	2,400,000
Yoichi Haga	Professor, Department of Biomedical Engineering, Graduate School of Biomedical Engineering, Tohoku University	Development of local glucose tolerance test device using subepidermal microperfusion for diagnosis of postprandial hyperglycemia	3,000,000
Makoto Akashi	Professor, The Research Institute for Time Studies, Yamaguchi University	Development of a method for long-term real-time monitoring of gene expression in free-moving mice	3,000,000
Atsushi Kuhara	Associate Professor, Faculty of Science and Engineering, & Institute for Integrative Neurobiology, Konan University	Quantitative analysis of ultra high speed tracking and activity imaging for cell population	3,000,000
Kazuyuki Minami	Professor, Graduate school of Science and Engineering, Systems Design and Engineering, Yamaguchi University	Development of a distributed cell stimulation matrix device available for the measurement and observation of the response of a large number of single cell to the dynamics stimulation	2,930,000
Takashi Tateno	Professor, Bioengineering and bioinformatics, Information Science and Technology, Hokkaido University	Developing and evaluating a closed-loop type measuring system for stimulating and recording neural systems to suppress and control tinnitus	3,000,000

Junior Researcher Grants

Recipient	Position and Affiliation	Research Theme	Amount (yen)
Yu Ishima	Assistant Professor, Department of Biopharmaceutics, Graduate School of Pharmaceutical Sciences, Kumamoto University	Development of the Novel EPR Enhancer Nanoparticle for Enhancing the Specific and Therapeutic Effects of Macromolecular Anticancer Drugs	1,500,000
Wataru Yoshida	Assistant Professor, Tokyo University of Technology, School of Biotechnology & Bioscience	Development of global DNA methylation detection system based on MBD fused luciferase	1,500,000
Kentaro Otani	Research staff, Department of Regenerative Medicine and Tissue Engineering, National Cerebral and Cardiovascular Center Research Institute	Development of ultrasound molecular imaging targeted to intravascular molecules	1,500,000
Hideaki Takata	Assistant professor, Department of Biotechnology Graduate School of Engineering, Osaka University	Development of chromosome aberration detection system based on genome DNA visualization <i>in vivo</i>	1,400,000

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

Recipient	Position and Affiliation	Research Theme	Amount (yen)
Hiroshi Hibino	Professor, Department of Molecular Physiology, Niigata University School of Medicine	Development of an analytical system equipped with a diamond microelectrode for measurement of pharmacokinetics in the inner ear	14,860,000
Motomu Tanaka	Professor, Institute for Integrated Cell-Material Sciences, Kyoto University	Technical Platforms for Quantitative, Multiscale Standardization of Human Corneal Endothelial Cells towards Cell Injection Therapy	15,000,000

Kazushige Yamana	Professor, Department of Materials Science and Chemistry, University of Hyogo	Ultra-highly Sensitive Electrochemical Detection of MicroRNA	15,000,000
Toyotaka Yada	Assistant Professor, Department of Medical Engineering, Kawasaki Medical School	Evaluation of collateral subepicardial microvessels before coronary artery bypass surgery and subendocardial microvessels by fluorescent microscopy of near-infrared light	15,000,000
Matsuhiko Nishizawa	Professor, Department of Bioengineering and Robotics, Graduate School of Engineering, Tohoku University	Development of Stretchable Hydrogel-Based Transepithelial Potential Measurement System for Analysis of Skin Response to Mechanical Stimuli	15,000,000
Hideshi Ishii	Specially Appointed Professor, Department of Cancer Profiling Discovery, Osaka University Graduate School of Medicine	High-Resolution Measuring System for Intracellular Epigenetic Modifications	15,000,000

[Investigative Research Grants]

Recipient	Position and Affiliation	Research Theme	Amount (yen)
Naomi Yagi	Program-Specific Researcher, Graduate School of Medicine, Kyoto University	Investigation of dysphagia on Nonrestrictive Biometric Information	1,970,000