

February 28, 2014

## FY2013 Nakatani Award and Research Grant Recipients Announced

The Tokyo-based Nakatani Foundation for Advancement of Measuring Technologies in Biomedical Engineering today announced the 3 recipients of The Nakatani Award and the 21 recipients of its research subsidies for fiscal 2013. Sysmex Corporation (HQ: Kobe; Chairman and CEO: Hisashi Ietsugu) has been a financial supporter of the Foundation for many years.

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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 awards and annual subsidies for research in the field of in vivo electronic measuring technology, awarding a total of 603 million yen to 321 research projects over the last 30 years.

### 1. Recipients and research themes

Please see "Recipients of FY2013 Awards"

### 2. Presentation ceremony

Time: February 28, 2014, 13:30

Place: Cherry Room, Hamamatsucho Tokyo Kaikan, 39F, World Trade Center Bldg.

### 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)

Recipients of FY2013 Awards  
Nakatani Foundation  
for Advancement of Measuring Technologies in Biomedical Engineering

**[ Nakatani Award ]**

**Grand Prize**

Recipient	Position and Affiliation	Research Theme	Amount (yen)
Yoshimasa Kawata	Professor Research Institute of Electronics Shizuoka University	Super Resolution Imaging with Electron Beam Excitation	5,000,000

**Encouraging Prizes**

Recipient	Position and Affiliation	Research Theme	Amount (yen)
Katsumasa Fujita	Associate Professor Department of Applied Physics Osaka University	Raman microscopy: label-free molecular imaging of cells	2,500,000
Kenjiro Hanaoka	Associate Professor Department of Pharmacy, Graduate School of Pharmaceutical Sciences The University of Tokyo	Development of Far-Red to Near-Infrared Fluorescent Dyes and their Applications to Bioimaging	2,500,000

**[ Research Grants ]**

**Senior Researcher Grants**

Recipient	Position and Affiliation	Research Theme	Amount (yen)
Fumiaki Nin	Assistant Professor Department of Molecular Physiology, Graduate School of Medical and Dental Science Niigata University	Developing and adjusting a high resolution 3D tomographic optical device for the recording of the cochlear traveling wave	3,000,000
Ayumi Hirano	Associate Professor Graduate School of Biomedical Engineering Tohoku University	Evaluation of Drug Side Effects Based on Microfabricated Silicon Chips with Integrated hERG Channels	2,910,000

Makoto Kuro-o	Professor Center for Molecular Medicine Jichi Medical University	Development of a sensitive serum CPP assay and its clinical application to chronic kidney disease	3,000,000
Yuji Sasaki	Professor Department of Advanced Materials Science, Graduate School of Frontier Sciences The University of Tokyo	<i>in vivo</i> High-accuracy and High-speed Observations of Individual Single Protein's Internal Motions with X-rays	3,000,000
Tadanobu Takahashi	Assistant professor Department of Biochemistry, School of Pharmaceutical Sciences University of Shizuoka	Imaging of virus sialidase activity using new synthetic sialidase substrate	2,000,000
Satoshi Nishimura	Professor Center for Molecular Medicine Jichi Medical University	Developing in vivo visualization device to evaluate risk for adult common diseases	3,000,000
Hideyuki Kawai	Associate Professor Graduate School of Science Chiba University	Development of PET gamma-ray detectors with high quality and low cost	2,990,000
Dong Jinhua	Assistant Professor Chemical Resources Laboratory Tokyo Institute of Technology	Development of Quenchbody immunoassay for early diagnosis of Alzheimer's disease	2,860,000
Hideaki Hisamoto	Professor Department of Applied Chemistry, Graduate School of Engineering Osaka Prefecture University	Development of highly-sensitive and mass-producible multi enzyme activity assay chip based on capillary array	3,000,000
Kiyomi Niki	Professor Graduate School of Engineering, Biomedical Engineering Tokyo City University	Measurements of fine diameter changes of the carotid artery using speckle tracking and image processing	2,490,000

Hiroaki Suzuki	Associate Professor Dept. Precision Mechanics Faculty of Science and Engineering Chuo University	Development of the screening chip for multi-drug transport activity of cancer cells toward clinical applications	3,000,000
Toshiko Yamazawa	Assistant professor Department of Molecular Physiology The Jikei University School of Medicine	Functional analysis of malignant hyperthermia associated mutations using calcium imaging	3,000,000
Yasumoto Matsui	Div. of Joint Surgery, Dept of Advanced Medicine National center for Geriatrics and Gerontology	Development of an apparatus equipped with both electromyography and accelerometer which can monitor and record the chronological action quantity of muscles during exercise	2,000,000

**Junior Researcher Grants**

Recipient	Position and Affiliation	Research Theme	Amount (yen)
Reiko Sakaguchi	Assistant professor Kyoto University Institute for Integrated Cell-Material Sciences	Development of fluorescent sensors to visualize the dynamics of signal molecules in single live cells	1,500,000
Tomohisa Seki	Research Associate Department of Cardiology Keio University School of Medicine	Pathological Detection of Induced Pluripotent Stem Cell-derived Cells Using T-cell Receptor Gene Locus for Cell Transplantation Therapy	1,500,000
Miyuki Tabata	Assistant Professor Department of Bioelectronics, Institute of Biomaterials and Bioengineering Tokyo Medical and Dental University	Development of minimally-invasive and simplified devices for cancer diagnosis by exosome-sensing	1,500,000

Aya Shibata	Assistant professor Department of Chemistry and Biomolecular Science, Faculty of Engineering Gifu University	Development of the self-cleaving probe for nucleic acids detection in living cells	1,500,000
Kenji Usui	Lecturer Faculty of Frontiers of Innovative Research in Science and Technology Konan University	Cell microarray for cell-toxicity analysis using a photo-cleavable linker for standardization of amyloid aggregation preparation	1,500,000
Takuya Iida	Special Lecturer Nanoscience & Nanotechnology Research Center, Research Organization for the 21st Century Osaka Prefecture University	Optical Control of Molecular Recognition and Highly Sensitive Biosensor Applications	1,500,000
Takahiro Teramoto	Department of Electrical & Electronic Engineering, College of Science & Engineering Ritsumeikan University	Development of impulsive Raman scattering microscopy by using ultrashort pulse laser	1,500,000
Motomu Endo	Assistant Professor Division of Integrated Life Science, Graduate School of Biostudies Kyoto University	Development of methods for noninvasive and spatiotemporal monitoring of gene expression profiles in vivo	1,500,000