

Takeaki OZAWA

Curriculum Vitae

Department of Chemistry	Phone (work):	81-3-5841-4351
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Research and professional experience

- 2007-present Professor
Department of Chemistry, School of Science
The University of Tokyo
Research topic: “Optical imaging and control of biomolecules in living cells and subjects”
- 2005-2007 Associate Professor
Department of Molecular Structure
Institute for Molecular Science
Research topic: “Development of optical probes for the analysis of living cells and animals”
- 2002-2005 Lecturer of Chemistry,
Department of Chemistry, School of Science
The University of Tokyo, Japan
- 1998-2001 Research associate (“Josyu”: intermediate faculty position)
Department of Chemistry, School of Science
The University of Tokyo, Japan

Education

- 1995-1998 Ph.D. Chemistry, The University of Tokyo
Department of Chemistry, School of Science, The University of Tokyo,
Japan
Advisor: Prof. Yoshio Umezawa
- 1993-1995 M. S. Chemistry, The University of Tokyo
Department of Chemistry, School of Science, The University of Tokyo,
Japan
Advisor: Prof. Yoshio Umezawa
- 1989-1993 B. S. Chemistry, The University of Tokyo
Department of Chemistry, School of Science, The University of Tokyo,
Japan

Awards

The Chemical Society of Japan (CSJ) Awards for Young Chemists (2004).

Young Scientists Award from Minister of MEXT (Ministry of Education, Culture, Science and Technology) (2005).

Japan Society for the Promotion of Science (JSPS) Prize (2010).

The Chemical Society of Japan (CSJ) Awards for Creative Works (2018).

Extramural activities

Chief Editor of *Analytical Sciences* (JSAC (Japan Society for Analytical Chemistry) Journal)

Editorial Board Member of *Scientific Reports* (Springer Nature)

Advisory Board Member of *Analyst* (RSC Journal)

etc.

Publications (selected papers)

- (1) Spatiotemporal analysis with a genetically encoded fluorescent RNA probe reveals TERRA function around telomeres. T. Yamada, H. Yoshimura, R. Shimada, M. Hattori, M. Eguchi, T. K. Fujiwara, A. Kusumi, T. Ozawa, *Sci. Rep.* **6**, 38910 (2016).
- (2) In Situ Characterization of Bak Clusters Responsible for Cell Death Using Single Molecule Localization Microscopy. Y. Nasu, A. Benke, S. Arakawa, G. J. Yoshida, G. Kawamura, S. Manley, S. Shimizu, and T. Ozawa, *Sci. Rep.*, **6**, 27505 (2016).
- (3) Optogenetic activation of axon guidance receptors controls direction of neurite outgrowth. M. Endo, M. Hattori, H. Toriyabe, H. Ohno, H. Kamiguchi, Y. Iino, T. Ozawa, *Sci. Rep.*, **6**, 23976 (2016).
- (4) An optogenetic system for interrogating the temporal dynamics of Akt. Y. Katsura, H. Kubota, K. Kunida, A. Kanno, S. Kuroda, T. Ozawa, *Sci. Rep.*, **5**, 14589 (2015).
- (5) Sustained Accurate Recording of Intracellular Acidification in Living Tissues with a Photo-controllable Bioluminescent Protein. M. Hattori, S. Haga, H. Takakura, M. Ozaki and T. Ozawa, *Proc. Nat. Acad. Sci. USA*, **110**, 9332-9337 (2013).
- (6) Rapid and high-sensitivity cell-based assays of protein–protein interactions using split click beetle luciferase complementation: An approach to the study of G protein-coupled receptors. N. Misawa, A.K.M. Kafi, M. Hattori, K. Miura, K. Masuda and T. Ozawa, *Anal. Chem.*, **82**, 2552-2560 (2010).
- (7) High-Sensitivity Real-Time Imaging of Dual Protein-Protein Interactions in Living Subjects Using Multicolor Luciferases. N. Hida, M. Awais, M. Takeuchi, N. Ueno, M.

- Tashiro, T. Singh, M. Hayashi, K. Ohmiya and T. Ozawa, *PLoS ONE*, **4**, e5868 (2009).
- (8) Cyclic Luciferase for Real-Time Sensing of Caspase-3 Activities in Living Mammals. A. Kanno, Y. Yamanaka, H. Hirano, Y. Umezawa and T. Ozawa, *Angew. Chem. Int. Ed.* **46**, 7595-7599 (2007).
- (9) Imaging Dynamics of Endogenous Mitochondrial RNA in Single Living Cells. T. Ozawa, Y. Natori, M. Sato and Y. Umezawa, *Nature Methods*, **4**, 413-419 (2007).
- (10) High-throughput Sensing and Non-invasive Imaging of Protein Nuclear Transport by Using Reconstitution of Split Renilla Luciferase. S. B. Kim*, T. Ozawa*, S. Watanabe and Y. Umezawa, *Proc. Natl. Acad. Sci. U.S.A.*, **101**, 11542-11547 (2004). (*equal contribution to this work)
- (11) A genetic Approach to Identifying Mitochondrial Proteins. T. Ozawa, Y. Sako, M. Sato, T. Kitamura, and Y. Umezawa, *Nature Biotechnol.*, **21**, 287-293 (2003).
- (12) Fluorescent Indicators for Imaging Protein Phosphorylation in Single Living Cells. M. Sato, T. Ozawa, K. Inukai, T. Asano, and Y. Umezawa, *Nature Biotechnol.*, **20**, 287-294 (2002).

Takeaki Ozawa received his PhD in 1998 from the University of Tokyo, before spending five years as a research associate and two years as a lecturer at the University. In 2005, he took an independent position as an associate professor at the Institute for Molecular Science, Japan for two years. He is currently a professor at the Department of Chemistry, School of Science, the University of Tokyo. His research interest is to develop novel analytical methods for visualizing and controlling biomolecules in living cells.