Japan

HAN-P-02

Kazuya Kikuchi

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Research Field(s)	Fluorescent Probes, Molecular Imaging, MRI

Academic Career

B.S., 1988, Univ. of Tokyo; Ph.D., 1994, Univ. Of Tokyo (advisor: Masaaki Hirobe); Postdoctoral Training, 1994-1995, UCSD (advisor: Roger Y. Tsien), 1995-1996, the Scripps Research Institute (advisor: Donald Hilvert); Assistant Professor, 1997-2000, Univ. of Tokyo; Associate Professor, 2000-2005, Univ. of Tokyo; Professor, 2005-present, Osaka University; Distinguished Professor, 2017-present, Osaka University

Selected Publications

1. T. Nonomura, M. Minoshima, K. Kikuchi, “Light-Activated Gene Expression System Using a Caging-Group-Free Photoactivatable Dye”, Angew. Chem. Int. Ed., 63, e202416420 (2024).

2. Konishi, Y., Minoshima, M., Fujihara, K., Uchihashi, T. *Kikuchi, K. Elastic Polymer-coated Nanoparticles with Fast Clearance for 19FMR Imaging. Angew. Chem. Int. Ed., 62, e202308565 (2023).

3. Minoshima, M., Umeno, T., Kadooka, K., Roux, M., Yamada, N. *Kikuchi, K. Development of a Versatile Protein Labeling Tool for Live-Cell Imaging Using Fluorescent ß-Lactamase Inhibitors. Angew. Chem. Int. Ed., 62, e202301704 (2023).

4. Imoto, T., Minoshima, M., Yokoyama, T., Emery, B., Bull, S.D., Bito, H. *Kikuchi, K. A Photodeactivatable Antagonist for Controlling CREB Dependent Gene Expression. ACS Cent. Sci., 6, 1813-1818 (2020).

5. Hashimoto, R., Minoshima, M., Kikuta, J., Yari, S., Bull, S.D., Ishii, M., *Kikuchi, K. An Acid Activatable Fluorescence Probe for Imaging Osteocytic Bone Resorption Activity in Deep Bone Cavities. Angew. Chem. Int. Ed., 59, 20996-21000 (2020).

6. Minoshima, M., Kikuta, J., Omori, Y., Seno, S., Suehara, R., Maeda, H., Matsuda, H., Ishii, M., *Kikuchi, K. In vivo Multicolor Imaging with Fluorescent Probes Revealed the Dynamics and Function of Osteoclast Proton Pumps. ACS. Cent. Sci. 5, 1059-1066 (2019).

7. Hori, Y., Otomura, N., Nishida, A., Nishiura, M., *Kikuchi, K. Synthetic-Molecule/Protein Hybrid Probe with Fluorogenic Switch for Live-Cell Imaging of DNA Methylation. J. Am. Chem. Sci. 140, 1686-1690 (2018).

8. Akazawa, K., Sugihara, F., Nakamura, T., Matsushita, H., Mukai, H., Akimoto, R., Minoshima, M., Mizukami., S., *Kikuchi, K. Perfluorocarbon-Based 19F MRI Nanoprobes for In Vivo Multicolor Imaging. Angew. Chem. Int. Ed. 130, 16984-16989 (2018).

Why My Lab?

My lab can offer experiences of real biology experiments using the own chemical tool synthesized by graduate students by themselves.