

Curriculum Vitae

Yasuaki Kimura

Assistant Professor

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Graduate School of Science

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■ **Education/Career**

2008/3

B.Sc

Department of Pharmaceutical Sciences

The University of Tokyo (Prof. Masakatsu Shibasaki)

2010/3

M.Sc

Graduate School of Pharmaceutical Sciences

The University of Tokyo (Prof. Masakatsu Shibasaki)

2013/3

Ph.D (Pharmaceutical Sciences)

Graduate School of Pharmaceutical Sciences

The University of Tokyo (Prof. Motomu Kanai)

2013/4 – 2015/6

ERATO Project Researcher

ERATO Kanai Life-Science Catalysis Project

Graduate School of Pharmaceutical Sciences

The University of Tokyo (Prof. Motomu Kanai)

2015/4 – 2015/6

Specially Appointed Assistant Professor

Graduate School of Pharmaceutical Sciences

The University of Tokyo (Prof. Motomu Kanai)

2015/7– present

Assistant Professor

Graduate School of Science, Department of Chemistry

Nagoya University (Prof. Hiroshi Abe)

2017/6– present *Assistant Professor*
Institute for Advanced Research
Nagoya University

■ **Fellowships**

2010/4 – 2013/3 Research Fellow of the Japan Society for the Promotion of Sciences (DC1)
2019 – 2020 [Toyota Riken Scholar](#) (Toyota Physical and Chemical Research Institute)

■ **Memberships**

The Pharmaceutical Society of Japan
The Chemical Society of Japan
Japan Society of Nucleic Acids Chemistry
The Japanese Society for Chemical Biology
The Society of Synthetic Organic Chemistry of Japan

■ **Awards**

[Elected Member of the Otsu Conference 2011](#) (since 2010 to present)
2018 Ohtsuka Awards
(ISNAC Outstanding Oral Presentation Award for Young Scientist)

■ **Publication List**

1. Tian, S.; Terai, G.; Kobayashi, Y.; [Kimura, Y.](#); Abe, H.; Asai, K.; Ui-Tei, K.
“A robust model for quantitative prediction of the silencing efficacy of wild-type and A-to-I edited miRNAs.”
RNA Biology, **2019**, doi: 10.1080/15476286.2019.1678364
2. Kawaguchi, D.; Shimizu, S.; Abe, N.; Hashiya, F.; Tomoike, F.; [Kimura, Y.](#); Abe, H.
“Translational control by secondary-structure formation in mRNA in a eukaryotic system”
Nucleosides, Nucleotides & Nucleic Acids, **2019**, doi: 10.1080/15257770.2019.1671593
3. Imaeda, A.; Tomoike, F.; Hayakawa, M.; Nakamoto, K.; [Kimura, Y.](#); Abe, N.; Abe, H.
“N⁶-methyl adenosine in siRNA evades immune response without reducing RNAi activity”
Nucleosides, Nucleotides & Nucleic Acids, **2019**, 38, 972.

4. Shu, Z.; Tanaka, I.; Ota, A.; Fushihara, D.; Abe, N.; Kawaguchi, S.; Nakamoto, K.; Tomoike, F.; Tada, S.; Ito, Y.; Kimura, Y.; Abe, H.
“Disulfide-unit conjugation enables ultrafast cytosolic internalization of antisense DNA and siRNA”
Angewandte Chemie International Edition, **2019**, *58*, 6611-6615.
5. Shishido, Y.; Tomoike, F.; Kuwata, K.; Fujikawa, H.; Sekido, Y.; Murakami-Tonami, Y.; Kameda, T.; Abe, N.; Kimura, Y.; Shuto, S.; Abe, H.
“A Covalent Inhibitor for Glutathione S-Transferase Pi (GSTP1-1) in Human Cells. “
ChemBioChem, **2019**, *20*, 900.
6. Abe, H. Kimura, Y.
“Chemical Ligation Reactions of Oligonucleotides for Biological and Medicinal Applications”
Chemical and Pharmaceutical Bulletin, **2018**, *66*, 117.
7. Maruyama, H.; Oikawa, R.; Hayakawa, M.; Takamori, S.; Kimura, Y.; Abe, N.; Tsuji, G.; Matsuda, A.; Shuto, S.; Ito, Y.; Abe, H.
“Chemical ligation of oligonucleotides using an electrophilic phosphorothioester”
Nucleic Acids Research, **2017**, *45*, 7042.
8. Shishido, Y.; Tomoike, F.; Kimura, Y.; Kuwata, K.; Yano, T.; Fukui, K.; Fujikawa, H.; Sekido, Y.; Murakami-Tonami, Y.; Kameda, T.; Shuto, S.; Abe, H.
“A covalent G-site inhibitor for glutathione S-transferase Pi (GSTP1-1)”
Chemical Communications, **2017**, *53*, 11138.
9. Kimura, Y.; Saito, N.; Hanada, K.; Liu, J.; Okabe, T.; Kawashima, S. A.; Yamatsugu, K.; Kanai, M.
“Supramolecular Ligands for Histone Tails by Employing a Multivalent Display of Trisulfonated Calix[4]arenes”
ChemBioChem, **2015**, *16* (18), 2599.
10. Kimura, Y.; Ito, S.; Shimizu, Y.; Kanai, M.
“Catalytic Anomeric Aminoalkynylation of Unprotected Aldoses”
Org. Lett. **2013**, *15*, 4130.
11. Kimura, Y.; Yamatsugu, K.; Kanai, M.; Echigo, N.; Kuzuhara, T.; Shibasaki, M.

“Design and Synthesis of Resin-Conjugated Tamiflu Analogs for Affinity Chromatography”
Bull. Korean. Chem. Soc. **2010**, *31*, 588. (dedication issue to Professor Sunggak Kim).

12. Hiasa, M.; Isoda, Y.; Kishimoto, Y.; Saitoh, K.; Kimura, Y.; Kanai, M.; Shibasaki, M.; Hatakeyama, D.; Kirino, Y.; Kuzuhara, T.
“Inhibition of MAO-A and stimulation of behavioural activities in mice by the inactive prodrug form of the anti-influenza agent oseltamivir”
British J. Pharmacology **2013**, *169*, 115.
13. Kimura, Y.; Yamatsugu, K.; Kanai, M.; Echigo, N.; Kuzuhara, T.; Shibasaki, M.
“Design and synthesis of immobilized Tamiflu analog on resin for affinity chromatography”
Tetrahedron Lett. **2009**, *50*, 3205. (50 th Anniversary Special Issue)
14. Morita, M.; Drouin, L.; Motoki, R.; Kimura, Y.; Fujimori, I.; Kanai, M.; Shibasaki, M.
“Two Methods for Catalytic Generation of Reactive Enolates Promoted by a Chiral Poly Gd Complex: Application to Catalytic Enantioselective Protonation Reactions”
J. Am. Chem. Soc. **2009**, *131*, 3858. (featured by *Synfacts* **2009**, 626.)
15. Yamatsugu, K.; Yin, L.; Kamijo, S.; Kimura, Y.; Kanai, M.; Shibasaki, M.
“A synthesis of Tamiflu based on a barium-catalyzed Diels-Alder-type reaction”
Angew. Chem. Int. Ed. **2009**, *48*, 1070. (featured by *Synfacts* **2009**, 702.)

■ Books

阿部洋, 木村康明, Shu Zhaoma

オリゴ核酸を10分で細胞質内へ送達! -核酸医薬実用化への新たな一歩
化学, 化学同人, Vol. 74, No.8, p 34-37 (2019)

阿部洋、木村康明

細胞内化学反応を利用したRNA干渉法の副作用回避
PHARM STAGE p.58-61, Vol.18, No.7, 技術情報協会 (2018)

木村康明、阿部洋

機能性核酸合成を指向した化学的核酸連結反応
「中分子医薬に資するペプチド・核酸・糖鎖の合成技術」
シーエムシー出版、p. 171-180 (2018)

阿部洋、木村康明

「RNA干渉医薬の実現に向けた新手法の開発」

Biophilia, Vol. 6, No. 1, p.9-15 (2017)