

CURRICULUM VITAE

Kenzo Yamatsugu

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Education/Career

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|------------------|---|
| 2005 | B.Sc in Department of Pharmaceutical Sciences,
The University of Tokyo (Prof. Masakatsu Shibasaki) |
| 2007 | M.Sc in Graduate School of Pharmaceutical Sciences
The University of Tokyo (Prof. Masakatsu Shibasaki) |
| 2010 | Ph.D (Pharmaceutical Sciences)
in Graduate School of Pharmaceutical Sciences
The University of Tokyo (Prof. Masakatsu Shibasaki) |
| 2010-2011 | Postdoctoral Fellow
in Institute of Microbial Chemistry, Tokyo
(Prof. Masakatsu Shibasaki) |
| 2011-2012 | Postdoctoral Fellow
in Department of Chemistry
University of Wisconsin-Madison (Prof. Laura Kiessling) |
| 2012- | ERATO Project Group Leader, Assistant Professor
in Graduate School of Pharmaceutical Sciences
ERATO Kanai Life-Science Catalysis Project
The University of Tokyo (Prof. Motomu Kanai) |

Fellowships & Grants

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| 2007-2010 | Research Fellow of the Japan Society for the Promotion of Sciences (DC1) |
| 2011-2012 | JSPS Postdoctoral Fellowships for Research Abroad |
| 2014-2016 | Grant in-Aid for Scientific Research C from JSPS |
| 2017-2018 | Grant in-Aid for Young Scientists B from JSPS |

Publication List

- 1) Yamatsugu, K.; Splain, R. A.; Kiessling, L. L.
“Fidelity and Promiscuity of a Mycobacterial Glycosyltransferase”
J. Am. Chem. Soc. **2016**, *138*, 9205.

- 2) Takemoto, A.; Kawashima, S. A.; Li, J.-J.; Jeffery, L.; Yamatsugu, K.; Elemento, O.; Nurse, P.
“Nuclear envelope expansion is crucial for proper chromosomal segregation during a closed mitosis”
J. Cell Sci. **2016**, *129*, 1250.

- 3) 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*, 2599.

- 4) Alagiri, K.; Furutachi, M.; Yamatsugu, K.; Kumagai, N.; Watanabe, T.; Shibasaki, M.
“Two Approaches toward the Formal Total Synthesis of Oseltamivir Phosphate (Tamiflu): Catalytic Enantioselective Three-Component Reaction Strategy and l-Glutamic Acid Strategy”
J. Org. Chem. **2013**, *78*, 4019.

- 5) Komatsu, H.; Shindo, Y.; Kawashima, S. A.; Yamatsugu, K.; Oka K.; Kanai, M.
“Intracellular activation of acetyl-CoA by an artificial reaction promoter and its fluorescent detection”
Chem. Commun. **2013**, *49*, 2876.

- 6) Shibasaki, M.; Kanai, M.; Yamatsugu, K.
“Recent Development in Synthetic Strategies for Oseltamivir Phosphate”
Israel J. Chem. **2011**, *51*, 316.

- 7) 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.

- 8) Yamatsugu, K.; Kanai, M.; Shibasaki, M.
“An alternative synthesis of Tamiflu: a synthetic challenge and the identification of a

- ruthenium-catalyzed dihydroxylation route”
Tetrahedron **2009**, *65*, 6017.
- 9) Tomita, D.; Yamatsugu, K.; Kanai, M.; Shibasaki, M.
“Enantioselective synthesis of SM-130686 based on the development of asymmetric Cu(I)F catalysis to access 2-oxindoles containing a tetrasubstituted carbon”
J. Am. Chem. Soc. **2009**, *131*, 6946.
- 10) 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.
- 11) 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.
- 12) Ose, A.; Ito, M.; Kusuhara, H.; Yamatsugu, K.; Kanai, M.; Shibasaki, M.; Hosokawa, M.; Schuetz, J. D.; Sugiyama, Y.
“Limited brain distribution of Ro 64-0802, a pharmacologically active form of oseltamivir, by active efflux across the blood–brain barrier mediated by organic anion transporter 3 (Oat3/*Slc22a8*) and multidrug resistance-associated protein 4 (Mrp4/*Abcc4*)”
Drug. Metab. Dispos. **2009**, *37*, 315.
- 13) Usami, A.; Sasaki, T.; Satoh, N.; Akiba, T.; Yokosima, S.; Fukuyama, T.; Yamatsugu, K.; Kanai, M.; Shibasaki, M.; Matsuki, N.; Ikegaya, Y.
“Oseltamivir enhances hippocampal network synchronization”
J. Pharmacol. Sci. **2008**, *106*, 659.
- 14) Ose, A.; Kusuhara, H.; Yamatsugu, K.; Kanai, M.; Shibasaki, M.; Fujita, T.; Yamamoto, A.; Sugiyama, Y.
“P-glycoprotein restricts the penetration of oseltamivir across the blood-brain barrier”
Drug. Metab. Dispos. **2008**, *36*, 427.
- 15) Ishii, K.; Hamamoto, H.; Sasaki, T.; Ikegaya, Y.; Yamatsugu, K.; Kanai, M.; Shibasaki, M.; Sekimizu, K.
“Pharmacologic action of oseltamivir on the nervous system”

Drug Discoveries & Therapeutics **2008**, 2, 24.

- 16) Morita, M.; Sone, T.; Yamatsugu, K.; Sohtome, Y.; Matsunaga, S.; Kanai, M.; Yasuyosi, W.; Shibasaki, M.
“A method for the synthesis of an oseltamivir PET tracer”
Bioorg. Med. Chem. Lett. **2008**, 18, 600.

- 17) Yamatsugu, K.; Kamijo, S.; Suto, Y.; Kanai, M.; Shibasaki, M.
“A concise synthesis of Tamiflu: third generation route via the Diels-Alder reaction and the Curtius rearrangement”
Tetrahedron Lett. **2007**, 48, 1403.

- 18) Yamatsugu, K.; Motoki, R.; Kanai, M.; Shibasaki, M.
“Identification of potent, selective protein kinase C inhibitors based on a phorbol skeleton”
Chem. Asian. J. **2006**, 1, 314.

- 19) Kuramochi, A.; Usuda, H.; Yamatsugu, K.; Kanai, M.; Shibasaki, M.
“Total synthesis of (+/-)-garsubellin A”
J. Am. Chem. Soc. **2005**, 127, 14200.