



M. Inoue

The author presented on this page has recently published his 10th article since 2000 in Angewandte Chemie: "Functional Analysis of Synthetic Substructures of Polytheonamide B: A Transmembrane Channel-Forming Peptide": S. Matsuoka, N. Shinohara, T. Takahashi, M. Iida, M. Inoue, Angew. Chem. 2011, 123, 4981-4985; Angew. Chem. Int. Ed. 2011, 50, 4879 - 4883.

Masayuki Inoue

Date of birth: February 14, 1971

Position: Professor, Graduate School of Pharmaceutical Sciences, The University of Tokyo (Japan)

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http://www.f.u-tokyo.ac.jp/~inoue/e_index.html Homepage: Education:

1989–1993 BSc in Chemistry, The University of Tokyo (Japan) 1993–1998 PhD with Professor Kazuo Tachibana, The University of Tokyo (Japan)

1998–2000 Postdoc with Professor Samuel J. Danishefsky, Sloan-Kettering Institute for Cancer

Research, New York (USA)

2004 First Merck-Banyu Lectureship Award; 2004 The Chemical Society of Japan Award for Awards:

Young Chemists; 2007 Novartis Chemistry Lectureship; 2008 Asian Core Program Lectureship

Award: 2009 5th JSPS Prize

Current research Development of new synthetic methodologies for total synthesis; total synthesis of highly interests:

oxygenated polycyclic natural products; total synthesis and functional analysis of ion-channelforming molecules; synthesis of new artificial molecules by modification of natural-product

Hobbies: Cycling, reading novels

What I look for first in a publication is ... architecturally beautiful structures.

My favorite piece of research is ... R. B. Woodward's total synthesis of reserpine.

like refereeing because ... I can be a part of the efforts in formulating the forefront of contemporary chemistry.

The most important thing I learned from my parents is ... integrity.

My best investment was ... choosing Profs. Tachibana, Danishefsky, and Hirama as my mentors.

The most exciting thing about my research is ... to apply simple strategies to build complex molecules. The best advice I have ever been given is ... "The difference between persistence and stubbornness is success" (S. J. Danishefsky).

A good work day begins with ... getting on a not-so-crowded commuter train.

My favorite authors (fiction) are ... Haruki Murakami and Paul Auster.

My top three films of all time are ... Manhattan (W. Allen), Pulp Fiction (Q. Tarantino), and Magnolia (P. T. Anderson).

My 5 top papers:

- 1. "Total Synthesis of Ciguatoxin and 51-HydroxyCTX3C": M. Inoue, K. Miyazaki, Y. Ishihara, A. Tatami, Y. Ohnuma, Y. Kawada, K. Komano, S. Yamashita, N. Lee, M. Hirama, J. Am. Chem. Soc. 2006, 128, 9352-9354. (Two ciguatoxins were synthesized in a highly convergent fashion from the two halves of the molecules by using direct construction of the O,S-acetals and chemo- and stereoselective radical
- 2. "Total Synthesis and Bioactivity of an Unnatural Enantiomer of Merrilactone A: Development of an Enantioselective Desymmetrization Strategy": M. Inoue, N. Lee, S. Kasuya, T. Sato, M. Hirama, M. Moriyama, Y. Fukuyama, J. Org. Chem. 2007, 72, 3065-3075. (A novel desymmetrization strategy was developed: a single enantioselective transannular aldol reaction of eight-membered meso-diketone established the absolute stereochemistries of four chiral carbon atoms of merrilactone A.)
- 3. "Total Synthesis of the C-1027 Chromophore Core. Extremely Facile Enedivne Formation via SmI₂-Mediated 1,2-Elimination": M. Inoue, I. Ohashi, T. Kawa-

- guchi, M. Hirama, Angew. Chem. 2008, 120, 1801-1803; Angew. Chem. Int. Ed. 2008, 47, 1777-1779. (The newly developed extremely facile olefination enabled construction of the extremely reactive ninemembered enediyne portion of the C-1027 chromo-
- "Total Synthesis of the Large Non-Ribosomal Peptide Polytheonamide B": M. Inoue, N. Shinohara, S. Tanabe, T. Takahashi, K. Okura, H. Ito, Y. Mizoguchi, M. Iida, N. Lee, S. Matsuoka, Nature Chem. 2010, 2, 280-285. (This paper reports the first total synthesis of polytheonamide B, an exceptionally cytotoxic natural product and the largest non-ribosomal peptide currently known (48 amino acids, 5000 Da).)
- "Functional Analysis of Synthetic Substructures of Polytheonamide B: A Transmembrane Channel-Forming Peptide": S. Matsuoka, N. Shinohara, T. Takahashi, M. Iida, M. Inoue, Angew. Chem. 2011, 123, 4981-4985; Angew. Chem. Int. Ed. 2011, 50, 4879-4883. (This paper reports the synthesis of nine substructures of ion channel-forming polytheonamide B and their intriguing structure - function relationships.)

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