

## CURRICULUM VITAE

**Name, Family name:** Matsuzaki  
**Forenames:** Katsumi

**Sex:** Male

**Year of birth:** 1959

**Place of birth:** Osaka, Japan

**Nationality:** Japanese

**Mailing address:** Graduate School of Pharmaceutical Sciences, Kyoto University, 46-29 Yoshida-Shimoadachicho, Sakyo-ku, Kyoto, 606-8501, Japan.

### Education:

1978–1982	Faculty of Pharmaceutical Sciences, Kyoto University. Awarded the degree of BSc in biophysical chemistry.
1982–1984	Graduate School of Pharmaceutical Sciences, Kyoto University. Awarded the degree of MSc in biophysical chemistry. Work supervised by Prof. M. Nakagaki
1992	Awarded the degree of Dr. Pharm. from Kyoto University in biophysical chemistry for a thesis entitled “Physicochemical Studies on Interactions of Antimicrobial Peptides, Hypelcin A, Trichopolyn I, and Magainins, with Lipid Bilayers”. Work supervised by Prof. K. Miyajima

### Research and professional experience:

1984–1987	Takeda Chemical Industries Co.
1987–1997	Assistant Professor, Faculty of Pharmaceutical Sciences, Kyoto University
1993–1994	Visiting scientist, Biocenter of the University of Basel, Switzerland (c/o Prof. J. Seelig)
1997–1999	Associate Professor, Graduate School of Pharmaceutical Sciences, Kyoto University
1999–2003	Associate Professor, Graduate School of Biostudies, Kyoto University
2003–present	Full Professor, Graduate School of Pharmaceutical Sciences, Kyoto University

**Membership of academic societies:**

Biophysical Society (U.S.A) : 1994–  
 The Pharmaceutical Society Japan : 1984–  
 The Japanese Peptide Society : 1990–

**Editorial board:**

Biochimica et Biophysica Acta-Biomembranes : 2005–  
 Journal of Peptide Science: 2009–2021, Editor 2022–  
 European Biophysics Journal: 2013–2023

**Awards:**

1996 The Japanese Peptide Society Award for Young Scientists  
 1997 The Pharmaceutical Society Japan Award for Young Scientists  
 2011 Erwin von Bälz Prize  
 2021 The Pharmaceutical Society Japan Award  
 2022 The Japanese Peptide Society Award

**Review activity for journals**

ACS Chem. Biol.	Int. J. Alzheimer's Disease
ACS Chem. Neurosci.	J. Alzheimer's Disease
Anal. Chem.	J. Am. Chem. Soc.
Biochemistry	J. Biol. Chem.
Biochim. Biophys. Acta	J. Control. Release
Biol. Pharm. Bull.	J. Mol. Biol.
Biomacromolecules	J. Neurochem.
Bioorg. Med. Chem.	J. Pept. Res.
Bioorg. Med. Chem. Lett.	J. Pept. Sci.
Biophys. Chem.	Macromolecules
Biophys. J.	Macromol. Biosci.
Biopolymers	Mol. Membr. Biol.
Cancer Lett.	Nat. Chem. Biol.
ChemBioChem	Nat. Protocols
Chem. Pharm. Bull.	Nat. Rev. Microbiol.
Chem. Record	Neuropeptides
Chem. Sci.	Pharm. Res.
Eur. Biophys. J.	PLoS ONE
FEBS J.	Proc. Natl. Acad. Sci. USA
FEBS Lett.	Sci. Rep.
Glycoconj. J.	

**Relevant publications:**

1. Matsuzaki K\*, Sugishita K, Fujii N, Miyajima K, Molecular basis for membrane selectivity of an antimicrobial peptide, magainin 2. **Biochemistry** 34, 3423–3429 (1995)
2. Matsuzaki K\*, Murase O, Fujii N, Miyajima K, An antimicrobial peptide, magainin 2, induced rapid flip-flop of phospholipids coupled with pore formation and peptide translocation. **Biochemistry** 35, 11361–11368 (1996)
3. Matsuzaki K\*, Sugishita K, Ishibe N, Ueha M, Nakata S, Miyajima K, Epand RM, Relationship of membrane curvature to the formation of pores by magainin 2. **Biochemistry** 37, 11856–11863 (1998)
4. Matsuzaki K\*, Mitani Y, Akada K, Murase O, Yoneyama S, Zasloff M, Miyajima K, Mechanism of synergism between antimicrobial peptides magainin 2 and PGLa. **Biochemistry** 37, 15144–15153 (1998)
5. Kobayashi S, Chikushi A, Tougu S, Imura Y, Nishida M, Yano Y, Matsuzaki K\*. Membrane translocation mechanism of the antimicrobial peptide buforin 2. **Biochemistry** 43, 15610–15616 (2004)
6. Imura Y, Choda N, Matsuzaki K\*, Magainin 2 in action: distinct modes of membrane permeabilization in living bacterial and mammalian cells. **Biophys J** 95, 5757–5765 (2008)
7. Miyazaki Y, Aoki M, Yano Y, Matsuzaki K\*, Interaction of antimicrobial peptide magainin 2 with gangliosides as a target for human cell binding. **Biochemistry** 51, 10229–10235 (2012)
8. Tanishiki N, Yano Y, Matsuzaki K\*, Endowment of pH responsivity to anticancer peptides by introducing 2,3-diaminopropionic acid residues. **ChemBioChem** 20, 2109–2117 (2019)
9. Azuma E, Choda N, Odaki M, Yano Y, Matsuzaki K\*, Improvement of therapeutic index by combination of enhanced peptide cationicity and proline introduction. **ACS Infect Dis** 6, 2271–2278 (2020)
10. Yamauchi R, Kawano K, Yamaoka Y, Taniguchi A, Yano Y, Takasu K, Matsuzaki K\*, Development of antimicrobial peptide-antibiotic conjugates to improve the outer membrane permeability of antibiotics against Gram-negative bacteria. **ACS Infect Dis** 8, 2339–2347 (2022)