Kazuya Morikawa, Ph.D.

Date of Birth: July 20, 1974

Affiliation:

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Academic History:

1993-6	B.S. – Kyoto University (without completion)
1998	M.S. – Kyoto University, Graduate School of Comprehensive Human Sciences
2001	Ph.D. – Kyoto University, Graduate School of Comprehensive Human Sciences

Professional/Scientific Career:

1998 – 2001	Research Fellow	Japan Society for the Promotion of Science (DC1)
2001 – 2003	Research Fellow	Japan Society for the Promotion of Science (PD)
2003 – 2009	Assistant Professor	University of Tsukuba
2009 – 2015	Associate Professor	University of Tsukuba
2015 – present	Professor	University of Tsukuba

Research interests

We are studying evolutionary/adaptation strategies of Gram-positive bacteria. Major research interests include the cell structure dynamics, population heterogeneity, and the acquisition of antibiotics resistance. The main research target is staphylococci that inhabits in our nasal cavity but can cause a variety of diseases. We are also trying to develop a new experimental system to study the protective effect of nasal environment against pathogens.

Selected publications: (*, corresponding author)

1. Veronica Medrano Romero, and *Kazuya Morikawa. *Listeria monocytogenes* σ^H contributes to expression of competence genes and intracellular growth. **J Bacteriol** in press 2016.
2. *Fabio Cafini, Le Thuy Nguyen Thi, Masato Higashide, Federico Román, José Prieto, and Kazuya Morikawa. Horizontal Gene Transmission of cfr gene to MRSA and *Enterococcus*:

role of *S. epidermidis* as reservoir and alternative pathway for the spread of linezolid resistance. **J Antimicrob Chemother** accepted. 2015.

3. *Lisa Maudsdotter, Saki Imai, Ryosuke L. Ohniwa, Shinji Saito, and *Kazuya Morikawa. *Staphylococcus aureus* dry stress survivors have a heritable fitness advantage in subsequent dry exposure. **Microb Infec** 17, 456-461. 2015.
4. *Ryosuke L. Ohniwa, Hiroki Muchaku, Shinji Saito, Chieko Wada, and Kazuya Morikawa. Atomic force microscopy analysis of the role of major DNA-binding proteins in organization of the nucleoid in Escherichia coli. **PLoS One** 8, e72954. 2013.
5. *Kazuya Morikawa, Aya J Takemura, Yumiko Inose, Melody Tsai, Le Thuy Nguyen Thi, Toshiko Ohta, and *Tarek Msadek. Expression of a cryptic secondary sigma factor gene unveils natural competence for DNA transformation in *Staphylococcus aureus*. **PLoS Pathog** 8, e1003003. 2012.
6. Melody Tsai, Ryosuke L. Ohniwa, Yusuke Kato, Sayaka L. Takeshita, Toshiko Ohta, Shinji Saito, Hideo Hayashi, and *Kazuya Morikawa. *Staphylococcus aureus* requires cardiolipin for survival under conditions of high salinity. **BMC Microbiol** 11, 13. 2011.
7. *Kazuya Morikawa, Ryosuke L. Ohniwa, Toshiko Ohta, Yoshikazu Tanaka, Kunio Takeyasu, and Tarek Msadek. Adaptation beyond the Stress Response: Cell Structure Dynamics and Population Heterogeneity in *Staphylococcus aureus.* **Microb Environ** 25, 75-82. 2010.
8. Yoshikazu Tanaka, Kazuya Morikawa, Yu Ohki, Min Yao, Kouhei Tsumoto, Nobuhisa Watanabe, Toshiko Ohta, and *Isao Tanaka. Structural and Mutational analyses of Drp35 from *Staphylococcus aureus*: a possible mechanism for its lactonase activity. **J Biol Chem** 282, 5770-5780, 2007.
9. *Ryosuke L. Ohniwa, Kazuya Morikawa, Joongbaek Kim, Toshiko Ohta, Akira Ishihama, Chieko Wada and Kunio Takeyasu. Dynamic state of DNA topology is essential for genome condensation in bacteria. **EMBO J** 25, 5591-5602. 2006.
10. *Kazuya Morikawa, Ryosuke L. Ohniwa, Joongbaek Kim, Atsushi Maruyama, Toshiko Ohta and Kunio Takeyasu. Bacterial Nucleoid Dynamics: Oxidative Stress Response in *Staphylococcus aureus.* **Genes Cells** 11, 409-423. 2006.