

Curriculum Vitae

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Personal particulars:

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Education background:

Apr 1996-Sep 1999 Gifu Union of Graduate Course, Shizuoka University
Awarded the degree of PhD in Agricultural Science for a thesis entitled
'Molecular biological analysis of regulatory mechanism of pectate lyase
production in *Erwinia chrysanthemi* EC16'
Work supervised by Prof. Tsuyumu
Apr 1994-Mar 1996 Faculty of Agriculture, Shizuoka University
Awarded the degree of MSc in Agricultural Science for a thesis entitled
'Analysis of pectate lyase (*pelE*) expression mechanism in *Erwinia
chrysanthemi* EC16'
Work supervised by Prof. Tsuyumu
Apr 1990-Mar 1994 Faculty of Agriculture, Shizuoka University
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Working experiences:

Apr 2000-present MSU-DOE Plant Research Laboratory, Michigan State University
'Molecular biological analysis of *Arabidopsis* - *Pseudomonas* interactions'
Mar 1999-Mar 2000 Laboratory of Plant Pathology, National Institute of Fruit Tree Science
'Molecular biological analysis of double-stranded RNA isolated from violet
root rot fungus *Helicobasidium mompa* Tanaka'

Membership of academic societies:

Apr 1994-present The Phytopathological Society of Japan

Honors:

2006 Young Scientist Award of the Phytopathological Society of Japan
2008 Anton Lang Memorial Research Excellence Award of MSU

Publications:

Xin XF., Nomura K., Ding X., Chen X., Wang K., Aung K., Uribe F., Rosa B., Yao J., Chen J., and He SY. (2015) *Pseudomonas syringae* effector avirulence protein E localizes to the host plasma membrane and down-regulates the expression of the nonrace-specific disease resistance1/harpin-induced1-like gene required for antibacterial immunity in Arabidopsis. *Plant Physiol.* 169(1): 793-802.

Xin XF., Nomura K., Underwood W., and He SY. (2013) Induction and suppression of PEN3 forcal accumulation during *Pseudomonas syringae* pv. *tomato* DC3000 infection of Arabidopsis. *Mol. Plant-Microbe Interact.* 26(8): 861-7.

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Navarro L., Jay F., Nomura K., He SY., and Voinnet O. (2008) Suppression of the microRNA pathway by bacterial effector proteins. *Science* 321(5891): 964-7.

Thines B., Katsir L., Melotto M., Niu Y., Mandaokar A., Liu G., Nomura K., He SY., Howe GA., and Browse J. (2007) JAZ repressor proteins are targets of the SCF^{COI1} complex during jasmonate signaling. *Nature* 448(7154): 661-5.

Melotto M., Underwood W., Koczan J., Nomura K., and He SY. (2006) Plant stomata function in innate immunity against bacterial invasion. *Cell* 126(5): 969-80.

Nomura K., DebRoy S., Lee YH., Pumplin N., Jones J., and He SY. (2006) A bacterial virulence protein suppresses host innate immunity to cause plant disease. *Science* 313(5784): 220-3.

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*Lee YH., *Kolade OO., Nomura K., Arvidson DV., and He SY. (2005) Use of dominant-negative HrpA mutant to dissect Hrp pilus assembly and typeIII secretion in *Pseudomonas syringae* pv. *tomato*. *J. Biol. Chem.* 280(22): 21409-17. *These authors contributed equally to this study.

Nomura K., and He SY. (2005) Powerful screens for bacterial virulence proteins. *Proc. Natl. Acad. Sci. USA.* 102(10): 3527-8.

Osaki H., Nakamura H., Nomura K., Matsumoto N., and Yoshida K. (2005) Nucleotide sequence of a mitochondrial RNA virus from plant pathogenic fungus, *Helicobasidium mompa* Tanaka. *Virus Res.* 107(1): 39-46.

He SY., Nomura K., and Whittam T.S. (2004) Type III protein secretion mechanism in mammalian and plant pathogens. *Biochimica et Biophysica Acta* 1694: 181-206.

DebRoy S., Thilmony R., Kwack YB., Nomura K., and He SY. (2004) A family of conserved bacterial effectors inhibits salicylic acid-mediated basal immunity and promotes disease necrosis in plant. *Proc. Natl. Acad. Sci. USA*. 101(26): 9927-32.

Osaki H., Nomura K., Matsumoto N., and Ohtsu Y. (2004) Characterization of double-stranded RNA element in the violet root rot fungus *Helicobasidium mompa*. *Mycol. Res.* 108(6): 635-40.

*Badel J. L., *Nomura K., Bandyopadhyay S., Collmer A., and He SY. (2003) *Pseudomonas syringae* pv. *tomato* DC3000 HopPtoM (CEL ORF3) is important for lesion formation but not growth in tomato and is secreted and translocated by the Hrp type III secretion system in a chaperone-dependent manner. *Mol. Microbiol.* 49(5): 1239-51. *These authors contributed equally to this study.

Nomura K., Osaki H., Iwanami T., Matsumoto N., and Ohtsu Y. (2003) Cloning and characterization of a Totivirus double-stranded RNA from the plant pathogenic fungus, *Helicobasidium mompa* Tanaka. *Virus Genes* 26(3): 219-26.

Osaki H., Nomura K., Iwanami T., Kanematsu S., Okabe I., Matsumoto N., Sasaki A., and Ohtsu Y. (2002) Detection of a double-stranded RNA virus from a strain of the violet root rot fungus *Helicobasidium mompa* Tanaka. *Virus Genes* 25(2): 139-45.

*Zwiesler-Vollick J., *Plovanich-Jones A.E., Nomura K., Bandyopadhyay S., Joardar V., Kunkel B.N., and He SY. (2002) Identification of novel *hrp*-regulated genes through functional genomic analysis of the *Pseudomonas syringae* pv. *tomato* DC3000 genome. *Mol. Microbiol.* 45(5): 1207-18. *These authors contributed equally to this study.

Osaki H., Wei CZ, Arakawa M., Iwanami T., Nomura K., Matsumoto N., and Ohtsu Y. (2002) Nucleotide sequences of double-stranded RNA segments from a hypovirulent strain of the white root rot fungus *Rosellinia necatrix* and possibility of the first member of the *Reoviridae* from fungus. *Virus Genes* 25(1): 101-7.

Matsumoto H., Baba Y., Jitareerat P., Nomura K., and Tsuyumu S. (2001) Comparison of regulatory proteins for pectate lyase synthesis between *Erwinia chrysanthemi* and *E. carotovora* subsp. *carotovora*. In De Bore S. H., ed, *Plant Pathogenic Bacteria*, pp 224-8, *Kluwer Academic Publishers Press*.

Rouanet C., Nomura K., Tsuyumu S., and Nasser W. (1999) Regulation of *pelD* and *pelE*, encoding major alkaline pectate lyases in *Erwinia chrysanthemi*: involvement of the main transcriptional factors. *J. Bacteriol.* 181(19): 5948-57.

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