

CURRICULUM VITAE

QIAOLING JIN

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EDUCATION

Sept. 1992 – July 1997 Ph.D. in Plant Molecular Biology, Shanghai Institute of
Plant Physiology, Chinese Academy of Science, Shanghai,
China
Sept. 1988 – July 1992 B.S. in Plant Pathology, Beijing Agricultural University,
Beijing, China

RESEARCH EXPERIENCE

Jan 2005 – Present: assistant biologist at the Biosciences division of Argonne National Lab, Argonne, IL 60439.

- Understanding the developmental nature of human embryonic stem cell colony for promoting proliferation and directed differentiation;
- Scaffolding and interfering human embryonic stem cells using nanofibers formed from co-polymers;
- Directed differentiation of neural precursors from human embryonic stem cells;
- Establishment of Human embryonic stem cell lines with the expression of green fluorescent protein under the control of Oct4 promoter;
- RNAi library screen using OCT4-specific GFP human embryonic stem cells lines;
- Construction of phage displayed cDNA library of human embryonic stem cells;
- Screen of phage displayed cDNA library of human embryonic stem cells against essential components present in MEF conditioned medium;
- Identification and characterization of ovarian cancer stem cells;
- Ultrathin Nanocrystalline Diamond (UNCD) based matrix to support undifferentiated growth of human embryonic stem cells.

Oct 2003 – Dec 2004: assistant biologist at the Biosciences division of Argonne National Lab, Argonne, IL 60439.

- Functionalization of T7 phage surface with ligand specific interaction partners (S-protein, SrcSH3 domain, Dengi-specific scFv, RGD peptide);
- Screen of M13 phage displayed peptide library against entire organisms such as T7 and Dengi virus;
- Exploring the potentiality to use inorganic or fluorescent chemical filled T7 phage as imaging tools.

Jan. 1998 – Aug. 2003: Postdoctoral Research Associate, MSU-DOE Plant Research Lab, Michigan State University, East Lansing, MI

- Yeast 2-hybrid library screen against virulence effectors secreted by *Pseudomonas syringae* pv *tomato* DC3000;
- Role of the Hrp pilus in type III protein secretion in *Pseudomonas syringae*;
- Secretion mechanisms of Hrp and Avr proteins via the Hrp pilus during type III secretion in *Pseudomonas syringae* and *Erwinia amylovora*;
- Construction and cloning of apple *NPR1* homolog from apple cDNA library;
- Overexpression of apple *NPR1* homolog in *Malus X domestica*.

Dec. 1994 – Dec. 1997: Graduate Research Assistant, Shanghai Institute of Plant physiology, Chinese Academy of Science, Shanghai, China

- Transgenic expression of harpin_{PSS} of *Pseudomonas syringae* in tobacco plants;
- A truncated fragment of harpin_{PSS} induces systemic resistance to *Xanthomonas campestris* pv. *oryzae* in rice;
- Studies on double stranded RNA isolated from turnip mosaic virus.

TEACHING EXPERIENCE

Sept. 1994 – July. 1995 Teaching Assistant in Plant Virology

Feb. 1994 – May 1994 Teaching Assistant in Plant Pathology

SELECTIVE HONORS AND AWARDS

2007	Awarded 3-year grant of Argonne Laboratory Directed Research and Development (LDRD)
2002	Anton Lang memorial award for research excellence, MSU
2001	First place poster award, the 10th International Congress on Molecular Plant-Microbe Interactions, Madison, 2001
1997	Excellent Ph.D. dissertation, Zhejiang University
1997	Zhukezhen first class award, Zhejiang University
1996	Chende first class scholarship, Zhejiang University

PUBLICATIONS

Malnoy M., **Jin Q. (co-first)**, Borejsza-Wysocka E.E., He S.Y., Aldwinckle H.S. 2007. Over-Expression of the Apple *MpNPR1* Gene Causes Increased Disease Resistance in *Malus X domestica*. **Molecular Plant-Microbe Interaction** 20, 1568-1580.

Zhang Y., Bahns J, **Jin Q**, Divan R, Chen L. 2006. Towards the detection of single virus particle in serum. **Analytical Biochemistry** 356: 161–170.

Liu, C.-M., **Jin, Q.**, Sutton, A., Chen, L. 2005. A novel fluorescent probe: Europium complex hybridized T7 phage. **Bioconjugate chem.** 16: 1054-1057.

Jin Q., Thilmony R., Zwiesler-Vollick J, He S. Y. 2003. Type III secretion system of *Pseudomonas syringae*. **Microbes and infection** 5: 301-310.

He S. Y. and **Jin Q.** 2003. The Hrp pilus: learning from flagella. **Current Opinion in Microbiology** 6: 15-19.

Jin Q., Hu W., McGhee G., Hart P., Jones A. L. and He S. Y. 2002. Secretion of Hrp and Avr proteins via the Hrp pilus during type III secretion in *Erwinia amylovora*. **Acta Horticulture** 590: 441-448.

He S. Y., **Jin Q**, Thilmony R., Nomura K., Zwiesler-Vollick J., Bandyopadhyay S., Hauck P., Hu W., Plovanich-Jones A., Lu M., Bray E. 2002. The molecular basis of *Pseudomonas syringae* pathogenesis in susceptible *Arabidopsis thaliana* plants. In SA Leong, C Allen, EW Triplett, eds, **Biology of Plant-Microbe Interactions, Vol 3**. Proc. Int'l Cong on Mol Plant-Microbe Interact. Int'l Soc Mol Plant-Microbe Interact., St. Paul, MN.

Jin Q. and He S.Y. 2001. Role of the Hrp pilus in type III protein secretion in *Pseudomonas syringae*. **Science** 294: 2556-2558.

Jin Q., Hu W., Brown I., McGhee G., Hart P., Jones A. and He S.Y. 2001. Visualization of secreted Hrp and Avr proteins along the Hrp pilus during type III secretion in *Erwinia amylovora* and *Pseudomonas syringae*. **Molecular Microbiology** 40:1129-1139.

Hu W., Yuan J., **Jin Q.**, Hart P., and He S. Y. 2001. Immunogold labeling of Hrp pili of *Pseudomonas syringae* pv. *tomato* assembled in minimal medium and in planta. **Molecular Plant-Microbe Interaction** 14:234-241.

Wei W., Plovanich-Jones A., Deng W., **Jin Q.**, Collmer A., Huang H. and He S. Y. 2000. The gene coding for the Hrp pilus structural protein is required for type III secretion of Hrp and Avr proteins in *Pseudomonas syringae* pv. *tomato*. **Proc. Natl. Acad. Sci. USA.** 97: 2247-2252.

Yuan J., Wei W., Gopalan S., Hu W., **Jin Q.**, Plovanich-Jones A., Muncie L., He S.Y. 2000. *hrp* genes of *Pseudomonas syringae*. In G Stacey, N Keen, eds, **Molecular Biology of Plant-Microbe Interactions**. APS Press, St. Paul, MN, pp 1-20.

Hu W., **Jin Q.**, Hart P., Jones A., Beer S.V. and He S.Y. 1999. The Hrp pilus and extracellular proteins of *Erwinia amylovora*. **Acta Horticulture** 489: 315-319.

Jin Q., Liu N., Qiu J., Li D., and Wang J. 1997. A truncated fragment of harpin_{PSS} induces systemic resistance to *Xanthomonas campestris* pv. *oryzae* in rice. **Physiological and Molecular Plant Pathology** 51: 243-257.

Jin Q., Zhou X., Liu Y., Wang Z., and Li D. 1995. Studies on Cucumber Mosaic Virus infecting broccoli. **Acta Zhejiang Agricultural University** 21: 610-614.

Jin Q. 1995. Prospect of molecular biology studies on Potato Y Virus. **Zhejiang Agriculture** 1: 25-29.