

网站简介链接地址：<http://ppc.nwsuaf.edu.cn/show.php?id=70>

一. 个人简介

许金荣，男，1965年8月出生于浙江绍兴。教育部长江学者讲座教授，国家“千人计划”入选者。现为西北农林科技大学植物保护学院二级教授，美国普度大学植物与植物病理系教授，博士生导师。曾任微生物学报副主编，现任微生物学研究学报编委，分子微生物学学报咨询编委。是美国植病学会、真菌学会、微生物学会和遗传学会的会员，美国植病学会遗传组委和真菌学组委的成员。

二. 工作学习简历

1984年，北京农业大学植保与微生物系毕业，获学士学位；

1987年，北京农业大学植保与微生物系毕业，获硕士学位；

1994年，美国堪萨斯州立大学植物病理系毕业，获博士学位；

1994年1月-1997年10月，美国普度大学生物系，博士后；

1997年10月-1999年10月，美国诺华公司农业生技所真菌靶位组，课题组长；

1999年10月-2004年7月，美国普度大学植物与植物病理系，副教授；

2004年8月-2008年7月，美国普度大学植物与植物病理系，副教授；

2008年8月至今，美国普度大学植物与植物病理系，教授；

2008年8月受聘于西北农林科技大学植物保护学院，长江学者讲座教授。

三. 研究领域或方向

以植物病原真菌的生物学与分子遗传学为主攻方向，从基因学、功能基因学、生物信息学与分子生物学方面揭示重要病原真菌的

致病机理、病原物与寄主植物的互作关系以及病原真菌信号途径，为植物真菌病害防治的新策略制定提供理论依据。

四. 主要学术论文

至今已发表 60 余篇期刊文章，7 篇书本章节，其中包括一篇《Science》（第三作者），一篇《Nature》（作者之一），一篇《PNAS》（第一作者），一篇《Genes & Development》（第一作者），四篇《Plant Cell》（三篇通讯作者），一篇《Annual Rev. of Phytopathology》（第一兼通讯作者），四篇《Mol. Microbiology》（三篇通讯作者），十篇《MPMI》（第一或通讯作者），五篇《Eukaryotic Cell》（四篇通讯作者），和一篇《Genetics》（第一作者）。

1) Ding, S., Liu, W., Iliuk, A., Ribot, C., Vallet, J., Wang, Y., Tao, A., Lebrun, M., and Xu, J. -R. 2010. The TIG1 HDAC complex regulates infectious growth in the rice blast fungus *Magnaporthe oryzae*. *Plant Cell*. In press.

2) Ma, L., Rep, M., Borkovich, K. A., Coleman, J. J., Daboussi, M., DiPietro, A., Dufresne, M., Freitag, M., Grabherr, M., Henrissat, B., Kang, S., Park, J., Shim, W., Woloshuk, C. Xie, X., Xu, J. -R., Antoniw, J., and Kistler, H. C. 2010. *Fusarium* comparative genomics reveals pathogenicity related lineage-specific genome expansion. *Nature*. 464: 367-373.

3) Liu, W., Xie, S., Zhao, X., Chen, X., Yi, Y., Liu, S., Lu, G., Xu, J. -R, Wang, Z. 2010. A homeodomain transcription factor is essential for asexual reproduction in a filamentous ascomycete. *Molecular Plant-Microbe Interactions*. 23: 366 - 375.

- 4) Yang, J., Zhao, X., Sun, J., Kang, Z., Ding, S., Xu, J. - R., Peng, Y. 2010. A novel protein Com1 is required for normal conidium morphology and full virulence in *Magnaporthe oryzae*. *Molecular Plant-Microbe Interactions*. 23: 112-123.
- 5) Choi, Y. E. and Xu, J. -R. 2010. The cAMP signaling pathway in *Fusarium verticillioides* is important for conidiation, plant infection, and stress responses but not fumonisin production. *Molecular Plant-Microbe Interactions*. 23: 522-533.
- 6) Zhou, X., Heyer, C., Choi, Y., Mehrabi, R., and Xu, J. - R. CID1 is important for plant infection in *Fusarium verticillioides*. 2010. *Fungal Genetics and Biology*. 47: 143 - 151.
- 7) John F. Leslie and Jin-Rong Xu. 2010. *Fusarium* genetics and pathogenicity, pp. 607-621. In: *Cellular and Molecular Biology of Filamentous Fungi* (eds. K. A. Borkovich & D. J. Ebbole). ASM Press, Washington, D.C.
- 8) Ding, S., Mehrabi, R., Koten, C., Kang, Z., Wei, Y., Seong, K., Kistler, H. C., and Xu, J. -R. 2009. The transducin beta like gene FTL1 is essential for pathogenesis in *Fusarium graminearum*. *Eukaryotic Cell*. 8: 867 - 876.
- 9) Mitchell, T., Dean, R., Xu, J. -R., Zhu, H., Oh, Y. Y., and Rho, H. 2009. Protein Chips and Chromatin Immunoprecipitation - emerging technologies to study molecule interactions in *Magnaporthe grisea*. pp. 73-82. In *Advances in Genetics, Genomics and Control of Rice Blast Disease*. Springer Publishing,

Netherlands.

- 10) Ding, S., Zhou, X., Zhao, X., and Xu, J. -R. 2009. The PMK1 MAP kinase pathway and infection-related morphogenesis in *Magnaporthe grisea*. pp. 13-21. In *Advances in Genetics, Genomics and Control of Rice Blast Disease*. Ed. G. Wang and B. Valent. Springer Publishing, Netherlands.
- 11) Mehrabi, R., Zhao, X., Kim, Y., and Xu, J. -R. 2009. The cAMP signaling and MAP kinase pathways in plant pathogenic fungi. In *Plant Relationship (The Mycota V)* Ed. H.B. Deising, Springer. Germany. pp. 157-172.
- 12) Seong, K.Y., Pasquali, M., Zhou, X., Song, J., Hilburn, K., McCormick, S.P., Dong, Y., Xu, J. -R., and Kistler, H.C. 2009. Global gene regulation by *Fusarium* transcription factors Tri6 and Tri10 reveals adaptations for toxin biosynthesis. *Molecular Microbiology*. 72: 354-367.
- 13) Barhoom, S., Kupiec, M., Zhao, X., Xu, J. -R., and Sharon, A. 2008. Functional characterization of cgCTR2, a vacuole copper transporter that is involved in germination and pathogenicity of *Colletotrichum gloeosporioides*. *Eukaryotic Cell*. 7: 1098 - 1108.
- 14) Mehrabi, R., Ding, S., and Xu, J. -R. 2008. The MADS-box transcription factor Mig1 is required for infectious growth in *Magnaporthe grisea*. *Eukaryotic Cell*. 7: 791 - 799.
- 15) Seong, K, Zhao, X., Xu, J. -R, Güldener, U., and Kistler, H. C. 2008. Conidial germination in the filamentous fungus

Fusarium graminearum. *Fungal Genetics and Biology*. 45: 389–399 (journal cover).

16) Zhao, X., Mehrabi, R., and Xu, J. -R. 2007. MAP kinase pathways and fungal pathogenesis. *Eukaryotic Cell*. 10: 1701–1714. (18184)

17) Cuomo, C., Guldener, U., Xu, J. -R., Trail, F., Turgeon, B. G., and Kistler, H. C. 2007. The genome sequence of *Fusarium graminearum* reveals localized diversity and pathogen specialization. *Science*. 317: 1402–1405.

18) Betts, M. F., Tucker, S. L., Galadima, N., Meng, Y., Patel, G., Li, L., Donofrio, N. M., Floyd, A., Nolin, S., Brown, D., Mandel, M. A., Mitchell, T. K., Xu, J. -R., Dean, R. A., Farman, M. L., Orbach, M. J. 2007. Development of a high throughput transformation system for insertional mutagenesis in *Magnaporthe oryzae*. *Fungal Genetics and Biology*. 44: 1035–1049.

19) Meng, Y., Patel, G., Heist, M., Betts, M., Tucker, S. L., Donofrio, N. M., Brown, D., Mitchell, T. K., Li, L., Xu, J. -R., Orbach, M. J., Thon, M., Dean, R. A., and Farman, M. L. 2007. A systematic analysis of T-DNA insertion events in *Magnaporthe oryzae*. *Fungal Genetics and Biology*. 44: 1050–1064.

20) Bluhm, B. H., Zhao, Z., Flaherty, J., Xu, J. -R., and Dunkle, L. D. 2007. RAS1 regulates growth and pathogenesis in *Fusarium graminearum*. *Molecular Plant–Microbe Interactions*. 20: 627–636. (18031)

21) Li, L., Ding, S., Orbach, M., Sharon, A., and Xu, J. -R.

2007. A novel nuclear protein MIR1 is highly up-regulated during infectious hyphal growth in the rice blast fungus. *Molecular Plant-Microbe Interactions*. 20: 448-458. (18185)
- 22) Ramamoorthy, V., Zhao, X., Snyder, A. K., Xu, J. -R., and Shah, D. M. 2007. Two Mitogen-activated protein kinase signaling cascades regulate sensitivity to antifungal plant defensins in *Fusarium graminearum*. *Cellular Microbiology*. 9: 1491 - 1506.
- 23) Zhao, X., and Xu, J. -R. 2007. A highly-conserved MAPK-docking site in Mst7 is essential for Pmk1 activation in *Magnaporthe grisea*. *Molecular Microbiology*. 63: 881 - 894. (18033)
- 24) Xu, J. -R., Zhao, X., and Dean, R. A. 2007. From genes to genomes; a new paradigm for studying fungal pathogenesis in *Magnaporthe oryzae*. In *Advances in Genetics (Fungal Genomics)* 57: 175-218. (18188)
- 25) Park, G., Xue, C., Zhao, X., Kim, Y., Orbach, M., and Xu, J. -R. 2006. Multiple upstream signals converge on an adaptor protein Mst50 to activate the PMK1 pathway in *Magnaporthe grisea*. *The Plant Cell*. 18: 2822 - 2835. (18032)
- 26) Soderlund, C., Pampanwar, V., Haller, K., Ebbolle, D., Farman, M., Mitchel, T., Orbach, M., Wang, G., Wing, R., Xu, J. -R., and Dean, R. 2006. MGOS: a resource for studying *Magnaporthe grisea* and *Oryza sativa* interactions. *Molecular Plant-Microbe Interactions*. 19: 1055-1061.

- 27) Xu, J. -R., Peng, Y., Dickman, M. B., and Sharon, A. 2006. The dawn of fungal pathogen genomics. *Annual Reviews of Phytopathology*. 44: 337-366. (18034)
- 28) Goswami, R. S., Xu, J. -R., Trail, F., Hilburn, K., and Kistler, H. C. 2006. Genomic analysis of host-pathogen interaction between *Fusarium graminearum* and wheat during early stages of disease development. *Microbiology*. 6: 1877-1890.
- 29) Guldener, U., Seong, K., Boddu, J., Cho, S., Trail, F., Xu, J. -R., Adam, G., Mewes, H., Muehlbauer, G. J., and Kistler, H. C. 2006. Development of a *Fusarium graminearum* Affymetrix GeneChip for profiling fungal gene expression in vitro and in planta. *Fungal Genetics and Biology*. 43: 316-325.
- 30) Seong, K., Li, L., Hou, Z., Kistler, H. C., and Xu, J. -R. 2006. Cryptic promoter activity of the HMR1 coding region in the wheat scab fungus *Fusarium graminearum*. *Fungal Genetics and Biology*. 43: 34-41. (17825) Journal Cover
- 31) Seong, K., Hou, Z., Kistler, H. C., and Xu, J. -R. 2005. Random insertional mutagenesis identifies genes associated with virulence in the wheat scab fungus *Fusarium graminearum*. *Phytopathology*. 95 (7): 744-750. (17664) Journal Cover
- 32) Dean, R., Talbot, N., Ebbole, D., Farman, M., Mitchell, T., Orbach, M., Thon, M., Kulkarni, R., Xu, J. -R., Pan, H., Read, N., Lee, Y., and Birren, B. 2005. Analysis of the genome sequence of the plant pathogenic fungus

Magnaporthe grisea, the causal agent of rice blast disease. Nature. 434: 980–986.

33) Zhao, X., Kim, Y., Park, G., and Xu, J. -R. 2005. A MAP kinase cascade regulating infection-related morphogenesis in Magnaporthe grisea. The Plant Cell. 17 (4): 1317–1329. (17663)

34) Xue, C., Li, L., Seong, K., and Xu, J. -R. 2004. The Magnaporthe grisea - rice interaction: A model system for studying fungal-plant interactions. pp. 138–165. In Plant-Pathogen Interactions. Ed. N. J. Talbot, Blackwell Scientific Publishers, UK. (Invited book chapter).

35) Xu, J. -R. and Wang, G. 2004. Rice Blast. pp.1–4. In The Encyclopedia of Plant and Crop Science (ISBN: 0–8247–4268–0). Ed. R. Goodman, Marcel Dekker, Inc. 270 Madison Ave. New York, USA.

36) Park, G., and Xu, J. -R. 2004. Mechanisms of Infection-Imperfect Fungi. pp.694–696. In The Encyclopedia of Plant and Crop Science (ISBN: 0–8247–4268–0). Ed. R. Goodman, Marcel Dekker, Inc. 270 Madison Ave. New York, USA.

37) Zhao, X., Xue, C., Kim, Y., and Xu, J. -R. 2004. A Ligation-PCR approach for generating gene replacement constructs in Magnaporthe grisea. Fungal Genetics Newsletter. 51: 17–18. (17662)

38) Bruno, K., F. Tenjo, Li, L., Hamer, J., and Xu, J. -R. 2004. Expression and localization of PMK1 during different plant

- infection stages. *Eukaryotic Cell*. 3: 1525–1532. (17522)
- 39) Park, G., Bruno, K., Talbot, N., Staiger, C., and Xu, J. -R. 2004. Independent genetic mechanisms mediate turgor generation and penetration peg formation during plant infection in the rice blast fungus. *Molecular Microbiology*. 53: 1695–1707. (17311)
- 40) Li, L., Xue, C. Y., Bruno, K., Nishimura, M., and Xu, J. -R. 2004. Two PAK kinase genes MST20 and CHM1 have distinct functions in *Magnaporthe grisea*. *Molecular Plant-Microbe Interactions*. 17: 547–556. (17141).
- 41) Nishimura, M., Park, G., and Xu, J. -R. 2003. The G-beta subunit MGB1 is involved in regulating multiple steps of infection-related morphogenesis in *Magnaporthe grisea*. *Molecular Microbiology*. 50: 231–243. (17140)
- 42) Trail, F., Xu, J. -R., San Miguel, P., Halgren, R. G., and Kistler, H. C. 2003. Analysis of Expressed Sequence Tags from *Gibberella zeae* (anamorph *Fusarium graminearum*). *Fungal Genetics and Biology* 38: 187–197. (16895)
- 43) Hou, Z., Xue, C., Katan, T., Peng, Y., Kistler, H. C., and Xu, J. -R. 2002. A MAP kinase gene (MGV1) for hyphal growth and plant infection in *Fusarium graminearum*. *Molecular Plant-Microbe Interactions*. 15: 1119–1127. (16853)
- 44) Xue, C., Park, G., Choi, W., Zheng, L., Dean, R. A., and Xu, J. -R. 2002. Two novel fungal virulence genes specifically expressed in appressoria of the rice blast fungus. *The Plant*

Cell. 14: 2107–2119. (16752)

45) Zhang, Y., Lamm, R., Pillonel, C., Lam, S., and Xu, J. -R. 2002. Osmoregulation and fungicide resistance: the *Neurospora crassa* OS-2 gene encodes a HOG1 MAP kinase homologue. *Applied and Environmental Microbiology*. 68: 532–538. (16663)

46) Xu, J. -R., and Xue, C. 2002. Time for a blast: genomics of *Magnaporthe grisea*. *Molecular Plant Pathology*. 3: 173–176. (16731)

47) Park, G., Xue, C., Zheng, L., Lam, S., and Xu, J. -R. 2002. MST12 regulates infectious growth but not appressorium formation in the rice blast fungus *Magnaporthe grisea*. *Molecular Plant-Microbe Interactions*. 15: 183–192. (16662)

48) Xu, J. -R. 2000. MAP kinases in fungal pathogens. *Fungal Genetics and Biology*. 31: 137–152. (16298)

49) Zheng, L., Campbell, M., Murray, J., Lam, S., and Xu, J. -R. 2000. The BMP1 gene is essential for pathogenicity in the gray mold fungus *Botrytis cinerea*. *Molecular Plant-Microbe Interactions*. 13: 724–732.

50) Dixon, K., Xu, J. -R., Smirnoff, N., and N. J. Talbot. 1999. Independent signaling pathways regulate cellular turgor during hyperosmotic stress and appressorium-mediated plant infection by *Magnaporthe grisea*. *The Plant Cell*. 11: 2045–2058.

51) Xu, J. -R., Staiger, C., and J. E. Hamer. 1998. Inactivation of the mitogen-activated protein kinase Mps1 from

the rice blast fungus prevents penetration of host cells but allows activation of plant defense responses. *Proceeding of the National Academy of Sciences (USA)*. 95: 12713–12718.

52) Hamer, J. E., Xu, J. -R., Urban, M., Adachi, K. 1998. Signal transduction and gene expression during early stages of fungal phytopathogenesis in the rice blast fungus. pp 225–244. In *Molecular Genetics of Host-Specific Toxins in Plant Disease*, ed. K. Kohmoto and O. C. Yoder), Kluwer Academic Publisher, Netherlands

53) Xu, J. -R., Urban, M., Sweigard, J., and J. E. Hamer. 1997. cAMP dependent protein kinase is essential for forming functional appressoria in *Magnaporthe grisea*. *Molecular Plant-Microbe Interactions*. 10: 187–194.

54) Xu, J. -R. and J. E. Hamer. 1996. MAP Kinase and cAMP signaling regulate infection structure formation and pathogenic growth in the rice blast fungus *Magnaporthe grisea*. *Genes & Development*. 10: 2696–2706.

55) Xu, J. -R. and J. F. Leslie. 1996. A RFLP map of *Gibberella fujikuroi* mating population A. *Genetics*. 143: 175–189.

56) Xu, J. -R. and J. F. Leslie. 1996. Strain genotypes of *Gibberella fujikuroi* mating population A (*Fusarium moniliforme*) mapping population. *Fungal Genetics Newsletter*. 43: 61–65.

57) Xu, J. -R. and J. E. Hamer. 1995. Assessment of

Magnaporthe grisea mating type by spore PCR. Fungal Genetics Newsletter. 42: 80-81.

58) Xu, J. -R., Leslie, J. F., Yan, K. and Dickman, M. B. 1995. Electrophoretic karyotypes distinguish the biological species of Gibberella fujikuroi (Fusarium section Liseola). Molecular Plant-Microbe Interactions. 8: 74-84.

59) Xu, J. -R. and Leslie, J. F. 1993. A computer program for constructing classical genetic linkage maps in haploid fungi. Fungal Genetics Newsletter. 40: 80-82.

60) Yan, K., Dickman, M. B., Xu, J. -R. and Leslie, J. F. 1993. Sensitivity of field strains of Gibberella fujikuroi (Fusarium section Liseola) to benomyl and hygromycin B. Mycologia. 85: 206-213.

五. 联系方式

Email: jinrong@purdue.edu

Tel: 029-87081270