

Jizhong Zhou

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a. Professional Preparation:

- Hunan Agricultural University, B.S., Plant Pathology & Entomology, 1981
- Hunan Agricultural University, M.S., Mathematical Ecology, 1984
- Washington State University, Ph.D., Molecular Biology, 1993

b. Appointments:

- University of Oklahoma, Norman, OK
Presidential Professor, Department of Botany and Microbiology, Director of the Institute for Environmental Genomics, 2005-present
- Adjunct Senior Scientist, Lawrence Berkeley National Laboratory, 2006-present
- Oak Ridge National Laboratory:
 - Distinguished Staff Scientist, Environmental Sciences Division, Oak Ridge National Laboratory, 2003-2005
 - Science Leader for Environmental Microbial Genomics, Biological and Environmental Sciences Directorate, 2002-2004.
 - Senior Staff Scientist, Environmental Sciences Division, 2001-2002
 - Staff scientist, Environmental Sciences Division, 1997 -2001
 - Alexander Hollaender Distinguished Postdoctoral Fellow, Environmental Sciences Division, 1996 – 1997
- Michigan State University, East Lansing, MI.
 - Adjunct professor, Center for Microbial Ecology, 1998-present
 - Research Associate, 1993-1996.
- University of Tennessee at Knoxville, Knoxville, TN, Adjunct professor, Genome Sciences and Technology, 1999-2005
- Eco-Environmental Research Center, Chinese Academy of Sciences, Beijing, China, Research Scientist, 1986-1989
- Hunan Agricultural University, Changsha, Hunan, P. R. China, Lecturer, 1985-1986

c. Publications (183 publications in genomics, genomic technologies, molecular biology, molecular evolution, microbial ecology, bioremediation, bioinformatics, systems biology and theoretical ecology. H-index, 30)

• Five closely related publications

1. He, Z., T. J. Gentry, C. W. Schadt, L. Wu, J. Liebich, S. C. Chong, W.M. Wu, B. Gu, P. Jardine, C. Criddle, and **J.Z. Zhou**. 2007. GeoChip: A comprehensive microarray for investigating biogeochemical, ecological, and environmental processes. *The ISME Journal*, 1: 67-77 (News Release by Nature Press Office: (http://www.nature.com/ismej/press_releases/index.html))
2. Wu, L*, X. Liu*, C. W. Schadt, and **J.-Z. Zhou***. 2006. Microarray-based analysis of subpicogram quantities of microbial community DNA. *equal contribution. *Appl. Environ. Microbiol.* 72:4931-4941, 2006. *Equal contribution. (The 11th of the top 20 papers most requested in 2006 (October to December) by AEM)
3. Gao, H. Zamin K. Yang, Terry J. Gentry, Liyou, Wu, Christopher W. Schadt, and **Jizhong Zhou**. 2007. Microarray-based Analysis of Microbial Community RNAs by Whole Community RNA Amplification (WCRA). *Appl. Environ. Microbiol.* 73: 563-571. (The 8th of the top 20 papers most requested in 2007 (January to March) by AEM).
4. Li, Xingyuan, Zhili He, and **J.-Z. Zhou**. 2005. Selection of optimal oligonucleotide probes for microarrays using multiple criteria, global alignment and parameter estimation. *Nucl. Acids Res.* 33:6114-6123
5. **Zhou, J.-Z.**, B. C. Xia, D. S. Treves, T. L. Marsh, R. V. O'Neill, L.-Y. Wu, A. V. Palumbo and J. M. Tiedje. 2002. Spatial and resource factors influencing high soil microbial diversity. *Appl. Environ. Microbiol.* 68: 326-334.

Five other significant publications

1. **Zhou, J.-Z.**, D.K. Thompson, Y. Xu, and James M. Tiedje. 2004. *Microbial Functional Genomics*. 624pp. John Wiley & Sons, Hoboken, New Jersey. (**The first comprehensive book in this field**)
2. Liu, Yongqing*, **J.-Z. Zhou***, Marina Omelchenko, Alex Beliaev, Amudhan Venkateswaran, Julia Stair, Liyou Wu, Dorothea K. Thompson, Dong Xu, Igor B. Rogozin, Elena K. Gaidamakova, Min Zhai, Kira S. Makarova, Eugene V. Koonin, and Michael J. Daly. 2003. Transcriptome dynamics of *Deinococcus radiodurans* recovering from ionizing radiation. *PNAS*, 100: 4191-4196. *equal contribution. (Reviewed by Jeremy S. Edwards and John R. Battista. 2003. *TRENDS in Biotechnology*: 21: 381-382).
3. Murray, A. E., D. Lies, G. Li, K. Neelson, **J.-Z. Zhou**, J. M. Tiedje. 2001. DNA:DNA hybridization to microarrays reveals gene-specific differences between closely related microbial genomes. *PNAS*, 98: 9853-9858.
4. Deysh, S. N., N. S. Panikov, W. Liesack, R. Grobkopf, **J.-Z. Zhou**, and J. M. Tiedje. 1998. Isolation of acidophilic methane-oxidizing bacteria from northern peat wetlands. *Science*, 282: 281-284.
5. Liu, S., **J.-Z. Zhou**, C.-L. Zhang, D. R. Cole and T. J. Phelps. 1997. Thermophilic Fe(III)-reducing bacteria from the deep subsurface: The evolutionary implications. *Science*: 277: 1106-1109.

d. Synergistic Activities:

• **Main honors and awards**

- Fellow of American Academy of Microbiology, 2005
- Federal Laboratory Consortium (Southeast) award for Excellence in Technology Transfer in 2005
- Presidential Early Career Award for Scientists and Engineers in 2001 from the President of the United States of America.
- DOE Office of Science's 2001 Early Career Award for Scientists and Engineers
- Environmental Sciences Division Distinguished Scientific Achievement Award in 2001
- Several Research Awards from Oak Ridge National Laboratory
- Oversea Changjiang Scholar by Chinese Ministry of Education (One of the highest awards for Chinese professionals)
- Outstanding Oversea Young Scientist (Highest award for oversea young scientist), Chinese National Science Foundation
- Shenhua Distinguished Professor, Central South University

• **Key Professional Services**

- Editor, Applied and Environmental Microbiology (Gold standard journal in this field)
- Editorial Board Members: *The ISME Journal*, *Omic*s: A Journal of Integrative Biology, *Acta Ecologia Sinica*, *Chinese Journal of Biotechnology*
- An US Ambassador to the International Society on Microbial Ecology
- Chair/members of SCOPE (The Scientific Committee on Problems of the Environment, International Council of Scientific Union) Workshop Series on Microbial Environmental Genomics (MicroGen)
- Chairs for the 7th, 9th, and 11th International Conferences on Microbial Genomes
- Committee Member for the 10th, 12th, 13th and 14th International Conference on Microbial Genomes.
- Panel Member for the roadmap for the Genomics:GTL (2001) for writing Goal 3 on community genomics.
- Panel members for several DOE and NSF programs
- Guest Professors, Institute of Microbiology, Eco-Environmental Research center, Chinese Academy of Sciences; Yunan Univ

- **Invited Talks:** Giving 148 invited national international talks last 5 years, e.g., NSF Workshop, Integrating NEON and Microbial Biology, 2008; The 3rd International Ecosummit, 2007; The 11th International Symposium on Microbial Ecology, 2006; Special keynote talk in "Sciences and China", sponsored by Chinese Academy of Sciences, National Academy of Sciences, National Academy of Engineering, Ministry of Science and Technology, Ministry of Education, and Chinese Association of Sciences and Technologies, 2005.

e. Main collaborators:

J. Fredrickson (PNNL), T. Palzkill (Baylor College of Medicine); C. Zhang (Univ. of Georgia); C. Criddle (Stanford University); P. Jardine (ORNL), Terry Hazen (LBL), Adam Arkin (UC Berkeley), Judy Wall (Univ of Missouri), David Stahl (Univ. of Washington), Margie Romine (PNNL).

- f. Advisors:** Five graduate students, 42 postdocs, 8 postmasters, 30 visiting scholars and students, 35 undergraduate and interns.

g. Thesis advisor or postdoctoral sponsor:

Ph.D advisor: Andy Kleinhofs, Washington State University.

Postdoctoral Advisors: James Tiedje, Michigan State University; Anthony V. Palumbo, ORNL