# Wang Jian

Beijing Genomics Institute-Shenzhen, Complex Building, Beishan Industrial Zone, Yantian District, Shenzhen, Guangdong Province, P.R.China 518083

Office: +86 755 25273916 Fax: +86 755 25273114

Email: wangjian@genomics.org.cn



## BIOGRAPHY

Prof. Wang Jian is the director of BGI. After graduation he conducted postdoctoral researches in USA from 1988 to 1990 and worked as senior research fellow at University of Washington during 1990-1994. He acted as one of the main team leaders of management and decision-making for the genomic sequencing projects, leading the team to establish large-scale, high-throughput, and low-cost technique platforms. His current research interest includes applications of genomics and bioinformatics in various fields.

#### **TITLES**

Research Fellow/Doctor Advisor

### NATIONALITY

Nationality/Chinese Sex/Male Date of birth/04-13-1954

#### POSITIONS

2007.04-

Director, Beijing Genomics Institute, Shenzhen

1999-2007

Executive Director, Beijing Genomics Institute

1994-2007

Board Chairman, Beijing BGI-GBI Biotech Co., Ltd

#### EDUCATION/TRAINING

1990~1994 Senior Fellow

Differentiation and proliferation of cells

**University of Washington** 

1989~1990 Postdoctoral Researcher

Expression of MHC-II and DR antigen on smooth muscle cells

University of Iowa, USA

1988~1989 Postdoctoral Researcher

# Analysis on the Characterization of Glutathione S-Transferase University of Texas, USA

1983~1987 Master in Integration of Herbalist & Western medicine

**Beijing University of Chinese Medicine** 

Beijing, China

1980 Bachelor's degree in Medical treatment

Central South University, Xiangya School of Medicine

Hunan, China

# AWARDS AND HONORS

- "The First Prize for Study Abroad in Beijing", Beijing municipal government, (12.2001)
- "Qiu Shi Collective Award for Outstanding achievement of Science & Technologies", Qiu Shi Science and Technology Foundation, Hongkong, P.R.China(9.2002)
- "Collective Award for Outstanding achievement of Science & Technologies", Chinese Academy of Sciences, P.R.China(2003)
- "Outstanding individual in prevention and cure of SARS", Beijing(7.2003)
- "The Prize for Outstanding carve out of Overseas Chinese & Chinese specialty person", Beijing(9.2005)

#### **PUBLICATIONS**

- **1.** Lin Feng, Hang Liu, Yu Liu, ...**Jian Wang**, *et al.* Power of Deep Sequencing and Agilent Microarray for Gene Expression Profiling Study *Mol Biotechnol*. 2010 Apr 30. 45(2):101-10.
- **2.** Guojie Zhang, Guangwu Guo, ...**Jian Wang**, *et al.* 2010. Deep RNA sequencing at single base-pair resolution reveals high complexity of the rice transcriptome. *Genome Research* Mar 19. [Epub ahead of print]
- **3.** Junjie Qin, Ruiqiang Li, ... **Jian Wang**, *et al.* 2010. A human gut microbial gene catalog established by deep metagenomic sequencing. [Cover Story]. *Nature* 464:59-65.
- **4.** Ruiqiang Li, Hongmei Zhu, ...J. Wang, J. Wang‡. De novo assembly of human genomes with massively parallel short read sequencing. Genome Res. 2009; 20:265-72.
- **5.** Ruiqiang Li, Wei Fan, ... **Jian Wang**, *et al.* 2010. The sequence and de novo assembly of the giant panda genome. [Cover Story]. *Nature* 463:311-7.
- **6.** Ruiqiang Li, Yingrui Li, ... **Jian Wang**, *et al.* 2010. Building the sequence map of the human pangenome. *Nature Biotechnology* 28:57-63.

- 7. Ruiqiang Li, Hongmei Zhu, ... **Jian Wang**, et al. De novo assembly of human genomes with massively parallel short read sequencing. *Genome Res.* 2009 Dec 17.
- **8.** Sanwen Huang, Ruiqiang Li, ... **Jian Wang**, Y. Du, S. Li. 2009. The genome of the cucumber (Cucumis sativus Linnaeus). [Cover Story]. *Nature Genetics* 41:1275-81.
- **9.** Qingyou Xia, Yiran Guo, ... **Jian Wang**, *et al.* 2009. Complete Resequencing of 40 Genomes Reveals Domestication Events and Genes in Silkworm (Bombyx). *Science* 326: 433-6.
- **10.** Yan Zhou, Huajun Zheng, ... **Jian Wang**, *et al.* 2009. The Schistosoma japonicum genome reveals features of host–parasite interplay. [Cover Story]. *Nature* 460: 345-51.
- **11.** Ruiqiang Li, Yingrui Li,... **Jian Wang**, *et al*.2009. SNP detection for massively parallel whole genome resequencing. *Genome Research* 19:1124-32.
- **12.** Guoqing Li, Lijia Ma, ... **Jian Wang**, *et al.* 2009. The YH database: the first Asian diploid genome database. *Nucleic Acids Res.* 37:D1025-8.
- **13.** Jun Wang, Wei Wang, ....Huanming Yang, **Jian Wang.** The diploid genome sequence of an Asian individual. Nature, 2008, 456:60-65.
- **14.** Beijing Genomics Institute, Huanming Yang, ..., **Jian Wang**, ..., Hui Zhao, Jun Zhou. International HapMap Consortium. A second generation human haplotype map of over 3.1 million SNPs. *Nature*. 2007 Oct 18;449(7164):851-61.
- **15.** Beijing Genomics Institute, Huanming Yang, ..., **Jian Wang**, ..., Hui Zhao, Jun Zhou. International HapMap Consortium. Genome-wide detection and characterization of positive selection in human populations. *Nature*. 2007 Oct 18;449(7164):913-8.
- **16.** Suhua Chang, ..., **Jian Wang**, Huanming Yang, Jun Yu, and Jing Wang. Influenza Virus Database (IVDB): an integrated information resource and analysis platform for influenza virus research. Nucleic Acids Research 2007,35:376-380.
- **17.** Chen Chen, ..., **Jian Wang** and Jun Yu. A Glimpse of Streptococcal Toxic Shock Syndrome from Comparative Genomics of S. suis 2 Chinese Isolates. PLoS ONE. 2007,2(3): e315.
- **18.** Donna M, ..., **Jian Wang**, ..., George Weinstock & Richard A. Gibbs. The DNA sequence, annotation and analysis of human chromosome 3. Nature 2006,440:1194-8.
- **19.** Jiaqi Tang, ..., **Jian Wang**, ..., Zhu Chen, and George F Gao. Streptococcal Toxic Shock Syndrome Caused by Streptococcus suis Serotype 2. PLoS Medicine 2006,5(3):668-676.
- **20.** Ede Qin, ..., **Jian Wang**, ..., Qingyu Zhu. Immunogenicity and protective efficacy in monkeys of purified inactivated Vero-cell SARS vaccine. Vaccine 2006,24:1028-34.
- **21.** Beijing GenomicsInstitute, Huanming Yang, ..., **Jian Wang**, ..., Jun Zhou. International HapMap Consortium.A Haplotype Map of the Human Genome. Nature 2005,437:1299-1320.

- **22.** Jinhua Liu, ..., **Jian Wang**, George F. Gao. Highly Pathogenic H5N1 Influenza Virus Infection in Migratory Birds *Science*, 2005, 309(5738):1206-1207.
- **23.** Donna M, ..., **Jing Wang**, ..., Maynard Olson, George Weinstock & Richard A. Gibbs. The DNA sequence, annotation and analysis of human chromosome 3. *Nature* 2006,440:1194-8.
- **24.** Jiaqi Tang,..., **Jian Wang**,..., Zhu Chen, and George F Gao. Streptococcal Toxic Shock Syndrome Caused by Streptococcus suis Serotype 2. *PLoS Medicine* 2006,5(3):668-676.
- **25.** Suhua Chang,..., Jun Yu1, and **Jing Wang**. Influenza Virus Database (IVDB): an integrated information resource and analysis platform for influenza virus research.. *Nucleic Acids Research* 2006 Nov 7; [Epub ahead of print]
- **26.** Zhu Heng,..., **Wang Jian**,..., Compton Susan, and Snyder Michael. Severe acute respiratory syndrome diagnostics using a coronavirus protein microarray. *Proc. Natl. Acad. Sci. U. S. A* 2006,103(11): 4011–4016.
- **27.** Ede Qin,..., **Jian Wang**,..., Qingyu Zhu. Immunogenicity and protective efficacy in monkeys of purified inactivated Vero-cell SARS vaccine. *Vaccine* 2006,24:1028-34.
- **28.** Beijing GenomicsInstitute Huanming Yang, ..., **Jian Wang**,..., Jun Zhou. International HapMap Consortium. A Haplotype Map of the Human Genome. *Nature* 2005,437:1299-1320.
- **29.** Jinhua Liu, ..., **Jian Wang**, George F. Gao. Highly Pathogenic H5N1 Influenza Virus Infection in Migratory Birds. *Science* 2005,309:1206.
- **30.** Jun Yu, ..., **Jian Wang**,..., Huanming Yang. The genomes of Oryza sativa: A history of duplications. *PLoS Biology* 2005, 3:266-281.
- **31.** Ligeng Ma, ..., Xing Wang Deng, and **Jian Wang**. A microarray analysis of the rice transcriptome and its comparison to Arabidopsis. *Genome Research* 2005,15:1274-1283.
- **32.** Chunling Yi, ..., **Jian Wang**, Ning Wei, and Xing Wang Deng. Major vault protein, in concert with constitutively photomorphogenic 1, negatively regulates c-Jun-mediated activator protein 1 transcription in mammalian cells. *Cancer Research* 2005,65:5835-40.
- **33.** Jing Wang,..., **Jian Wang**, ..., Zeyang Zhou, and Jun Yu. SilkDB:a knowledgebase for silkworm biology and genomics. *Nucleic Acids Research*. 2005, 33:399-402.
- **34.** Jing Wang, ..., **Jian Wang**, ..., Huanming Yang, and Jun Wang. ChickVD: a sequence variation database for the chicken genome. *Nucleic Acids Research* 2005,33: 438-441.
- **35.** JingYue Bao, ..., **Jian Wang**,..., San Ming Wang, and Jun Yu. Serial Analysis of Gene Expression Study of a Hybrid Rice Strain (LYP9) and Its Parental Cultivars. *Plant Physiology* 2005,138:1-16.
- **36.** Sanggyu Lee, ..., **Jian Wang**, ..., Xiuqing Zhang, and San Ming Wang. Detecting novel low-abundant transcripts in Drosophila. **RNA** 2005,11:939-946.

- **37.** Chen W, ..., **Wang J**. SARS-associated Coronavirus Transmitted from Human to Pig. *Emerging Infectious Diseases* 2005,11:446-8.
- **38.** Bei Li, ..., **Jian Wang**, and Ruifu Yang. Protein Microarray for Profiling Antibody Responses to Yersinia pestis Live Vaccine. *Infection and Immunity* 2005,73:3734-3739.
- **39.** Yanping Hana, ..., **Jian Wang**, Peitang Huang, and Ruifu Yang. DNA microarray analysis of the heat-and cold-shock stimulons in Yersinia pestis. *Microbes And Infection* 2005,7:335-48.
- **40.** Maofeng Qiu, ..., **Jian Wang**, Bing Sun, and Ruifu Yang. Antibody responses to individual proteins of SARS coronavirus and their neutralization activities. *Microbes And Infection* 2005,7:882-9.
- **41.** Rasmus Wernersson, ..., **Jian Wang**,..., Huanming Yang, and Lars Bolund. Pigs in sequence space: A 0.66X coverage pig genome survey based on shotgun sequencing. **BMC Genomics** 2005,6:70.
- **42.** Zongzhong Tong, ..., **Jian Wang**,..., Huanming Yang, and Ruifu Yang. Pseudogene accumulation might promote the adaptive microevolution of Yersinia pestis. *Journal of Medical Microbiology* 2005,54:259-68.
- **43.** Jiabin Tang, ..., **Jian Wang**, Jun Yu, Huanming Yang, and Lihuang Zhu. Gene expression profiling in rice young panicle and vegetative organs and identification of panicle-specific genes through known gene functions. *Molecular Genetics and Genomics* 2005,274:467-476.
- **44.** Yanping Han, ..., **Jian Wang**, Peitang Huang, and Ruifu Yang. Comparative transcriptome analysis of Yersinia pestis in response to hyperosmotic and high-salinity stress. **Research in Microbiology** 2005,156:403-15.
- **45.** Sumeng Yu, ..., **Jian Wang**, and Ruifu Yang. Retrospective serological investigation of severe acute respiratory syndrome coronavirus antibodies in recruits from mainland China. *Clinical and Diagnostic Lab. Immuno*.2005,12:552-4.
- **46.** Maofeng Qiu, ..., **Jian Wang**, and Ruifu Yang. Use of the COOH Portion of the Nucleocapsid Protein in an Antigen-Capturing Enzyme-Linked Immunosorbent Assay for Specific and Sensitive Detection of Severe Acute Respiratory Syndrome Coronavirus. C*linical and Diagnostic Lab. Immuno*.2005,12:474-6.
- **47.** Zongzhong Tong, ..., **Jian Wang**, ..., Huanming Yang, and Ruifu Yang. Genetic variations in pgm locus among natural isolates of Yersinia pestis. *The Journal of General and Applied Microbiology* 2005,51:11-9.
- **48.** Ruiqiang Li, ..., **Jian Wang**, Huanming Yang, Jun Yu, Gane Ka-Shu Wong, Jun Wang. ReAS: Recovery of Ancestral Sequences for Transposable Elements from the Unassembled Reads of a Whole Genome Shotgun. *PLoS Comput Biol* 2005,1:0313-0321.
- **49.** International Chicken Polymorphism Map Consortium. Polymorphism discovery and analysis: Beijing Institute of Genomics of Chinese Academy of Sciences and James D. Watson Institute of Genome

- Sciences of Zhejiang University Gane Ka-Shu Wong, ..., **Jian Wang**, Bailin Hao. A genetic variation map for chicken with 2.8 million single nucleotide polymorphisms. *Nature* 2004,432:717-722.
- **50.** International Chicken Genome Sequencing Consortium. Other sequencing and libraries: Lisa Stubbs, ..., **Jian Wang**, ..., Pieter J. deJong. Sequence and comparative analysis of the chicken genome provide unique perspectives on vertebrate evolution. *Nature* 2004, 432:695-716.
- **51.** International Human Genome Consortium. (**Wang Jian** as one of the listed authors in China) Finishing the euchromatic sequence of the human genome. *Nature* 2004, 431:931-945.
- **52.** Genome analysis group: Jun Yu, ..., **Jian Wang**, Gane Ka-Shu Wong, Huanming Yang. A draft sequence for the genome of the domesticated silkworm (Bombyx mori). S*cience* 2004, 306:1937-1940.
- **53.** Yuki Yanagawa, ..., **Jian Wang**, and Xing Wang Deng. Arabidopsis COP10 forms a complex with DDB1 and DET1 in vivo and enhances the activity of ubiquitin conjugating enzymes. *Genes & Development* 2004,18:2172-2181.
- **54.** Wenming Zhao, ..., **Jian Wang**, ..., Huanming Yang, and Jun Wang. BGI-RIS: an integrated information resource and comparative analysis workbench for rice genomics. *Nucleic Acids Res*. 2004,32:377-382.
- **55.** Jiabin Tang, ..., **Jian Wang**,..., Huanming Yang, and Lihuang Zhu. A comparison of rice chloroplast genomes. *Plant Physio*1. 2004,135:412-420.
- **56.** Yajun Song, ..., **Jian Wang**, Peitang Huang, and Ruifu Yang. Complete genome sequence of Yersinia pestis 91001, an isolate avirulent to humans. **DNA Research** 2004,11:179-197.
- **57.** Dongsheng Zhou,..., **Jian Wang**, Peitang Huang, and Ruifu Yang. Genetic of metabolic variations between Yersinia pestis biovars and the proposal of a new biovar, microtus. *Journal of Bacteriology* 2004.186:5147-5152.
- **58.** Dongsheng Zhou, ..., **Jian Wang**, Peitang Huang, and Ruifu Yang. DNA Microarray Analysis of Genome Dynamics in Yersinia pestis: Insights into Bacterial Genome Microevolution and Niche Adaptation. *Journal of Bacteriology* 2004, 18:5138-5146.
- **59.** Li Wang, **Jian Wang**, ..., Yanjiang Qiao, and Xuehai Tan. Effects of herbal compound 861 on human hepatic stellate cell proliferation and activation. *World J Gastroenterol* 2004,10:2831-2835.
- **60.** Lin Tang,..., **Jian Wang**, and Ze Chen. Inactivated SARS-CoV Vaccine Prepared from Whole Virus Induces a High Level of Neutralizing Antibodies in BALB/c Mice. **DNA and Cell Biology** 2004,23:391-394.
- **61.** Qingfa Wu, ..., **Jian Wang**. Development of Taqman RT-nested PCR system for clinical SARS-Co-V detection. *Journal of Virological Methods* 2004,119:17-23.
- **62.** Yanping Han, ..., **Jian Wang**, Peitang Huang, and Ruifu Yang. Microarray analysis of temperature-induced transcriptome of Yersinia pestis. *Microbiol Immunol* 2004,48:791-805.

- **63.** Jingqiang Wang,..., **Jian Wang**, ..., Ningzhi Xu, and Siqi Liu. Assessment of immunoreactive synthetic peptides from the structural proteins of severe acute respiratory syndrome coronavirus. *Clinical Chemistry* 2003,49:1989-1996.
- **64.** Patrick C.Y. Wooa, ..., **Jian Wang**, ..., Kwok-yung Yuena. The mitochondrial genome of the thermal dimorphic fungus Penicillium marneffei is more closely related to those of molds than yeasts. **FEBS Lett.** 2003,555:469-77.
- **65.** Jun Yu,..., **Jian Wang**,..., Huanming Yang. A Draft Sequence of the Rice Genome (Oryza sativa L.ssp.indica). *Science* 2002, 296: 79-92.
- 66. Jun Wang, Gane Ka-Shu Wong, Jian Wang, Peixiang Ni, Yujun Han, Xiangang Huang, Jianguo Zhang, Chen Ye, Yong Zhang, Jianfei Hu, Kunlin Zhang, Xin Xu, Lijuan Cong, Hong Lu, Xide Ren, Xiaoyu Ren, Dan Dai, Jun He, Lin Tao, Douglas A. Passey, Huanming Yang, Jun Yu, and Songgang Li. RePS: a sequence assembler that masks exact 20-mer repeats identified from the shotgun dataset. *Genome Research* 2002,12:824-831.
- **67.** Qiyu Bao, ..., **Jian Wang**, Jun Yu, and Huanming Yang. A Complete Sequence of the T. tengcongensis Genome. *Genome Research* 2002,12:689-700.
- **68.** International Human Genome Consortium. Initial sequencing and analysis of the human genome. *Nature*, 2001,409:860-921.