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EDUCATION:

- **Peking University**, Beijing, China, 09/1994 – 07/1998
B.S. in Biochemistry and Molecular Biology, 07/1998
- **University of Texas**, Houston, TX, 08/1998 – 12/1998
Ph. D. student in Public Health
- **University of Chicago**, Chicago, IL, 01/1999 – 06/2003
Ph.D. in Ecology & Evolution, 06/2003

HONORS:

- Excellent Student Award, 1995 – 1998
- Novo Nordisk fellowship, 1998
- Graduate with honor, 1998
- Nominated for 4th John Maynard Smith Prize, European Society for Evolutionary Biology, 2003

EXPERIENCE:

- **Teaching assistant** with Dr. Martin Kreitman for *Fundamentals of Molecular Evolution*, the University of Chicago, Spring quarter, 2000
- **Teaching assistant** with Dr. Manyuan Long for *Evolutionary Genomics*, the University of Chicago, Spring quarter, 2002
- **Teaching assistant** with Dr. Wen-Hsiung Li for *Introduction to Bioinformatics*, the University of Chicago, Spring quarter, 2003
- **Research assistant** with Dr. Wen-Hsiung Li, the University of Chicago, 1999 – 06/2003
- **Postdoc research associate** with Dr. Wen-Hsiung Li, the University of Chicago, 07/2003 – 12/2003
- **Postdoc research associate** with Dr. Ronald W. Davis, Stanford Genome Technology Center, 01/2004 – present

SOCIETIES:

- Member of the Society for Molecular Biology and Evolution
- Member of the American Association for the Advancement of Science

ACADEMIC SERVICE:

Reviewer for:

- *Genetics*
- *Journal of Molecular Evolution*
- *Proceedings of the Royal Society of London. Series B*
- *Public Library of Science*
- *Molecular Biology and Evolution*
- *Molecular Phylogenetics and Evolution*
- *Nature Genetics*
- *Trends in Genetics*

PUBLICATIONS:

- Gu, Z., David, L., Petrov, D., Jones, T., Davis, R. W. & Steinmetz, L. M. Elevated Evolutionary Rates in the Lab Strain of *S. cerevisiae*. Accepted by **Proceedings of the National Academy of Sciences, USA**.
- Oakley, T. H., Gu, Z., Abouheif, E., Patel, N. H. & Li, W.-H. Comparative Analyses of Gene Expression Evolution Using Functional Genomic Data. **Molecular Biology and Evolution**, in press
- Gu, Z., Rifkin, S.A., White, K. P. & Li, W.-H. Duplicate Genes Increase Expression Diversity within and between Species. **Nature Genetics**, 36, 577 - 579 (2004)
- Zhang, P., Gu, Z. & Li, W-H. Different Evolutionary Patterns between Young Duplicate Genes in the Human Genome. **Genome Biology**, 4, R56 (2003)
- Yang, J., Gu, Z. & Li, W.-H. Rate of Evolution vs. Fitness Effect of Gene Deletion. **Molecular Biology and Evolution**, 20, 772-774 (2003)
- Cavalcanti, A., Ferreira, R., Gu, Z. & Li, W.-H. Patterns of Gene Duplication in Yeast and *C. elegans*. **Journal of Molecular Evolution**, 56, 28-37 (2003)
- Li, W.-H., Gu, Z., Cavalcanti, A. & Nekrutenko, A. Detection of gene duplications and block duplications in eukaryotic genomes. **Journal of Structural and Functional Genomics**, 3, 27-34 (2003)
- Gu, Z., Steinmetz, L. M., Gu, X., Scharfe, C., Davis, R. W., & Li, W.-H. Role of Duplicate Genes in Genetic Robustness against Null Mutations. **Nature**, 421, 63-66 (2003)
- Gu, Z., Nicolae, D., Lu, H.-S., & Li, W.-H. Rapid Divergence in Expression between Duplicate Genes Inferred from Microarray Gene Expression Data. **Trends in Genetics**, 18, 609-613 (2002)
- Gu, Z., Cavalcanti, A., Chen, F.-C., Bouman, P. & Li, W.-H. Extent of Gene Duplication in the Genomes of *Drosophila*, Nematode, and Yeast. **Molecular Biology and Evolution**, 19, 256-262 (2002)
- Li, W.-H., Gu, Z., Wang, H., Nekrutenko, A. Evolutionary Analyses of the Human Genome. **Nature**, 409, 847-849 (2001)
- Gu, Z., Wang, H., Nekrutenko, A. & Li, W-H. Densities, Length Proportions, and other Distributional Features of Repetitive Sequences in the Human Genome Estimated from 430 Megabases of Genomic Sequence. **Gene**, 259, 81-88 (2000)

- Hao, L., Gu, Z., & Dai, Z. The Frequency Distribution and Establishment of Fruit Fly Strain of Segregation Distorter in *Drosophila melanogaster* in China. **Acta Genetica Sinica**, 4, 298-303 (2000)

Papers in preparation:

- Gu, Z., Steinmetz, L. M., Liu, C., & Li, W.-H. Local Similarity in Fitness Effects of Gene Deletion in the Yeast Genome.
- Gu, Z. Protein Interaction and Birth and Death of Duplicate Genes.
- Gu, Z. & Davis, R. W. Coupling Evolution of Insertion, Deletion and in/del.

INVITED TALKS & CONFERENCE PRESENTATIONS:

- Expression divergence and functional redundancy between duplicate genes in yeast. Department of Ecology and Evolutionary Biology, Michigan University, Ann Arbor, MI, 2004
- Local similarity in fitness effect of gene deletion and eukaryotic genome structures. Cornell Genomics Seminar, Ithaca, NY, 2003
- Expression divergence and functional redundancy between duplicate genes in yeast. Stanford Genome Technology Center, Palo Alto, CA, 2003
- Role of Duplicate Genes in Genetic Robustness against Null Mutations. *SMBE*, University of California, Irvine, CA, 2003
- Duplicate gene expression in yeast and nematode. *Evolution* University of Illinois at Urbana-Champaign, Urbana, IL, 2002
- Paucity of young duplicate genes in *Drosophila* compared to yeast and nematode. *SMBE*, the University of Georgia, Athens, GA, 2001
- Distribution of repetitive elements in human genome. *SMBE*, Yale University, New Haven, CT, 2000

REFEREES:

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