Curriculum Vitae
Yun-Xin Fu
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Address

Yun-Xin Fu, Ph.D.
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Education

INSTITUTION AND LOCATION	DEGREE	YEAR CONFERRED	FIELD OF STUDY
Zhongshan University, China	BS.C.	1978-82	Mathematics and statistics
University of Reading, England	Ph.D.	1984-88	Statistics
Nat. Inst. for Med. Res. London	Postdoc.	1988-89	Sequence alignment
University of Georgia, Athens	Postdoc.	1989-90	Population genetics
University of Texas, Houston	Postdoc.	1990	Molecular evolution

PhD thesis

Change point theory and its application to the prediction of protein secondary structure, Department of Applied Statistics, University of Reading, England

PhD supervisor

Robert N. Curnow, Ph.D.

Postdoctoral supervisors

Tom Kirkwood, Ph.D. (London)

Jonathan Arnold, Ph.D. (Georgia)

Wen-Hsiung Li, Ph.D. (Houston)

Professional Appointments

- Guest Professor, Yunnan University, China, Sept. 2003 - Aug. 2010
- Guest Professor, University of Sun Yet-sen, China, Sept. 2003 - Aug. 2012
- Betty Wheless Trotter professorship, School of Public Health (SPH) The University of Texas at Houston, Jan. 2002 - 2016
- Director, Computational Genomics Section, Human Genetics Center, SPH, The University of Texas at Houston, Oct. 2001 - present
- Full Professor with tenure, Human Genetics Center, SPH,The University of Texas at Houston, Sept. 2001 - present
- Associate Professor with tenure, Human Genetics Center, SPH, The University of Texas at Houston, Sept. 1996 - Aug. 2001
- Assistant Professor (tenure-track), Human Genetics Center, SPH, The University of Texas at Houston, Oct. 1994 - Aug. 1996
- Assistant Professor (tenure-track), Center for Demographic and Population Genetics, Graduate School of Biomedical Sciences(GSBS), The University of Texas at Houston, Oct. 1991 - Aug. 1994
- Research Assistant Professor, Center for Demographic and Population Genetics, GSBS, The University of Texas at Houston, Jan. 1991 - Sept. 1991
- Faculty Associate, Center for Demographic and Population Genetics, GSBS, The University of Texas at Houston, Sept. 1990 - Dec. 1990
- Assistant Lecturer, Department of Basic Sciences, South China College of Tropical Crops, China. Mar. 1982 - Aug. 1984

Research Area and Interests

- Human population history and human genome diversity
- Population and quantitative genetics, conservation biology
- Coalescent theory and its applications
- Statistics/Mathematics
- Evolution of infectious disease
- Phylogenetic reconstruction and molecular evolution
- Computational biology, comparative genomics and functional genomics

Honors

- Overseas Research Student Award (by British Council of Education) 1985-1988
- Outstanding Research Student Award (Reading University, England) 1986-1988
- Short-term visiting Professorship, Japan Society for Promotion of Science (JSPS) (1998)
- Visiting Professorship, Japan Institute of Genetics (2018-2022)

Memberships and Service

- The Society for the Study of Evolution
- The Society for Molecular Biology and Evolution
- Webmaster for the Society of Molecular Biology (1995-1999) and Evolution, and for the journal Molecular

Biology and Evolution

Associate Editor for Molecular Biology and Evolution, Oct. 1998-Oct. 2001

Associate Editor for Genetics, Dec. 1998-2010

Member of the NIH Study Section (ad hoc member), Oct. 1998, Oct. 2004, Feb. 2006, Mar. 2005

Panel member of the NIEHS site visit to University of Southern California, Dec. 2001

Member of the NIH Genetics Study Section (ad hoc member), Feb. 1998

Member of the NIH Genetics Study Section, Oct. 1999-2004

Member of the Membership committee of the Society of Chinese Bioscientists in America, 1999-present

Member of the NIH Genetic Variation and Evolution Study Section committee (ad hoc member), 2004-2010

Member of the NIH Genetic Variation and Evolution Study Section committee, 2011-present

Member of the advisory committee, Schull Institute, 2017-present

Teaching Experience

2000 - present: Lecturer of GSBS and SPH course “Introduction to Genomics and Bioinformatics” (two credit hours)

2001 - 2013: Lecturer of GSBS and SPH course “Evolution of Protein and DNA squences” (two credit hours)

2014 - present: Course Coordinator and Lecturer of GSBS and SPH course “Evolution of DNA and Protein Sequences” (three credit hours)

1991 - present: Course Coordinator and Lecturer (sole lecturer in most years) of GSBS and SPH course “Population Genetics” (three credit hours)

2002 - 2020: Course Coordinator and Lecturer of GSBS and SPH course “Introduction to Statistical Genetics” (three credit hours)

2006 Fall: Lecturer for SPH course ”Monte Carlo Approach in Statistics and Genetics” (two credit hours)

2009 Fall, 2010 Fall: Lecturer for GSBS course ”Ethical Dimensions of Biomedical Sciences” (one credit hours)

2010 Summer : Lecturer of SPH course PH1610 ”Biostatistics I” (four credit hours)

2010 Fall - present : Course Director for SPH course PH1690 ”Foundations of Biostatistics” (four credit hours)

2010 Fall - present : Course Coordinator for SPH course PH1690 ”Foundations of Biostatistics” (four credit hours)

2016 Fall - 2018 Spring: Course Coordinator for SPH course PH1988 ”Biostatistics Seminar” (one credit hours)

2018 Spring - present: Course Coordinator for SPH course PH1970 ”Intermediate Biostatistics” (three credit hours)

2021 Fall - present: Course Coordinator for SPH/GSBS course PH1982 ”Introduction to Statistical Genetics and Bioinformatics” (three credit hours)

2022 Fall - present: Course Coordinator for SPH/GSBS course PH1986 ”Evolution of DNA and Protein sequences" (three credit hours)

Note: GSBS – Graduate School of Biomedical Sciences, SPH – School of Public Health

Postdoctoral Fellows trained

Hongwen Deng, 1995-1996, supported by grant R29 GM50428
Daniel C. Vasco, 1997-1998, supported by grant R29GM50428
Haiying Huai, 1998-2004, supported by grant R29 GM50428
David de Lorenzo, 1998-2001, supported by grant DEB-9707567
Yuande Tan, 2000-2001, supported by grant HL51021
Haipeng Li, 2000-2004, supported by grant GM50428
Zanhua Xie, 2006-2011, supported by state funds

Visiting Scholars

Dr. Long-Zhen Tong, 1994-1995
Dr. Lindan Ji, 2015-2016
Nan Yaoi, 2017-2017

Graduated Students

Li Jin, Ph.D. student, graduated in 1994. Served on Supervisory Committee. Currently Professor in Fudan University, China.

Benny Chang, Ph.D. student, graduated in 1995. Served on both Examining and Supervisory Committees. Currently Assistant Professor, Baylor College of Medicine.

Xun Gu, Ph.D. student, graduated in 1996. Served on Advisory, Examining and Supervisory Committees. Currently Associate Professor, University of Iowa.

Julia Krushkal, Ph.D. student, graduated in 1996. Served on Advisory, Examining and Supervisory Committees. Currently Computational Biologist, Biometric Research Branch, National Institutes of Health, Bethesda, MD.

George Li, Ph.D. student, graduated in 1996. Served on Supervisory Committee. Currently a Senior Statistician in a biotechnology company, California.

Grier Page, MSc. student, graduated in 1997. Served on Examining Committee. Currently Senior Statistical Geneticist, RTI international, Atlanta, GA.

Andrew Rodin, Ph.D. student, graduated in 1999. Served as on-site Supervisory Professor. Dissertation: New Algorithms for Automated Phylogenetic Reconstruction Using Artificial Intelligence and Data Mining Techniques. Currently Dr. Susumo Ohno Chair in Theoretical Biology; Associate Professor, Diabetes and Metabolic Diseases Research, City of Hope, Duarte, CA.

Zhongming Zhao, Ph.D. student, graduated in 2000. Served as on-site Supervisory Professor. Dissertation: Global patterns of DNA Polymorphism in Noncoding Regions in Human Populations. Currently Assistant Professor, Dept. Psychiatry, Center for the Study of Biological Complexity, Virginia Commonwealth University, Richmond, VA.

Qiqing Huang, Ph.D. student graduated in 2002. Served as Supervisor. Dissertation:Single Nucleotide Polymorphism (SNP) Selection for Genotype-Phenotype Association Studies. Currently a Research Scientist in Johnson's and Johnson's, VA.

Hongyan Xu, Ph.D. student, graduated in 2003. Served as supervisor. Dissertation: Detecting the Signature of Natural Selection with Micro-satellites. Currently Assistant Professor, Dept. of Biostatistics, Medical College of Georgia, Augusta, GA

Haipeng Li, Ph.D. student, graduated in 2002 and Postdoc. (2000-2003).Served as Supervisor. Principal Investigator, Institute of Computational Biology, Chinese Academy Science, Shanghai, China.

Feng Zhan, Ph.D. student, graduated in 2004. Thesis Advisor. Dissertation: Statistical Methods for Estimating Mutation Rate and Effect Population Size from Samples of DNA Sequence. Currently a Research Statistician, US Oncology, Houston, Tx.

Rafael Gonzalez, M.S. (2005) Visiting Ph.D. student from Mexico.

Xiaoming Liu, Ph.D. student, graduated in 2006. Served as Supervisor. Dissertation: Analyzing Pathogen Populations-New Model, New Methods and Application. Currently Assistant Professor, Human Genetics Center, School of Public Health, The University of Texas, Houston, Tx.

Hui Zhao, Ph.D. student, graduated in 2007. Served as Dissertation Advisor. Dissertation: A coalescent analysis for modeling the mutation process in colorectal cancer. Currently Senior Data Analyst Department of Breast Medical Oncology, The University of Texas M. D. Anderson Cancer Center, Houston, Tx.

Degang Wang, Ph.D. (2003). M.S. student, graduated in 2008. Advisor. Thesis: Performance evaluation in Bayesian adaptive randomization. Currently at the Veterans Hospital, Houston, TX.

Shut-yee Jessica Yeung, MPH student, graduated in 2010. Advisor. Thesis: Performance Recovery from

Exercise: A Review from a Statistical Point of View.

Yaji Xu, Ph.D. student, graduated in 2010. Advisor. Dissertation: Genome-wide algorithm for detecting CNV associations with diseases. Currently Visiting Professor, Department of Statistics, The George Washington University, Washington, D.C.

Yuande Tan, Ph.D. (1996) M.S. student, graduated 2010. Advisor and Research Supervisor. Thesis: Statistical methods for differential expressions of genes detected in multiple-condition experiment of microarray. Currently Research Associate, Institute for Personalized Medicine, Penn State College of Medicine, Hershey, PA

Jiangong Niu, Ph.D. (2004) M.S. student, graduated in 2011. Advisor and Research Supervisor. Thesis: Comparison of two statistical methos for rare variant association analysis. Currently Senior Data Analyst, MD Anderson.

Yefei Zhang, M.S. student, graduated 2012. Advisor and Research Supervisor. Thesis: Impact of donor-recipient gender and race mismatching on patient survival in patients with end-stage liver diseases undergoing liver transplatation. Currently Ph.D. student Advisor until 2013 when changed advisor. Currently Ph.D. student in Biostatistics.

Hong Wei Tang, Ph.D. student, graduated 2012. Advisor. Dissertation: Interaction of genes and pathways with BMI, diabetes during development of pancreatic cancer. Currently Postdoc, Department Gastro-Intestional Medical Oncology, UTMDACC.

Xiao Su, M.S. student, graduated 2012. Advisor and Research Supervisor. Currently Ph.D. student in Biostatistics.

Vinu Jyohi, MPH student, graduated 2012. Advisor and Research Supervisor. Changed Advisors.

Nga T. Nguyen, Currently Ph.D. student. Advisor and Research Supervisor.

Nianxiang Zhang, Ph.D. (1999) Currently Ph.D. student. Thesis Advisor.

Shaojie Zhang, Ph.D. (2000) M.S. student graduated 2013. Advisor and Research Supervisor. Dissertation: Optimal DNA methylation biomarkers for differentating normal and renal cancer samples. Currently Research Associate, Dept. of Molecular Virology and Microbiology, Baylor College of Medicine.

Huzhang Mao, M.S. student, graduated 2013. Student Advisor and Research Supervisor. PhD Student, Advisor until 2014 when changed Advisor.

Wei Guo, Ph.D. (2002) M.S. student, graduated 2013. Advisor and Research Supervisor. Dissertation: Optimal DNA methylation biomarkers for characterizing triple negative breast cancer. Currently Instructor, Dept. Systems Biology, UTMDACC.

Duong Trung Tran, Ph.D. student, graduated 2013. Advisor. Dissertation: Partial mouth-periodontal examination protocol for estimation of prevalence, severity and extent of periodontitis. Currently Postdoctoral Research Fellow, Diagnostic Sciences, UT School of Dentistry, Houston, TX.

Yue Song, M.S. student, graduated 2013. Student Advisor and Research Supervisor. Thesis: Modified 3+3 design for phase I clinical trials. Currently Ph.D. Student.

Renke Zhou, M.S. (2007) Ph.D. student, graduated 2014. Advisor. Dissertation: A Semi-parametric joing model for semi-competing risks data with missing cause of informative terminal events. Currently Senior Biostatistician, Cancer Prevention and Population Sciences, Duncan Cancer Center, Baylor College of Medicine, Houston, TX.

Jia Sun, MPH student, graduated in 2009. Advisor. Ph.D. Student, graduated 2015. Advisor and Research Supervisor. Dissertation: A hierarchical model of mutations with genotyping errors and maximum likelihood estimation of the male-to-female mutation rate ratio. Currently Statistical Analyst, UT MD Anderson, Houston, Tx.

Qi Yu, M.S. student, graduated 2016. Student Advisor. Thesis: Spatial Statistical Analysis of Childhood Blood Lead Exposure in Texas. Currently Department of Public Health, City of Houston, Houston, TX.

Shiyun Ling, M.S. student, graduated 2017. Advisor. Thesis: Removing Batch Effects in mRNA Data with Empirical Bayes Based Methods and Replicates. Currently Postdoctoral Fellow Department Bioinformatics and Computational biology, UT MDAnderson, Houston, TX.

Weiwei Shan, Ph.D. (2007) M.S. student, graduated 2018. Advisor. Thesis: Utilization of Propensity Score Weighting and Targeted Maximum Lilkelihood Estimation in the Post Hoc Analysis of a Randomized controlled Trial for the Treatment of Cocaine Dependence (NIDA-MDS-MODAFINIL-0001). Currently

Xiao Li, Ph.D. student, graduated 2018. Advisor until changed advisors Sept. 2016.

Andrew R. Aschenbrenner, Currently Ph.D. student. Advisor.

Katarzyna Latkowska, Currently Ph.D. student, University of Houston. Advisor.

Ross Harrison, Currently MPH student. Advisor.

University or School Committees Served

Academic Computing Committee of the Health Science Center at Houston (1993-1996)
Admission Committee of Genetics Program, GSBS (1992-1996)
Admission Committee, Disease Control module, SPH (1999-2003)
Admission Committee, Biological Sciences, SPH (2000-2005)
Scientific Review Committee, UT Health Science Center (2001-2005)
Faculty Council, Member, SPH (2006-2009)
Search Committee for Hideki Innan, Member, SPH (2002-2003)
Search Committee for Biostatistics Division Chair, Member SPH (2006-2006)
Search Committee for Xioming Liu, Member, SPH (2006-2007)
Search Committee for Biostatistics Division Faculty, Member SPH (2008-current),
Academic Council, Member SPH (2008-2010)
Research Council, Member SPH (2011-Present)
Committee for the Development of PH1690, Chair SPH (2010-current)
Mentor Committee, Member SPH for Dr. Momiao Xiong (2001-2009)
Mentor Committee, Chairman SPH for Dr. Andrei Rodin (2003-2012)
Mentor Committee, Chairman SPH for Dr. Xiaoming Liu (2007-2018)
Mentor Committee, Member SPH for Dr. Taylor Maxwell (2007-2013)
Mentor Committee, Member SPH for Dr. Wei Peng (2009-2016)
Committee for Preliminary Examination, Chair BADS (2015-)
Faculty Council, Member SPH (2019-) and Chair for 2020-2021
Inter-Faculty Council, Member UTSHC (2021-)

Completed Grants

NIH FIRST AWARD (R29 GM50428)
Title: “Coalescent theory and analysis of DNA polymorphisms”
Total Cost: $499,000
Period: Aug. 1994 - July 2000
Position: Principle Investigator

NIH Supplement grant (R29 GM50428)
Title: “Coalescent theory and analysis of DNA polymorphisms”
Total Cost: $24,000
Period: Sept. 1998 - July 2000
Position: Principle Investigator

NSF Grant (DEB-9707567)
Title: “Estimating the age of the common ancestor of a population”
Total Cost: $120,000
Period: Sept. 15, 1997 - Sept. 14, 2000 (no-cost extension to August 31, 2001)

Position: Principle Investigator

NIH grant (R01 HG01708)
Title: “Statistical methods for studying disease gene history”
Total Cost: $377,074
Period: Sept. 30, 1997 - Sept. 29, 2000 (no cost extension to August 31, 2001)
Position: Principle Investigator

NIH grant (R01 GM55759 subcontract)
Title: “Human DNA polymorphism and evolution”
Total Cost: $189,855
Period: Jan. 1, 1998 - Dec. 31, 2002
Position: Principle Investigator

NIH grant (HL51021)
Title: “Molecular epidemiology of essential hypertension”
Total Cost: $5,297,411
Period: June 1999 - May 2004
Position: Co-investigator (5%) (PI: Eric Boerwinkle)

NIH grant (R25 CA57730 subcontract)
Title: “Supplement in genetic epidemiology education”
Total Cost: $505,967
Period: Sept. 1999 - Aug. 2004
Position: Co-investigator (10%) (PI: Eric Boerwinkle)

NIH grant R01 GM50428-06A1
Title: “Coalescent theory and analysis of DNA polymorphism”
Period: Aug. 1, 2000 - July 31, 2005
Total Cost: $737,479
Position: Principle Investigator

Chinese NSF grant
Title: “Award for outstanding Chinese scientist abroad”
Period: Jan. 1, 2001 - Dec. 31, 2003
Total Cost: 400,000 yen (about $50,000)
Position: Principle Investigator(Dr. Yaping Zhang as host)

Chinese NSF grant30570248
Title: “Mutation screening for Drosophila Melanogaster”
Period: Jan. 1, 2005 - Dec. 31, 2008
Total Cost: 400,000 yen (about $60,000)
Position: Principle Investigator(Yunnan University as host)

NIH grant R01 GM5060777-04
Title: “Statistical methods for studying infectious disease”
Period: Sept. 1, 2001 - June 30, 2006
Total Cost: $382,365

Position: Principle Investigator

NIH grant 4R37HL51021-11 “Molecular epidemiology of essential hypertension”
Total Cost: $3,912,381 + indirect cost
Period: Aug. 15, 2004 - June 30, 2010
Position: : Co-investigator (5%) (PI: Eric Boerwinkle)

NIH grant R01 A1061385-01A2 “Molecular epidemiology of CA-MRSA”
Total Cost: $39,800 + indirect cost
Period: Mar. 1, 2006 - Feb. 29, 2010
Position: PI Subcontract (PI: S. Skukla)

Framingham Heart Study Project No. 2005-3 “Patterns of mutation at microsatellite loci in the Framingham Heart Study Population” no cost
Period: May 11, 2006 - May 10, 2010
Position: Principle Investigator

NIH grant T32 GM074902-01A1 “Training program in Biostatistics at UTHSC-SPH ”
Total Cost: $587,660 For student expenses only. No funds for faculty/administrative salaries or faculty/administrative expenses
Period: July 14, 2006 - June 30, 2012
Position: Investigator (PI Robert Hardy)

USDHHS, CDC 200-2001-00088 “Tuberculosis Epidemiology Studies Consortium (TBESC) assessing QFT as an initial screening tool for U.S.-bound applicants for immigration and feasibility of follow-up in U.S. immigrants”
Total Cost: $17,665 + indirect cost
Period: Apr. 01, 2010 - Mar. 31, 2012
Position: PI Subcontract (PI Edward Graviss)

NIH R01 1U01HG005728 “Detecting natural selection for the 1000 Genomes Dataset ”
Total Cost: $521,537 + indirect cost
Period: Apr. 01, 2010 - Oct. 31, 2013 (no cost extension)
Position: Principle Investigator

Chinese NSF 91231120 “Modeling and Analysis of Drosophila Experimental Data”
Total Cost: $1,000,000 yuan (about $150,000)
Period: Jan. 01, 2013 - Dec. 31, 2017
Position: Principle Investigator (Hosted by Yunnan University)

NIH 2 U54 HG003273-09 “The Human Genome Sequencing Center at Baylor College of Medicine”
Total Cost: $1,094,626 + indirect cost
Period: Nov. 01, 2011 - Oct. 31, 2015
Position: Co-Investigator of subcontract (PI Richard Gibbs)

NIH/NHLBI/ROC Univ. Washington 5U01HL077863-10 “Data Coordinating Center for the Prospective, Randomized Optimal Platelet and Plasma Ratios (PROPPR)”
Total Cost: $5,331,045 (Total budget) + indirect
Period: Oct. 1, 2010 - Dec. 31, 2015

Position: Co-Investigator (20%) (PI Barbara Tilley)

UT Dental School/US Academy of Osseointegration HSC-DB-13-0786 “Survival of Dental Implants Placed in a Grafted and Non-grafted Bone: A Retrospective Study in a University Setting ”
Period: Mar. 27, 2014 - Mar. 15, 2015
Position: Consultant (PI Isabel Gay)

NIH/NIGM 5T 32 GM074902-09A1 “Training Grant Program in Biostatistics at UTHSC-SPH ”
Total Cost: $149,904. Student expenses only. No funds for faculty/administrative salaries or faculty/administrative expenses
Period: July 1, 2012 - June 30, 2017 NCE
Position: Investigator (PI Barbara Tilley)

NIH R01HG009524 ”Accurately Inferring Demographic Histories of Human Populations Using Large Whole Genome Sequence Data”
Total Cost: $1,528,968
Period: Aug. 30, 2018 - May 31, 2021
Position: Co-Investigator

NIH/NIGM 5T 32 GM074902 “Training Grant Program in Biostatistics at UTHSC-SPH”
Total Cost: $449,712. Student expenses only. No funds for faculty/administrative salaries or faculty/administrative expenses
Period: July 1, 2016 - June 30, 2020
Position: Investigator (PI Stacia M. DeSantis)

MD Anderson Cancer Center/CPRIT “Collaborative Training of a New Cadre of Innovative Cancer Prevention Researchers”. Student expenses only. No funds for faculty/administrative salaries or faculty/administrative expenses $1,661,213 (Total budget) + indirect
Period: Mar. 1, 2016 - Feb. 28, 2021
Position: Mentor (PI Shine Chang and Sanjay Shete)

Active Grants

Pending Grants

NIH ”Coalescent theory and methods for inferring the history of multiple populations”
Total Cost: $2,288,340 - Apr. 1, 2025 – Mar. 31,2030
Position: Principle Investigator.

NIH ”Understanding how antifouling coatings affect biofilm formation and bacterial interference against CAUTI”
Total Cost: $2,531,185 - July 1, 2023 – June 30,2028
Position: Principle Investigator of subcontract.

Publications:

1. Fu, Y.X. and R.N. Curnow (1990) Locating a changed segment in a sequence of Bernoulli variables. Biometrika 77:295-304.
2. Fu, Y.X. and R.N. Curnow (1990) Maximum likelihood estimate of multiple change points. Biometrika 77:563-573.
3. Fu, Y.X. and J. Arnold (1991) On the association of restriction fragment length polymorphisms across species boundaries. Proc. Natl. Acad. Sci. 88:3967-3971. PMCID: PMC51574
4. Fu, Y.X. and W.H. Li (1991) Necessary and sufficient conditions for the existence of certain quadratic invariants under a phylogenetic tree. Math. Biosci. 105:229-238.
5. Fu, Y.X. and J. Arnold (1992) Dynamics of cytonuclear disequilibria in finite populations and comparison with a two-locus nuclear system. Theor. Popul. Biol. 41:1-25.
6. Fu, Y.X. and W.H. Li (1992) Necessary and sufficient conditions for the existence of linear invariants in phylogenetic inference. Math. Biosci. 108:203-218.
7. Fu, Y.X. and W.H. Li (1992) Construction of linear invariants in phylogenetic inference. Math. Biosci. 109:201-228.
8. Fu, Y.X., W.E. Timberlake and J. Arnold (1992) On the design of genome mapping experiments using short synthetic oligonucleotides. Biometrics 48:337-359.
9. Fu, Y.X. and J. Arnold (1992) A table of exact sample sizes for the use with Fisher's exact test for 2X2 tables. Biometrics 48:1103-1112.
10. Li, W.H. and Y.X. Fu (1992) Method of linear invariants for phylogenetic reconstruction. In: Modeling and Computer Methods in Molecular Biology and Genetics. Ratner V.A., Kolchanov N.A. (eds.). NY: Nova Science Publishers, Inc. pp. 379-389.
11. Fu, Y.X. and W.H. Li (1993) Statistical tests of neutrality of mutations. Genetics 133:693-709. PMCID: PMC1205353
12. Fu, Y.X. and W.H. Li (1993) Maximum likelihood estimate of population parameters. Genetics 134:1261-1270. PMCID: PMC1205593
13. Fu, Y.X. (1994) An phylogenetic estimator of effective population size or mutation rate. Genetics 136:685-692. PMCID: PMC1205817
14. Li, W.H. and Y.X. Fu (1994) Estimation of population parameters and detection of natural selection from DNA sequences. In: Non-neutral Evolution: Theories and Molecula Data. Golding, B.(ed.). NY: Chapman and Hall, pp. 112-125.
15. Fu, Y.X. (1994) Estimating effective population size or mutation rate using the frequencies of mutations of various classes in a sample of DNA sequences. Genetics 138:1375-1386. PMCID: PMC1206273
16. Fu, Y.X. (1995) Linear invariants with Jukes' and Cantor's one-parameter model, J. Theor. Biol. 173:339-352.
17. Steel, M.A. and Y.X. Fu (1995) Classifying and counting linear phylogenetic invariants for Jukes-Cantor model. J. Computational Biol. 2:39-47.
18. Fu, Y.X. (1995) Statistical properties of segregating sites. Theor. Popul. Biol. 48:172-197.

19. Gu, X., Y.X. Fu and W.H. Li (1995) Maximum likelihood estimation of heterogeneity of substitution rate among nucleotide sites. Mol. Biol. Evol. 12:546-557.
20. Fu, Y.X. (1996) New statistical tests of neutrality for DNA samples from a population. Genetics 143:557-570. PMCID: PMC1207287
21. Fu, Y.X. and W.H. Li (1996) Estimating the age of the common ancestor of men from the ZFY intron. Science 272:1356-1357. PMCID: PMC1207573
22. Datta, S., Y.X. Fu and J. Arnold (1996) Dynamics and equilibrium behavior of cytonuclear disequilibrium under genetic drift, mutation and migration. Theor. Popul. Biol. 50:298-824.
23. Fu, Y.X. (1996) Estimating the age of the common ancestor of a DNA sample using the number of segregating sites. Genetics 144:829-838.
24. Deng, H.W. and Y.X. Fu (1996) The effects of variable mutation rates across sites on the phylogenetic estimation of effective population size or mutation rate of DNA sequences. Genetics 144:1271-1281. PMCID: PMC1207618
25. Fu, Y.X. and W.H. Li (1997) Estimating the age of the common ancestor of a sample of DNA sequences. Mol. Biol. Evol. 14:195-199.
26. Fu, Y.X. (1997) Coalescent theory for a partially selfing population. Genetics 146:1489-1499. PMCID: PMC1208091
27. Fu, Y.X. (1997) Statistical tests of neutrality of mutations against population growth, hitchhiking and background selection. Genetics 147:915-925. PMCID: PMC1208208
28. Huang, W., Y.X. Fu , B.H.J. Chang, X. Gu, L.B. Jorde and W.H. Li (1998) Sequence variation in ZFX introns in human populations. Mol. Biol. Evol. 15:138-142.
29. Deng, H.W. and Y.X. Fu (1998) Conditions for positive and negative correlations between fitness and heterozygosity in equilibrium populations. Genetics 148:1333-1340. PMCID: PMC1460038
30. Stockbauer, K.E., D. Grigsby, X. Pan, Y.X. Fu , L.M. Perea-Mejia, A. Cravioto and J.M. Musser (1998) Hypervariability generated by natural selection in an extracellular complement inhibiting protein of serotype M1 strains of group A streptococcus. Proc. Natl. Acad. Sci. USA 95:3128-3133. PMCID: PMC19706
31. Fu, Y.X. (1998) Probability of a segregating pattern in a sample of DNA sequences. Theor. Popul. Biol. 54:1-10.
32. Deng, H.W. and Y.X. Fu (1998) Parsimonious counting of mutations and estimating mutation rate heterogeneity within a DNA sequence. In: Proceeding of the Trinational Workshop on Human Evolution. Uyenoyama, M.K. and von Haeseler, A. (eds.). University of Munich, Munich, Germany, June 5-7, 1997. Durham, NC: Duke University Publishing Group, pp. 57-72.
33. Deng, H.W. and Y.X. Fu (1998) On the three methods for estimating deleterious genomic mutation parameters. Genet. Res. 71:223-236.
34. Deng, H.W., Y.X. Fu and M. Lynch (1998) Inferring the major genomic mode of dominance and overdominance. Genetica 102/103:559-567.
35. Fu, Y.X. and R. Chakraborty (1998) Simultaneous estimation of all the parameters in a step-wise mutation model. Genetics 150:487-497. PMCID: PMC1460324
36. Li, W.H. and Y.X. Fu (1999) Coalescent theory and its applications in population genetics. In: Statistics in Genetics. Halloran, M.E. and Geisser, S. (eds.). NY:Springer-Verlag, pp. 45-79.

37. Fu, Y.X. and W.H. Li (1999) Coalescing into the 21st century: An overview and prospects of coalescent theory. Theor. Popul. Biol. 56:1-10.

38. Hoe, N.P, K. Nakashima, S. Lukomski, D. Grigsby, M. Liu, P. Kordari, S.J. Dou, X. Pan, J. Vuopio-Varkila, S. Salmelinna, A. McGeer, D.E. Low, B. Schwartz, A. Schuchat, S. Naidich, D. De Lorenzo, Y.X. Fu and J.M. Musser (1999) Rapid selection of complement-inhibiting protein variants of Group A Streptococcus epidemic waves. Nature Med. 5:924-929.

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