

CURRICULUM VITAE

David Johnson States, M.D., Ph.D.

Position Professor of Health Science Information
Professor of Molecular Medicine
School of Health Information Science
Institute for Molecular Medicine
University of Texas Health Sciences Center at Houston

Addresses and Contact Information

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Personal

Date of Birth: July 12, 1953

Place of Birth: Boston, MA

Citizenship: U.S.A.

Marital Status: Married - Angel W. Lee, M.D., Ph.D.

Education

1967 - 1971 Graduate with honors, Brighton High School, Rochester, NY

1971 - 1975 B.A. magna cum laude in Biochemistry
Harvard University, Cambridge, MA

1975 - 1983 M.D. and Ph.D. in Biophysics
Harvard University and Harvard Medical School, Boston, MA

Research and Professional Experience

1973-1975 Undergraduate honors thesis,
Harvard University, Cambridge, MA
Advisor: Prof. J. Woodland Hastings
Thesis: Selection of circadian rhythm mutants in *Chlamydomonas reinhardtii*.

1975 Research Assistant to Prof. Walter Gilbert
Harvard University, Cambridge, MA
Research: Sequencing the L-1 deletion of the *lac* operon.

- 1976-1977 Research Assistant to Prof. Lawrence Kedes,
Stanford University, Palo Alto, CA
Research: Heterogeneity in sea urchin histone genes.
- 1977-1983 Doctoral thesis,
Harvard University, Cambridge MA
Advisors: Profs. Martin Karplus and Christopher Dobson
Thesis: Magnetic Resonance and Theoretical Studies of the Refolding of Bovine
Pancreatic Trypsin Inhibitor.
- 1983-1984 Staff Scientist, Francis Bitter National Magnet Laboratory
Massachusetts Institute of Technology, Cambridge, MA
Supervisor: Leo J. Neuringer, Ph.D., Director of Biophysics
Research: Magnetic resonance imaging theory and instrumentation.
- 1984-1985 Consultant to IBM Instruments Inc., Danbury, CT
Supervisor: Colin Harrison, Ph.D.
- 1984-1986 Internship and Residency in internal medicine
University of California at San Diego Medical Center, San Diego CA
Chief of Medicine: Helen Ranney, M.D.
- 1986-1989 Medical Staff Fellow, pulmonary medicine
National Heart Lung and Blood Institute, National Institutes of Health
Clinical director: Harry R. Keiser, M.D.
Laboratory director: Ronald G. Crystal, M.D.
Research: Molecular genetics and biophysics of proteases in the lung.
- 1989-1992 Senior Staff Fellow, National Center for Biotechnology Information,
National Library of Medicine, National Institutes of Health
Research: Biophysical approaches to the analysis of molecular sequence data.
- 1992-1995 Director, Biomedical Engineering Program, Washington University School of
Engineering & Applied Science, St. Louis, MO
- 1992-2000 Associate Professor of Biomedical Computing,
Joint appointments: Biochemistry and Molecular Biophysics,
Biomedical Engineering, Computer Science
Washington University Medical School, St. Louis, MO
Research: Computational genome analysis.
- 1992-2000 Director, Institute for Biomedical Computing,
Washington University Medical School, St. Louis, MO
- 1997- 1999 Director, Center for Genetics in Medicine,
Washington University Medical School, St. Louis, MO
- 2000-2001 Associate Professor of Genetics,
Joint appointments: Biochemistry and Molecular Biophysics,
Biomedical Engineering, Computer Science
Washington University Medical School, St. Louis MO
Research: Computational genome analysis.
- 2001-2008 Professor of Human Genetics,
Director of Bioinformatics Training Program
University of Michigan, Ann Arbor, MI
Research: Computational genomics and proteomics

- 2006-2008 Senior Scientist, National Center for Integrative Biomedical Informatics
University of Michigan, Ann Arbor, MI
- 2008-present Visiting Professor of Health Science Information
Director of the Center for Systems Biology and Bioinformatics
School for Health Information Science
Brown Foundation Institute for Molecular Medicine
University of Texas Health Science Center at Houston
Research: Computational systems biology

Medical License

State of Maryland D34107 (1986-1992)

Board Certification

American Board of Internal Medicine, 1987

Awards and honors

Harvard College Scholar, graduate of Harvard College with *magna cum laude* honors
Dreyfus Foundation Summer Undergraduate Research Fellowship, Harvard College
NIH Medical Scientist Training Program Fellowship for M.D., Ph.D., Harvard Medical School
Howard Hughes Medical Research Fellowship with Prof. Laurence Kedes, Stanford University
Member of Strathmore's Who's Who
Fellow of the American College of Medical Informatics (elected 2001)

Professional Activities

Scientific Boards

Scientific Advisory Board (chair), Protein Information Resource, Georgetown University, Washington, DC
Scientific Advisory Board, Cytoscape, Univ. of California at San Diego., CA.
Scientific Advisory Board, Gene Ontology, Jackson Laboratory, Bar Harbor, ME.
Hartwell Center for Biotechnology, St Jude Children's Research Hospital, Memphis, TN
Scientific Advisory Board, Blueprint Canada, Toronto, CA
National Biomedical Research Foundation, Georgetown University, Washington, DC
DzGenes Corp., St. Louis, MO
MGI Corp., Los Angeles, CA
Gene Expression Analysis Core, Siteman Cancer Center, Washington University, St. Louis, MO

Study Sections

- 1991, 1992 National Institutes of Health, National Center for Human Genome Research
ad hoc study section for informatics
- 1990, 1991 Department of Energy, Office of Health and Environmental Research
Genome study section
- 1997 National Institutes of Health, National Center for Research Resources
ad hoc study section for computational biology
- 1998 National Institutes of Health, National Library of Medicine
ad hoc study section for Genome Informatics
- 1998 National Science Foundation
ad hoc study section for Plant Genomics

2000	National Heart Lung and Blood Institute Special panel on genomics
2000-2002	Sloan Foundation Advisory Committee for Postdoctoral Fellowships in Computational Molecular Biology
2001-2004	National Institutes of Health, National Heart Lung and Blood Institute External Scientific Panel Programs For Genomic Applications
2001-2004	National Institutes of Health, National Institute for General Medical Sciences Graduate training study section
2007-2011	National Institutes of Health, National Library of Medicine Biomedical Library and Informatics study section

Grant review

1990-present	Division of Computational Biology, National Science Foundation
1990-present	Office of Health and Environmental Research (Genome), Department of Energy
1998	National Science Foundation, University of Georgia Plant Genome Center site visitor
2002	National Institutes of Health, University of Pennsylvania Medical Scientist Training Program (MSTP) site visitor
2002	National Institutes of Health, New York University Medical Scientist Training Program (MSTP) site visitor
2003	National Cancer Institute Laboratory for Population Genetics site visitor
2005	Howard Hughes Medical Institute Phase I reviewer for Canadian and Latin American Initiative

Editorial Boards

2007-present	PLoS Computational Biology (ad hoc Associate Editor)
2004-present	Cancer Proteomics
2001-present	Applied Bioinformatics
2001-present	Faculty of 1000
1996-present	Journal of Computational Biology
2001-2002	Associate Editor for North America, Bioinformatics
1992-1996	GENE-COMBIS

Journal review panels

Science, Nature, Nature Biotechnology, Nature Genetics, Proceedings of the National Academy of Science, Nucleic Acids Research, Genome Research, Genomics, Bioinformatics, Journal of Proteome Research, Proteomics, Journal of Molecular Biology, Journal of Theoretic Biology, IBM Systems Journal.

Conferences and workshops

- | | |
|-----------|---|
| 1992 | Co-chair – Computational Biology Mini-track
27 th Hawaiian International Conference on Systems Science, Maui, HI |
| 1993 | Program committee, Intelligent Systems for Molecular Biology,
National Library of Medicine, Bethesda, MD. |
| 1994 | Co-chair for Informatics, Genome Mapping and Sequencing Meeting
Cold Spring Harbor Laboratory, NY |
| 1994 | Organizer, Software sharing workshop
Cold Spring Harbor Laboratory, NY |
| 1994 | Program committee, Intelligent Systems for Molecular Biology
Stanford University, Palo Alto, CA |
| 1995 | Organizer, Protein classification workshop
Washington University, St. Louis, Missouri |
| 1995 | Program committee, Intelligent Systems for Molecular Biology
Cambridge University, Cambridge, U.K. |
| 1996 | Chair, Organizing Committee, Intelligent Systems for Molecular Biology
Washington University, St. Louis, Missouri |
| 1996 | Co-organizer Java/Corba workshop on databases in genome analysis
Washington University, St. Louis, Missouri |
| 1999 | Organizing committee, BioPerl Workshop
Heidelberg, Germany |
| 1999 | Invited participant, Workshop on Chromosomal Aberrations
National Cancer Institute, Bethesda, MD |
| 1999-2001 | Organizing committee, Computational Genomics
Baltimore, MD |
| 2004 | Organizing Committee, Intelligent Systems for Molecular Biology join meeting
with the European Commission Computational Biology meeting (ISMB/ECCB
2004), Glasgow, Scotland |
| 2005 | Chair, Organizing Committee, Intelligent Systems for Molecular Biology
(ISMB2005) Detroit, MI |
| 2006 | Organizing Committee, Intelligent Systems for Molecular Biology (ISMB2006),
Fortealeza, Brazil |
| 2008 | Organizing Committee, Conference on Semantics in Healthcare and Life Sciences
(C-SHALS 2008), Cambridge, MA |

Professional societies

International Society for Computational Biology

- | | |
|-----------|--------------------------------------|
| 1997-2003 | Board of Directors (founding member) |
| 1997-2000 | Treasurer |
| 2004- | Conference Committee (member) |
| 2004- | Public Affairs Committee (member) |

2004-2005 Chair of the Organizing Committee for ISMB 2005

2008- Chair of the Public Affairs Committee

European Conference on Computational Biology

2007-2008 Computational Systems Biology Scientific Program Committee (member)

Life Science Society

2007-2008 Computational Systems Biology Scientific Program Committee (member)

American Medical Informatics Association

2001- Fellow of the American College of Medical Informatics

2008- Conference Committee (member)

American Society for Hematology (member)

Protein Society (member)

American Association for the Advancement of Science (member)

Washington University

1992-2000 Executive Committee, School of Engineering and Applied Science

1997-2001 Executive Committee, Institute for Biological and Medical Engineering

1998-1999 Program Committee for Molecular Genetics,
Division of Biology and Biomedical Science

2000-present Program Committee for Computational Biology,
Division of Biology and Biomedical Science

University of Michigan

2001-2005 Basic Science Chairs Committee, University of Michigan Medical School

2002-2005 Endowment for the Basic Sciences Operating Committee

2001-2005 Program in Biological Sciences Operating Committee

2001-2005 Program in Biological Sciences Admissions Committee

2004-2005 T-FORE Task Force for the Research Enterprise

2005-2006 Brehm Diabetes Center Planning Group

2001-2005 Program in Bioinformatics Executive Committee (Chair)

2001-2006 Bioinformatics Graduate Affairs Committee

2005-2006 Information Technology Faculty Advisory Committee (ITFAC)

2004-2008 General Clinical Research Center Advisory Committee

2005-present Center for Computational Medicine and Biology Executive Committee

2005-present National Center for Integrative Biomedical Informatics Executive Committee

Training Activities***Training Grants*****Principal Investigator**

Genome Analysis Institutional Training Grant (5T32HG0004504).
National Institute for Genome Science/National Institutes of Health,
1997 through 2002, (newly established program).

Principal Investigator

Bioinformatics Training Grant. (T32-GM-070449-01-a1)
National Institute for General Medical Science/National Institutes of Health,
2005 through 2010, (newly established program).

Courses created

Bio 5495	Computational Molecular Biology – a graduate level course that served as the core of the Washington University Computational biology training program
BME 537a	Intensive Short Course in Computational Biology – an intensive course for professional scientists in molecular biotechnology and pharmaceutical research.
Bio 5496	Journal Club in Computational Biology – a weekly graduate literature review course
Bioinfo 526	Fundamentals of Bioinformatics – a graduate level course that served as the core of the University of Michigan Bioinformatics training program
Bioinfo 602	Journal Club in Bioinformatics
Pharm 618	Cancer Systems Biology (with Dr. Angel W. Lee)
Bioinfo 575	Programming Laboratory in Bioinformatics

Courses taught

1996-1998	Course master for Bio5495 Computational Molecular Biology
1996-2001	Course master for Bio5496 Computational Biology Journal Club
1997-2001	Course master for BME537a Intensive Short Course on Computational Molecular Biology
1999-2001	Co-instructor CS546T Advanced Algorithms for Computational Biology
2001-2006	Course master for Bioinfo 602 Journal Club in Bioinformatics
2002-2004	Course master for Bioinfo 526 Fundamentals of Bioinformatics
2005-present	Lecturer in Bioinfo 526/527
2002-2004	Lecturer in Human Genetics 804 Methods in Molecular Genetics

2006-present	Co-course master, Human Genetics 802/803 Student Seminar
2005-2006	Pharm/Bioinfo 618 Cancer Systems Biology (co-taught with Dr. Angel Lee)
2006-present	Course master for Bioinfo 575/800.3 Programming Laboratory in Bioinformatics

Internships and mentoring

2007-	Google Summer of Code Mital Ashkenazi, Hebrew University, Jerusalem, Israel Enhanced Search Plugin for Cytoscape
2008-	Google Summer of Code Patrick McSweeney, Syracuse University Random Network Generators
2008-	Google Summer of Code Gang Su, University of Michigan Community Structure Analysis in Biological Network

Students and Postdoctoral Trainees

Postdoctoral

D'vorah Graeser – 1992-94
 Nengbing Tao – 1995
 William Reisdorf – 1995-97
 Geetha Vasanthakumar – 1996-98
 Lisa Gu – 1996-98
 Marcin Adamski – 2002-2005
 Anura Hewagama – 2002-2007
 Tom Blackwell – 1996-2008
 Hanya Khouri – 2009-2010

Doctoral

David Politte - doctoral graduated 1999
 Zhengyan Kan – doctoral graduated 2002
 Rongxiang Liu – doctoral graduated 2002
 Eric Rouchka – doctoral graduated 2002
 Richard McEachin – doctoral graduated 2004
 Orkun Soyer – doctoral graduated 2004 (co-mentor with Richard Goldstein)
 Bin Qian – doctoral graduated 2004 (co-mentor with Richard Goldstein)
 Ji Chen – doctoral graduated 2006
 Damian Fermin – doctoral graduated 2007
 Yili Chen – doctoral graduated 2008
 Carlos Santos – doctoral graduated 2008 (co-mentor with Brian Athey)
 Arvind Rao – doctoral graduated 2008 (co-mentor with Doug Engel)
 Xing Li – doctoral graduated 2008 (co-mentor with Deborah Gomucio)
 Sirarat Sarntivijai- doctoral candidate (co-mentor with Brian Athey)
 Gang Su– doctoral candidate
 Yu-Hsuan Lin – doctoral candidate (co-mentor with Doug Engel)
 Junguk Hur – doctoral graduated 2010 (co-mentor with Eva Feldman)

Wie Liu - rotation student
German Leparc - rotation student
Weidong Tian - rotation student
Yongmei Ji - rotation student
Kai Tan - rotation student
Long Lu - rotation student
Todd Lowe - rotation student (member of thesis committee)
Tom Nishino - rotation student
Nilesh Ron - rotation student
Chad Creighton – rotation student
Geogi Kostov – rotation student
Manjusha Pande – rotation student
Yongsheng Huang – rotation student
Yan Zhang – rotation student
Chunchao Zhang – rotation student
Dawit Gebremichael – rotation student

Mark Benson – committee member
Adrian Chapman – committee member
Jeffery Hou – committee member
Jessica Lehoczky – committee member
Colleen McCabe – committee member
Arnab Nandi – committee member
Viktoria Strumba – committee member
Shankar Subramaniam – committee member
Yuanyuan Tian – committee member
Cong Yu – committee member
Junjie Zhang – committee member

Masters

Xiaobing Shi - masters complete '99
Keith Doolittle - masters completed '98
Nomi Harris - masters completed '92
Reece Hart - masters completed '94 (chair of doctoral thesis committee)
Tina Seawell - masters completed '96
Patrica Widder - masters completed '98
Sirarat Sarntivijai- masters complete 2006

Interns

Regina Patel – biological and engineering science
Katrin Wormit – information science
Daniella Eggle – bioinformatics
Maital Ashkenazi – bioinformatics (sponsored by Google Summer of Code 2007)

Undergraduate

Peter Chiu – computer science
Ron Knickerbocker – computer science
Surya Rednam – biomedical engineering
John McCrow – mechanical engineering
Kelly Carter – biomedical engineering

Trevor Harmon – computer engineering
 Teddi Tejda - biomedical engineering
 Carlos Santos - computer science/biology
 Casey Overby – bioinformatics (individual major)
 Jeremy Philips – computer science
 Kristin Veresh – Industrial and Operations Engineering
 Heather Grifka – Biology (honors thesis)
 Suellen Yin – Biology/Math
 Rachel Harrison – Biology/Math
 Jennifer MacDonald – Biochemistry/Math

Grant support

Principal investigator

1994-1997	Department of Energy (DE-FG02-94ER61910) Analysis and Annotation of Nucleic Acid Sequence \$750,000
1995-1999	National Institutes of Health (HG-01391) Information Systems for Very High Throughput Sequencing \$576,144 \$94,400 (supplement)
1997-2002	National Institute of Health (HG00045) Genome Analysis Institutional Training Grant \$1,01,827
1997-2002	National Science Foundation NCSA PACI Molecular Biology application team Efficient tools for sequence analysis \$290,000
1997-2002	National Science Foundation SDSC NPACI Molecular Sciences thrust Large-scale sequence classification \$125,000
1998-2001	Department of Energy (DE-FG02-94ER61910) Analysis and Annotation of Nucleic Acid Sequence \$700,000
2000-2002	Merck Foundation for Genome Research (grant #225) Structural Modeling of Genomic Regulatory Complexes \$293,000
2002-2004	Alfred P. Sloan Foundation (2002-5-59-BCMB) Professional Masters Degree in Bioinformatics \$64,990
2000-2005	Howard Hughes Medical Institute (76200-561301) 1999 Biomedical Research Support Program for Medical Schools – Bioinformatics \$3,875,000
2002-2005	National Institutes of Health (R01 LM005770) Computational Approaches to Protein Sequence Analysis \$932,336

2002-2007 National Institute of Health (LM008106)
Representing and Acquiring Knowledge of Genome Regulation
\$1,757,690

2005-2010 National Institutes of Health (T32-GM-070449-01-a1)
Bioinformatics Training Grant
\$1,225,579

2007-2011 National Institute of Health (LM008106 - pending)
Representing and Acquiring Knowledge of Genome Regulation
\$1,757,690

2010-2011 Gillson Longehbaugh Foundation – Principal Investigator
Nanoparticle proteomics
\$25,000

Co-investigator

1993-1997 National Institute of Health (HG00956, R. Waterston PI)
Large-scale Genome Sequencing
Role: co-investigator
\$33,500 (States lab component)

1994-1997 National Institutes of Health (HG00201, D. Schlessinger, PI)
Vertically Integrated Genome Mapping and Sequencing
Role: director of the Informatics Core
\$1,275,650 (informatics core)

1994-2000 National Science Foundation (NCR-9318178, J. Cox, PI)
Distributed Networking of Gigabit Networks

1994-2000 **Principal investigator:** 4-D Computational Optical Sectioning Microscopy
\$2,118,180 (COSM component)

1997-2000 National Institute of Health (HG001720, P Kwok PI)
Diallelic marker discovery and testing
Role: co-investigator for informatics
\$298,980 (informatics component)

2000-2003 National Institute of Health (HG001720, P Kwok PI)
Diallelic marker discovery and testing
Role: co-investigator for informatics
\$266,112 (informatics component)

2000-2006 National Institute of Health (M01 RR 000042-44, Robert Kelch, PI)
General Clinical Research Center
(member of the GCRC Advisory Committee)
\$30,592,412

2001-2005 National Institute of Health (pending, T Simon PI)
Endometrial Cancer Program Project
Role: co-investigator
\$136,000 (States lab component)

2002-2005	Michigan Economic Development Council (Gilbert S. Omenn, PI) Proteomics Alliance for Cancer \$3,126,588
2003-2008	National Institute of Health (P41-RR-018627, Philip Andrews, PI) National Pathway Mapping Center (director of the bioinformatics core) \$12,073,929
2004-2007	National Institutes of Health (BAA RM-04-23 Daniel Clauw, PI) Michigan Clinical Research Collaboratory (MCRC) Project
2005-2007	Michigan Economic Development Council (Gilbert S. Omenn, PI) Proteomics Alliance for Cancer Research \$2,363,605
2005-2007	National Cancer Institute (Gilbert Omenn, PI) Mouse Models for Cancer, Eastern Consortium \$3,629,357
2005-2008	National Institutes of Health (P20 HG003890-01, Kerby Shedden, PI) MACE – Michigan Alliance for Cheminformatics Exploration \$610,000
2005-2010	National Institutes of Health (U54 DA21519-01A1, Brian Athey PI) National Center of Integrative Biomedical Informatics (senior scientist and director of the bioinformatics and education cores) \$18,698,966
2006-2008	American Diabetes Association (Jessica Schwartz, PI) Dissecting a Genetic Program for GH-Induced Insulin Resistance \$200,000
2007-2010	Yale University (subcontract on ENCODE proposal) An Integrative Approach Towards Complete Definition of the Transcriptome \$227,579
2008-2012	National Institute of Health (P41-RR-018627, Philip Andrews, PI) National Pathway Mapping Center (Director of Bioinformatics Core) (\$12,778,108 proposal not funded)
2008-2012	National Institutes of Health (John Kelso UCSD, PI) Deep Sequencing and Haplotype Profiling of Mental Disorders University of Michigan component \$152,766
2010-2015	National Institutes of Health (David Gorenstein, PI) Infection and Immunity in the Era of Obesity: the Cameron County Hispanic Cohort (Director of Bioinformatics and Systems Biology Core) (\$14,585,078 proposal not funded)
2010-2014	National Institutes of Health (Steven Wong, PI) Center for Integration of Biological Images and Networks (CIBIN) (Director of Bioinformatics and Systems Biology Core) (\$17,720,607 proposal not funded)

2010-2013	CPRIT Multi-investigator proposal (David Gorenstein, PI) CPRIT Proteomics Center: Biomarker and Target Discovery (Director of Bioinformatics and Systems Biology) (\$10M, not funded)
2010-2013	CPRIT (Monte Pettitt, PI) Computational Cancer Biology Training Program \$2,400,000
2006-2011	National Institute of Health (5UL1RR024148, David McPherson, PI) Center for Clinical and Translational Sciences (CCTS) (Director of Bioinformatics Core) \$36,000,000
2008-2014	National Children's Study (Sean Blackwell, PI) Assessment of Samples for Genetic Analyses 10% effort, support for one staff member at 30% effort and purchase of a mass spectrometer \$997,483

Collaborators

Pankaj Agarwal, SmithKline Beecham
 Russ Altman, Stanford University/San Diego Supercomputer Center
 Sarah Elgin, Washington University
 Philip Green, University of Washington
 Steven Gullans, Harvard University
 Lawrence Hunter, University of Colorado
 Mark Johnston, Washington University
 Pui-Yan Kwok, Washington University
 Angel W. Lee, Washington University
 James Lindelien, Time Logics Inc.
 Michael Lovett, Washington University
 David Schlessinger, Washington University
 Robert Schreiber, Washington University
 Martin McIntosh, University of Washington
 Robert Murphy, Carnegie Mellon University
 Mark Musen, Stanford University
 Judith Blake, Jackson Laboratory
 Catherine Wu, Georgetown University
 Jessica Schwartz, University of Michigan
 Zhaohui Qin, University of Michigan
 Cun-yun Wang, University of Michigan
 J. Douglas Engel, University of Michigan
 Alfred Hero, University of Michigan
 Hosagrahar V. Jagadish, University of Michigan
 Jignesh Patel, University of Michigan
 Dragomir Radev, University of Michigan
 Deborah Gumucio, University of Michigan
 Kirby Shedden, University of Michigan
 Gustavo Rosania, University of Michigan
 Brian Athey, University of Michigan

Gilbert S. Omenn, University of Michigan
 Samir Hanash, University of Washington
 Raju Kucherlapati, Harvard Medical School
 David Saracino, Harvard Partners
 Melvin McInnis, University of Michigan
 Haimeng Chen, University of Michigan
 David Gorenstein, University of Texas Health Science Center at Houston
 Kevin Rosenblatt, University of Texas Health Science Center at Houston
 William P. Dubinsky, University of Texas Health Science Center at Houston

Invited lectures, seminars and national meeting presentations

- 1983 Francis Bitter National Magnet Laboratory, Massachusetts Institute of Technology
NMR and theoretical studies of pancreatic trypsin inhibitor folding
- 1983 University of Massachusetts at Boston, Department of Biochemistry
Novel approaches to high resolution multi-dimensional NMR
- 1991 Cold Spring Harbor Genome Mapping and Sequencing Meeting
Analysis of error prone genomic sequence data
- 1992 Hawaiian International Conference on Systems Science, Maui, HI
Bayesian classification of protein structural elements
- 1992 Hawaiian International Conference on Systems Science, Maui, HI
Tutorial on molecular biology and genomics
- 1992 National Science Foundation Workshop on Scientific Infrastructure
Future of biocomputing
- 1992 Baylor College of Medicine, Human Genome Center
Computational Genome Analysis
- 1992 Yale University, Department of Human Genetics
Computational Genome Analysis
- 1992 Washington University, Biomedical Computer Laboratory
Computational Genome Analysis
- 1992 American Society for Crystallographic Research
Bayesian classification of protein sequence and structure
- 1993 Biophysical Society
Protein sequence megaclassification
- 1994 Washington University, Biophysical Evenings
Protein sequence and structure classification
- 1994 Department of Energy Human Genome Grantees and Contractors Meeting
Analysis and Annotation of Nucleic Acid Sequence
- 1995 Genome Sequence Analysis Conference, Hilton Head, S.C
Basecalling accuracy and the reliability of genome sequence assembly
- 1995 Johns Hopkins University, Genome Database Seminar Series
Automating the Analysis and Annotation of Nucleic Acid Sequence

- 1995 Washington University, Department of Physics
Physics of protein folding
- 1996 Intelligent Systems for Molecular Biology Conference
Optimal encoding strategies for sequence similarity search
- 1996 Department of Energy Human Genome Grantees and Contractors Meeting
Data accuracy and the analysis of genomic sequence data
- 1996 Monsanto Corporation
Computational issues in genome sequencing and annotation
- 1997 University of Chicago, Department of Biochemistry
Computational Genome Analysis
- 1997 Department of Energy Human Genome Grantees and Contractors Meeting
Automated genome annotation
- 1997 Department of Energy Human Genome Grantees and Contractors Meeting
Panel discussion on genome sequence assembly accuracy
- 1998 San Diego Supercomputer Center, Molecular Sciences Workshop
Protein sequence megaclassification
- 1998 Pfizer Corporation
Automated Genome Annotation: Keeping up with the Information Explosion
- 1996 Monsanto Corporation
Automated Genome Annotation: Keeping up with the Information Explosion
- 1998 University of Pennsylvania, Department of Genetics
Structural models for DNA binding protein specificity
- 1999 Novartis Corporation
Computational genome annotation
- 1999 Research in Computational Biology, New York, NY.
Estimation of allele frequencies from color-multiplexed electropherograms
- 1999 Intelligent Systems for Molecular Biology
Identity by descent segmentation and single nucleotide polymorphism distributions in the human genome
- 1999 Intelligent Systems for Molecular Biology
Tutorial on relational database abstraction and XML
- 1999 Cold Spring Harbor Workshop on human genome polymorphism databases
Databases for single nucleotide polymorphisms in the human genome
- 1999 Computational Genomics Conference
Single nucleotide polymorphism clustering and human population genetics
- 2000 Mallinkrodt Chemical Corporate Research Day
Post-genome science
- 2000 Cold Spring Harbor Genome Mapping and Sequencing Meeting
Transcript reconstruction using genomically aligned EST sequences
- 2000 Cold Spring Harbor Genome Mapping and Sequencing Meeting
Identifying transcription factor binding site clusters in the human genome

- 2000 University of Pennsylvania, Department of Genetics
Identifying transcription factor binding site clusters in the human genome
- 2000 Washington University, Department of Genetics
Identifying transcription factor binding site clusters in the human genome
- 2000 Vanderbilt University School of Medicine, Division of Human Genetics
Identifying transcription factor binding site clusters in the human genome
- 2000 University of Maryland Supercomputer Center, Distinguished Lecture Series
Computational dissection of genomic regulatory elements
- 2001 Pfizer Bioinformatics Program Seminar
Computational Systems Biology
- 2002 University of Michigan Biophysics Seminar
Statistical Mechanics of Chromatin and Gene Regulation
- 2002 University of Michigan Pharmacology and Toxicology Retreat
Is scientific data open? Data sharing in biomedical research
- 2002 University of Michigan Physics Seminar
Statistical Mechanics of Chromatin and Gene Regulation
- 2003 University of Michigan Biomedical Engineering Seminar
Computational Systems Biology
- 2004 W3C Life Sciences Working Group
Life Science Ontology Issues
- 2004 University of Michigan Toxicology Training Program
Bioinformatics for Toxicology
- 2004 National Cancer Institute Mouse Models for Cancer Consortium Meeting
Proteomics data analysis and integration
- 2004 University of Michigan Obstetrics and Gynecology Grand Rounds
Computational Systems Biology
- 2005 University of Georgia, Computational Systems Biology Symposium
Data integration in proteomics and systems biology
- 2006 National Center for Integrative Biomedical Informatics
First Annual Research Workshop
Data integration and natural language processing in systems biology
- 2006 National Cancer Institute Mouse Models for Cancer Consortium Meeting
Proteomics Data Analysis and the Assessment of Significance
- 2006 National Institute of Health
National Centers for Biomedical Computing All Hands Meeting, Bethesda, MD
Data integration and natural language processing in systems biology
- 2007 US HUPO 4th Annual Meeting, Seattle, WA
Identifying novel translation products in human blood by mass spectrometry
- 2007 National Center for Integrative Biomedical Informatics
Second Annual Research Workshop
Data integration and natural language processing in systems biology

- 2007 NCI Mouse Models for Cancer/Clinical Proteomic Technology Assessment Program
Identifying novel translation products in mouse models for cancer by mass spectrometry
- 2007 Carnegie Mellon University, Computational Biology Program
Integrating Genomics and Proteomics: Novel Translation Products Identified by Mass Spectrometry
- 2007 Ohio Collaborative Conference on Bioinformatics (OCCBIO) Keynote address
Integrating Genomics and Proteomics: Novel Translation Products Identified by Mass Spectrometry
- 2007 University of Pittsburgh Medical Center
Integrating Genomics and Proteomics: Novel Translation Products Identified by Mass Spectrometry
- 2008 AMIA Translational Bioinformatics Summit
Panel organizer: High Dimensionality Data in Translational Bioinformatics
- 2008 Arizona State University/University of Arizona School of Medicine
Integrating Genomics and Proteomics: Novel Translation Products Identified by Mass Spectrometry
- 2008 University of Chicago Medical School
Integrating Genomics and Proteomics: Novel Translation Products Identified by Mass Spectrometry
- 2008 National Center for Integrative Biomedical Informatics
Third Annual Research Workshop
Data integration and natural language processing in systems biology
- 2008 Michigan Clinical Research Symposium, Inaugural Symposium 2008
Integrating Genomics and Proteomics: Challenges for Translational Research
- 2009 School of Public Health, Department of Biostatistics Seminar, University of Texas Health Science Center at Houston
Proteomics and Data Integration: Identifying Novel Alternative Splice Isoforms in Cancer.
- 2010 Texas Medical Center Proteomics Workshop “*Proteogenomics and the Systems Biology of Cancer.*”
- 2011 US HUPO 7th Annual Meeting “*Bayesian Adaptive Methods for Label Free Quantitative Proteomics.*”

Publications

Peer reviewed articles (including peer reviewed conference publications)

1. **States, D.J.**, Dobson, C.M., Karplus, M. and Creighton, T.E. (1980) A conformational isomer of bovine pancreatic trypsin inhibitor protein produced by refolding. *Nature*, **286**, 630-632.
2. **States, D.J.**, Haberkorn, R.A. and Ruben, D.J. (1982) A Two-Dimensional Nuclear Overhauser Experiment with Pure Absorption Phase in Four Quadrants. *Journal of Magnetic Resonance*, **48**, 286-292.

3. Brooks, B.R., Bruccoleri, R., E., D., O.B., **States, D.J.**, Swaminathan, S. and Karplus, M. (1983) CHARMM: A Program for Macromolecular Empirical Energy Modelling. *Journal of Computational Chemistry*, **4**, 187-230.
4. **States, D.J.** (1984) Number Crunching on IBM's new S9000, Application of a Micro-Computer System to Scientific Data Processing. *Byte*, **9**.
5. **States, D.J.**, Dobson, C.M. and Karplus, M. (1984) A new two-disulphide intermediate in the refolding of reduced bovine pancreatic trypsin inhibitor. *J Mol Biol*, **174**, 411-418.
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