

Bibliography

Eberhard O. Voit

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- [232] Lee, Y. and E.O. Voit: Control and optimization of lignin biosynthesis in plant cell walls. International Congress of Mathematics (ICM 2010), Hyderabad, India, 16-18 August 2010.
- [233] Voit, E.O. and W. Yin: Systems analysis of the role of bone morphogenic protein 4 in endothelial inflammation. 9th International Conference on Complexity in Acute Illness, Atlanta, GA, September 10-12, 2010.
- [234] Qi, Z., G.W. Miller, and E.O. Voit: A synaptic model of dopamine dynamics in Parkinson's disease, schizophrenia, and addiction. Annual Meeting of the Biomedical Engineering Society (BMES), Austin, TX, 6-9 October 2010.
- [235] Lee, Y. and E.O. Voit: Computational analysis of lignin biosynthesis in transgenic alfalfa: From steady-state to dynamics. Annual Meeting of the Biomedical Engineering Society (BMES), Austin, TX, 6-9 October 2010.
- [236] Yin, W. and E.O. Voit: Systems analysis of Nox1 activation by angiotensin II in vascular smooth muscle cells. Annual Meeting of the Biomedical Engineering Society (BMES), Austin, TX, 6-9 October 2010.
- [237] Qi, Z., G.W. Miller, and E.O. Voit: Mathematical modeling of dopamine dynamics in Parkinson's disease, NIEHS Investigator Meeting, San Diego, CA, October 17-19, 2010.
- [238] Smith, J., E. Uberbacher, E.O. Voit, Y. Xu, B. Davison, and P. Gilna: Integrated computational biology capabilities at BESC. 2011 Genomic Sciences Contractor-Grantee Meeting / USDA-DoE Plant Feedstock Genomics for Bioenergy Awardees Meeting, Crystal City, VA, 10-13 April 2011. (Poster)
- [239] Fonseca, L.L., C. Sanchez, H. Santos, and E.O. Voit : Biochemical systems analysis of the trehalose cycle in *Saccharomyces cerevisiae* based on *in vivo* ¹³C-NMR data: the effect of heat stress. The XII International Congress on Molecular Systems Biology, Lleida, Spain, 8-12 May, 2011.
- [240] Kikuchi, S., Z. Qi, and E.O. Voit: Functional modules of acute drug addiction and allostatic regulations of signaling molecules. The XII International Congress on Molecular Systems Biology, Lleida, Spain, 8-12 May, 2011.
- [241] Qi, Z., G.W. Miller and E.O. Voit: Dynamic models of dopamine signaling in Parkinson's disease, schizophrenia, and addiction. The XII International Congress on Molecular Systems Biology, Lleida, Spain, 8-12 May, 2011.
- [242] Lee, Y., F. Chen, R.A. Dixon, and E.O. Voit: Integrative analysis of transgenic

alfalfa (*Medicago sativa* L.) data suggests novel mechanisms of metabolic regulation of monolignol biosynthesis. The XII International Congress on Molecular Systems Biology, Lleida, Spain, 8-12 May, 2011.

- [243] Voit, E.O.: A Mathematical modeling framework for analyzing organ systems and their diseases, exemplified with cystic fibrosis of the lung. The XII International Congress on Molecular Systems Biology, Lleida, Spain, 8-12 May, 2011.
- [244] Lee, Y. and E. O. Voit: Design principles of lignin biosynthetic pathway in *Medicago*. Investigator Meeting of the U.S. Department of Energy BioEnergy Science Center, Chattanooga, July 18-20, 2011 (Best poster in session).
- [245] Voit, E.O. Computational systems biology: From simple models to system simulation and the discovery of design principles. German Conference on Bioinformatics, Weihenstephan, September 7-9, 2011.
- [246] Kikuchi, S., Z. Qi, and E.O. Voit: Functional modules of dopamine signaling and allostatic regulations of signaling molecules. NIEHS Parkinson (CERC) Investigator Meeting. Emory University, Atlanta, GA, October 16-17, 2011.
- [247] Qi, Z., and E.O. Voit: A synaptic model of dopamine dynamics in Parkinson's disease. NIEHS Parkinson (CERC) Investigator Meeting. Emory University, Atlanta, GA, October 16-17, 2011.
- [248] Chen, P.-W. and E. O. Voit: Computational analysis of sphingolipid dynamics in yeast under heat stress. 8th International Conference on Bioinformatics. From Genomics to Synthetic Biology. Atlanta, GA, November 10-12, 2011.
- [249] Dolatshahi, S., B. Vidakovic, and E. O. Voit: Refined methods of information retrieval from metabolic time series data: Constrained iterative wavelet-based smoothing. 8th International Conference on Bioinformatics. From Genomics to Synthetic Biology. Atlanta, GA, November 10-12, 2011.
- [250] Lee, Y. and E. O. Voit: Design principles of lignin biosynthetic pathway in *Medicago*. 8th International Conference on Bioinformatics. From Genomics to Synthetic Biology. Atlanta, GA, November 10-12, 2011.
- [251] Fonseca, L.L., H. Santos, and E.O. Voit: Biochemical systems analysis of heat stress and adaptation of the trehalose cycle in *Saccharomyces cerevisiae* using *in vivo* ¹³C-NMR time series data. 8th International Conference on Bioinformatics. From Genomics to Synthetic Biology. Atlanta, GA, November 10-12, 2011.
- [252] Dolatshahi, S., and E. O. Voit: Computational systems analysis of the glycolytic pathway in *Lactococcus lactis*. Georgia Tech Research and Innovation Conference. Atlanta, GA, February 7, 2012 (submitted).

- [253] Voit, E.O.: Modeling Parkinson's Disease. Investigator Meeting of the Parkinson's Disease Research Centers. NIEHS, Raleigh, NC, May 3-4, 2012.
- [254] Voit, E.O. and Z. Qi: Effects of pesticides on dopamine metabolism: Implications for sleep research. 8th International Workshop on Computational Neuropsychiatry, Munich, Germany, May 11-12, 2012.
- [255] Voit, E.O. Quantification of metabolic pathway models: Beyond acceptable parameter fits. Workshop on Parameter Estimation for Dynamical Systems, Eurandom, Eindhoven, The Netherlands, 4-6 June 2012.
- [256] Yin, W. and E.O. Voit: Models of the dynamics of the NADPH oxidase system in vascular cells. Symposium for Modeling Immune Responses from Complex Data, Rochester, NY, June 14-15, 2012.
- [257] Voit, E.O.: Introduction to systems biology. 2012 Winter School in Mathematical and Computational Biology, St. Lucia, Queensland, Australia, 2-6 July 2012.
- [258] Voit, E.O.: Pathway analysis. 2012 Winter School in Mathematical and Computational Biology, St. Lucia, Queensland, Australia, 2-6 July 2012.
- [259] Dolatshahi, S. and E.O. Voit: Computational Systems Analysis of the Glycolytic Pathway in *Lactococcus lactis*. Q-Bio Summer School, Los Alamos, July 22-August 7, 2012.
- [260] Fonseca, L.L., Chen, P.-W., and E.O. Voit: Multi-level multi-scale modeling of the heat stress response in *Saccharomyces cerevisiae*. 2012 Annual Meeting of the Biomedical Engineering Society (BMES), Atlanta, GA, October 24-27, 2012.
- [261] Chen, P.-W., Lee, Y., and E.O. Voit: Discovery of operating principles through dynamic modeling. 2012 Annual Meeting of the Biomedical Engineering Society (BMES), Atlanta, GA, October 24-27, 2012.
- [262] Chen, P.-W., Fonseca, L.L., and E.O. Voit: Coordination of Rapid Sphingolipid Responses to Heat Stress in Yeast. 2012 Annual Meeting of the Biomedical Engineering Society (BMES), Atlanta, GA, October 24-27, 2012.
- [263] Dolatshahi, S. and E.O. Voit: Computational systems analysis of the glycolytic pathway in *Lactococcus lactis*. 2012 Annual Meeting of the Biomedical Engineering Society (BMES), Atlanta, GA, October 24-27, 2012.
- [264] Chen, P.-W., Fonseca, L.L., Hannun, Y. and E.O. Voit: Coordination of Rapid Sphingolipid Responses to Heat Stress in Yeast. Southeast Regional Lipid Conference, Cashiers, NC, November 7-9, 2012.

- [265] Voit, E.O.: Translation of biological phenomena into computational models. Syngenta Modelling Conference, Windsor, U.K., November 6-9, 2012.
- [266] Lee, Y. and E.O. Voit: Computational modeling reveals new control mechanisms for lignin biosynthesis. *Frontiers in Systems and Synthetic Biology '13*, Atlanta GA, March 20-24, 2013.
- [267] Chen, P.-W., Fonseca, L.L., Hannun, Y., and E.O. Voit: Coordination of rapid sphingolipid responses to heat stress in yeast. *Frontiers in Systems and Synthetic Biology '13*, Atlanta GA, March 20-24, 2013.
- [268] Dam, P., Fonseca, L.L., and E.O. Voit: Mathematical modeling of the effect of iron on the growth of *Vibrio fisheri*. *Frontiers in Systems and Synthetic Biology '13*, Atlanta GA, March 20-24, 2013.
- [269] Dolatshahi, S., Fonseca, L.L., and E.O. Voit: Extended dynamic flux estimation for a model of the glycolytic pathway in the dairy bacterium *Lactococcus lactis*. *Frontiers in Systems and Synthetic Biology '13*, Atlanta GA, March 20-24, 2013.
- [270] Fieni, D., Faraji, M., Qi, Z., Tretter, F., and E.O. Voit: A neurochemical mobile with nonlinear interaction matrix. *Frontiers in Systems and Synthetic Biology '13*, Atlanta GA, March 20-24, 2013.
- [271] Fonseca, L.L., Carvalho, A.L., Neves, A.R., Santos, H., and E.O. Voit: Top-down kinetic modeling of lactate transport in *Lactococcus lactis*: Understanding the acid stress response. *Frontiers in Systems and Synthetic Biology '13*, Atlanta GA, March 20-24, 2013.
- [272] Fonseca, L.L., Chen, P.-W., and E.O. Voit: Multi-level multi-scale modeling of the heat stress response in *Saccharomyces cerevisiae*. *Frontiers in Systems and Synthetic Biology '13*, Atlanta GA, March 20-24, 2013.
- [273] Qi, Z., and E.O. Voit: Mechanisms of rotenone and paraquat toxicity in dopaminergic neurons: A systems biology approach. *Frontiers in Systems and Synthetic Biology '13*, Atlanta GA, March 20-24, 2013.
- [274] Voit, E.O.: Characterizability of metabolic pathway systems from time series data. *Frontiers in Systems and Synthetic Biology '13*, Atlanta GA, March 20-24, 2013.
- [275] Voit, E.O., Newstetter, W., and Kemp, M.L.: A new paradigm for teaching systems biology. *Frontiers in Systems and Synthetic Biology '13*, Atlanta GA, March 20-24, 2013.
- [276] Yin, W., and E.O. Voit: Function and design of the Nox1 system in vascular smooth muscle cells. *Frontiers in Systems and Synthetic Biology '13*, Atlanta

GA, March 20-24, 2013.

- [277] Dam, P., L.L. Fonseca, K. Konstantinidis, and E.O. Voit: Mathematical Modeling of the Bacterial Community in Lake Lanier. Genome Biology and Bioinformatics, 9th International Conference on Bioinformatics, Georgia Tech, Atlanta, GA, November 7-9, 2013.
- [278] Voit, E.O.: Help! Math is Invading Biology and Medicine. Annual Biomedical Research Conference for Minority Students, Nashville, TN, November 13-16, 2013.
- [279] Qi, Z., G.W. Miller, and E.O. Voit: A Mathematical Model of Dopamine Metabolism for Parkinson's Disease, Miami Winter Symposium, Miami, FL, January 26-29, 2014.
- [280] Voit, E.O.: The challenge of infectious disease modeling. Workshop "From Within Host Dynamics to the Epidemiology of Infectious Disease." Mathematical Biosciences Institute, Ohio State University, Columbus, OH, April 7-11, 2014.
- [281] Voit, E.O.: The Law of Mass Action and its Generalizations in Biological Systems Modeling. Guldberg-Waage-dagen, Academy at Drammensveien, Oslo, Norway, March 11 2014.
- [282] Faraji, M., L.L. Fonseca, and E.O. Voit: Computational Inference of the Structure and Regulation of the Lignin Pathway in *Panicum virgatum*. BioEnergy Science Center Investigator Meeting, Chattanooga, TN, June 9-11, 2015.
- [283] Voit, E.O.: Identification of Metabolic Pathway Models, Statistical Inference and Nonlinear Dynamics in Biology and Medicine, Banff International Research Station, July 28-August 1, 2014.
- [284] Voit, E.O.: Beyond Acceptable Parameter Fits. 2014 SIAM Conference on the Life Sciences, Charlotte, NC, August 3-7, 2014.
- [285] Jones, D.P. et al.: A labor of HERCULES: Curation of the environmental metabolome for exposome research. Annual Society of Toxicology Meeting, Phoenix, AZ, March 24-27, 2014.
- [286] Moreno, A., et al.: Host-parasite interactions in malaria: modeling *Plasmodium vivax* infections with relapses. 13th International Congress on Parasitology, Mexico City, Mexico, August 10-15, 2014.
- [287] Sriyudthsak, K., Sawada, Y, Chiba, Y., Yamashita, Y., Kanaya, S., Onouchi, H., Fujiwara, T., Naito, S., Voit, E.O., Shiraishi, F., and M.Y. Hirai: U-system approach for predicting metabolic behaviors and responses based on an alleged metabolic reaction network. GIW ISCB-Asia 2014, Odaiba, Tokyo, Japan,

December 15-17, 2014.

- [288] Iwata, M., Shiraishi, F., and E. O. Voit: Coarse but Efficient Identification of Metabolic Pathway Systems. Int. Symp. Synth. Syst. Biol., Fukuoka, Japan, Sep. 17-18, 2015.
- [289] Qi, Z., and E.O. Voit: Inferring Molecular Mechanisms of Environmental Compounds from Metabolomics Data: An Application to The Study of Pesticide Actions in Parkinson's Disease. Int. Symp. Synth. Syst. Biol., Fukuoka, Japan, Sep. 17-18, 2015.
- [290] Chen, P.-W., S. Dolatshahi, L.L. Fonseca, and E.O. Voit: Weaving Biological Snapshots into Stories through Mathematical Modeling. Int. Symp. Synth. Syst. Biol., Fukuoka, Japan, Sep. 17-18, 2015.

Publications as a Member of the Malaria Host-Parasite Interaction Center (MaHPIC) Consortium:

- [1] Galinski, M.R., Joice, R., Moreno, A., Kissinger, J.C., and the MaHPIC Consortium: The Malaria Host-Pathogen Interaction Center (MaHPIC), Opportunities for the Research Community, 4th Singapore Malaria Network Meeting, February 18-19, 2016, Singapore.
- [2] Galinski, M.R., Joice, R., Moreno, A., Kissinger, J.C., and the MaHPIC Consortium: The Malaria Host-Pathogen Interaction Center (MaHPIC), Opportunities for the Research Community, Molecular Approaches to Malaria, February 21-25, 2016, Lorne, Australia.

Invited Conference Speaker:

- [1] The Power-Function Approach to Mathematical Modeling of Biological Systems Yields a General Growth Law, Symposium on Advances in Mathematical Modeling and State Estimation, Annual Meeting of the American Chemical Society, New York, NY, August 1981.
- [2] Matrix Analysis of Biochemical Systems, Course on Biochemical Systems Analysis, Ann Arbor, MI, 1982, 3 lectures.

- [3] Linear Analysis of Biochemical Systems, Analysis of Growth, Course on Biochemical Systems Analysis, Ann Arbor, MI, 1985, 6 lectures.
- [4] Accuracy of Alternative Nonlinear Power-Law Models for Biochemical Systems: Advantages of S-Systems, 11th World Congress of the International Association for Mathematics and Computers in Simulation (IMACS), Oslo, Norway, 1985.
- [5] S-Systems. Annual Meeting of the American Statistical Society, South Carolina Chapter, Charleston, SC, 1987.
- [6] Equivalence between S-systems and Lotka Volterra Systems. Mathematical Ecology Conference, Charleston, SC, 1987.
- [7] Recasting of Differential Equations as S-systems. Sixth International Conference on Mathematical Modelling, Washington University, St. Louis, MO, 1987.
- [8] S-system Modeling of Dynamical Networks. Workshop on Dynamics of Networks, Eisenach, GDR, 1988.
- [9] New Nonlinear Methodologies for Modeling Molecular and Cellular Systems, First IFAC Symposium on Modelling and Control in Biomedical Systems, Venice, Italy, 1988.
- [10] Recasting Nonlinear Models as S-systems, First S-System Symposium, Charleston, SC, 1989.
- [11] Comparison of Accuracy of Alternative Models for Biochemical Pathways, Advanced NATO Research Workshop on Control of Metabolic Processes, Il Chiocco, Italy, 1989.
- [12] Generic Modelling of Population Dynamics with S-systems, 2nd International Conference on Mathematical Population Dynamics, Rutgers, New Brunswick, 1989.
- [13] Voit, E.O.: S-system modeling of complex systems with randomly fluctuating input. Fourth International Conference on Statistical Methods for the Environmental Sciences, Espoo, Finland, 1992.
- [14] Voit, E.O.: How many variables? Some comments on the dimensionality of nonlinear systems. World Congress of Nonlinear Analysts, Tampa, FL, 1992.
- [15] Voit, E.O.: Optimization of integrated biochemical systems. Second S-System Symposium, Tampa, FL, 1992.
- [16] Voit, E.O.: S-systems: 19 Cartoons depicting the state of the art in 92. Second S-System Symposium, Tampa, FL, 1992.

- [17] Berg, P.H. and E.O. Voit: A brief update on S-system analysis and parameter estimation with SCoP. Second S-System Symposium, Tampa, FL, 1992.
- [18] Yu, S. and E.O. Voit: A new tool for distribution approximation and classification. Second S-System Symposium, Tampa, FL, 1992.
- [19] Voit, E.O.: Biochemical Systems Analysis I and II. 4-th Biochemical Genetics Training Course, Hilton Head, SC, 1993.
- [20] Voit, E.O., R.A. Holser, and W.L. Balthis: Conditional Monte-Carlo Modeling with S-Systems. International Congress on Modelling and Simulation, Perth, Australia, 1993.
- [21] Voit, E.O. and P.J. Sands: S-system analysis of biomass partitioning in Scots pine, *Pinus sylvestris*. International Symposium on Integrative Biochemistry, Barcelona, Spain, 1994.
- [22] Voit, E.O.: A gentle introduction to S-systems. International Symposium on Integrative Biochemistry, Barcelona, Spain, 1994.
- [23] Voit, E.O. and R.G. Knapp: Environmental Health Risk Assessment at the Medical University of South Carolina and the University of Charleston. International Conference on Environmetrics, Burlington, Canada, 1994.
- [24] Voit, E.O. and W.L. Balthis: Assessment of size-dependent mercury distributions in king mackerel. International Conference on Environmetrics, Burlington, Canada, 1994.
- [25] Environmental Health Risk Assessment. Course on Environmental Immunology, MUSC, 1995.
- [26] Voit, E.O., W.L. Balthis, and Z. Zhang. Analysis of mercury exposure from eating fish, using hierarchical Monte Carlo simulations. 6-th International Conference on Environmetrics, Kuala Lumpur, Malaysia, 1995.
- [27] Voit, E.O.: S-systems in statistics, epidemiology, and risk assessment: Not just a mathematical curiosity. International PowBioSys Symposium on Power-Law Modeling of Biological Systems, Oeiras, Portugal, October 4-7, 1998.
- [28] Voit, E.O.: New results on the S-distribution. International PowBioSys Symposium on Power-Law Modeling of Biological Systems, Oeiras, Portugal, October 4-7, 1998.
- [29] Savageau, M.A., E.O. Voit, and A. Sorribas: Three-day short course on power-law modeling for doctoral students. Gulbenkian Institute, Oeiras, Portugal, October

1-3, 1998.

- [30] Voit, E.O.: Pharmaco-economic modeling for HIV/AIDS infection. ABT-378/r Global Outcomes Workshop, Amsterdam, Netherlands, January 20-22, 2000.
- [31] Voit, E.O.: Functional integration of genomic and metabolic data. VIth International Symposium on Biochemical Systems Theory. Puerto de la Cruz (Tenerife). September 25-29, 2000.
- [32] Voit, E.O.: Introduction and overview. Conference on Biochemical Systems Theory and Modeling in the Post Genomic Era: Principles of Design to Designed Benefits. Ann Arbor, MI, December 1-2, 2000.
- [33] Voit, E.O.: Optimal design for heat stress response in yeast. Conference on Biochemical Systems Theory and Modeling in the Post Genomic Era: Principles of Design to Designed Benefits. Ann Arbor, MI, December 1-2, 2000.
- [34] Voit, E.O.: Models-of-data and models-of processes in the post-genomic era. International Conference on Compartmental Models and Disease Transmission (in honor of John A. Jacquez), Ann Arbor, MI, October 19-21, 2001.
- [35] Voit, E.O.: Functional integration of genomic and metabolic data. Cambridge Healthtech Institute's Premier Conference "Metabolic Profiling: Pathways in Discovery," Chapel Hill, NC, December 3-4, 2001.
- [36] Voit, E.O.: Computational analysis of biochemical systems. South Carolina *In Silico* Biology Symposium, Charleston SC, December 10, 2001.
- [37] Voit, E.O.: Understanding complex metabolic processes through modeling: Challenges, Methods, and Partial Solutions. Mathematical Modeling in Biology Workshop, Duke University, May 1-3, 2002.
- [38] Voit, E.O.: Bottom-Up and Top-Down Analysis of Operating Principles in Metabolic Networks. VIIth International Symposium for Biochemical Systems Theory: From Phenotype to Genotype and Back. Averøy, Møre og Romsdal, Norway, June 17-20, 2002.
- [39] Voit, E.O.: Introduction to Biochemical Systems Analysis. Advanced FEBS Workshop in Biochemistry, Carcavelos, Portugal, September 2002.
- [40] Voit, E.O.: Metabolic and Genome Analysis. Advanced FEBS Workshop in Biochemistry, Carcavelos, Portugal September 2002.
- [41] Voit, E.O.: Modeling and Identification of Metabolic Pathways with Biochemical Systems Theory. *E. coli* Model Cell Consortium Meeting, Northwestern University, July 26-28, 2002.

- [42] Voit, E.O.: A Turning Point in Modeling History. First International *E. coli* Alliance (IECA) Meeting, North Mymms, U.K., November 10-12, 2002.
- [43] Voit, E.O.: Analysis of Proteomic Time Profiles. Applied Biosciences / MUSC Joint Proteomics Meeting, Charleston, February 26, 2003.
- [44] Voit, E.O.: Pathway Analysis and Identification with S-systems. Second International *E. coli* Alliance (IECA) Meeting, Magdeburg, Germany, March 10-12, 2003.
- [45] Voit, E.O.: Biomedical Informatics, Computational Biology, Systems Biology —If we don't know what it is, how can we teach it? Southern Regional Conference on Statistics, Jekyll Island, GA, June 8-11, 2003.
- [46] Voit, E.O.: Pathway Analysis and Identification with S-systems. First International Conference on Systems Biology of *E.coli*, Keio University, Tsuruoka Japan, June 23-25, 2003.
- [47] Voit, E.O.: Trends in Complex Systems. Third Virtual Conference in Genomics and Bioinformatics (VCGB), North Dakota State University, Fargo, ND., September 16-18, 2003.
- [48] Voit, E.O.: Modeling Approach toward understanding protein dynamics. NHLBI Proteomics Conference, Bethesda, MD, October 2-3, 2003.
- [49] Almeida, J.S. and E.O. Voit: Neural-Network Based Parameter Estimation in S-system Models of Biological Networks. The Fourteenth International Conference on Genome Informatics (GIW 2003), Yokohama, Japan, December 14-17, 2003.
- [50] Voit, E.O.: Biochemical Systems Theory: Workshop on The Integration of Chemical and Biological Engineering. Tufts University, Medford, MA, March 12-13, 2004.
- [51] Voit, E.O.: Applications of Biochemical Systems Theory: Workshop on The Integration of Chemical and Biological Engineering. Tufts University, Medford, MA, March 12-13, 2004.
- [52] Voit, E.O.: S-system Based Pathway Identification from Metabolic Profiles. South Carolina Bioinformatics Conference, Wild Dunes, March 14-16, 2004.
- [53] Voit, E.O.: Of Math and Microbes. American Society for Microbiology--Integrating Metabolism and Genomics. Montreal, 30 April – 3 May, 2004.
- [54] Voit, E.O.: Time series data open new avenues of metabolic systems analysis. International Conference on Molecular Systems Biology (ICMSB'04), Tahoe, Ca,

August 21-25, 2004.

- [55] Voit, E.O.: Metabolic modeling with time series data (keynote address). Bioinformatics in Taiwan, National Yang Ming University, Taipei, Taiwan, September 9-11, 2004.
- [56] Voit, E.O.: Time series data open new avenues of metabolic systems analysis. Cambridge Health Institute Conference on Analytical Methods for Metabolic Profiling. Lake Buenavista, December 15, 2004.
- [57] Voit, E.O.: Metabolic modeling with time series data. Biocomplexity 7 Workshop, Indiana Memorial Union, Bloomington, IN, May 9-11, 2005.
- [58] Voit, E.O.: Modeling sphingolipid metabolism in *S. cerevisiae*. First Scientific Meeting of the Metabolomics Society. Tsuruoka, Japan, June 20-23, 2005.
- [59] Voit, E.O.: Metabolic Networks I: The Challenge of Complexity. Summer School on „NanoScience and Systems Biology,“ LMU Gene Center, Grosshadern-Martinsried Life Sciences Campus, July 25-28, 2005.
- [60] Voit, E.O.: Metabolic Networks II: Case Studies. Summer School on „NanoScience and Systems Biology,“ LMU Gene Center, Grosshadern-Martinsried Life Sciences Campus, July 25-28, 2005.
- [61] Voit, E.O.: Systems modeling. First International Conference of AB³C, the Brazilian Association for Bioinformatics and Computational Biology. Caxambu, Brazil, October 4-7, 2005.
- [62] Voit, E.O.: Modeling sphingolipid metabolism. Renal Week 2005, Philadelphia, PA, November 8-13, 2005.
- [63] Voit, E.O.: Modeling sphingolipid metabolism. 2006 Gordon Conference on Glycolipid and Sphingolipid Biology, Ventura, CA, January 8-13, 2006.
- [64] Voit, E.O.: Teaching Interdisciplinary Courses in Integrative Biology, 2006 Systems Biology Symposium, National Taiwan University, Taipei, Taiwan, 18 January 2006.
- [65] Voit, E.O.: Key Note Address: Topics in Systems Biology, 2006 Systems Biology Symposium, National Taiwan University, Taipei, Taiwan, 18 January 2006.
- [66] Voit, E.O.: Small Systems Biology, 2006 Meeting of the Association of Biomolecular Resource Facilities, Integrating Science, Tools, and Technologies with Systems Biology, Long Beach, CA, February 11-14, 2006.
- [67] Voit, E.O.: Small Systems Biology, Marine Eco-Genomics Workshop, Charleston,

SC, Charleston, SC, February 27-28, 2006.

- [68] Voit, E.O.: Biological Systems Large and Small, 20th Anniversary Symposium of the Institute for Systems Research, University of Maryland, College Park, Maryland, April 13-14, 2006.
- [69] Voit, E.O.: Small Systems Biology, Annual Meeting of the American Society for Microbiology, Orlando, FL, May 21-25, 2006.
- [70] Voit, E.O.: Parameter Estimation in Metabolic Systems: Lessons Learned from Analyzing the Glycolytic Pathway in *Lactococcus lactis*. International Conference on Molecular Systems Biology (ICMSB'06), Munich, Germany, 31 July – 4 August, 2006.
- [71] Voit, E.O.: Systems Biology: NSF Workshop on a Center in Mathematical Biology, Washington, DC, September 18-20, 2006.
- [72] Voit, E.O.: Introduction. Strategic Planning Workshop: Integrative BioSystems Institute, October 16-17, Chateau Élan, GA.
- [73] Voit, E.O.: Proteomic Network Inference: Proteomics Retreat, Charleston, SC, October 20-21, 2006.
- [74] Voit, E.O.: Systems Biology and its Role in Predictive Health and Personalized Medicine. 2nd Emory/Georgia Tech Conference on Predictive Health. Atlanta, GA, December 18-19, 2006.
- [75] Voit, E.O.: Systems Biology and its Role in Personalized Medicine and Predictive Health. First International Workshop on Systems Radiation Biology, Neuherberg, Germany, 14 - 16 February 2007.
- [76] Voit, E.O.: Biochemical network modeling. Biosystems Modeling Workshop, SAMSI Program on Development, Assessment and Utilization of Complex Computer Models, Research Triangle Park, March 5-7, 2007.
- [77] Voit, E.O.: Small Systems Biology. 2nd Annual Computational and System Biology Symposium, University of Georgia, Athens, GA, March 23, 2007.
- [78] Voit, E.O.: Canonical modeling: A powerful tool for the analysis of biological systems. Emerson Conference, Emory University, April 6, 2007.
- [79] Voit, E.O.: Systems Biology and Metabolic Modeling. (Molecular) Systems Biology and Psychiatry – the intracellular dopamine signaling network and schizophrenia, Munich, Germany, May 4-5, 2007.
- [80] Voit, E.O.: Estimation of metabolic model parameters from time series data. MBI

Workshop "Metabolic Engineering," Mathematical Bioscience Institute, Ohio State University, September 24-27, 2007.

- [81] Voit, E.O.: Systems biology and its role in predictive health and personalized medicine. International Conference on Complexity in Acute Illness, Long Beach, CA, October 5-7, 2007.
- [82] Voit, E.O.: Pathway modeling in ill-defined biochemical systems, BESC Workshop on Biofuel Related Modeling, Atlanta, GA, October 9, 2007.
- [83] Voit, E.O.: Managing the data: Quantitative information and computational modeling for predictive health. American Medical Writers' Association 2007 Annual Conference, Atlanta, GA, October 12, 2007.
- [84] Voit, E.O.: Integrative systems modeling of Parkinson's disease, NASA Models of CNS Space Radiation Risks and Flight Interactions, U.S.R.A. Center for Advanced Studies Houston TX, October 30-31, 2007.
- [85] Voit, E.O.: Systems biology: Promises, challenges, and partial solutions. MICRO'07-BIOTEC'07-XXXIII JPG, Lisboa, Portugal, November 30 – December 2, 2007, Key Note Address.
- [86] Voit, E.O.: Small systems biology. The 2008 UK-China Joint Workshop on "From Nature to Computing and Back." CAS-MPG Partner institute for Computational Biology, February 22-23, 2008, Shanghai, PRC.
- [87] Voit, E.O.: Introduction to analyzing biological systems with canonical models. 10th International Conference on Molecular Systems Biology (ICMSB 2008), University of Diliman, Philippines, February 25-28, 2008.
- [88] Voit, E.O.: Modeling concept maps with BST. 10th International Conference on Molecular Systems Biology (ICMSB 2008), University of Diliman, Philippines, February 25-28, 2008.
- [89] Voit, E.O.: Introduction to Biochemical Systems Theory, Systems Biology Workshop, National Yang Ming University, Taipei, Taiwan, March 3, 2008.
- [90] Voit, E.O.: Systems biology and its role in predictive health and personalized medicine. Conference on Bioinformatics, National Chung Cheng University, Taiwan, March 5, 2008.
- [91] Voit, E.O.: Systems biology and predictive health. Golf Coast Consortium Workshop at M.D. Anderson Cancer Center, Houston, TX, March 17, 2008.
- [92] Voit, E.O.: Estimation and identification of metabolic systems models from time-series data. Mathematical Theory of Networks and Systems, Virginia Tech,

Blacksburg, VA, July 28- August 1, 2008.

- [93] Voit, E.O.: Analytical advantages of canonical models for the assessment of cellular responses. Minisymposium on Sensitivity Analysis of Cellular Responses, SIAM Conference on the Life Sciences Meeting, Montreal, Canada, August 4 - 7, 2008.
- [94] Voit, E.O.: Current and future roles of statistics in dynamical biological pathway analysis. Minisymposium on Integration of Numerical and Statistical tools in Computational Biology, SIAM Conference on the Life Sciences Meeting, Montreal, Canada, August 4 - 7, 2008.
- [95] Voit, E. O.: Systems biology and its role in predictive health and personalized medicine. Panel Discussion: Annual Meeting of the Biomedical Engineering Society, St. Louis, MO, October 3, 2008.
- [96] Voit, E. O.: Introduction and Welcome; Frontiers in Multi-Scale Systems Biology. Georgian Terrace Hotel, Atlanta, October 18-21, 2008.
- [97] Voit, E. O.: Model identification: A key challenge in computational systems biology, The 2nd International Symposium on Optimization and Systems Biology (OSB'08) Lijiang, China, 31 October – 3 November 2008; Plenary Talk.
- [98] Voit, E.O.: Accomplishments of DB²E's Systems Science Program. 40th Anniversary of MUSC's Department of Biostatistics, Bioinformatics, and Epidemiology, November 21-22, 2008.
- [99] Voit, E. O. and Y. Lee: Mathematical modeling of monolignol biosynthesis, BioEnergy Science Center Retreat, Chattanooga, TN, December 1-3, 2008.
- [100] Voit, E.O.: A systemic model of the intracellular dopamine signaling network. Workshop on Systems Biology of the Synapse in Mental Disorder. Munich, Germany, May 8-9, 2009.
- [101] Voit, E.O.: Parameter estimation for canonical models from biological time series. Parameter Estimation for Dynamical Systems, Eindhoven, The Netherlands, June 8-10, 2009.
- [102] Voit, E.O.: Advances in parameter estimation from biological time series. 11th International Conference on Molecular Systems Biology (ICMSB 2009), Shanghai, PRC, June 21-25, 2009.
- [103] Voit, E. O. and M.L. Kemp: Systems biology graduate training in engineering schools. Proc. of Foundations of Systems Biology in Engineering (FOSBE), Denver, CO, August 9-12, 2009.

- [104] Voit, E.O.: The Georgia Research Alliance from the Viewpoint of Eminent Scholars. Meeting of the Georgia Research Alliance and the University of Texas at Dallas, November 2, 2009.
- [105] Voit, E.O.: The Role of Systems Modeling in Drug Discovery and Predictive Health. German Conference on Chemoinformatics (GCC), Goslar, Germany, November 8-10, 2009.
- [106] Voit, E.O.: Welcome. Microbes to Metazoans: Regulation, Dynamics, and Evolution of Social Behavior, Georgia Institute of Technology, Atlanta, December 2-4, 2009.
- [107] Voit, E.O.: The Role of Systems Modeling in Drug Discovery and Predictive Health. 5th Annual Computational and Theoretical Biology Symposium, Rice University, Houston, TX, December 4 – 6, 2009.
- [108] Voit, E.O.: The Role of Systems Modeling in Drug Discovery and Predictive Health. 3rd Annual Unither Nanomedical & Telemedical Technology Conference, Magog, Quebec, Canada, February 23-26, 2010.
- [109] Voit, E.O.: Keynote: Coming soon to the Metroplex: The Century of Applied Biology. Metroplex Day, Dallas, TX, March 5, 2010.
- [110] Voit, E.O., Y. Lee and X. He: Pathway models of lignin biosynthesis and degradation. Department of Energy BioEnergy Science Center / BioComp Meeting, Atlanta, May 2-3, 2010.
- [111] Voit, E.O. and Y. Lee: Mathematical pathway modeling as a tool for investigating lignin biosynthesis and recalcitrance. Annual Meeting of the Department of Energy BioEnergy Science Center, Asheville, June 20-23, 2010.
- [112] Voit, E.O.: Pathway analysis. Combined Injury Modeling Workshop. Arlington, VA, 22 June 2010.
- [113] Lee, Y. and E.O. Voit: Control and optimization of lignin biosynthesis in plant cell walls. International Congress of Mathematics (ICM 2010), Hyderabad, India, 16-18 August 2010.
- [114] Voit, E.O. and W. Yin: Systems analysis of the role of bone morphogenic protein 4 in endothelial inflammation. 9th International Conference on Complexity in Acute Illness, Atlanta, GA, September 10-12, 2010.
- [115] Voit, E.O.: Systems biology. NSF Ideas Lab, Asilomar, CA, 13-19 September 2010.
- [116] Qi, Z., G.W. Miller, and E.O. Voit: Mathematical modeling of dopamine dynamics

- in Parkinson's disease, NIEHS Investigator Meeting, San Diego, CA, October 17-19, 2010.
- [117] Voit, E.O. Mesoscopic disease modeling, exemplified with dopamine-related diseases. 7th International Workshop on Computational Neuropsychiatry / Systems Biology of Schizophrenia, Munich, May 6-7, 2011.
 - [118] Voit, E.O. A mathematical modeling framework for analyzing organ systems and their diseases, exemplified with cystic fibrosis of the lung. International Conference on Molecular Systems Biology, Lleida, Spain, May 9-13, 2011.
 - [119] Voit, E.O. Trends in computational systems biology (a very biased view). Emory-Georgia Tech workshop on High-Performance Computing in Biology and Medicine. July 27, 2011.
 - [120] Voit, E.O. Computational systems biology: From simple models to system simulation and the discovery of design principles. German Conference on Bioinformatics, Weihenstephan, September 7-9, 2011.
 - [121] Voit, E.O.: Modeling cystic fibrosis. Workshop "The molecular and cellular biology of epithelia in health and disease." Faculty of Sciences of the University of Lisbon, Portugal, November 21-25, 2011.
 - [122] Voit, E.O.: Modeling Parkinson's Disease. Investigator Meeting of the Parkinson's Disease Research Centers. NIEHS, Raleigh, NC, May 3-4, 2012.
 - [123] Voit, E.O. and Z. Qi: Effects of pesticides on dopamine metabolism: Implications for sleep research. 8th International Workshop on Computational Neuropsychiatry, Munich, Germany, May 11-12, 2012.
 - [124] Voit, E.O. Quantification of metabolic pathway models: Beyond acceptable parameter fits. Workshop on Parameter Estimation for Dynamical Systems, Eurandom, Eindhoven, The Netherlands, 4-6 June 2012.
 - [125] W. Yin and Voit, E.O.: Models of the dynamics of the NADPH oxidase system in vascular cells. Symposium for Modeling Immune Responses from Complex Data, Rochester, NY, June 14-15, 2012.
 - [126] Voit, E.O.: Introduction to systems biology. 2012 Winter School in Mathematical and Computational Biology, St. Lucia, Queensland, Australia, 2-6 July 2012.
 - [127] Voit, E.O.: Pathway analysis. 2012 Winter School in Mathematical and Computational Biology, St. Lucia, Queensland, Australia, 2-6 July 2012.
 - [128] Voit, E.O.: Translation of biological phenomena into computational models. Syngenta Modelling Conference, Windsor, U.K., November 6-9, 2012.

- [129] Chen, P.-W., Lee, Y, and E.O. Voit: Discovery of operating principles through dynamic modeling. 2012 Annual Meeting of the Biomedical Engineering Society (BMES), Atlanta, GA, October 24-27, 2012.
- [130] Voit, E.O.: Opening and closing remarks. Frontiers in Systems and Synthetic Biology '13, Atlanta GA, March 20-24, 2013.
- [131] Voit, E.O.: Help! Math is Invading Biology and Medicine. Annual Biomedical Research Conference for Minority Students, Nashville, TN, November 13-16, 2013
- [132] Qi, Z., F. Tretter, and E.O. Voit: A Heuristic Neurochemical Mobile and Interaction Model of Brain Homeostasis and Addiction. 9th International Workshop on Computational Neuropsychiatry, Munich, Germany, May 5-6, 2013.
- [133] Voit, E.O.: Wanted: The best models in systems biology. From Computational Biophysics to Systems Biology, Norman, OK, May 20, 2013.
- [134] Voit, E.O.: Wanted: The best models in systems biology. Workshop: Modeling Biomolecular Structure, Interactions, and Functions. Telluride, CO, June 30 – July 5, 2013.
- [135] Voit, E.O.: Computational Systems Biology: From Simple Models to Disease Simulation and Design Principles, Exemplified with Dopamine-Related Diseases. Bernstein Retreat, Hohenwart-Forum, Germany, October 7-8, 2013.
- [136] Voit, E.O.: The challenge of infectious disease modeling. Workshop “From Within Host Dynamics to the Epidemiology of Infectious Disease.” Mathematical Biosciences Institute, Ohio State University, Columbus, OH, April 7-11, 2014.
- [137] Voit, E.O.: The Law of Mass Action and its Generalizations in Biological Systems Modeling. Guldberg-Waage-dagen, Academy at Drammensveien, Oslo, Norway, March 11 2014.
- [138] Voit, E.O.: Problem-Based Learning Modules For Systems Biology, HHMI Professors’ Symposium, Washington, D.C., May 27-30, 2014
- [139] Qi, Z., F. Tretter, and E.O. Voit: A Heuristic, Mesoscopic Neurotransmitter Interaction Model of Schizophrenia. 10th International Workshop on Computational Neuropsychiatry, Munich, Germany, May 9-10, 2014.
- [140] Voit, E.O.: Identification of Metabolic Pathway Models, Statistical Inference and Nonlinear Dynamics in Biology and Medicine, Banff International Research Station, July 28-August 1, 2014.

- [141] Voit, E.O.: Beyond Acceptable Parameter Fits. 2014 SIAM Conference on the Life Sciences, Charlotte, NC, August 3-7, 2014.
- [142] Voit, E.O.: Computational Systems Biology and the Drug Development Pipeline, 2014 Annual Meeting of The American College of Clinical Pharmacy, Atlanta, September 13, 2014.
- [143] Voit, E.O.: Computational Systems Biology, Disease Simulators, and Personalized Medicine, GRA Academy of Eminent Scholars, Atlanta, October 30, 2014.
- [144] Voit, E.O.: Interpreting the Metabolome with Computer Models, Metabolomics Workshop, Georgia Tech, Atlanta, December 4, 2014.
- [145] E.O. Voit: Weaving Biological Snapshots into Stories through Mathematical Modeling. Ann. Meet. Soc. Math. Biol., Atlanta Georgia, June 30-July 3, 2015.
- [146] E.O. Voit: Weaving Biological Snapshots into Stories through Mathematical Modeling. Int. Symp. Synth. Syst. Biol., Fukuoka, Japan, Sep. 17-18, 2015.

Workshops Taught:

- [1] South Carolina Junior Academy of Science Workshop, Charleston, SC, October 10, 1987.
- [2] 4th Biochemical Genetics Training Course, Hilton Head Island, SC, July 5-8, 1993.
- [3] Tutorial of the Iizuka '96 *4th International Conference on Soft Computing*, Iizuka, Fukuoka, Japan, September 30-October 1, 1996.
- [4] National Workshop for Doctoral Students, Gulbenkian Institute, Oeiras, Portugal, October 1-3, 1998.
- [5] National Workshop for Doctoral Students, Gulbenkian Institute, Oeiras, Portugal, May 22-26, 2000.
- [6] Eighth International Conference on Intelligent Systems for Molecular Biology, San Diego, CA, August 18-23, 2000.
- [7] International Conference on Intelligent Systems in Molecular Biology, Edmonton, Canada, August 3, 2002.
- [8] Advanced FEBS Workshop in Biochemistry, Carcavelos, Portugal, September 7-

13, 2002.

- [9] Workshop on The Integration of Chemical and Biological Engineering. Tufts University, Medford, MA, March 12-13, 2004.
- [10] Workshop associated with Conference Bioinformatics in Taiwan, National Yang Ming University, Taipei, Taiwan, September 9-10, 2004.
- [11] Summer School on „NanoScience and Systems Biology,“ LMU Gene Center, Grosshadern-Martinsried Life Sciences Campus, July 25-28, 2005.
- [12] Workshop on Systems Biology in Metabolic Engineering, Instituto de Tecnologia Química e Biológica, Oeiras, Portugal, November 23, 2005.
- [13] Tutorial on Pathway Analysis with PLAS, 2006 Meeting of the Association of Biomolecular Resource Facilities, Integrating Science, Tools, and Technologies with Systems Biology, Long Beach, CA, February 11-14, 2006.
- [14] Two-part Tutorial: Pathway Models. International Conference on Molecular Systems Biology (ICMSB'06), Munich, Germany, 31 July – 4 August, 2006.
- [15] Voit, E.O.: Tutorial: Biochemical Network Modeling. SAMSI BioSystems Modeling Workshop, Research Triangle Park, 5-7 March 2007.
- [16] Voit, E.O.: Introduction to Modeling Biological Pathways. The 2008 UK-China Joint Workshop on "From Nature to Computing and Back." CAS-MPG Partner institute for Computational Biology, February 24, 2008, Shanghai, PRC.
- [17] Voit, E.O.: Introduction to analyzing biological systems with canonical models. 10th International Conference on Molecular Systems Biology (ICMSB 2008), University of Diliman, Philippines, February 25-28, 2008.
- [18] Voit, E.O.: Introduction to Biochemical Systems Theory, Systems Biology Workshop, National Yang Ming University, Taipei, Taiwan, March 3, 2008.
- [19] Voit, E.O.: Tutorial: What? Why? How? An Introduction to Modeling Biological Systems. Workshop in association with the 11th International Conference on Molecular Systems Biology (ICMSB 2009), Shanghai, PRC, June 20, 2009.
- [20] Voit, E. O.: Parameter Estimation and Structure Identification in Metabolic Networks. Training Workshop in association with Foundations of Systems Biology in Engineering (FOSBE), Denver, CO, August 9-12, 2009.
- [21] Voit, E.O.: Tutorial: An Introduction to Modeling Biological Systems. Workshop “The molecular and cellular biology of epithelia in health and disease.” Faculty of Sciences of the University of Lisbon, Portugal, November 21-25, 2011.

- [22] Voit, E.O.: Introduction to systems biology. 2012 Winter School in Mathematical and Computational Biology, St. Lucia, Queensland, Australia, 2-6 July 2012.
- [23] Voit, E.O.: Pathway analysis. 2012 Winter School in Mathematical and Computational Biology, St. Lucia, Queensland, Australia, 2-6 July 2012.
- [24] Voit, E.O.: Disease Modeling and Personalized Medicine, Universidade de Lisboa, Lisboa, Portugal, May 12, 2014

Seminars:

- 1983 Cybernetics Program, Universität Köln
 Department of Microbiology and Immunology, University of Michigan
 Division of Theoretical Medicine, Universität Köln (Series of three seminars)
- 1984 Zoologisches Institut, Universität Köln
 Landwirtschaftliches Institut, Universität Bonn
 Department of Biometry, Medical University of South Carolina
- 1985 Department of Chemical Engineering, University of Michigan
- 1986 Department of Microbiology and Immunology, University of Michigan
 Department of Mathematics, Pomona College
 Department of Biometry, Medical University of South Carolina (two seminars)
- 1987 Department of Statistics and Biometry, Emory University, Atlanta, Georgia
 Department of Statistics, University of Georgia, Athens, Georgia
 South Carolina Youth Academy of Sciences (Workshop)
 Department of Biometry, Medical University of South Carolina
- 1988 U.S. Department of Agriculture, Forest Service, Charleston,
 South Carolina
 Sigma Xi Society, Charleston Chapter
 National Seminar on Dynamical Systems, Akademie der
 Wissenschaften der DDR, Berlin, GDR
 Fachhochschule für Medizinische Informatik, Heilbronn, Germany
 Zoologisches Institut der Universität Köln, Köln, Germany
 Department of Biometry, Medical University of South Carolina

- 1989 Division of Biometrics, Food and Drug Administration,
Washington, D.C.
Center for Drug Evaluation and Research, Food and Drug
Administration, Washington, D.C.
- 1990 Department of Biometry, Medical University of South Carolina
Department of Biostatistics, University of South Carolina
- 1991 Department of Biostatistics, Epidemiology, and Systems Science,
Medical University of South Carolina
Board of Trustees, Medical University of South Carolina
Fachbereich Mathematik/Informatik, Universität Osnabrück, Germany
Office of Public Relations, Medical University of South Carolina
- 1992 Department of Biostatistics, Epidemiology, and Systems Science,
Medical University of South Carolina
Honeywell, Sensor and System Development Center
South Carolina High School Teacher Association
- 1993 Division of Modeling, Cooperative Research Center for Temperate Hardwood
Forestry, Hobart, Tasmania
- 1994 CSIRO Forestry and Cooperative Research Center for Temperate Hardwood
Forestry, Hobart, Tasmania
CSIRO Forestry, Headquarters, Canberra, Australia
Board of Trustees, Medical University of South Carolina
Department of Biometry and Epidemiology,
Medical University of South Carolina
- 1996 Mu Sigma Rho Student Career Development Seminar,
Medical University of South Carolina
Department of Environmental Health Sciences, School of Public Health,
University of South Carolina
Catalan Biological Society, Universitat de Lleida, Departament de Ciències
Mèdiques Bàsiques
- 1999 Department of Biometry and Epidemiology,
Medical University of South Carolina
Department of Pharmacology,
Medical University of South Carolina
- 2000 Department of Biochemistry and Molecular Biology,
Medical University of South Carolina
Department of Biometry and Epidemiology,
Medical University of South Carolina

- 2001 Department of Biochemistry and Molecular Biology,
Medical University of South Carolina
Marine Biomedicine Program,
Medical University of South Carolina
Metabolic Pathway Group
Monsanto/Renessen, St. Louis
Graduate School Exposure Program
Medical University of South Carolina
Departments of Pharmaceutical Sciences and Pharmacy Practice,
Medical University of South Carolina
- 2002 Department of Molecular Cell Biology
Georgia Institute of Technology
Department of Chemistry and Biochemistry
University of Lisbon, Portugal
BioTechnology Institute
University of Minnesota
Proteomics Group
Medical University of South Carolina
- 2003 Department of Bioinformatics
University of Michigan
Department of Biomedical Engineering
Georgia Institute of Technology
Marine Biomedicine Program
Medical University of South Carolina
Computer and Computational Sciences & Bioscience
Los Alamos National Laboratories
- 2004 Proteomics Group
Medical University of South Carolina
Department of Mathematics
Clemson University
Department of Biostatistics, Bioinformatics and Epidemiology
Medical University of South Carolina
Department of Biology, National Dong Hwa University,
Hua Lien, Taiwan
Bioinformatics and Computational Biology Seminar
Georgia Institute of Technology
Bioinformatics Group
North Georgia Technical College
Computational Biology Center
University of Georgia
Agricultural University
Ås, Norway

- 2005 Resource Centers for Minority Aging Research
 SC Cooperative for Healthy Aging in Minority Populations
 Charleston, SC
 Seminar for Problem-Based Learning Group
 Georgia Institute of Technology
 Department of Bioengineering
 University of Illinois at Urbana-Champaign
 School of Applied Physiology
 Georgia Institute of Technology
 Center for Nonlinear Science
 Georgia Institute of Technology
 Bioinformatics Program
 Gulbenkian Institute, Oeiras, Portugal
 Ludwig-Maximilian University
 Munich, Germany
- 2006 School of Mathematics
 Georgia Institute of Technology
 Proteomics Center
 Medical University of South Carolina
 Bioinformatics and Computational Biology Program
 Georgia Institute of Technology
 Center for Nutrient Gene Interactions
 University of Alabama, Birmingham, AL
 Department of Biostatistics, Bioinformatics, and Epidemiology
 Medical University of South Carolina
 Bioinformatics Group
 North Georgia Technical College
- 2007 Computational and Life Science Initiative
 Emory University
 Integrative BioSystems Institute
 Georgia Institute of Technology
 Department of Biostatistics
 Texas A & M University
 Presentation to King Abdullah University of Science and Technology
 Delegation, Georgia Institute of Technology
 Lehrstuhl für Physik
 Ludwig Maximilians Universität München
 Instituto de Tecnologia Química e Biológica
 Oeiras, Portugal
 Department of Chemistry
 Appalachian State University
 Instituto de Engenharia de Sistemas e Computadores Investigação e
 Desenvolvimento, Lisbon, Portugal

- 2008 Center of the Study of Biological Systems
 Georgia Institute of Technology
 Department of Bioinformatics and Computational Biology
 M.D. Anderson Cancer Center, Houston, TX
 Department of Chemistry and Biochemistry,
 Georgia Institute of Technology
 Trinity Presbyterian Church Men's Breakfast
 Systems Biology Group, Life Science University,
 Ås, Norway
 Lehrstuhl für Genomorientierte Bioinformatik, Helmholtz Zentrum
 München, Germany
 Bioinformatics Colloquium, Lehrstuhl für Physik
 Ludwig Maximilians Universität, München, Germany
 Institute for Systems Biology,
 Shanghai University, Shanghai, PRC
 VHA Georgia Hospital Association
 Department of Chemical and Biomolecular Engineering,
 Georgia Institute of Technology
- 2009 Computational Science and Engineering Division
 Georgia Institute of Technology
 Center for Computational Biology, University of Georgia
- 2010 School of Industrial and Systems Engineering
 Georgia Institute of Technology
 Szent Györgyi Lecture, Mayo Clinic, Rochester, MN
 Systems Biology Group, University of Coimbra, Portugal
 Department of Mathematics, Christian College of Madras, Chennai, India
 Division of Biostatistics, Moffitt Cancer Center, Tampa, FL
- 2011 Center for Computational Biology, University of Georgia
 Directorate of Biological Sciences, National Science Foundation, Washington, DC
 Distinguished Lecture, Department of Mathematics, Georgia State University
- 2012 Samuel Nobel Foundation, Aardmore, OK
 NIEHS PD-CERC Investigator Meeting, Atlanta, GA
 Center for Cystic Fibrosis, Emory University
 NIAID Malaria Investigator Meeting, Atlanta, GA
 Division of Individualized Medicine, Mayo Clinic, Rochester, MN
 Division of Bioinformatics, Medical University of South Carolina
- 2013 Biochemistry and Redoc Biology Center, University of Nebraska, Lincoln, NE
 Integrative BioSystems Institute, Georgia Tech, Atlanta, GA
 Biomathematics Seminar, Florida State University, Tallahassee, FL
- 2014 Department of Biostatistics, University of Louisville

Universidad Nacional Autónoma de Mexico, Morelos, Mexico (Video-Seminar)
BioSys Doctoral Program, Universidade de Lisboa, Lisboa, Portugal
Department of Biological Engineering, Utah State University, Logan, UT

2015 Plant Research Laboratory, Michigan State University
Department of Bioengineering, University of Texas at Dallas
ETH Zürich, Switzerland
Computational Systems Biology Group, Basel, Switzerland
College of Pharmaceutical Science, Korea University
Chung Nam University, Korea
Korea Advanced Institute of Science and Technology
Stony Brook University