

Curriculum Vitae
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EDUCATION

Dr.Sc. in Information Sciences (October, 1999), University of Tokyo, Japan.

Dissertation title: Stochastic Knowledge Representations and Machine Learning Strategies for Biological Sequence Analysis.

M.E. in Information Engineering (March, 1991), University of Tokyo, Japan.

Thesis title: A Theoretical Study on STM Images Based on Molecular Orbital Calculation. (in Japanese).

B.S. in Biochemistry and Biophysics (March, 1988), University of Tokyo, Japan.

Thesis title: Analyzing Isoleucine Binding Site of *E.coli* Isoleucyl-tRNA Synthetase using ¹H-NMR. (in Japanese).

PROFESSIONAL EXPERIENCE

Apr. 2011–Present: Director, Bioinformatics Center, Institute for Chemical Research, Kyoto University, Japan.

Apr. 2006–Present: Professor, Graduate School of Pharmaceutical Sciences, Kyoto University, Japan.

Apr. 2005–Present: Professor, Bioinformatics Center, Institute for Chemical Research, Kyoto University, Japan.

Apr. 2002–Mar. 2005: Visiting associate professor, Institute for Chemical Research, Kyoto University, Japan.

Apr. 1991–Mar. 2002: Research staff member, NEC Corporation, Japan.

PUBLICATIONS

Refereed Journal/Magazine Papers

- Hancock, T., Wicker, N., Takigawa, I. and Mamitsuka, H. Identifying Neighborhoods of Coordinated Gene Expression and Metabolite Profiles, To appear in *PLoS One*, 2012.
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- Shiga, M. and Mamitsuka, H., A Variational Bayesian Framework for Clustering with Multiple Graphs. To appear in *IEEE Transactions on Knowledge and Data Engineering*, 2011.
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- Takigawa, I., Tsuda, K. and Mamitsuka, H., Mining Significant Substructure Pairs for Interpreting Polypharmacology in Drug-Target Network. *PLoS One*, 6 (2), e16999, 2011.
- Takigawa, I. and Mamitsuka, H., Efficiently Mining δ -Tolerance Closed Frequent Subgraphs. *Machine Learning*, 82 (2), 95–121, 2011.
- Shiga, M., Takigawa, I. and Mamitsuka, H., A Spectral Approach to Clustering Numerical Vectors as Nodes in a Network. *Pattern Recognition*, 44 (2), 236–251, 2011.
- Hancock, T., Takigawa, I. and Mamitsuka, H., Mining Metabolic Pathways through Gene Expression. *Bioinformatics*, 26 (17), 2128–2135, 2010.
- Hu, X., Zhou, W., Udaka, K., Mamitsuka, H. and Zhu, S., MetaMHC: A Meta Approach to Predict Peptides Binding to MHC Molecules. *Nucleic Acids Research*, 38, W474–W479, 2010.
- Hancock, T. and Mamitsuka, H., A Markov Classification Model for Metabolic Pathways. *Algorithms for Molecular Biology*, 5 (1), 10, 2010.
Special Issue: Selected papers from WABI 2009
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- Lam, T. H., Mamitsuka, H., Ren, E. C., and Tong, J. C., TAP Hunter: A SVM-based System for Predicting TAP Ligands using Local Description of Amino Acid Sequence. *Immunome Research*, 6 (Suppl. 1), S6, 2010.

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Both authors contributed equally to this work.
- Mamitsuka, H., A Learning Method of Hidden Markov Models for Sequence Discrimination. *Journal of Computational Biology*, 3 (3), 361–373, 1996.
- Mamitsuka, H., Representing Inter-residue Dependencies in Protein Sequences with Probabilistic Networks. *Computer Applications in the Biosciences (Currently, Bioinformatics)*, 11 (4), 413–422, 1995.
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- Ueda, N., Aoki, K. F. and Mamitsuka, H., A General Probabilistic Framework for Mining Labeled Ordered Trees. *Proceedings of the Fourth SIAM International Conference on Data Mining (SDM 2004)*., pp. 357–368, Orlando, FL, USA, Apr. 2004, SIAM.
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- Mamitsuka, H., Efficient Unsupervised Mining from Noisy Data Sets: Application to Clustering Co-occurrence Data. *Proceedings of the Third SIAM International Conference on Data Mining (SDM 2003)*., pp. 239–243, San Francisco, CA, USA, May 2003, SIAM.
- Mamitsuka, H., Iteratively Selecting Feature Subsets for Mining from High-Dimensional Databases. *Proceedings of the Sixth European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD 2002)*. (*Lecture Notes in Artificial Intelligence*, vol. 2431), pp. 361–372. Helsinki, Finland, Aug. 2002, Springer-Verlag.
- Mamitsuka, H. and Abe, N., Efficient Mining from Large Databases by Query Learning. *Proceedings of the Seventeenth International Conference on Machine Learning (ICML 2000)*., pp. 575–582, Stanford Univ., CA, USA, Jun. 2000, Morgan Kaufman.
- Abe, N. and Mamitsuka, H., Query Learning Strategies Using Boosting and Bagging. *Proceedings of the Fifteenth International Conference on Machine Learning (ICML98)*., pp. 1–9, Madison, WI, USA, Jul. 1998, Morgan Kaufman.
- Nakamura, A., Abe, N., Mamitsuka, H., and Toba, H., Learning Personal Preferences by On-line Prediction Algorithms, *Poster Session Abstracts of the Fifteenth International Joint Conference on Artificial Intelligence (IJCAI97)*., pp. 75, Nagoya, Japan, Aug. 1997.
- Mamitsuka, H., Supervised Learning of Hidden Markov Models for Sequence Discrimination. *Proceedings of the First International Conference on Computational Molecular Biology (RECOMB97)*., pp. 202–208. Santa Fe, NM, USA, Jan. 1997, ACM Press.
- Mamitsuka, H. and Abe, N., Predicting Location and Structure of Beta-Sheet Regions Using Stochastic Tree Grammars. *Proceedings of the Second International Conference on Intelligent Systems for Molecular Biology (ISMB94)*., pp. 276–284. Stanford Univ., CA, USA, Aug. 1994, AAAI Press.
- Abe, N. and Mamitsuka, H., A New Method for Predicting Protein Secondary Structures Based on Stochastic Tree Grammars, *Proceedings of the 11th International Conference on Machine Learning (ICML94)*., pp. 3–11. Brunswick, NJ, USA, Jul. 1994, Morgan Kaufman.
- Mamitsuka, H. and Yamanishi, K., Protein Alpha-Helix Region Prediction based on Stochastic-rule Learning. *Proceedings of the 26th Annual Hawaii International Conference on System Sciences (HICSS26)*., Vol I, pp. 659–668. Maui, HI, USA, Jan. 1993, IEEE Computer Society Press.

Refereed Symposium Papers

- Nakamura, A., Saito, T., Takigawa, I., Mamitsuka, H. and Kudo, M., Algorithms for Finding a Minimum Repetition Representation of a String. *Proceedings of the Seventeenth Symposium on String Processing and Information Retrieval (SPIRE 2010)*. (*Lecture Notes in Computer Science*, vol. 6393), pp. 185–190, Los Cabos, Mexico, Oct. 2010, Springer-Verlag.
- Wan, R, Vo, A. N. and Mamitsuka, H., Efficient Probabilistic Latent Semantic Analysis Through Parallelization. *Proceedings of the Fifth Asian Information Retrieval Symposium (AIRS 2009)*. (*Lecture Notes in Computer Science*, vol. 5839), pp. 432–443, Sapporo, Japan, Oct. 2009, Springer-Verlag.
- Ching, W-K., Li, L., Chan, Y-M. and Mamitsuka, H., A Study of Network-based Kernel Methods on Protein-Protein Interaction for Protein Functions Prediction. *Proceedings of the Third International Symposium on Optimization and Systems Biology (OSB 2009)*. (*Lecture Notes in Operations Research*, vol. 11), pp. 25–32, Zhangjiajie, China, Sep. 2009, APORC Press.

- Wan, R., Mamitsuka, H. and Aoki, K. F., Cleaning Microarray Expression Data Using Markov Random Fields based on Profile Similarity. *Proceedings of the Twentieth ACM Symposium on Applied Computing (SAC 2005)*., pp. 206–207, Santa Fe, NM, USA, Mar. 2005, ACM Press.
- Yamaguchi, A. and Mamitsuka, H., Finding the Maximum Common Subgraph of a Partial k-Tree and a Graph with a Polynomially Bounded Number of Spanning Trees. *Proceedings of the Fourteenth International Symposium on Algorithm and Computation (ISAAC 2003)*. (*Lecture Notes in Computer Science*, vol. 2906), pp. 58–67, Kyoto, Japan, Dec. 2003, Springer-Verlag.
- Mamitsuka, H., Selective Sampling with a Hierarchical Latent Variable Model. *Proceedings of the Fifth International Symposium on Intelligent Data Analysis (IDA 2003)*. (*Lecture Notes in Computer Science*, vol. 2810), pp. 352–363, Berlin, Germany, Aug. 2003, Springer-Verlag.
- Mamitsuka, H., Detecting Experimental Noise in Protein-Protein Interactions with Iterative Sampling and Model-based Clustering. *Proceedings of the Third IEEE International Symposium on Bioinformatics and Bioengineering (BIBE 2003)*., pp. 385–392, Bethesda, MD, USA, Mar. 2003, IEEE Computer Society Press.
- Mamitsuka, H., Empirical Evaluation of Ensemble Feature Subset Selection Methods for Learning from a High-Dimensional Database in Drug Design. *Proceedings of the Third IEEE International Symposium on Bioinformatics and Bioengineering (BIBE 2003)*., pp. 253–257, Bethesda, MD, USA, Mar. 2003, IEEE Computer Society Press.

Refereed Workshop Papers

- Shiga, M. and Mamitsuka, H., Variational Bayes Learning over Multiple Graphs *Proceedings of 2010 IEEE International Workshop on Machine Learning for Signal Processing (MLSP 2010)*., pp. 166–171, Kittilä, Finland, Aug. 2010, IEEE.
- Hancock, T. and Mamitsuka, H., A Markov Classification Model for Metabolic Pathways. *Proceedings of the Ninth Workshop on Algorithms in Bioinformatics (WABI 2009)*. (*Lecture Notes in Bioinformatics*, vol. 5724), pp. 121–132, Philadelphia, PA, USA, Sep. 2009, Springer.
- Wan, R., Takigawa, I. and Mamitsuka, H., Applying Gaussian Distribution-dependent Criteria to Decision Trees for High-Dimensional Microarray Data. *Proceedings of 2006 VLDB Workshop on Data Mining in Bioinformatics*. (*Lecture Notes in Bioinformatics*, vol. 4316), pp. 40–49, Seoul, Korea, Sep. 2006, Springer-Verlag.
- Mamitsuka, H., Efficient Mining from Heterogeneous Data Sets for Predicting Protein-Protein Interactions. *Proceedings of the Fourteenth International Workshop on Database and Expert Systems Applications*., pp. 32–36, Prague, Czech Republic, Sep. 2003, IEEE Computer Society Press.
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- Ng, S.-K., Mamitsuka, H. and Wong, L., *Genome Informatics, Vol. 19*, Imperial College Press, 2007, ISBN-10: 1-86094-984-3 (ISBN-13: 978-1-86094-984-3).
- Heinrich, R., Mamitsuka, H., Kanehisa, M., Takagi, T. and Miyano, S., *Genome Informatics, Vol. 16, No.2*, Universal Academy Press, Inc., 2005, ISBN: 4-946443-96-7.
- Mamitsuka, H., Smith, T. F., Holzhütter, H.-G., Kanehisa, M., DeLisi, C., Heinrich, R. and Miyano, S., *Genome Informatics, Vol. 15, No.1*, Universal Academy Press, Inc., 2004, ISBN: 4-946443-88-6.

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- Zhang, L, Udaka, K, Mamitsuka, H. and Zhu, S., Toward More Accurate Pan-Specific MHC-Peptide Binding Prediction: A Review of Current Methods and Tools. To appear in *Briefings in Bioinformatics*, 2011.
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- Cios, K. J., Mamitsuka, H., Nagashima, T. and Tadeusiewicz, R., Computational Intelligence in Solving Bioinformatics Problems. *Artificial Intelligence in Medicine*, 35 (1), 1–8, 2005.

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- Mamitsuka, H. and Abe, N., Efficient Data Mining by Active Learning. *Progress in Discovery Science, Lecture Notes in Artificial Intelligence*, vol. 2281, pp. 258–267, Eds. Arikawa, S., Shinohara, A., Springer-Verlag, 2002.
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- Wan, R., Ngoc, V. A., and Mamitsuka, H., Passage Retrieval with Vector Space and Query-Level Aspect Models, *The Sixteenth Text Retrieval Conference (TREC 2007) Proceedings* (NIST (National Institute of Standards and Technology) Special Publication: SP 500-274), 37, Washington D.C., USA, 2007.
- Wan, R., Takigawa, I., Ngoc, V. A., and Mamitsuka, H., Combining Vector-Space and Word-Based Aspect Models for Passage Retrieval, *The Fifteenth Text Retrieval Conference (TREC 2006) Proceedings* (NIST Special Publication: SP 500-272), 45, Washington D.C., USA, 2006.
- Yamada, T., Kawashima, S., Mamitsuka, H., Goto, S. and Kanehisa, M., Comprehensive Analysis and Prediction of Synthetic Lethality Using Subcellular Locations. *Proceedings of the Fifth International Workshop on Bioinformatics and Systems Biology*. (*Genome Informatics*, 16 (1)), pp. 150–158, Berlin, Germany, Aug. 2005, Universal Academy Press, Inc.

Journal Papers in Japanese

- Shiga, M., Takigawa, I. and Mamitsuka, H., Clustering Analysis for Combining Multiple Genomic Data, *Seibutsu-butsumi (Biophysics)*, 48 (3), 190–194, 2008. (in Japanese)
- Mamitsuka, H. and Abe, N., Active Ensemble Learning – Applications to Data Mining and Bioinformatics – (in Japanese). *IEICE Transactions*, J85-DII (5), 717–724, 2002. (Invited paper).

Book Chapters/Articles in Japanese

- Takigawa, I. and Mamitsuka, H., Graph Algorithms for Chemistry. *Kagaku to Kyoiku (Chemistry and Education)*, 59 (9), 450–453, 2011. (in Japanese)
- Mamitsuka, H. and Yoneya, T., PURE: A System for Assisting PubMed Documents Retrieval. *Seimei Kenkyu he no Ouyou to Kaihatsu ga Susumu Biodatabase to Biosoftware Saizensen.*, pp. 201–206, Eds. Morishita, S. and Akutsu, T., Yodo-sya, 2008. (in Japanese)
- Udaka, K. and Mamitsuka, H., Predicting Peptides Binding to Major Histocompatibility Complex Antigens. *Bioinformatics ga Wakaru.*, pp. 68–71, Ed. Sugawara, H., Yodo-sya, 2003. (in Japanese)
- Abe, N. and Mamitsuka, H., Active Learning and Discovery Science. *bit – Special issue on Discovery Science and Data Mining –.*, Chapter 7, pp. 64–72, Eds. Morishita, S. and Miyano, S., Kyoritsu Shuppan, 2000. (in Japanese)

PATENTS (already issued only)

- USA, No. 6973446, Mamitsuka, H. and Abe, N.
- Japan, P3237606, Mamitsuka, H.
- Japan, P3094860, Mamitsuka, H.
- Japan, P3012411, Mamitsuka, H.
- Japan, P2980037, Mamitsuka, H.
- Japan, P2940529, Mamitsuka, H.
- Japan, P2870458, Mamitsuka, H., Nakamura, A. and Toba, H.
- Japan, P2739825, Mamitsuka, H.
- Japan, P2658823, Mamitsuka, H. and Abe, N.
- Japan, P2551297, Mamitsuka H. and Yamanishi, K.

PROFESSIONAL ACTIVITIES

Research Visiting

May 2009–Present: Senior Visiting Scholar, Fudan University, China.

May–Jun. 2009, May–Jun. 2011: Visiting Professor, University of Strasbourg, France.

Dec. 2007: Visiting Researcher, School of Computing, National University of Singapore.

Mar. 2006, Nov.–Dec. 2007 and Mar. 2009: Visiting Scientist, Institute for Infocomm Research (I2R), Agency for Science, Technology and Research (A*STAR), Singapore.

Book/Journal/Magazine Editing

Editorial Board Member, *The ScientificWorldJournal*, Hindawi Publishing Corporation. September, 2011–Present.

Editorial Board Member, *Journal of Glycobiology*, OMICS Publishing Group. July, 2011–Present.

Associate Editor, *BMC Bioinformatics*, BioMed Central. April, 2010–Present.

Associate Editor, *Knowledge and Information Systems*, Springer. November, 2009–Present.

Associate Editor, *International Journal of Knowledge Discovery in Bioinformatics*, IGI Global. December, 2008–Present.

Editorial Advisory Review Board Member, *Biological Data Mining in Protein Interaction Networks*, Editors: Xiao-Li Li and See-Kiong Ng, IGI Global. 2008.

Editorial Advisory Board Member, *The Open Medical Informatics Journal*, Bentham Science Publishers. November, 2007–Present.

Guest Co-editor, Special issue: *Bioinformatics in Japan, Asia Pacific Biotech News*, Vol. 11, No. 15, Biotech Services PTE. Ltd., August 15, 2007.

Guest Co-editor, Special issue: *Computational Intelligence Techniques in Bioinformatics, Artificial Intelligence in Medicine*, Vol. 35, Issues 1-2, Elsevier. September-October, 2005.

Book/Journal/Magazine Referee

ACM Transactions on Knowledge Discovery from Data, Acta Biotheoretica, Artificial Intelligence in Medicine, Bioinformatics, BMC Bioinformatics, BMC Structural Biology, BMC Systems Biology, Data and Knowledge Engineering, Data Mining and Knowledge Discovery, IEEE Intelligent Systems, IEEE/ACM Transactions on Computational Biology and Bioinformatics, IEEE Transactions on Information Technology in Biomedicine, IEEE Transactions on Knowledge and Data Engineering, International Journal of Data Mining and Bioinformatics, International Journal of Foundation of Computer Science, Journal of Bioinformatics and Computational Biology, Journal of Biomedical Informatics, Journal of Clinical Bioinformatics, Journal of Computer Science and Technology, Journal of Machine Learning Research, Molecular Oncology, Molecular Pharmaceutics, New Generation Computing, Nucleic Acids Research, OR spectrum, Pattern Recognition, PLoS Computational Biology, PLoS One, Theoretical Computer Science, Wiley Encyclopedia of Chemical Biology

Conference Committee

- Program Committee Co-chair
BIBE (2009), GIW (2005, 2007), IBSB (2004)
- Program Committee Member (Major conferences only)
APBC (2008–2012), CIKM (2010–2011), ISMB (2007–2009)

Grant Referee

Fundamental Technology Development for Promoting the Industrial Application of iPS Cells, New Energy and Industrial Technology Development Organization (NEDO), Japan (Feb.–Mar. 2011)

Strategic Research Funding, City University of Hong Kong (Feb. 2008, Jan. 2012)

Extramural Programme, Biomedical Research Council (BMRC), A*STAR, Singapore (Sep. 2007)

Professional Societies

- Membership
ACM (Association for Computing Machinery), IEEE (Institute of Electrical and Electronics Engineers), ISCB (International Society for Computational Biology), JSBi (Japanese Society of Bioinformatics)
- Services
 1. JSBi
Co-founder (1999), Board Member (Apr. 2005–Mar. 2007), Secretary (Apr. 2007–Mar. 2008)
 2. AASBi (Association of Asian Societies for Bioinformatics)
Board Member (Jan. 2007–Present)

PRESENTATIONS (Since 2006)

- Jan. 30, 2012: Seminar, *Kochi Medical School*, Kochi, Japan.
- Nov. 23, 2011: Invited Talk, Seminar in Information Systems and Applications, *National Tsing Hua University*, Hsinchu, Taiwan.
- Nov. 22, 2011: Seminar, *National Tsing Hua University*, Hsinchu, Taiwan.
- Nov. 14, 2011: Seminar, *Fudan University*, Shanghai, China.
- Nov. 13, 2011: Invited Tutotial, *2011 International Conference on Neural Information Processing (ICONIP)*, Shanghai, China.
- Oct. 26, 2011: Invited Talk, *13th Niigata Proteomics Forum*, Niigata, Japan.
- Aug. 29, 2011: Opening Remark, *ICR Symposium to Celebrate the Bioinformatics Center's 10 Year Anniversary and New Restructuring*, Uji, Japan.
- Aug. 24, 2011: Invited Lecture, *FICS (Finnish Doctoral Programme in Computational Sciences) Summer School*, Espoo, Finland.
- Jul. 28, 2011: Invited Talk, *Educational Seminar, 2011 Annual Meeting of Japanese Proteomics Society (The 9th JHUPO Conference)*, Niigata, Japan.
- Jul. 22, 2011: Invited Lecture, *Summer School, "Computational Systems Biology"*, Berlin, Germany.
- Jun. 21, 2011: Seminar, *Kyowa Hakko Kirin Co., Ltd.*, Mishima, Japan.
- May 27, 2011: Seminar, *University of Strasbourg*, France.
- May 24, 2011: Seminar, *IGBMC (Institute of Genetics and Molecular and Cellular Biology), University of Strasbourg*, France.
- May 16, 2011: Seminar, *Fudan University*, Shanghai, China.
- Feb. 28, 2011: Invited Talk, *2nd Workshop on Bioinformatics for Medical and Pharmaceutical Research*, Paris, France.
- Feb. 23, 2011: Seminar, *Humboldt University Berlin*, Germany.
- Jan. 20, 2011: Seminar, *National Cheng Kung University*, Tainan, Taiwan.
- Jan. 19, 2011: Seminar, *National Cheng Kung University*, Tainan, Taiwan.
- Dec. 30, 2010: Seminar, *Fudan University*, Shanghai, China.
- Dec. 28, 2010: Seminar, *Shanghai Jiao Tong University*, Shanghai, China.
- Dec. 27, 2010: Seminar, *Shanghai Institutes for Biological Sciences*, Shanghai, China.
- Dec. 10, 2010: Seminar, *Boston College*, MA, USA.
- Dec. 8, 2010: Seminar, *Boston University*, MA, USA.
- Nov. 10, 2010: Invited Talk, *6th Research Achievement Report Meeting*, Institute for Bioinformatics Research and Development, Japan Science and Technology Agency, Shinagawa, Japan.
- Nov. 5, 2010: Plenary Lecture, *The 2010 Systems Biology and Bioinformatics Symposium (SBBS)*, Hsinchu, Taiwan.

Oct. 24, 2010: Invited Talk, Open Lectures in *Institute for Chemical Research, Kyoto University*, Uji, Japan.

Oct. 18, 2010: Seminar, *Fudan University*, Shanghai, China.

Oct. 15, 2010: Seminar, *Soochow University*, Suzhou, China.

Sep. 13, 2010: Keynote Speech, *Second International Seminar on Business and Information Management (ISBIM 2010)*, Wuhan, China.

Aug. 5, 2010: Invited Talk, *Symposium on "Invitation to Integrated Complex System Sciences"*, Kyoto, Japan.

May 13, 2010: Seminar, *Fudan University*, Shanghai, China.

Mar. 22, 2010: Seminar, *Curie Institute*, Paris, France.

Mar. 16, 2010: Seminar, *Fudan University*, Shanghai, China.

Feb. 8, 2010: Invited Talk, *The Ninth Research Seminar at Hokkaido Branch of JSBi*, Sapporo, Japan.

Oct. 9, 2009: Seminar, *Humboldt University Berlin*, Germany.

Oct. 5, 2009: Invited Lecture, *International Beilstein Symposium on Glyco-Bioinformatics*, Potsdam, Germany.

Sep. 29, 2009: Seminar, *Fudan University*, Shanghai, China.

Jun. 22 & 24, 2009: Invited Lecture, *TISE Summer School on Statistical Modeling and Machine Learning in Computational Systems Biology*, Tampere, Finland.

Jun. 6, 2009: Keynote Speech, *IEEE International Conference on Computational Intelligence and Natural Computing (CINC 2009)*, Wuhan University of Science and Technology, Wuhan, China.

May 28, 2009: Seminar, *The Image Sciences, Computer Sciences and Remote Sensing Laboratory (LSIIT), Université Louis Pasteur Strasbourg*, France.

May 25, 2009: Seminar, *Faculty of Chemistry, Université Louis Pasteur Strasbourg*, France.

May 13, 2009: Keynote Speech, *Bioinformatics Workshop*, Fudan University, Shanghai, China.

Mar. 24, 2009: Seminar, *I2R, A*STAR*, Singapore.

Jan. 15, 2009: Invited Talk, *Workshop, Bioinformatics on Herbel Medicine*, Toyama, Japan.

Dec. 21, 2008: Keynote Speech, *IEEE International Symposium on Knowledge Acquisition and Modeling (KAM 2008)*, Huazhong Normal University, Wuhan, China.

Oct. 22, 2008: Seminar, *Max Planck Institute for Biological Cybernetics*, Tübingen, Germany.

Oct. 14, 2008: Seminar, *The Graduate University for Advanced Studies (Sokendai)*, Hayama, Japan.

Jun. 22, 2008: Invited Talk, *Workshop on Relations with Computer Science, Foundations of Computational Mathematics (FoCM'08)*, City University of Hong Kong, China.

Jun. 19, 2008: Invited Talk, *Research Meeting, The Institute of Electronics, Information and Communication Engineers (IEICE)*, Otaru, Japan.

Jun. 17, 2008: Seminar, *Nara Institute of Science and Technology*, Nara, Japan

May 27, 2008: Seminar, *University of Melbourne*, Australia.

May 27, 2008: Keynote Speech, *Systems Biology Workshop: From Molecules to Life*, Melbourne, Australia.

Dec. 13, 2007: Seminar, *Helsinki University of Technology*, Finland.

Dec. 3, 2007: Opening Address, *Eighteenth International Conference on Genome Informatics*, Biopolis, Singapore.

Dec. 2, 2007: Invited Talk, *AASBi Symposium 2007*, Biopolis, Singapore.

Nov. 28, 2007: Seminar, *I2R, A*STAR*, Singapore.

Sep. 20, 2007: Invited Talk, *Symposium on Bioinformatics and Chemical Genomics*, Kyoto, Japan

Aug. 22, 2007: Keynote Speech, *International Conference on Intelligent Computing (ICIC 2007)*, Academic Exchange Center, Ocean University of China, Qingdao, China.

Aug. 10, 2007: Seminar, *University of California Berkeley*, CA, USA.

Dec. 8, 2006: Invited Talk, *International Workshop on Scientific Computing: Models, Algorithm and Applications*, University of Hong Kong, China.

Nov. 9, 2006: Invited Talk, *Second Taiwan-Japan Bilateral Symposium on Bioinformatics*, National Cheng Kung University, Tainan, Taiwan.

Nov. 3, 2006: Invited Talk, *Third Japan-Germany Frontiers of Sciences Symposium*, Heidelberg, Germany.

Sep. 26, 2006: Seminar, *BioFrontier Laboratories, Kyowa Hakko Kogyo Co., Ltd.*, Machida, Japan.

Aug. 24, 2006: Seminar, *IBM T. J. Watson Research Center*, Yorktown Heights, NY, USA.

Aug. 23, 2006: Talk, *Twelfth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2006)*, Philadelphia, PA, USA.

May 25, 2006: Seminar, *The Tokyo Metropolitan Institute of Medical Science (Rinshoken)*, Japan.

Mar. 28, 2006: Seminar, *Department of Mathematics and Informatics, Faculty of Sciences, Chiba University*, Japan.

Mar. 23, 2006: Seminar, *School of Computing, National University of Singapore*.

Mar. 21, 2006: Seminar, *I2R, A*STAR*, Singapore.

Mar. 14, 2006: Invited Talk, *First Japan-Taiwan Bilateral Symposium on Bioinformatics*, University of Tokyo, Japan.

AWARDS

Best Poster Award, *Reverse-engineering Gene Regulatory Networks Using Time Series*, David duVerle and Hiroshi Mamitsuka, The 11th Annual International Workshop on Bioinformatics and Systems Biology (IBSB 2011), Berlin, Germany, Jul. 2011.

Recipient for Certificate of Appreciation, Service Award, IEEE Computer Society, USA, 2009.

TEACHING

Visitors Supervisor

- Fang Wang (Associate Professor, Southwest University, China), Sep. 2011–Mar. 2012
- Nicolas Wicker (Assistant Professor, University of Strasbourg, France), Feb.–Mar. 2010
- Anh Ngoc Vo (Research Fellow, University of Melbourne, Australia), Jun.–Jul. 2008
- Kei-ichiro Takahashi (Senior Researcher, Olympus Corporation, Japan), Apr. 2008–Sep. 2009
- Nikolaos Angelopoulos (Postdoctoral Fellow, University of Edinburgh, UK), Oct. 2006
- Takashi Yoneya (Senior Scientist, Kirin Brewery Co., Ltd., Japan), Oct. 2005–Sep. 2006

Postdocs Supervisor

- Canh Hao Nguyen, Apr. 2009–May 2011
- Mitsunori Kayano (Currently, Associate Professor, Obihiro University of Agriculture and Veterinary Medicine, Japan), Apr. 2008–Sep. 2010
- Yayoi Natsume (Currently, PRESTO (Sakigake) Researcher, JST (Japan Science and Technology Agency)), Apr. 2008–Sep. 2010
- Timothy Peter Hancock (Currently, Assistant Professor, Kyoto University, Japan), Jul. 2007–Mar. 2011
- Motoki Shiga (Currently, Assistant Professor, Toyohashi University of Technology, Japan), Apr. 2006–Mar. 2008
- Shanfeng Zhu (Currently, Associate Professor, Fudan University, China), May 2004–May 2008
- Raymond Wan (Currently, Research Fellow, Chinese University of Hong Kong), Apr. 2004–Mar. 2009
- Nicolas Majeux, Apr. 2003–Jan. 2004
- Kiyoko Flora Aoki-Kinoshita (Currently, Associate Professor, Soka University, Japan), Apr. 2003–Mar. 2004

PhD Thesis Supervisor

- Kei-ichiro Takahashi, Advisor, Graduate School of Pharmaceutical Sciences, Kyoto University, Japan, Apr. 2011–Present.
- David duVerle, Advisor, Graduate School of Pharmaceutical Sciences, Kyoto University, Japan, Apr. 2009–Present.
- Merja Oja, Thesis opponent, Department of Computer Science and Engineering, Helsinki University of Technology, Finland, Dec. 2007.
- Limin Li, Internship supervisor, Department of Mathematics, University of Hong Kong, Jun.–Sep. 2007.
- Jin Chen, Thesis external examiner, School of Computing, National University of Singapore, Jan. 2007.

Masters Thesis Supervisor

- Yoshifumi Matsushima, Advisor, Graduate School of Pharmaceutical Sciences, Kyoto University, Japan, Apr. 2007–Mar. 2009.
- Yoshiko Satoh, Advisor, Graduate School of Pharmaceutical Sciences, Kyoto University, Japan, Apr. 2007–Mar. 2009.

Courses Taught

Faculty of Medicine, Niigata University, Japan (2010–2011)

Pathway

Kyoto Sustainability Initiative (KSI), The Integrated Research System for Sustainability Science (IR3S), Japan (2009)

Biological Sequence Alignment

Graduate School of Pharmaceutical Sciences, Kyoto University (2003–2011)

Introduction to Bioinformatics, Advanced Bioinformatics, Lead Discovery, Chemical Skills

Education and Research Organization for Genome Information Science, Japan (2002–2006)

Machine Learning, Machine Learning and Data Mining for Biological Sequence Analysis, Protein and/or RNA Structure Analysis with Statistical Learning, Protein Network Analysis, Sequence Alignment, Sorting, Technical Writing