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General Information

Current Academic Appointments

- 2008- Associate Professor of Pediatrics and Medicine, Harvard Medical School.
- 2008- Associate Professor, Harvard-MIT Division of Health Sciences and Technology.

Current Administrative Appointments

- 2004- Associate Director of Bioinformatics, Harvard-Partners Center for Genetics and Genomics, Harvard Medical School.
- 2005- Director, Biomedical Cybernetics Laboratory, Harvard Medical School.
- 2005- Director, Training Fellowship in Biomedical Informatics, Children's Hospital Boston.

Current Hospital Appointments

- 2000- Staff Scientist, Children's Hospital Boston.
- 2004- Research Scientist, Brigham and Women's Hospital.

Major Committee Assignments

- 2003- Curriculum Committee, Cellular and Molecular Track, Division of Health Sciences and Technology, Harvard Medical School – Massachusetts Institute of Technology
- 2005- Admission Committee, PhD Program, Division of Health Sciences and Technology, Harvard Medical School – Massachusetts Institute of Technology.
- 2006- Informatics Committee, Clinical and Translation Science Award (CTSA) Committee at Harvard University.
- 2008- NIH Special Emphasis Panel "Software Maintenance and Extension" (ZRG1-BSTQ)

Current Funding

- 2008-10 Principal Investigator, Beyond Association: Predictive Genomics of Nicotine Dependence, Cutting-Edge Basic Research Award, NIH/NIDA (\$340,000)
- 2006-09 Principal Investigator, Decoding Gene Expression Control, R01, NIH/NHGRI (\$1,100,000)
- 2005-10 Principal Investigator on subcontract, Pharmacogenomics of Asthma Treatment, NIH/NHLBI (\$1,020,000)
- 2005-10 Principal Investigator on subcontract, Genomic Profiling of Cholera in Bangladesh, NIH/NIAID (\$385,000)

Current Teaching Responsibilities

- 2004- Course Director. Biomedical Informatics (HST 951), Harvard-MIT Division of Health Sciences and Technology

Qualifications and Research Experience

Education and Training

- 1993-95 Fellowship, Cognitive Science and AI in Medicine, McGill University, Canada
- 1989-93 PhD, Biomedical Engineering (Medical Informatics), University of Pavia, Italy
- 1988-89 Confederation Fellowship, Logic, University of Geneva, Switzerland
- 1982-87 BA, Philosophy (Epistemology), University of Pavia, Italy

Past Academic Appointments

- 2003-08 Assistant Professor of Pediatrics, Harvard Medical School
- 2000-03 Instructor in Pediatrics, Harvard Medical School.
- 1997 Visiting Lecturer, Royal Holloway, University of London, United Kingdom.
- 1998 Senior Visiting Fellow, Department of Computer Science, University of Massachusetts, Amherst, MA.
- 1995-99 Research Fellow, Knowledge Media Institute, United Kingdom.

External Administrative Responsibilities

- 2007- Reviewer, Medical Research Council of Canada (MRC)
- 2007- Reviewer, Natural Sciences and Engineering Research Council of Canada (NSERC)
- 2004- Member of the Board of Experts, Ministry of Education, University, Research, Italy
- 2002 Michael Smith Foundation for Health Research
- 2002 Pennsylvania DOH Bioinformatics Panel (Infection)
- 2002 Pennsylvania DOH Bioinformatics Panel (Cancer)
- 2008 NIH Special Emphasis Panel "Software Maintenance and Extension" (ZRG1-BSTQ)
- 2008 NIH/NCRR Special Emphasis Panel (ZRR1-CM 8(01))

Other Professional Activities

- 2006- Co-Founder and Director, Phorecaster LLC, Needam, MA
- 2005- Scientific Advisor, Correlagen Diagnostics Inc, Waltham, MA
- 2000- Co-Founder and Director, Bayesware LLC, Boston, MA

Funding History

- 2008-10 Principal Investigator. Beyond Association: Predictive Genomics of Nicotine Dependence, Cutting-Edge Basic Research Award (CEBRA), R21, NIH/NIDA
- 2006-09 Principal Investigator. Decoding Gene Expression Control, R01, NIH/NHGRI
- 2005-10 Principal Investigator at Children's Hospital. Pharmacogenomics of Asthma Treatment, P01, NIH/NHLBI
- 2005-10 Principal Investigator at Brigham and Women's Hospital. Genomic Profiling of Cholera, NIH/NIAID
- 2004-09 Investigator. National Center of Biomedical Computing i2b2, P01, NIH/NLM
- 2001-04 Principal Investigator. Phenotyping SNPs using Bayesian networks, Research Grant, National Science Foundation (NSF)
- 2000-03 Principal Investigator at Children's Hospital. Probabilistic Dynamic Analysis of Plans, DARPA

1998-00 Principal Investigator. Bayesian Knowledge Extractor (BaKE), ESPRIT Program, Commission of the European Communities

Software Developed

- 2005 BADGE (Bayesian Analysis of Differential Gene Expression): A program for differential analysis of microarray experiments (<http://genomethods.org/badge>).
- 2003 BEST (Best Enumeration of SNP Tags): The first computer program for the analytical identification of haplotype tagging SNPs. Distributed in over 1000 copies (<http://genomethods.org/best>).
- 2002 CAGED (Cluster Analysis of Gene Expression Dynamics): The first program for the analysis of temporal microarray experiments. Distributed in over 2,000 copies (<http://genomethods.org/caged>).
- 1999 RoC (Robust Bayesian Classifier): A computer program to classify incomplete databases. Distributed in over 6,000 copies (<http://kmi.open.ac.uk/bkd>).
- 1997 BKD (Bayesian Knowledge Discoverer): The first publicly available computer program to learn Bayesian networks from incomplete data. Distributed in over 5,000 copies. Used in over 30 universities in graduate and undergraduate courses. Now a commercial product as Bayesware Discoverer (<http://bayesware.com>).

Professional Societies

- 2001- American Association for Medical Informatics, Member
- 1994- Association for Computer Machinery, Member
- 1994- American Association for Artificial Intelligence, Member

Editorial Boards

- 2007- Editorial Board Member, BMC Biological Data Mining
- 2005- Editorial Board Member, Encyclopedia of Data Mining
- 2003- Guest Editor, Machine Learning Journal

Program Committees

- 1999 European Conf Artificial Intelligence Workshop Bayesian and Causal Networks
- 1999 International Conference on Uncertainty in Artificial Intelligence (UAI-99)
- 1999 FLAIR-99 Special Track on Reasoning Under Uncertainty
- 1999 AIMDC-99 Workshop on Prognostic Models in Medicine
- 2000 IEEE/SMC Prognostic Methods in Medical Diagnostic and Treatment Planning
- 2001 Symp. on Intelligent Data Analysis in Medicine and Pharmacology, MEDINFO
- 2002 KDD-2002 ACM Conference on Knowledge Discovery and Data Mining
- 2002 Soft-Ware 2002 Conference, Belfast, UK
- 2002- Intelligent Data Analysis in Medicine and Pharmacology (IDAMAP 2002)
- 2003- International Symposium on Imprecise Probabilities and Their Applications
- 2003 Workshop on Probabilistic Graphical Models for Classification, European Conference on Machine Learning (ECML'03)
- 2003- Intelligent Data Analysis in Medicine and Pharmacology (IDAMAP 2003)
- 2004 Foundations of Urban Security: Workshop at the Intl Conference on Data Mining
- 2007 5th International Conference on Biological Data Management (BIDM '07)

- 2007- IEEE International Symposium on Bioinformatics and Bioengineering (IEEE-BIBE)
- 2008 American Medical Informatics Association (AMIA) Summit on Translational Bioinformatics, 2008 (Track Chair).
- 2008 Machine Learning for Health Care Applications Workshop, International Conference on Machine Learning (ICML 2008).

Reviewer

- 1997- Artificial Intelligence in Medicine
- 1998 Syntese
- 1999 Computational Intelligence
- 1999 Knowledge Engineering Review
- 1999 IEEE Transactions on Data and Knowledge Engineering
- 1999 Intelligent Data Analysis
- 1999 International Journal of Approximate Reasoning
- 1997- Lecture Notes in Computer Science
- 2000 Int. J. Uncertainty Fuzziness and Knowledge Systems
- 2000 Statistics and Computing
- 2001- Bioinformatics
- 2002- Physiological Genomics
- 2002 European Journal of Operational Research
- 2004- American Journal of Human Genetics
- 2004- Nucleic Acid Research
- 2005- Journal of the American Statistical Association
- 2005- BMC Bioinformatics
- 2006- Journal of Clinical Endocrinology & Metabolism
- 2006- Genomics
- 2006- BMC Systems Biology
- 2006- Journal of Biomedical Informatics
- 2007- Nature Methods

Awards and Honors

- 1982 Collegio Ghislieri, Pavia, Italy, National Undergraduate Fellowship.
- 1983 Philips Award for Young European Researchers, Second position
- 1987 Laude, Philosophy, University of Pavia
- 1988 Collegio Ghislieri, Pavia, Italy, Graduate Fellowship
- 1988 Confederation Fellow. University of Geneva, Switzerland.
- 1999 Association for Computer Machinery (ACM) Knowledge Discovery Cup. Honorary Mention.
- 2007 Invited Lecture, 27th Conference on Uncertainty in Artificial Intelligence, Vancouver, Canada

Invited Presentations

- 1990 Invited presentation. Epistemological perspectives on the automation of mathematical reasoning. International Workshop on "Knowledge and Mathematics", Pavia, Italy.
- 1990 Academic Seminar. The structure of automated reasoning systems in medical domains. National Institute for Cancer Research of Italy, Milan, Italy.
- 1990 Academic Seminar. The psychology of automated reasoning. Department of Psychology, University of Pavia, Italy
- 1991 Academic Seminar. The Epistemology of Medical Knowledge-based Systems. Faculty of Medicine, McGill University, Montreal, Canada.
- 1992 Academic Seminar. An epistemological framework for medical knowledge-based systems. University of Ulm, Ulm, Germany.
- 1993 Academic Seminar. Belief maintenance under uncertainty. Department of Psychology, McGill University, Montreal, Canada.
- 1994 Academic Seminar. Forecasting glucose concentration in diabetic patients using clinical databases. Department of Epidemiology and Biostatistics, McGill University, Montreal, Canada.
- 1994 Academic Seminar. Probabilistic reasoning under ignorance. Institute for Interdisciplinary Studies, Carleton University, Ottawa, Canada.
- 1994 Academic Seminar. Probabilistic reasoning with incomplete information. Department of Computer Science, University of Pavia, Italy.
- 1994 Academic Seminar. Ignorant belief networks: Theory and clinical applications. Laboratory of Computer Science, MIT, Cambridge, MA.
- 1995 Academic Seminar. Probabilistic reasoning under ignorance. Department of Actuarial Science and Statistics, City University, London, UK.
- 1997 Academic Seminar. Virtual Intelligence. Department of Artificial Intelligence, University of Edinburgh, UK.
- 1997 Academic Seminar. Discovering Bayesian networks. Department of Statistics, University of Warwick, Coventry, UK.
- 1997 Academic Seminar. Discovering Bayesian networks in incomplete databases, Department of Computer Science, Royal Holloway, University of London, UK.
- 1998 Invited Presentation, Data analysis using Bayesian networks. Qualitative Structure Activity Relationship (QSAR) Forum, Sittingbourn, UK.
- 1998 Academic Seminar. An introduction to Bayesian methods for intelligent data analysis. Department of Computer Science, University of Massachusetts, Amherst, MA.
- 1998 Academic Seminar. Bayesian knowledge discovery. Department of Computer Science, University of Aberdeen, Aberdeen, UK.
- 1998 Academic Seminar. Data analysis using Bayesian networks. Glaxo Wellcome Research Laboratories, Stevenage, UK.
- 1999 SGES Evening Lecture. Bayesian knowledge discovery. British Computer Society, London, United Kingdom.
- 1999 Invited Lecture. Bayesian knowledge discovery in large scale databases. Workshop on High Performance Data Mining for Large Scale Data Sets. Amsterdam, The Netherlands.
- 1999 Invited Lecture. Bots, Battles and Bach: Bayesian clustering by dynamics. Tenth Annual Open University Statistics Conference, Milton Keynes, UK.

- 1999 Academic Seminar. Robust Outcome prediction of intensive care unit patients. Center for Information in Medicine, City University, London, UK.
- 1999 Academic Seminar. Bayesian methods for knowledge discovery in databases. Children's Hospital. Boston, MA.
- 2000 Invited Lecture. Knowledge discovery using Bayesian networks. Royal Statistical Society, London, UK.
- 2000 Invited Lecture. Uncertainty in medical artificial intelligence. Workshop on Soft Computing, Belfast, UK.
- 2000 Invited Lecture, Automated Bayesian modeling. Sixth World Meeting of the Intl Society for Bayesian Analysis, Crete, Greece.
- 2000 Academic Seminar. Knowledge discovery using Bayesian networks. Office of National Statistics, London, UK.
- 2001 Keynote Address. Bayesian bioinformatics. Workshop on Bayesian Models in Medicine. Artificial Intelligence in Medicine Europe, Cascais, Portugal.
- 2001 Invited Lecture. Bayesian methods in bioinformatics. Workshop on Intelligent Data Analysis in Medicine and Pharmacology, American Medical Informatics Association, Washington, DC.
- 2001 Tutorial. Introduction to bioinformatics. Conference of the American Medical Informatics Association (AMIA), Washington, DC.
- 2001 Academic Seminar. Biomedical informatics applications of Bayesian networks. Astra Zeneca R&D Laboratories, Waltham, MA.
- 2001 Academic Seminar. Temporal profiling of gene expression data. Department of Mathematics and Statistics, University of Massachusetts, Amherst, MA.
- 2001 Academic Seminar. Cluster analysis of gene expression dynamics. Whitehead Institute, Massachusetts Institute of Technology, Cambridge, MA.
- 2001 Academic Seminar. Bayesian methods in functional genomics. Department of Medical Informatics, Columbia University, New York, NY.
- 2002 Academic Seminar. Computational functional genomics. Genomics Center, Beth Israel Deaconess Medical Center, Boston, MA.
- 2002 Academic Seminar. Bayesian bioinformatics. Medical Physics and Medical Engineering Seminar Series. Harvard-MIT Division of Health Science and Technology, Cambridge, MA.
- 2002 Academic Seminar. Bayesian methods in functional genomics. Center of Medical Informatics, Boston Medical School, Boston, MA
- 2002 Academic Seminar. Bayesian approaches to microarray data analysis. Seminars in Cancer Genomics, Dana Farber Cancer Institute, Boston, MA
- 2002 Tutorial. Introduction to bioinformatics. Conference of the American Medical Informatics Association (AMIA), San Antonio, TX
- 2003 Academic Seminar. temporal profiling of gene expression dynamics. Department of Bioinformatics, Boston University, Boston, MA
- 2003 Invited Lecture. Bayesian methods for microarray data analysis. Microarray Analysis and Visualization Conference. Boston, MA
- 2003 Academic Seminar. Bioinformatics: Why You Need it and What It Can Do For You. Harvard School of Dental Medicine, Boston, MA
- 2003 Invited Lecture. Biomedical machine learning. Dental Informatics and Dental Research, National Institutes of Health, Bethesda, MD

- 2003 Invited Lecture. Two challenges in bioinformatics. NIH/NIEHS Symposium on Genes, Environment and Disease, Boston, MA
- 2003 Invited Lecture. Real-time integration of multiple data streams. Conference BioSecurity 2003, Washington, DC
- 2003 Invited Lecture. Minimal haplotype tagging. From Genome to Disease: NHLBI Symposium on High Throughput Biology. National Institutes of Health, Bethesda, MD
- 2003 Invited Lecture. SNPs, tags and haplotypes. USAMRMC Bioinformatics Workshop, US Army Medical Research and Materiel Command, Fort Detrick, MD
- 2003 Academic Seminar. Bayesian bioinformatics: from functions to structures and back. Columbia Genome Center, Columbia University, New York, NY
- 2004 Academic Seminar. Graphical models for structural and functional genomics. Bioinformatics Working Group, Dana Farber Cancer Institute, Boston, MA
- 2004 Invited Lecture. Bayesian networks for integrative genomics. International Conference on the Analysis of Genomic Data, Boston, MA
- 2004 Keynote Address. Bayesian networks for integrative genomics. Conference on Intelligent Data Analysis in Medicine and Pharmacology, Stanford, CA
- 2004 Grand Rounds. Multigenic dissection of complex traits. Department of Genetics, Tufts-New England Medical Center, Boston, MA
- 2005 Academic Seminar. Genetic epidemiology of complex traits. Center for Disease Control and Prevention. Atlanta, GA
- 2005 Academic Seminar. Genomics of oral diseases. Philips Oral Care. Seattle, WA.
- 2006 Academic Seminar. Dissecting complex traits using high-throughput microarrays. Philips USA Research Center, Tarrytown, NY
- 2006 Academic Seminar. Networks of mass dissection. Department of Biomedical Informatics, Vanderbilt University, Nashville, TN
- 2007 Invited Lecture. Building biological networks in the age of predictive medicine. Forsyth – Harvard Annual Research Conference, Boston, MA
- 2007 Academic Seminar. Building biological networks in the age of predictive medicine. Columbia University, New York, NY
- 2007 Academic Seminar. Network of mass dissection. Department of Biomedical Informatics, Arizona State University, Phoenix, AZ
- 2007 Academic Seminar. Predictive genomics using biological networks, Institute for Translational Genomics (TGen), Phoenix, AZ
- 2007 Invited Lecture. Statistical mechanics of biological networks. 23rd Conference on Uncertainty in Artificial Intelligence. Vancouver, Canada
- 2007 Invited Lecture. Bayesian networks for genome-wide association studies. Chips to Hits (Discovery to Diagnostics), Philadelphia, PA.
- 2007 Academic Seminar. Statistical mechanics using biological networks, Department of Biomedical Informatics, University of Pittsburgh, PA
- 2007 Academic Seminar. Predictive genomics. Bioinformatics Forum, Department of Biostatistics, Harvard School of Public Health, Boston, MA.
- 2007 Academic Seminar. Network of mass dissection: from topology to biology and beyond. Bioinformatics Lectures, Department of Computer Science, Tufts University, Medford, MA.
- 2007 Invited Lecture. Predictive oncology in the age of genomic medicine. International Summer School: Colorectal Cancer: Biology, Diagnosis and Therapy, Varese, Italy

- 2007 Invited Lecture. Computational analysis of human variations. Annual National Conference of Bioengineering, Bressanone, Italy
- 2007 Academic Seminar. Predictive genomics. Bioinformatics Group Series, Biogen Idec, Cambridge, MA
- 2008 Academic Seminar. Predictive medicine using Bayesian networks. High Dimensional Data Analysis Seminar Series, Department of Biostatistics, Harvard School of Public Health, Boston, MA
- 2008 Tutorial. Collaborative Proposals for National Centers of Biomedical Computing. 2008 AMIA Summit on Translational Bioinformatics, San Francisco, CA
- 2008 Invited Lecture. Predictive genomics of ischemic stroke. 2008 Princeton Conference Houston, TX.
- 2008 Invited Lecture. Bayesian methods to identify gene-gene interactions National Institute of Drug Abuse (NIDA) Course on genetics and epigenetics of addiction Bethesda, MD
- 2008 Invited Lecture. Predictive genomics of complex traits. BioIT World Conference and Expo, Boston, MA
- 2008 Invited Lecture. Genomewide dissection and predictive modeling of complex traits. Microarrays in Medicine, The GOT Summit, Boston, MA
- 2008 Academic Seminar. Predictive genomics and the problem of family-based studies. Family Based Studies seminar series, Harvard School of Public Health, Boston, MA

Teaching Experience

Lectures and Courses

- 2001 Invited Lecturer. Biomedical Computing (HST 950). Harvard-MIT Division of Health Sciences and Technology
- 2001 Invited Lecturer. Medical Decision Support Systems (HST 951). Harvard-MIT Division of Health Sciences and Technology
- 2003 Invited Lecturer. Information Technology in the Health Care System of the Future (HST 921), Harvard-MIT Division of Health Sciences and Technology
- 2003- Core Faculty. Genomic Medicine (HST 586 then HST 512), Harvard Medical School. Core Faculty (Course design, 4 lectures, student supervision)
- 2004 Invited Lecturer. Office of Faculty Development Tutorial, Children's Hospital Boston
- 2005 Course Director. Bioinformatics and Proteomics (HST 480). Massachusetts Institute of Technology
- 2005- Course Director. Biomedical Informatics (HST 950). Harvard-MIT Division of Health Sciences and Technology

Postdoctoral Fellows

- 2003-4 Dominic Allocco, MD, MSc. Instructor in Pediatrics, Harvard Medical School
- 2005- Gil Alterovitz, PhD. NLM Fellow in Biomedical Informatics, Harvard Medical School
- 2007- Blanca Humes, PhD. NLM Fellow in Biomedical Informatics, Harvard Medical School
- 2007- Hsun-Hsien Chang, PhD. Research Scientist, Harvard Medical School
- 2007- Michael McGeachie, PhD NHLBI Fellow in Biomedical Informatics, Harvard Medical School

Doctoral Theses

- 2004 Delin Shen, Doctor of Philosophy in Health Sciences and Technology, Harvard-MIT Division of Health Sciences and Technology (Reader).
- 2005 Yau-Hua Yu, DMD. Doctor in Medical Sciences, Harvard Medical School (Advisor).
- 2005 Gil Alterovitz, Doctor of Philosophy in Health Sciences and Technology, Harvard-MIT Division of Health Sciences and Technology (Advisor).
- 2007 Blanca Himes, Doctor of Philosophy in Health Sciences and Technology, Harvard-MIT Division of Health Sciences and Technology (Advisor).

Master Theses

- 2003 Asher Schacter, MD, MPH. Master of Science in Medical Informatics. Harvard-MIT Division of Health Sciences and Technology (Supervisor)
- 2005 Robert Lennie, Master in Liberal Arts (ALS), Harvard University (Supervisor). Winner of the 2005 Dean Award for Best ALS Thesis.

Undergraduate Students Supervised

- 2004 Iris Wei, Biochemistry, Harvard College (Honor Thesis)
- 2005-06 Eugenia Lyashenko, Massachusetts Institute of Technology.
- 2005-06 Jon Liu Massachusetts Institute of Technology.
- 2005-06 Mike Xiang, Massachusetts Institute of Technology
- 2005- Victor Wu, Massachusetts Institute of Technology

Publications

Articles¹

1. Ramoni MF. Physics and history of science in the work of Pierre Duhem. *Epistemologia*, 12:33-64, 1989 (Italian with English summary).
1. Ramoni MF. The impossible discovery. Wiles and powers of scientific discourse in Aristotle. *Versus*, 54:27-42, 1989 (Italian).
2. Stefanelli M, Ramoni MF. Modeling medical knowledge-based systems. *Biometrie und Informatik in Medizin und Biologie*, 23:215-227, 1992.
3. Ramoni MF, Stefanelli M, Magnani L, Barosi G. An epistemological framework for medical knowledge-based systems. *IEEE Trans Syst Man Cybern*, 22:1-14, 1992.
4. Ramoni MF, Riva A, Stefanelli M., Patel VL. An ignorant belief network to forecast glucose concentration from clinical databases. *Artif Intell Med*, 7:541-559, 1995.
5. Ramoni MF, Riva A, Stefanelli M, Patel VL. Medical decision making using ignorant influence diagrams. *Lect Note Comput Sc*, 934:231-243, 1995.
6. Riva A, Ramoni MF. LispWeb: a specialized HTTP server for distributed AI applications. *Comput Netw*, 28(7-11):953-961, 1996.
7. Ramoni MF, Riva A. Basic science in medical reasoning: an artificial intelligence approach. *Adv Health Sci Educ*, 2:131-140, 1997.

¹ An asterisk (*) is used to denote first co-authorship.

8. Ramoni MF, Sebastiani P. The use of exogenous knowledge to learn Bayesian networks from incomplete databases. *Lect Note Comput Sc*, 1280:537-548, 1997.
9. Ramoni MF, Sebastiani P. Parameter estimation in Bayesian networks from incomplete databases. *Intell Data Analysis*, 2(1):21-45, 1998.
10. Sebastiani P, Ramoni MF, Cohen PR, Warwick J, Davis J. Discovering dynamics using Bayesian clustering. *Lect Note Comput Sc*, 1642:199-210, 1999.
11. Sebastiani P, Ramoni MF, Crea A. Profiling your customers using Bayesian networks. *ACM SIGKDD Explorations*, 1(2):91-96, 2000.
12. Sebastiani P, Ramoni MF. Bayesian inference with missing data using bound and collapse. *J Comput Graph Stat*, 9(4):779-800, 2000.
13. Sebastiani P, Ramoni MF. Common trends in European school populations. *Res Official Stat*, 4(1):169-183, 2001.
14. Sebastiani P, Ramoni MF. On the use of Bayesian networks to analyze survey data. *Res Official Stat*, 4(1):53-64, 2001.
15. Ramoni MF, Sebastiani P. Robust Bayes classifiers. *Artif Intell*, 125(1-2):207-224, 2001.
16. Ramoni MF, Sebastiani P. Robust learning with missing data. *Mach Learn*, 45(2):147-170, 2001.
17. Ramoni MF, Sebastiani P, Dybowski R. Robust prediction for intensive care patients. *Method Inform Med*, 40(1):39-45, 2001.
18. Sebastiani P, Ramoni MF. Bayesian selection of decomposable models with incomplete data. *J Am Stat Assoc*, 96(456):1375-1386, 2001.
19. Lazarus R, Vercelli D, Palmer LJ, Klimecki WJ, Silverman EK, Richter B, Riva A, Ramoni MF, Martinez FD, Weiss ST, Kwiatkowski DJ. Single nucleotide polymorphisms in innate immunity genes: abundant variation and potential role in complex human disease. *Immunol Rev*, 190:9-25, 2002.
20. Ramoni MF, Sebastiani P, Cohen PR. Bayesian clustering by dynamics. *Mach Learn*, 47(1):91-121, 2002.
21. Ramoni MF, Sebastiani P, Cohen PR. Bayesian analysis of sensory inputs of a mobile robot. *Lect Note Stat*, 162:363-379, 2002.
22. Ramoni MF*, Sebastiani P*, Kohane IS. Cluster analysis of gene expression dynamics. *Proc Nat Acad Sci USA*, 99(14):9121-6, 2002. (Cover Article)
23. Sebastiani P, Gussoni E, Kohane IS, Ramoni MF. Statistical challenges in functional genomics (with discussion). *Stat Science*, 18(1):33-70, 2003.
24. Sebastiani P, Kohane IS, Ramoni MF. The role of machine learning in the post-genomic era. *Mach Learn*, 52(1-2):5-9, 2003.
25. Sebastiani P, Lazarus R, Weiss ST, Kunkel LM, Kohane IS, Ramoni MF. Minimal haplotype tagging. *Proc Nat Acad Sci USA*, 100(17):9900-05, 2003.
26. Sebastiani P, Yu YH, Ramoni MF. Bayesian machine learning and its potential applications to the genomic study of oral oncology. *Adv Dent Res*, 17:104-8, 2003.
27. Tomczak KK, Marinescu VD, Ramoni MF, Sanoudou D, Montanaro F, Han M, Kunkel LM, Kohane IS, Beggs AH. Expression profiling and identification of novel genes involved in myogenic differentiation. *FASEB J*, 18(2):403-5, 2004.

28. Cai Z, Tsung EF, Marinescu VD, Ramoni MF, Riva A, Kohane IS. A Bayesian approach to discovering pathogenic SNPs in conserved protein domains. *Human Mutat*, 24(2):178-84, 2004.
29. Lader AS, Ramoni MF, Zetter BR, Kohane IS, Kwiatkowski DJ. Identification of a transcriptional profile associated with in vitro invasion in non-small cell lung cancer cell lines. *Cancer Biol Ther*, 3(7):624-31, 2004.
30. Spentzos D, Levine DA, Ramoni MF, Joseph M, Gu X, Boyd J, Libermann TA, Cannistra SA. A gene expression signature with independent prognostic significance in epithelial ovarian cancer. *J Clin Oncol*, 22(23):4648-58, 2004.
31. Sebastiani P, Abad M, Alpargu G, Ramoni MF. Robust transmission/disequilibrium test for incomplete family genotypes. *Genetics*, 168:2329-37, 2004.
32. Sebastiani P, Wang L, Mandl KD, Ramoni MF. Improving outbreak detection by signal integration. *Morbidity and Mortality Weekly Reports*, 53:257, 2004.
33. Alterovitz G, Aivado M, Spentzos D, Libermann TA, Ramoni MF, Kohane IS. Analysis and robot pipelined automation for SELDI-TOF mass spectrometry. *Proc IEEE Engineering in Medicine and Biology*, 3068-3071, 2004.
34. Sebastiani P, Ramoni MF. Normative selection of Bayesian networks. *J Multivar Anal*, 93(2):340-357, 2005.
35. Aivado M, Spentzos D, Alterovitz G, Out HH, Grall F, Giagounidis AA, Wells M, Cho J-Y, Germing U, Czibere A, Prall WC, Porter C, Ramoni MF, Haas R, Libermann TA. Optimization and evaluation of surface-enhanced laser desorption/ionization time of flight mass spectrometry (SELDI-TOF MS) with reversed phase protein arrays for protein profiling. *Clin Chem Lab Med*, 43:133-140, 2005.
36. Wang L, Ramoni MF, Mandl KD, Sebastiani P. Factors affecting automated syndromic surveillance systems. *Artif Intell Med*, 34(3):269-78, 2005.
37. Sebastiani P*, Ramoni MF*, Nolan V, Baldwin CT, Steinberg MH. Genetic dissection and prognostic modeling of a complex trait: Overt stroke in sickle cell anemia. *Nature Genet*, 37(4):435-40, 2005. (Cover Article)
38. Traum AZ, Wells MP, Aivado M, Libermann TA, Ramoni MF, Schachter AD. SELDI-TOF MS of quadruplicate urine and serum samples to evaluate changes related to storage conditions. *Proteomics*, 6(5):1676-1680, 2006.
39. Wang L, Ramoni MF, Sebastiani P. Clustering short gene expression profiles. *Lect Note Comput Sc*, 3909:60-68, 2006.
40. Sebastiani P, Mandl KD, Szolovits P, Kohane IS, Ramoni MF. A Bayesian dynamic model for influenza surveillance (with discussion), *Stat Med*. 25(11):1823-1825, 2006.
41. Kim DM, Ramoni MF, Nevins M, Fiorellini JP. The gene expression profile in refractory periodontitis patients. *J Periodontol*, 77(6):1043-1050, 2006.
42. Alterovitz G, Liu J, Chow J, Ramoni MF. Automation, parallelism, and robotics for proteomics. *Proteomics*, 6(14):4016-22, 2006.
43. Carletti M, Kho A, Molloy M, Tomczak K, Ramoni MF, Beggs A, Gussoni E. Melanoma Cell Adhesion Molecule is a novel marker for satellite cells and affects human fetal myoblast fusion. *J Cell Sci*, 119(Pt 15):3117-27, 2006.

44. Yang G, Zhang G, Pittelkow MR, Ramoni MF, Tsao H. Expression profiling of UVB response in melanocytes identifies a set of p53-target genes. *J Invest Dermatol*,126(11):2490-506, 2006.
45. Frank NY, Kho AT, Schatton T, Murphy GF, Molloy MJ, Zhan Q, Ramoni MF, Frank MH, Kohane IS, Gussoni E. Regulation of myogenic progenitor proliferation in human fetal skeletal muscle by BMP4 and its antagonist Gremlin. *J Cell Biol*, 175(1):99-110, 2006.
46. Sebastiani P, Xie H, Ramoni MF. Bayesian analysis of comparative microarray experiments by model. *Bayesian Analysis*, 1(4):707-732, 2006.
47. Alterovitz G, Ramoni MF. Discovering biological guilds through topological abstraction. *AMIA Annu Symp*, 2006:1-5. (Best Student Paper Award)
48. Alterovitz,G, Muralidhar V, Ramoni MF. Gene lethality detection and characterization via topological analysis of regulatory networks. *IEEE Trans Circ and Syst I*, 53(11):2438-43, 2006.
49. Aivado M, Spentzos D, Germing U, Alterovitz G, Meng XY, Grall F, Giagounidis AA, Klement G, Steidl U, Otu HH, Czibere A, Prall WC, Iking-Konert C, Shayne M, Ramoni MF, Gattermann N, Haas R, Mitsiades CS, Fung ET, Libermann TA. Serum proteome profiling detects myelodysplastic syndromes and identifies CXC chemokine ligands 4 and 7 as markers for advanced disease. *Proc Natl Acad Sci USA*,104(4):1307-12, 2007.
50. Alterovitz G, Xiang M, Mohan M, Ramoni MF. GO PaD: the Gene Ontology Partition Database. *Nucleic Acids Res.*, 35(Database issue):322-7, 2007.
51. Martinez-Llordella M, Puig-Pey I, Orlando G, Ramoni MF, Tisone G, Rimola A, Lerut J, Latinne D, Margarit C, Bilbao I, Brouard S, Hernandez-Fuentes M, Soullillou JP, Sanchez-Fueyo A. Multiparameter immune profiling of operational tolerance in liver transplantation. *Am J Transplant*. 7(2):309-19, 2007.
52. Alterovitz G, Ramoni MF. Bioinformatics and proteomics: an engineering problem solving- based approach. *IEEE Trans Educ* 50(1):49-54, 2007.
53. Schachter AD, Ramoni MF. Clinical forecasting in drug development. *Nature Rev Drug Disc*. 6:107-108, 2007.
54. Sonis ST, Haddad R, Posner M, Watkins B, Fey E Morgan TV, Mookanampambil L, Ramoni MF. Gene expression changes in peripheral blood cells provide insight into the biological mechanisms associated with regimen-related toxicities in patients being treated for head and neck cancers. *Oral Oncol*, 43(3):289-300, 2007.
55. Allocco D, Song Q, Gibbons GH, Ramoni MF, Kohane IS. Geography and genography: Prediction of continental origin using randomly selected single nucleotide polymorphism *BMC Genomics*, 8(2):68-74, 2007.
56. Funke BH, Brown AC, Ramoni MF, Regan ME, Baglieri C, Finn CT, Babcock M, Shprintzen RJ, Morrow BE, Kucherlapati R. A novel, single nucleotide polymorphism-based assay to detect 22q11 deletions. *Genet Test*, 11(1):91-100, 2007.
57. Ferrazzi F, Sebastiani P, Ramoni MF, Bellazzi R. Bayesian approaches to reverse engineer cellular systems: a simulation study on nonlinear Gaussian networks. *BMC Bioinformatics*, 8(5):S2, 2007.
58. Shirvani SM, Mookanampambil, L, Ramoni, MF, Chin, MT. Transcription factor CHF1/Hey2 regulates the global transcriptional response to platelet-derived growth factor in vascular smooth muscle cells. *Physiol Genomics*, 19;30(1):61-8, 2007.

59. Schachter A, Baio GL, Roberts T, Ramoni MF, Finkelstein SN. Economic evaluation of a Bayesian model to predict late phase success of new molecular entities. *Value in Health*, 10(5):377-85, 2007.
60. Schachter AD, Ramoni MF. Pediatric drug development. *Nature Rev Drug Disc*, 6:429-430, 2007.
61. Alterovitz G, Ramoni MF. Bayesian methods in proteomics. *Proteomics* 7(16):2843-55, 2007.
62. Aprile G, Ramoni MF, Sonis ST. Application of distance matrices to define associations between acute toxicities in colorectal cancer patients receiving chemotherapy. *Cancer* 26;112(2):284-292, 2007.
63. Maron J, Alterovitz G, Ramoni MF, Bianchi D. Gene expression analysis in pregnant women and their infants identifies unique fetal biomarkers that circulate in maternal blood. *J Clin Invest*, 117(10):3007-19, 2007.
64. Alterovitz G, Jiwaji A, Ramoni MF. Automated programming for bioinformatics algorithm deployment. *Bioinformatics*, 2008 Feb 1;24(3):450-1.
65. Alterovitz G, Xiang M, Liu J, Chang A, Ramoni MF. Discovering biofluid biomarkers using an information theoretic proteomics framework. *Proceedings of the Pacific Symposium on Biocomputing (PSB-2008)*, Stanford, CA, 2008.

Books

66. Alterovitz G and Ramoni MF, editors, *Systems Bioinformatics: An Engineering Case-based Approach*, Artech House, Boston-London, 2007.
67. Alterovitz G and Ramoni MF, editors, *Automation in Genomics and Proteomics*, Wiley, London-New York, in press.

Proceedings of Meetings

68. Ramoni MF, Magnani L, Stefanelli M. A formal theory of diagnostic reasoning. *Proc First Conf of the Italian Assoc for Artificial Intelligence* p 276-273. Italian Association for Artificial Intelligence, 1989.
69. Ramoni MF, Riva A. Belief maintenance with probabilistic logic. *Proc AAAI Fall Symp on Automated Deduction in Non Standard Logics*, pp 132-138. American Association for Artificial Intelligence, 1993.
70. Stefanelli M, Lanzola G, Ramoni MF. Knowledge acquisition based on an epistemological model of medical reasoning. *Proc IEEE Conf Engineering in Medicine and Biology*, pp 880-882. IEEE Press, Washington, DC, 1992.
71. Ramoni MF, Riva A, Stefanelli M, Patel VL. Forecasting glucose concentration in diabetic patients using ignorant belief networks. *Proc AAAI Spring Symp on Artificial Intelligence in Medicine* pp 129-133. American Association for Artificial Intelligence, 1994.
72. Ramoni MF, Riva A. Belief maintenance in Bayesian networks. *Proc Tenth Conf on Uncertainty in Artificial Intelligence (UAI-94)* pp 498-505. Morgan Kaufmann, San Francisco, CA, 1994. (Acceptance rate 40%)
73. Ramoni MF, Riva A, Patel VL. Probabilistic reasoning under ignorance. *Proc Sixteenth Annual Conf of the Cognitive Science Soc.* Lawrence Erlbaum, Mahwah, NJ, 1994. (Acceptance rate 60%)

74. Ramoni MF. Ignorant influence diagrams. Proc Intl Joint Conf on Artificial Intelligence (IJCAI-95) pp 1808-14. Morgan Kaufmann, San Francisco, CA, 1995. (Acceptance rate 22%)
75. Ramoni MF. Anytime influence diagrams. Proc IJCAI Workshop on Anytime Algorithms and Deliberation Scheduling pp 55-62. American Association for Artificial Intelligence, 1995.
76. Bland PA, Ramoni MF, Conway A, Collins TD. Automated pairing of meteorite finds. Meteorit Planet Sci 32(4):A16(Suppl), 1997.
77. Ramoni MF, Sebastiani P. Robust parameter learning in Bayesian networks with missing data. Proc Sixth International Workshop on Artificial Intelligence and Statistics (AI&Stats-97) pp 24-25. Ft Lauderdale, FL, 1997.
78. Ramoni MF, Sebastiani P. Learning Bayesian networks from incomplete databases. Proc Thirteenth Conf on Uncertainty in Artificial Intelligence (UAI-97) pp 401-408. Morgan Kaufmann, San Francisco, CA, 1997. (Acceptance rate 45%)
79. Sebastiani P, Ramoni MF. Decision theoretic foundations of graphical model selection. Proc Fourteenth Conf on Uncertainty in Artificial Intelligence (UAI-98) pp 464-471. Morgan Kaufmann, San Francisco, CA, 1998 (Acceptance rate 42%)
80. Sebastiani P, Ramoni MF. Induction of graphical models from incomplete samples. Proc Thirteen Conf Intl Assoc for Statistical Computing (COMPSTAT-98), pages 45-49. Bristol, UK, 1998.
81. Ramoni MF, Sebastiani P. Learning conditional probabilities from incomplete data: an experimental comparison. Proc Seventh International Workshop on Artificial Intelligence and Statistics (Uncertainty-99) pp 260-265. Morgan Kaufmann, San Francisco, CA, 1999.
82. Sebastiani P, Ramoni MF. Model folding for data subject to nonresponse. Proc Seventh Intl Workshop on Artificial Intelligence and Statistics (Uncertainty-99) pp 14-20. Morgan Kaufmann, San Francisco, CA, 1999.
83. Sebastiani P, Ramoni MF, Cohen PR. Unsupervised classification of sensory inputs in a mobile robot. Proc IJCAI Workshop on Neural, Symbolic, and Reinforcement Methods for Sequence Learning pp 43-48. Stockholm, Sweden, 1999.
84. Ramoni MF, Sebastiani P, Dybowski R. Robust outcome prediction for intensive care patients. Proc AIMDM-99 Workshop on Prognostic Models in Medicine: Artificial Intelligence and Decision Analytic Approaches pp 45-49, Aalborg, DK, 1999.
85. Sebastiani P, Ramoni MF. Robust Bayesian classification. Proc Fourteenth Conf of the Intl Assoc for Statistical Computing (COMPSTAT-2000) pp 415-419. Springer, New York, NY, 2000.
86. Ramoni MF, Sebastiani P, Cohen PR. Multivariate clustering by dynamics. Proc Natl Conf on Artificial Intelligence (AAAI-2000) pp 633-638. Morgan Kaufmann, San Francisco, CA, 2000. (Acceptance rate 33%)
87. Ramoni MF, Sebastiani P, Cohen PR, Warwick J. Unsupervised clustering of robot activities: a Bayesian approach. Proc Fourth Intl Conf on Autonomous Agents (AGENTS-2000) pp 134-136. ACM Press, New York, NY, 2000. (Acceptance rate 24%)

88. Sebastiani P, Ramoni MF. Clustering continuous time series. Proc Eighteenth Intl Conf on Machine Learning (ICML-2001) pp 497-504. Morgan Kaufmann, San Francisco, CA, 2001. (Acceptance rate 45%)
89. Ramoni MF, Sebastiani P. Analysis of survey data with Bayesian networks. Bayesian Methods: Selected Papers from Sixth World Meeting of the Intl Soc for Bayesian Analysis (ISBA-2000) pp 429-438. Eurostat, Luxembourg, Lu, 2001.
90. Sebastiani P, Ramoni MF. Bayesian clustering by dynamics of European socio-economic indicators. Bayesian Methods: Selected Papers from Sixth World Meeting of the Intl Soc for Bayesian Analysis (ISBA-2000) pp 479-488. Eurostat, Luxembourg, Lu, 2001.
91. Tomczak K, Ramoni MF, Sanoudou D, Han M, Kho A, Kohane IS, Beggs AH. Cluster analysis of gene expression dynamics in differentiating C2C12 myoblasts. Am J Hum Genet, 71(4): 312-312 815 Suppl. S, 2002
92. Maynard SE, Aleman-Diaz JO, Yeo GW, Libermann TA, Ramoni MF, Kohane I, Epstein FH, Sukhatme VR, Karumanchi SA. Placental gene expression profiling in normal pregnancy vs. preeclampsia. J Am Soc Nephrol, 14: 619A-620A Suppl. S, 2003.
93. Sebastiani P, Ramoni MF, Nolan V, Baldwin CT, Steinberg MH. Multigenic dissection and prognostic modeling of overt stroke in sickle cell anemia. Blood 104 (11):460A, 2004.
94. Aivado M, Spentzos D, Germing U, Alterovitz G, Meng XY, Grall F, Giagounidis AAN, Klement G, Steidl U, Otu HH, Iking-Konert C, Czibere A, Prall WC, Shayne M, Ramoni MF, Gattermann N, Mitsiades CS, Haas R, Fung ET, Libermann TA Serum protein profiling with mass spectrometry for the diagnosis of myelodysplastic syndromes. Blood, 104 (11):649A, 2004
95. Wang L, Sebastiani P, Ramoni MF. Gene expression pattern identification using Bayesian clustering by dynamics. Proc IEEE Genomic Signal Processing and Statistics, 2005.
96. Alterovitz G, Patek D, Kohane IS, Ramoni MF. Human protein meta-interaction database (HPMD) potentiates integration for meta-analysis. Proc IEEE Genomic Signal Processing and Statistics, 2005.
97. Alterovitz G, Kohane IS, Ramoni MF. Characterizing human protein mass density distributions. Proc IEEE Genomic Signal Processing and Statistics, 2005.
98. Alterovitz G, Xiang M, Ramoni MF, Kohane IS. Protein network topology metric conservation: from yeast to human. 9th Annual International Conference on Research in Computational Molecular Biology (RECOMB 2005), Cambridge, MA, 2005.
99. Alterovitz G, Patek F, Ramoni MF, Kohane IS. The human massome of protein interactions: a new mass spectrometry-based perspective. 9th Annual International Conference on Research in Computational Molecular Biology (RECOMB 2005), Cambridge MA, 2005.
100. Ferrazzi F, Sebastiani P, Wang L, Bellazzi R, Kohane IS, Ramoni MF. Discovering feedback control mechanisms in gene expression. Proc IEEE Genomic Signal Processing and Statistics, 2005.
101. Tjoa ML, Alemann JO, Maynard S, Ramoni MF, Lim KH, Libermann T, Sukhatme VP, Karumanchi SA. IGFBP5: A novel marker of preeclampsia complicated by IUGR. Hypertension in Pregnancy, 117 Suppl. 1, 2006.

102. Ferrazzi F, Sebastiani P, Kohane IS, Ramoni MF, Bellazzi R. Dynamic Bayesian networks in modeling cellular systems: a critical appraisal on simulated data. 19th IEEE International Symposium on Computer-Based Medical Systems (CBMS 2006), pages 544 – 549. 2006.
103. Lyashenko E, Ramoni MF, Alterovitz G. Functional enrichment across organism massomes. 11th Annual International Conference on Research in Computational Molecular Biology (RECOMB 2007), San Francisco, CA, 2007.
104. Ramoni MF. Statistical mechanics of biological networks (Invited Lecture). Proceedings of the 23rd Conference on Uncertainty in Artificial Intelligence (UAI-2007), Morgan Kaufman, San Francisco, CA, 2007.
105. Alterovitz G, Lyashenko E, Xiang M, Ramoni MF. Linking protein mass with function via organismal massome networks, Proceedings of the 7th IEEE International Conference on Bioinformatics and Bioengineering (BIBE-2007), pages 59-65. IEEE Press, 2007.
106. Alterovitz G, Muso T, Malalur P, Ramoni MF. A systematic approach to quantifying evolutionary functional trends across the universal tree of life. Proceedings of the 7th IEEE International Conference on Bioinformatics and Bioengineering (BIBE-2007), pages 374-78. IEEE Press, 2007.

Reviews, Chapters, and Editorials

107. Magnani L, Ramoni MF. Abduzione computazionale. In C. S. Peirce in Italy pp 21-29. Italian Society for Logic and Philosophy of Science, 1990.
108. Magnani L, Ramoni MF. Conoscenza medica e ragionamento diagnostico: fondamenti logici ed epistemologici. In *La Strutturazione del Sapere Biomedico* pp 91-112. Patron, Padua, Italy, 1989.
109. Ramoni MF. I matematici artificiali: Le prospettive epistemologiche dell'automazione del ragionamento matematico. In L Magnani, editor, *Conoscenza e Matematica* pp 21-43. Marcos, Milan, Italy, 1991.
110. Patel, VL, Groen GJ, Ramoni MF, Kaufman, DR. Machine depth versus psychological depth: a lack of equivalence. In E. Keravnou, editor, *Deep Models for Medical Knowledge Engineering* pp 249-272. Elsevier, New York, NY, 1992.
111. Stefanelli M, Ramoni MF. Epistemological constraints on medical knowledge based systems. In DV Evans, VL Patel, editors, *Advances in Medical Training and Expertise* pp 3-20. Research NATO Series, Springer, New York, NY, 1992.
112. Stefanelli M, Ramoni MF. The artificial intelligence approach to modeling medical reasoning. In R Zwilling, editor, *Natural Sciences and Human Thought* pp 177-186. Springer, New York, NY, 1995.
113. Patel VL, Ramoni MF. Cognitive models of directional inference in expert medical reasoning. In PJ Feltovich, KM Ford, RR Hoffman, editors, *Expertise in Context* pp 67-100. MIT Press, Cambridge, MA, 1997.
114. Riva A, Ramoni MF. Accessing artificial intelligence applications over the World Wide Web. In M Eisenstadt, T Vincent, editors, *The Knowledge Web* pp 145-159. Kogan Page, London, UK, 1998.
115. Ramoni MF, Sebastiani P, Cohen PR. Sequence learning via Bayesian clustering by dynamics. In L Giles, R Sun, editors, *Sequence Learning: Paradigms, Algorithms and Applications* pp 11-34. Springer, New York, NY, 2001.

116. Ramoni MF, Sebastiani P. Bayesian methods for intelligent data analysis. In M Berthold, DJ Hand, editors, *Intelligent Data Analysis* pp 131-168. Springer, New York, NY, 2003, 2nd edition.
117. Sebastiani P, Ramoni MF, Kohane IS. Bayesian clustering of gene expression dynamics. In G Parmigiani, ES Garrett, RA Irizarry, SL Zeger, editors, *The Analysis of Gene Expression Data: Methods and Software* pp 400-427. Springer, New York, NY, 2003.
118. Sebastiani P, Abad M, Ramoni MF. Bayesian networks for genomic analysis. In ER Dougherty, I Shmulevich, J Chen, ZJ Wang. In *EURASIP Book Series on Signal Processing and Communications: Genomic Signal Processing and Statistics* pp 281-320. Hindawi, New York, NY, 2005.
119. Sebastiani P, Abad M, Ramoni MF. Learning Bayesian networks. In *Data Mining and Knowledge Discovery Handbook* pp 193-230. Springer, New York, NY, 2005.
120. Ramoni MF, Sebastiani P. Learning Bayesian networks. In *Encyclopedia of Data Warehousing and Mining* vol II. IGA, Hershey, PA, 2005.
121. Ramoni MF. Bayesian artificial intelligence (Review). *J Am Stat Assoc*, 100(471):1096, 2005.
122. Alterovitz G, Afkhami E, Ramoni MF. Robotics, automation, and statistical learning for proteomics. In JX Liu, editor, *New Developments in Robotics Research*. Nova Science, New York, NY, 2005.
123. Lodi S, Sebastiani P, Cocchi D, Ramoni MF. Bayesian clustering of gene expression dynamics: an application. In Vichi M, editor, *New Developments in Classification and Data Analysis*. Springer, New York, 2005.
124. Sebastiani P, Jeneralczuk J, Ramoni MF. Design and analysis of screening experiments with microarrays. In A Dean, S Lewis, editors, *Screening: Methods for Experimentation in Industry, Drug Discovery, and Genetics*. Springer, New York, NY, 2006.
125. Mariani TH, Ramoni MF. Microarray techniques and data in asthma/chronic obstructive pulmonary disease. In DS Postma, ST Weiss, editors, *Genetics of Asthma and Chronic Obstructive Pulmonary Disease (Lung Biology in Health and Disease)*, Taylor & Francis, London, 2006.
126. Alterovitz G, Afkhami E, Barillari J, Ramoni MF. Proteomics. In M Akay, editor, *Encyclopedia of Biomedical Engineering*, Wiley, New York, NY, 2006.

Non Print Material

127. Alterovitz G, Ramoni MF. Musical gene expression. Exhibit at *DNA Day at Cambridge Science Festival*, MIT Museum, 2007.

Patents

128. Kim D, Fiorellini J, Ramoni MF, inventors; Harvard Medical School. Peripheral Marker Profile for Periodontal Disease Progression. Provisional application filed by Harvard University, July 7th, 2004. Utility patent pending.
129. Sebastiani P, Ramoni MF, Steinberg MH, Baldwin CT, inventors; Boston University and Children's Hospital, joint assignee. Prognostic Method for Complex Trait. Provisional application filed by Boston University, March 10th, 2005. Utility patent pending.

Editorials about My Publications

1. Declerck Y. Focus on the cell membrane: the need for dissociation and detachment in tumoral invasion. *Cancer Biol Ther.* 3(7):632-3, 2004. (Editorial accompanying Original Article #30)
2. Karlan B. Profiling the perpetrator. *J Clin Oncol.* 22(23), pp 4663 – 4664, 2005. (Editorial accompanying Original Article #31)
3. Meschia JF, Pankratz VS. Defining stroke risks in sickle cell anemia. *Nat Genet.* 37(4), pp 340–341, 2005. (Editorial accompanying Original Article # 36)

News and Interviews

4. Future doctors could monitor health through music of the patients' genes, *Boston Globe*, May 7th, 2007.
5. Putting odds on FDA approval, *Marketplace*, National Public Radio, Feb 1st, 2007.
6. New Forecasting Tool Could Reduce Drug Development Costs *Science Daily*, Feb 12th, 2007 (This news wire appeared in several newspapers around the country).
7. Genes Predict Stroke Risk with Sickle Cell Anemia, *Reuters*, March 21st, 2005 (This news wire appeared in several newspapers around the country).
8. Genes Help Predict Sickle Cell Stroke Risk, *Forbes*, March 21st, 2005.
9. Genes Help Predict Sickle Cell Stroke Risk, *Atlanta Constitution Journal*, March 21st, 2005.
10. Genes Predict Stroke Risk with Sickle Cell Anemia, *ABC News*, March 21st, 2005.
11. Buone notizie per chi soffre di anemia falciforme, *Il Pensiero Scientifico*, March 22nd, 2005 (Italian).
12. Nuovo Test Ictus per Pazienti con Anemie Cellule Falciformi, *MediNews*, March 23rd, 2005 (Italian).
13. AVC et drépanocytose: un outil pronostique, *Caducee*, March 23rd, 2005 (French)
14. Theme 7: Offline Interview with Marco F. Ramoni, *Knowledge Board*. July 3, 2003. (Interview)
15. Profile: Gene Expression Data Mining, *The Scientist*, October 14th, 2002.
16. Group Thinks Outside the Box with New CAGED Software, *BioIT World*, September 2002.
17. Crunching Gene Chips, *Science*, 297, July 19, 2002.
18. Interview mit Marco Ramoni. *Produktiver programmieren*. July 2002 (Interview)