American College of Medical Informatics Fellows, 2009

Daniel R Masys

In 2009, 11 new fellows were elected to the American College of Medical Informatics, and were inducted into the College at a ceremony held in conjunction with the American Medical Informatics Association conference in San Francisco on November 15, 2009. A brief synopsis of the background and accomplishments of each of the new fellows is provided here, in alphabetical order.

Riccardo Bellazzi, PhD

Dr Bellazzi graduated laurea cum laude with a degree in Electronics Engineering from the University of Pavia in Italy, with a concentration in planning and temporal reasoning in medical expert systems. He earned his PhD in Bioengineering at the Milan Politecnico and the University of Pavia, with emphasis on causal models and machine learning applied to clinical monitoring. Dr Bellazzi is currently Associate Professor of Medical Informatics in the Department of Computer Science and Systems (Dipartimento di Informatica e Sistemistica), Università di Pavia, Pavia, Italy.

At the time of his election to the College, Professor Bellazzi was a lecturer in Medical Informatics, Machine Learning, Probabilistic Modeling and Bioinformatics applied to genomics and proteomics. He organized the National School of Bioengineering in 2007 with an educational program focused on Computational Genomics and Proteomics.

Dr Bellazzi’s research interests range across clinical and molecular domains, including data mining, web-based telemedicine for the management of chronic disease, mathematical modeling of biological systems, and the development of novel bioinformatics methods, particularly in the temporal analysis of gene expression patterns, proteomics and analysis of tissue microarray data. He has authored more than 200 publications, and has been an active contributor to both AMIA and IMIA conferences. He was an AMIA Student Paper award winner for work associated with his PhD thesis in 1992.

Dr Riccardo Bellazzi is one of the renaissance figures of our field, whose work is having international impact in the emerging field of clinical bioinformatics. He will be the scientific program chair for Medinfo 2010 in Capetown, South Africa. His election to the College as an International Fellow recognizes these technical and organizational achievements that have had impact both in his own country and in the Americas.

Atul Butte, MD, PhD

Dr Butte received his Bachelor of Computer Science degree and MD from Brown University, and completed his residency in Pediatrics and Fellowship in Pediatric Endocrinology, both at Children’s Hospital Boston. He later matriculated at MIT where he received a Masters degree in Medical Informatics and PhD in Medical Engineering and Medical Physics. At the time of his election to the College, he was an Assistant Professor in the Medical Informatics division of the Department of Medicine at Stanford, with concurrent appointments in Pediatrics and Computer Science.

Dr Butte presented his first AMIA paper in 1999 on development of knowledge discovery methods in clinical laboratory databases employing relevance networks, work that he parlayed into a subsequent publication in the Proceedings of the National Academy of Sciences. He has been an innovative proponent of data mining of publicly available data resources, for the discovery of novel genome-phenome relationships, and the creation of genomic data-driven nosologies.

Dr Butte has served on the AMIA Board of Directors and launched the first AMIA Summit on Translational Bioinformatics in 2008, which has been a resounding success. His election to the College recognizes these technical and professional service contributions.

Wendy W Chapman, PhD

Dr Chapman earned her Bachelor’s degree in Linguistics and her PhD in Medical Informatics from the University of Utah. She was a postdoctoral fellow in Biomedical Informatics at the University of Pittsburgh, then joined the faculty there. At the time of her election, she was an Assistant Professor of Biomedical Informatics and Intelligent Systems. In this role, she has applied her skills in Natural Language Processing (NLP) to the field of Biosurveillance, and in this context has contributed significantly to our understanding of the strengths and limitations of syndromic case detection from chief complaints recorded in electronic medical records. She also served as associate director of the graduate training program at the University of Pittsburgh.

With colleagues, Dr Chapman has developed algorithms and tools to facilitate sharing and information extraction from clinical reports, including the widely-used NegEx algorithm for detecting negation and the De-ID data scrubbing system.

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At the time of her election she was chair of the AMIA NLP working group and developed a NLP repository of de-identified clinical reports that is available to other researchers. Her election to the College recognizes these sustained technical and organizational contributions to the field.

Hamish SF Fraser, MBChB

Dr Fraser received his Bachelor of Science degree in Medical Science/Physiology and his MD from Edinburgh University. He earned his MRCP Medical Boards at the Royal College of Physicians of Edinburgh, along with a Masters degree in Knowledge based systems from Edinburgh University.

At the time of his election, Dr Fraser was an Assistant Professor at Harvard Medical School and Associate Physician in the Division of Global Health Equity at Brigham and Women's Hospital. He also served as a Research Associate with the Children's Hospital Informatics Program in Boston and Director of Informatics and Telemedicine, for Partners In Health, a not for profit foundation devoted to improving global health.

Dr Fraser began his research career working with ACM Fellow William Long on the evaluation of an Artificial Intelligence program for heart disease diagnosis, and has since developed an active research and development program in healthcare technologies for developing nations. He has created systems to support tele-radiology in Africa, multiply-drug-resistant TB treatment in Peru, and HIV treatment in Haiti. His nomination notes that “unlike many other attempts, where unanticipated changes in requirements or narrowness of approach have scuttled promising projects, the ones Dr Fraser has built have ‘just worked’, have been accepted and loved by their users, and even political upheavals have failed to kill them.” The College considers this high praise indeed in parts of the resource-limited world characterized by poverty, illiteracy, and frequent turnover of political winners and losers.

With colleagues at other US and international institutions, Dr Fraser has championed the development and deployment of the OpenMRS electronic medical records system platform in countries of sub-Saharan Africa, the Caribbean, and South America. Dr Fraser’s nomination also noted that he “is a strongly motivated, highly productive and inspirational leader in the push to develop appropriate healthcare technologies for the developing world”. These enduring achievements are recognized and honored by election to Fellowship in the College.

Rita Kukafka, DrPH

Dr Kukafka received her Bachelor's degree in Health Sciences from Brooklyn College, a Masters in Health Education from New York University, and a Doctorate in Public Health with a concentration in Sociomedical Sciences from the Mailman School of Public Health at Columbia University. She also then completed a National Library of Medicine postdoctoral fellowship, and received a Master's degree in Biomedical Informatics from Columbia.

At the time of her election Rita was an Associate Professor in the Departments of Biomedical Informatics and Sociomedical Sciences (Public Health) at Columbia, and director of the graduate education training program in Biomedical Informatics.

Throughout her career, Dr Kukafka has promoted and fostered the growth of public health informatics as a field. She has pursued an informatics research program where social and behavior change theories are applied within biomedical informatics to inform the design, evaluation and dissemination of expert systems, and computer-mediated communications to practitioners and patients. She has been an active contributor to AMIA as a member of the Fall Symposium Scientific Program Committee, and an AMIA Board member.

André Kushniruk, PhD, MSc

Dr Kushniruk received his Bachelor's degrees in Biology and Psychology from Brock University; a Master's in Computer Science from McMaster University; and a PhD in Cognitive Psychology from McGill University, in the first phases of a tour de force of higher education in Canada.

He then began his academic career as a research scientist in the Department of Computer Science at the University of Toronto, and was subsequently appointed Assistant Professor of Computer Science at Trent University in Ontario. He was recruited to York University in Ontario as Associate Professor in the Department of Mathematics and Statistics, and served as faculty coordinator for the Information Technology Program there. In 2004 he moved to the University of Victoria, where he became Director of the School of Health Information Science, one of the most well known and comprehensive informatics programs in North America. He is currently a Professor at the School of Health Information Science at the University of Victoria and he also holds an adjunct appointment at the Mount Sinai School of Medicine in New York.

Dr Kushniruk’s work has demonstrated how usability engineering methods can be applied widely in health informatics. He received a Paper award at MEDINFO 2004 for a paper on “the relationship of usability to medical error”. Dr Kushniruk has developed novel approaches to application of qualitative analysis methods such as protocol and video analysis to support the assessment of user interactions with systems. These approaches have been adopted by a number...
of healthcare institutions, including both healthcare and research centers, nationally and internationally.

Dr Kushniruk has been a tireless promoter of health informatics as a career in Canada, and has led the development of educational strategies, including promoting undergraduate health informatics education, web-based distance education up to the Master’s level, and work on design of a new flexible PhD program to increase the number of trained professionals in the field. His election to the College recognizes these efforts that have both advanced the state of the art in technology evaluation, and broadened the educational opportunities in our field.

Gilbert S Omenn, MD, PhD

Dr Omenn received his AB degree from Princeton and his MD from Harvard. After internship and residency in Internal Medicine at Massachusetts General Hospital, he was a US Public Health Service officer and research fellow at the National Institutes of Health (NIH). He then undertook a fellowship in Medical Genetics at the University of Washington in Seattle, where he earned a PhD in Genetics. He stayed on as faculty at the University of Washington, became an Investigator of the Howard Hughes Medical Institute, and climbed the academic ranks to Professor of Medicine in 1979. He diversified his portfolio of achievement by serving as White House Fellow at the US Atomic Energy Commission in 1973–1974, Associate Director of the White House Office of Science and Technology Policy from 1977 to 1980, Associate Director of the federal Office of Management and Budget, 1980–1981, Visiting Professor in the Woodrow Wilson School at Princeton in 1981, and the first Science, Engineering and Public Policy Fellow of the Brookings Institution, 1981–82. From 1982 to 1997 he was Professor of Environmental Health and Dean of the School of Public Health and Community Medicine at the University of Washington, then moved to Michigan to become Executive Vice President for Medical Affairs and CEO of the University of Michigan Health System from 1997 to 2002 and Professor of Medicine, Genetics, and Public Health (continuing).

Dr Omenn is a leader in the emerging discipline of Proteome Informatics. He launched the Human Plasma Proteome Project of the international Human Proteome Organization. The Human Proteome Organization has enhanced the development of protein-related research databases that are an essential infrastructure for work in protein identification, characterization, and systems biology.

At the time of his election, Dr Omenn was Director of the University of Michigan Center for Computational Medicine and Bioinformatics and a senior director of the NIH National Center for Integrative Biomedical Informatics, one of the seven National Centers for Biomedical Computing. He has been active in the AMIA Translational Bioinformatics Summit meetings. He is an elected fellow of the American College of Physicians, American Academy of Arts and Sciences, American Association for the Advancement of Science (president in 2006), and member of the Institute of Medicine. His election to the College recognizes these academic and community service achievements.

Roberto A Rocha, MD, PhD

Dr Rocha received his medical degree from the Federal University of Paraná, in Curitiba, Brazil, and in 1990 completed a residency in Medical Informatics at the Department of Pathology, University of São Paulo School of Medicine, Brazil. He continued his informatics training in the USA and received a PhD in Medical Informatics from the University of Utah in 1996.

Dr Rocha returned to his alma mater in Curitiba as Associate Professor, initially teaching Medical Informatics courses and later serving as Chief Information Officer of the University hospital. In 2001, Dr Rocha was recruited back to Salt Lake City as Assistant Professor of Biomedical Informatics at the University of Utah and Senior Medical Informaticist at Intermountain Healthcare. At Intermountain, he managed the enterprise teams responsible for knowledge and terminology management until mid 2006. For his contributions at the University of Utah, Dr Rocha was selected as the first recipient of the Reed M Gardner Award for Faculty Excellence in teaching and mentoring. In 2008, Dr Rocha accepted a position at Partners HealthCare as the Senior Corporate Manager for Knowledge Management and Clinical Decision Support at the Clinical Informatics Research and Development group, and a faculty member of the Division of General Medicine, Brigham and Women’s Hospital, Harvard Medical School.

Dr Rocha’s nomination cites publications related to biomedical terminologies and clinical knowledge management, including mapping algorithms, information modeling techniques, and contributions to interoperability standards and collaborative knowledge engineering and peer review. His election to the College recognizes these sustained achievements.

Titus Schleyer, DMD, PhD

Dr Schleyer received his Doctorate of Dental Medicine from the University of Frankfurt am Main in Germany, and a PhD in Molecular Biology. He emigrated to the USA and received another DMD degree, from Temple University, along with an MBA in Health Administration. He stayed on at Temple and rose to Associate Professor and Chair of the Department of Dental Informatics in the School of Dentistry. In 2005 he moved to the University of Pittsburgh to become Associate Professor of Dental Medicine and Director of the Center for Dental Informatics, and Associate Professor of Biomedical Informatics.

His nomination notes that Dr Schleyer is a pioneer in the discipline of dental informatics.
Dr Suermondt received his Bachelor’s in Mathematical and Computational Science, and Master’s and PhD degrees in Medical Information Sciences, all from Stanford. He was hired by Hewlett-Packard (HP) Laboratories in Palo Alto and has advanced through the ranks there; he is currently Director of HP’s Business Optimization Lab.

Dr Suermondt’s research career has focused on sound analytic approaches to real-world decision problems. He was an early contributor in several areas, including Bayesian networks, integrated clinician-focused workstations, data mining (particularly automated categorization, text mining, and quantification) and distributed computing. He originally joined HP to join a research team focused on clinical workstation development. He has engaged in many technical areas at HP both as a researcher and later as a manager and lab director, but he has maintained an ongoing interest in biomedical applications and the role of the technology industry in our field. Most of our fellows have a long list of publications; Jaap has both research publications and 25 patents in informatics and computing.

Dr Suermondt has made significant organizational and scholarly contributions to AMIA. He has served as chair of the Working Group steering committee, as well as Chair of Membership committee, member of the scientific program committee for five Fall Symposia, and Chair of the 2008 Annual Symposium Scientific Program Committee. His nomination notes that “As an executive and research director at a mainstream technology company with a very broad, worldwide partner base, Dr Suermondt is in a position to influence the technology sector to represent the perspective and needs of medical informatics in general and ACMI specifically. He brings to ACMI research experience where he contributes breadth and depth, as well as solid management expertise.” His election to the College recognizes these technical innovations and sustained professional service.

Elizabeth (Betsy) Weiner, PhD, RN-BC, FAAN

Dr Weiner received her Bachelor of Science in Nursing from the University of Kentucky, a Masters of Science in Nursing from the University of Cincinnati, and a PhD in Higher Education, Social & Philosophical Studies, from the University of Kentucky. She joined the faculty of the University of Cincinnati College of Nursing and Health, and advanced through the academic ranks to full professor there. In 2000 she moved to Vanderbilt, where at the time of election to the College she was the Centennial Independence Professor of Nursing, Professor of Biomedical Informatics and Senior Associate Dean for Informatics in the School of Nursing.

Dr Weiner has devoted her career to the development and evaluation of educational technologies for nursing. In the late 1980s, she received one of the initial IBM grants for innovative education. She and her collaborators created an award-winning informatics-based labor and delivery simulation. This program has changed the way that nursing students prepare for their clinical obstetrics experience; the videodisc has been employed in the curricula of 98% of the nursing schools in the country. At the University of Cincinnati she was Director of Academic Computing, and there developed an online course management software system called ‘Classware’ that preceded today’s ‘Blackboard’ software.

In recent years her work in educational technologies has been focused on emergency preparedness and response, and in this domain she and her colleagues received the 2007 Sigma Theta Tau Computer-based Professional Education Technology Award, signifying that the software they developed was the best in the nursing community worldwide for 2005–2007. For this she was invited to join the faculty of the European Masters in Disaster Medicine program. Dr Weiner has worked with the Botswana Minister of Health and the University of Botswana to determine and meet educational needs for nurses as they expand their infrastructure to build a much needed private hospital. She has served as a WHO consultant to nurses in Jordan in the area of online learning in emergency preparedness. Her election to the College recognizes these technical innovations, and service to a global health community.

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