# Special Features

# American College of Medical Informatics Fellows and International Associates, 2007

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In 2007, 14 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 Chicago, IL, on November 11, 2007. A brief synopsis of the background and accomplishments of each of the new fellows is provided here, in alphabetical order.

## **Constantin Aliferis**

Dr. Aliferis received his undergraduate and MD degrees from Athens University in Greece, and a Masters and PhD in Intelligent Systems from the University of Pittsburgh. He was a research associate in epidemiology at the University of Athens, and since 2000 has been on the faculty of the Department of Biomedical Informatics at Vanderbilt, where he serves as director of the Discovery Systems Laboratory. Dr. Aliferis has published extensively on the application of machine learning methods to various classes of data, ranging from development of class prediction methods that use gene expression and proteomic data for cancer diagnosis, to automated methods for assessing the quality of the published literature and whether medical websites contain quackery. His nomination to the College notes that he is a superb teacher, and his students have won many awards at AMIA and IMIA conferences. His election to the College recognizes these sustained achievements.

#### **Dominik Aronsky**

Dr. Aronsky received his undergraduate and MD degrees from the University of Berne in Switzerland. He then went to graduate school at the Institute for Computer Science and Applied Mathematics, and received a postdiploma in software engineering from Software School Berne. His clinical training included a residency year in anesthesia at Insel Hospital in Berne and an additional residency year in surgery at Hospital Aarberg. He then emigrated to the US for graduate study in medical informatics, and received his PhD in Medical Informatics from the University of Utah. Dr. Aronsky joined the faculty of the Vanderbilt's department of

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biomedical Informatics in 2000, where he began a series of innovations in systems to track and guide care of emergency patients. The electronic whiteboard he developed for the emergency department has become a key infrastructure for measurable improvements in consistency and quality of care, and the platform for use of natural language processing techniques to identify patients eligible for guideline-directed care. From 2001 to 2006 he was also the program director of Vanderbilt's NLM-sponsored graduate training program and his election to the College recognizes these career accomplishments.

# **Douglas Bell**

Doug received his bachelors degree in biochemistry from Case Western and his MD from Harvard. After an internship at Mount Auburn Hospital in Cambridge, he undertook a medical informatics fellowship in the Harvard-MIT graduate training program, followed by an internal medicine residency at Stanford. He received a PhD in Health Services from UCLA in 2000, and then joined the faculty of the UCLA department of medicine, where he also works a research scientist at Rand corporation. Dr. Bell's research interests have ranged from cognitive science to electronic prescribing to systems evaluation. He has evaluated the effectiveness of online vs. traditional learning materials, and controlled vocabularies that support recording of clinical findings and diagnoses, and interoperability issues affecting electronic prescribing systems. His election to the College recognizes these diverse contributions.

# **John Loonsk**

Dr. Loonsk received his bachelor's degree in Natural Sciences from Johns Hopkins, and his MD from SUNY Buffalo. He served as director of academic computing at his alma mater in Buffalo, then joined the faculty of the Division of Medical Computing and Informatics in the Department of Biomedical Engineering at the UNC Chapel Hill School of Medicine. From UNC he moved in 1999 to the Centers for Disease Control and Prevention in Atlanta, where he was associate director for informatics and director of information resources management. At CDC he led the Public Health Information Network initiative and the Biosense biosurveillance program. In 2005 he joined the Office of the National Coordinator for Health Information Technology in Washington DC, where he is director of Interoperability and Standards. At the Office of the National Coordinator, John



Constantin Aliferis



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Douglas Bell



John Loonsk



Shawn Murphy



Jonathan Perlin

leads the National Health Information Network initiative, runs the Healthcare Information Technology Standards Panel or HITS-P, leads the development of use cases, and manages the Certification Commission for Health Information Technology. His election to the College recognizes these sustained contributions to informatics and to the nation.

## **Shawn Murphy**

Dr. Murphy received his bachelor's degree in chemistry from Notre Dame, and his MD and PhD in Neurobiology from the University of Chicago. After a medicine internship at Beth Israel in Boston, he undertook a neurology residency, epilepsy fellowship, and computer science fellowship all at the Massachusetts General Hospital. He then joined the faculty of the Laboratory for Computer Science at MGH and serves as an attending neurologist and instructor in medicine at Harvard. Dr. Murphy's informatics interests have centered on the use of clinical data to support research. He has designed 'complex adaptive systems' with mobile software agents to organize the unstructured elements of electronic medical records into formats that are usable for research purposes. He is the director of the Partners Research Patient Data Registry, which was architected in 1997, became operational in 2002, and has since supported more than 500 research projects. He also developed intuitive visual query models for both text and image data, and methods for representing research-related metadata. His election recognizes these sustained contributions to the informatics of clinical and translational research.

## **Jonathan Perlin**

Dr. Perlin received his Master of Philosophy degree from Cambridge University, followed by a bachelors degree, MD,

a PhD in Molecular Neurobiology, and a Masters of Health Administration and Health Services Research all from Virginia Commonwealth University (VCU). He then joined the faculties of the Medical College of Virginia and VCU. As a physician at academically-affiliated Veterans Administration (VA) facilities, he ascended from Assistant Professor of Medicine at the McGuire VA Medical Center, to a succession of posts at VA Central in Washington, including Chief Quality and Performance Officer, acting Chief Research & Development Officer, Deputy Under Secretary for Health, and finally Under Secretary for Health. Dr. Perlin left the VA in August of 2006 to become Chief Medical Officer and Senior Vice President for Quality at Hospital Corporation of America. His nomination to the College notes that he has been a prominent leader and spokesperson for the essential role that health information technologies play in improving quality and engaging and empowering individuals in the management of their own health and health care. His election to the College recognizes these sustained contributions.

#### **Hans-Ulrich Prokosch**

In 1995, ACMI created a new category of "International Associates" to honor the achievements of medical informatics professionals outside of North America who have had an important impact on medical informatics in this country, and throughout the world. In 2007 the College honored Hans-Ulrich Prokosh and two other distinguished professionals as new international associate fellows. Professor Prokosch is University Professor for Medical Informatics at Friedrich-Alexander University of Erlangen-Nuremberg in Germany, and Chief Information Officer of Erlangen University Hospital. Dr. Prokosch has been been contributing to



Han-Ulrich Prokosch



Carol Romano



Cornelia Ruland



Jonathan Silverstein



Ida Sim



Steven Steindel



Jan Talmon



Jonathan Wald

informatics research and systems design since 1986. He also has a US connection, having been a research associate in the University of Utah's department of medical informatics. He has published extensively in the area of patient specific clinical decision support in the context of information system architectures. He was one of the original contributors to the Arden Syntax for Medical Logic Modules, and has been an active contributor to both AMIA and IMIA for many years. For these achievements that have had international impact, he is recognized by election as an international associate of the College.

#### **Carol Romano**

Dr. Romano received her bachelor's degree in Nursing, and her Masters and PhD in Operations Analysis and Informatics, all from the University of Maryland. She joined the intramural program of the NIH in 1987, and has had a series of positions of increasing responsibility at the NIH Clinical Center, including Director of Clinical Nursing Information Systems and Quality Assurance, Chief of Clinical Informatics for Nursing Services, and Deputy Chief of the Department of Clinical Research Informatics. At the same time, she rose through the ranks of the US Public Health Service commissioned corps to become Chief Nurse Officer of the PHS, and Assistant Surgeon General of the United States. She was heavily involved in the design of the first nursing informatics graduate curriculum, and chaired the first nurse informatics certification exam. Her election to the College recognizes these enduring contributions to the field.

# **Cornelia Ruland**

Dr. Ruland is Director of the Rikshospitalet-Radiumhospitalet Medical Center in Oslo, Norway. She has an RN degree

and a PhD in nursing informatics, and holds the title of Professor of Medicine at the University of Oslo. She also holds an adjunct faculty position in biomedical informatics at Columbia University in New York. She has made sustained and influential contributions to the field in the areas of eliciting and incorporating patient preferences into decision making by care providers, use of hand-held technologies for preference-based care planning, and creation and evaluation of shared decision making based in informatics principles. Her nomination notes that Dr. Ruland is one of the most productive nursing informatics researchers in the world, who has methodically evaluated the innovative systems she has designed using prospective randomized clinical trials. She has been principal investigator on 30 grants, and her ideas have been influential in nursing practice in many countries, including the US. These sustained contributions are the basis of her election as an international associate of the College.

## **Jonathan Silverstein**

Dr. Silverstein received his bachelor's degree in microbiology from the University of Illinois at Urbana-Champaign, his MD from Washington University in St. Louis, and undertook a surgical residency at Rush Presbyterian-St. Luke's in Chicago. He received a Masters degree in clinical epidemiology from the Harvard School of Public Health, then joined the faculty of the University of Illinois at Chicago in the Departments of Surgery and the School of Biomedical and Health Information Sciences. He is currently director of the Center for Clinical Information at University of Chicago Hospitals, Scientific Director of the Chicago Biomedical Consortium, and a Senior Fellow and Associate Director of the Computation Institute of the University of

Chicago and Argonne National Lab. His nomination notes that he demonstrated the feasibility and value of Tele-Immersive virtual reality for collaborative surgical-anatomic surface and volume visualization, and he was also a key contributor to Cerner's Millenium Physician Order Entry system design and implementation. His election to the College recognizes these diverse and sustained achievements in informatics.

## **Ida Sim**

Dr. Sim received her bachelors in biological science and MD degrees from Stanford, and undertook residency training in internal medicine at the Massachusetts General. She returned to Stanford as a postdoctoral fellow in Medicine, and received her PhD in Medical Informatics there. She then joined the faculty of UC San Francisco, where she is associate professor of medicine and associate director of the Program in Biological and Medical Informatics. Her principal research area has been in formal methods for representing the structure and content of clinical trials, and the creation and maintenance of trial banks to support evidencebased decision making. Her work in this area led to the founding of AMIA's Global Trial bank project, and a growing international movement to represent clinical trials in a way that both the design of the trial and its results can be interpreted automatically. Her election to the College recognizes these innovations.

## **Steven Steindel**

Dr. Steindel received his bachelor's and PhD degrees in Chemistry from the Georgia Institute of Technology. He then served as a clinical chemist for the US Army Medical Laboratory at Fort McPherson, Georgia, and for Piedmont Hospital in Atlanta. He founded and worked at several software development companies in Atlanta whose systems are widely used in administrative computing. In 1993 he joined the Centers for Disease Control and Prevention (CDC), where he rose through the ranks to become Director of Data Standards and Vocabulary at the National Center for Public Health Informatics. He has staffed the National Committee on Vital and Health Statistics (NCVHS) under an appointment by CDC, and has participated in the NCVHS Standards and Security Subcommittee that has issued many letters and reports related to HIPAA Policy and implementation. He also was a major participant in the federal government's Consolidated Health Informatics project, and led six CHI domain workgroups, including Domain Selection, Messaging, Laboratory Results, Units, Anatomy and Physiology, and Chemicals. As an expert in the area of standards and vocabularies, he is a member of the SNOMED editorial board and worked to create the no-cost US distribution license for SNOMED. His election to the College recognizes these diverse and sustained contributions.

#### **Jan Talmon**

Dr. Talmon is associate professor and head of the Department of Medical Informatics at Maastricht University in the Netherlands. His interests and creativity in medical informatics have spanned a wide range of topics. He developed EKG signal analysis programs as part of his PhD independent study, created novel approaches to machine learning for automated knowledge discovery, built computerized clinical decision support systems using knowledge bases built from expert opinion, and has led sustained work in the area of technology evaluation of IT in health care settings. He is an editor of the International Journal of Medical Informatics and in that capacity raised the standards of publication by requiring structured abstracts and tables summarizing research findings. For a total of more than 33 years of contributions to the field that have had international impact, he is recognized by election as an international associate of the College.

## **Jonathan Wald**

Dr. Wald received his bachelor's degree in psychology and biology from Dartmouth, his MD from Brown, and an MPH from Harvard. He undertook a Fellowship in Clinical Computing in the Harvard graduate training program, while working as a developer of the electronic medical record (EMR) system at Beth Israel. In that capacity he pioneered the innovation of the monitored note, which notifies the author of an EMR entry when it has been accessed by others. He moved to Cerner Corporation and spent four years as a physician executive, managing director of EMRs, and finally Director of Engineering and Clinical Architect. He returned to Partners and in his position as Associate Director, Clinical Informatics Research and Development has responsibility for the Partners Patient Gateway, a secure portal used by hundreds of physicians and thousands of patients. These sustained contributions are recognized by his election to the College.