Special Feature JAMIA

American College of Medical Informatics

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Eta S. Berner, EdD

Eta Berner is a Professor in the Health Informatics Program, Department of Health Services Administration, School of Health Related Professions at the University of Alabama at Birmingham. She holds a secondary appointment in the Section of Medical Informatics in the School of Medicine. She received an AB degree with Highest Distinction in Psychology from the University of Rochester. After receiving an EdD in Human Development from the Harvard Graduate School of Education, Dr. Berner completed a postdoctoral fellowship in medical education at the University of Washington in Seattle.

Prior to moving to her current position in 1997, Dr. Berner held faculty and administrative appointments at the medical schools at the University of Illinois at Chicago, University of Massachusetts, and the University of Alabama at Birmingham. Dr. Berner's informatics interests are in the evaluation of medical informatics applications and the development of new modalities for health informatics education. Since 1990, she been involved in the evaluation of diagnostic decision support systems and is currently developing distance learning programs in health informatics. She recently completed a study examining methods for evaluating medical students' information retrieval and application skills.

Dr. Berner has been a consultant to the World Health Organization and frequently serves on grant review panels for the National Heart, Lung, and Blood Institute. She has given invited presentations on informatics at several organizations, including the National Board of Medical Examiners, the American Educational Research Association Annual Meeting, and the National Library of Medicine's Workshop on Knowledge-based Systems. Dr. Berner is a manuscript reviewer for several medical education and informatics journals, and was a member of the editorial board of *Academic Medicine*. In addition to being a frequent presenter at AMIA symposia, she has served on the AMIA Education Committee and was Vice Chair of the Ethical, Legal, and Social Issues Working Group. She is currently a member of the editorial board of the *JAMIA* and *Medical Education Online*.

James F. Brinkley, MD, PhD

James Brinkley is an Associate Professor (Research) in the Department of Biological Structure at the University of Washington in Seattle, where he directs the University of Washington Structural Informatics Group. He is also an Adjunct Professor in the Department of Computer Science and Engineering and in the Division of Biomedical Informatics within the Department of Medical Education. He received a BA from Amherst College, an MD from the University of

Washington, and a PhD (in medical computer engineering) from Stanford University.

His primary research interests are in structural informatics, which he defined in 1991 as a subfield of biomedical informatics that pursues research and development of methods for representing, organizing, accessing, and utilizing information about the physical organization of the body. In his initial work, he developed one of the first three-dimensional ultrasound systems for acquiring, visualizing, and quantitating fetal volume. As part of this effort, he developed a method for representing spatial structural knowledge, called geometric constraint networks, which he later applied to other types of medical images and, at the macromolecular level, to protein structure determination. During the past ten years, Dr. Brinkley has focused his efforts on the development of a structural information framework, in which structure provides the basis for organizing, accessing, and visualizing a large portion of medical information. The projects that currently drive this effort are the Digital Anatomist information system, which provides online access to an evolving repository of spatial and symbolic anatomic information resources, and the University of Washington Human Brain Project, which provides a structural framework for organizing and integrating functional data about the brain.

Dr. Brinkley has served on the National Library of Medicine's Board of Scientific Counselors, and on several National Institutes of Health special study sections. He currently serves on the editorial board of *JAMIA*, the program committee for the AMIA 2000 Annual Symposium, and several advisory committees for local and national medical informatics programs.

Henry Chueh, MD

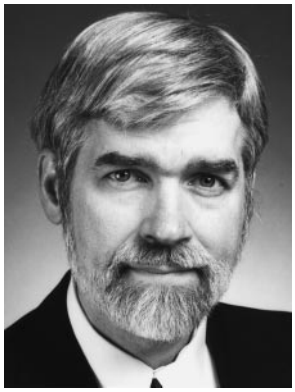
Henry Chueh is an Assistant Professor of Medicine at Harvard Medical School, Codirector of the Massachusetts General Hospital (MGH) Laboratory of Computer Science, and Director of Informatics at the MGH Clinical Research Program and the MGH Cardiac Program. He is also a staff physician internist at MGH. A graduate of Harvard College, he received a medical degree from Harvard Medical School in 1989 and a simultaneous master's degree in medical informatics through the combined Harvard/MIT Health Sciences and Technology Program. After his residency training in internal medicine at MGH, Dr. Chueh was a Research Fellow in Medical Informatics at the MGH Laboratory of Computer Science.

Following his informatics fellowship, Dr. Chueh joined the Department of Medicine faculty at Harvard Medical School. His research at MGH has revolved around novel approaches to electronic health records, several of which are in active use today at the hospital and elsewhere in Boston. His current efforts involve the exploration of intelligent, ''just-in-time'' integration of enterprise clinical data for disease management and the use of XML for clinical data sharing and transformation.

Dr. Chueh is a current member of the Biomedical Library Review Committee, the primary review group for the National Library of Medicine. He was a member of the Scientific Program Committee for the AMIA 1998 Annual Symposium, and he received the Center of Healthcare Information Management Award at the AMIA 1993 fall meeting. He is the chairman of the American Society for Testing and Materials E31.11 Subcommittee on Electronic Health Record Portability.

David A. Evans, PhD

David A. Evans is President, CEO, and Chief Scientist of CLARITECH Corporation in Pittsburgh, Pennsylvania. He is also an Adjunct Professor in the Language Technologies Institute, School of Computer Science, Carnegie Mellon University (CMU). He received AB degrees in German Intellectual History and English, a BS degree in Mathematical Sciences, and a PhD degree in Linguistics, specializing in computational linguistics, all from Stanford University.



From 1983 through 1996, Dr. Evans was Professor of Linguistics and Computer Science at CMU. There he initiated and directed the Computational Linguistics

Program and the Laboratory for Computational Linguistics. In 1992, he founded CLARITECH Corporation, based on his work in natural-language processing and information science. His interests in medical informatics include the representational basis of medical vocabularies, medical cognitive science, and medical information processing. His work on medical concept representation began in 1984 with the MedSORT Project and continued with his participation in early stages of Unified Medical Language System (UMLS) development. In 1991, he was one of the founders of the CANON Group. Dr. Evans' work in biomedical cognitive science encompasses the modeling of doctor–patient discourse and medical decision making; he has co-edited two books in this area. He currently holds seven patents on technology for information management and has additional patents pending in the United States and Japan.

Dr. Evans' dissertation was selected for publication as an ''Outstanding Dissertation in Linguistics'' in 1984. In 1998, the ConceptBase software suite, based on Dr. Evans' work, received the ''Software Product of the Year'' Award from the Japanese government.

J. Michael Fitzmaurice, PhD

Michael Fitzmaurice is Senior Science Advisor for Information Technology in the Immediate Office of the Administrator of the Agency for Health Care Policy and Research. Dr. Fitzmaurice received his BS degree in Mathematics (with a minor in Engineering Physics), his BA degree in Economics from St. Joseph's College in Rensselaer, Indiana, and his PhD degree in Economics from the University of Maryland at College Park.

After 15 years in the Medicare Program at the Health Care Financing Administration, where among other accomplishments he led the development of Medicare's prospective payment system for hospitals, based on diagnostic related groups, Dr. Fitzmaurice left his position as Acting Director, Office of Research, to become the Director, National Center for Health Services Research and Health Care Technology Assessment (NCHSR). When AHCPR was created out of NCHSR by Congress, he became Deputy Administrator and, subsequently, Director of the Office of Science and Data Development and Director of the Center for Information Technology.

Dr. Fitzmaurice is a staunch advocate of health informatics standards nationally and internationally, supporting collaboration among U.S. health data standard developing organizations and standards users since 1990. He continues to support the work of American National Standard Institute's Health Informatics Standards Board and the U.S. Technical Advisory Group to the ISO Technical Committee (TC) 215 on Health Informatics. Internationally, he participates in ISO TC 215.

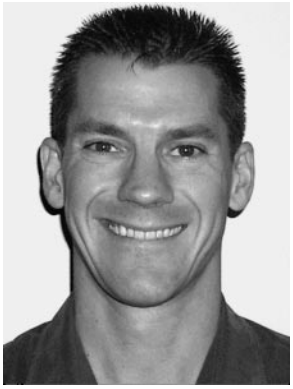
In AHCPR and the Department of Health and Human Services (DHHS), Dr. Fitzmaurice actively promotes medical informatics and health services research methods to show the benefits and costs, barriers and solutions of information technology applications in health care. In 1993, Dr. Fitzmaurice served on the White House Health Reform Task Force, Information Systems Working Group, and Administrative Simplification Working Group, which made recommendations to Hillary Rodham Clinton, Task Force Chair, on the use of information technology in health care reform. He wrote the Clinton Administration's vision paper ''Health Care and the National Information Infrastructure,'' which was published by the Department of Commerce in 1994.

Dr. Fitzmaurice is one of two government liaisons to the National Committee on Vital and Health Statistics (NCVHS). He co-chairs the DHHS Infrastructure and Cross-cutting Implementation Team that has oversight and guidance responsibility for the six implementation teams that recommend health data standards for the Secretary's adoption under the mandate of the Health Insurance Portability and Accountability Act (HIPAA) of 1996. HIPAA has also mandated NCVHS to produce a report on standards for PMRI and its electronic exchange. Dr. Fitzmaurice is co-lead staff of the Computer-based Patient Record Working Group that is charged with producing the draft of the report. He is a member of the Department's Health Privacy Regulation Working Group charged with producing a national privacy regulation under HIPAA.

Dr. Fitzmaurice has received numerous awards from his agency, the Public Health Service, and DHHS. He has been a member of the AMIA Advisory Council since 1994. In 1996, he received a President's Award from AMIA, ''for significant contributions made to the Working Group for Family Practice/Primary Care of the American Medical Informatics Association.'' In 1999, he received the Future of Health Technology Award.

Stephen Bennett Johnson, PhD

Stephen Bennett Johnson is an Associate Professor of Medical Informatics at Columbia University. He received an undergraduate degree in Computer Science from McGill University. His doctorate was also in Computer Science, and he specialized in natural language processing at New York University. Dr. Johnson currently serves as the Director of Informatics for the Cancer Center at the Columbia-Presbyterian Medical Center, using information technology to assist in cancer care and research. He also directs the graduate degree program in medical informatics at Columbia.



Dr. Johnson has been deeply interested in the area of data modeling and the importance of bringing these techniques into medical informatics. He demonstrated the advantages of data modeling in building the Clinical Data Repository at the Columbia-Presbyterian Medical Center, one of the first large-scale relational databases in medicine. This work showed that a patient database could be both flexible and efficient. He has taught data modeling as a tutorial at the AMIA Annual Symposium for several years and at the Woods Hole course on informatics. He has also been a participant in the Unified Medical Language System, with a special interest in showing how data modeling resources can contribute to the area of natural language processing. Dr. Johnson has worked for several years to create a detailed curriculum for medical informatics, emphasizing the importance of the social sciences in providing theoretic foundations for the field. His current area of research is knowledge extraction from medical and scientific texts.

Elliot R. Siegel, PhD

Elliot R. Siegel is Associate Director for Health Information Programs Development at the National Library of Medicine, National Institutes of Health. He directs the NLM's offices of international programs, planning and evaluation, and outreach development. Dr. Siegel received a PhD in communication research and an MA in industrial-social psychology, both from Michigan State University. He received a BA in Psychology from Brooklyn College of the City University of New York.

Dr. Siegel's work in medical informatics began at NLM in 1976 where, as Senior Information Scientist in the Lister Hill National Center for Biomedical Communications, he co-developed the hepatitis knowledge base system for physicians. He later established and still leads the evaluation research program that supported the development of such NLM innovations as the first-generation online public access catalog and the Grateful Med end-user search system. His research interests include the creation of new methodologies and metrics that have been applied to the study of information system performance, use, and impact. Dr. Siegel put in place the long-range planning function that for nearly two decades has strategically set the goals and priorities for NLM's research and service activities. He launched the Library's nationwide outreach initiative for minority and underserved health professionals and, most recently, undertook on behalf of NIH the leadership of a multilateral capacity development initiative in sub-Saharan Africa to connect remote malaria research sites to the Internet.

Dr. Siegel represented the medical informatics community on the first High-Performance Computing, Communications, and Information Technology Committee (HPCCIT) of the Office of Science and Technology Policy. With the NLM director, he currently coordinates U.S. participation in the G-7 Global Healthcare Applications Project and represents U.S. government interests in this international forum. He represents NLM on the International Council for Scientific and Technical Information (ICSTI) and the consortium of senior federal information managers (CENDI). He is a fellow of the American Association for the Advancement of Science and past secretary and chair of the Section on Information, Computing and Communications. He is a member of the International Affairs Committee of AMIA. Dr. Siegel is a recipient of the NLM Director's Award, the NIH Award of Merit, and the Senior Executive Service Performance Award.

INTERNATIONAL ASSOCIATES, 1999

Enrico Coiera, MB, BS, PhD

Enrico Coiera is a Professor in the Faculty of Medicine and an Adjunct Professor in Computer Science at the University of New South Wales. Dr. Coiera received a medical degree from the University of Sydney in 1982 and a PhD in computer science from the University of New South Wales in 1989.

Dr. Coiera was the Head of the Clinical Computing Division at the Royal North Shore Hospital in Sydney from 1988 to 1989. He moved to the United Kingdom to work at Hewlett-Packard's Research Laboratory in Bristol as a senior research scientist between 1990 and 1998. He subsequently returned to Australia to assume his current position in Sydney at the University of New South Wales, where he is co-director of the newly established Centre for Health Telematics at the University of New South Wales.

Dr. Coiera is the author of *The Guide to Medical Informatics, the Internet and Telemedicine* (http://www.coiera.com), now used as the basis for many courses in health informatics. His research publications have highlighted the importance of communication processes for informatics research and have focused on informing the clinical community about the importance of new technologies like the Internet and on technical aspects of artificial intelligence techniques for patient monitoring (see http://www.coiera.com/publica.htm). His current research centers on developing a richer understanding of the role that communication processes play in clinical information tasks and on developing economic-inspired models of information transactions. Hewlett-Packard twice has been granted worldwide patents arising from his work, specifically in the areas of guideline-based information systems and role-based communication services for clinical communication systems.

Dr. Coiera has been invited to speak or give keynote addresses internationally on more than 30 occasions, including addresses at the Institute of Electrical Engineers, the Royal College of Physicians, the Royal Society of Medicine, and the Commission of the European Communities and one of the four Cornerstone addresses at the 1999 AMIA Fall Symposium. He is on the editorial board of the *Knowledge Engineering Review* and the *Journal of Medical Internet Research*. He has been a member of the Scientific Programme Committee for the Fourth and Fifth European Conferences on Artificial Intelligence in Medicine as well as the MEDNET European Conference on the Internet and Medicine in 1996, 1997, and 1998. He was on the organizing committees for the American Association for Artificial Intelligence Spring Symposium on Interpreting Clinical Data, at Stanford University in 1994, and for the Workshop on Intelligent Monitoring at Medinfo '92, in Geneva.

Reinhold Haux, PhD

Reinhold Haux is Professor and Director of the Department of Medical Informatics at the University of Heidelberg, Heidelberg, Germany. Dr. Haux received a masters degree (German "Diplom") in Medical Informatics from the University of Heidelberg and University of Applied Sciences Heilbronn in 1978. He received a doctorate from the Faculty for Theoretical Medicine, University of Ulm in 1983. He received a License for Lecturing (German "Habilitation") for Medical Informatics and Statistics from the Medical Faculty of the Technical University of Aachen.

Between 1978 and 1989, Dr. Haux held faculty positions at the Institute for Medical Documentation, Statistics and Data Processing, University of Heidelberg; the Institute for Medical Statistics and Documentation, Technical University of Aachen; and the University of Tübingen. Since 1989, he has been Full Professor for Medical Informatics, Medical Faculty, and Director of the Department of Medical Informatics at the University of Heidelberg. During his early professional years, Dr. Haux concentrated on the design and analysis of multicenter observational studies, construction of statistical tests, and design of statistical analysis systems. More recently, his focus has been on information systems in health care, particularly hospital information systems; on medical documentation, particularly clinical data management; and on knowl-

edge-based decision support for diagnosis and therapy. He has participated in the design of curricula in health and medical informatics, contributing especially to the four-and-a-half-year medical informatics program for medical informatics specialists at Heidelberg/Heilbronn.

Dr. Haux has been an invited lecturer at, among others, the universities of Heidelberg, Heilbronn, and Prague. He is a member of the International Medical Informatics Association (IMIA) and, since 1989, has been chairperson of IMIA Working Group 1: Health and Medical Informatics Education. He is a member of the German Association for Medical Informatics, Biometry and Epidemiology, where he served on the Advisory Board (1987–95) and as a member of the Board of Directors (1990–95). He is a member of the Deutsche Forschungsgemeinschaft (German Research Association) and has served as an elected reviewer for medical informatics and biometry since 1992. He has been a member of the Committee for Computing of the association since 1995. Dr. Haux is an associate editor of *Methods of Information in Medicine*. He is a member of the editorial boards of the *International Journal of Medical Informatics* and *Artificial Intelligence in Medicine*. He is a founding member and Chairman of the Board of the Academy of Medical Informatics, a German institution offering courses for postgraduate training and education.

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AMIA President's Awards, 1999

The AMIA President's Award recognizes individuals who have devoted unusual personal effort to the development of the association and the field of medical informatics.

The recipients for 1999 are:

- *Patricia Ann Abbott, PhD, RN-C*, for her tireless leadership of the Nursing Informatics Working Group and her outstanding membership recruitment efforts
- *Joseph W. Hales, PhD*, chair of our first focused spring meeting, which was aimed at enriching the intellectual content of our efforts to educate students in the field, and significant contributor to AMIA's ACCME accreditation approval
- *W. Edward Hammond, PhD*, a pioneer in the field, who has advanced the level of standards and served faithfully as treasurer of AMIA during a demanding time
- *Janice Kennedy*, who as Senior Staff and Acting Director of AMIA and Executive Director of CPRI, has given both organizations continuity and quality by her loyal service
- *Charles Safran, MD, MS*, for elevating the level of intellectual content by improving the rigor of presentations at AMIA meetings, and for eliminating redundancy by focusing the approach to the spring meeting as chair of the Meetings Committee and chair of the Medinfo scientific program
- *Harold M. Schoolman, MD*, who served 29 years at the NLM as Acting Director and Director of Education and Research. He played a key role in the wise strategy and development of information services, which have had a worldwide effect.