Introducing DMICE

In the spring of 2003 the former Division of Medical Informatics and Outcomes Research became the Department of Medical Informatics and Clinical Epidemiology. Known in OHSU jargon as a “free-standing division,” DMICE operated like a department (with, for example, its own budget, promotion and tenure process, etc.) but with interim status. When the division became a full-fledged department, very little of its day-to-day activities changed but the significance of the new name was enormous. The change recognizes the success and value to the university of DMICE’s respective disciplines.

Becoming a department implies a more permanent status within the OHSU School of Medicine where DMICE can continue its mission of providing an academic environment for teaching, research and service in the disciplines of medical informatics and clinical epidemiology. Like all other departments, however, the onus is on the department to be financially and scientifically viable.

Message From the Chair

Welcome to the first issue of DMICE Tracks, the newsletter of the Department of Medical Informatics and Clinical Epidemiology. We hope to produce this newsletter on a quarterly basis to keep people inside and outside of OHSU informed about our department.

These are exciting yet challenging times for the fields of medical informatics and clinical epidemiology. The most exciting news is that we have become a full-fledged department in the School of Medicine, which we view as an acknowledgment of our success and the importance of our disciplines to health and biomedicine. While in reality our day-to-day operations are not much different from when we were the Division of Medical Informatics and Outcomes Research. The new status gives us increased vigor toward our role at OHSU. I am also pleased to announce that Cynthia Morris, Ph.D., M.P.H., has agreed to serve as vice chairwoman of the department. Morris will be particularly helpful in promoting the clinical epidemiology side of the department, mentoring junior faculty and identifying new research opportunities.

These are exciting times for many reasons. The informatics program continues to grow both in research and education. On the research side, we continue to contribute important findings to the field. This will likely continue with a number of new grants recently received by faculty members. Furthermore, times are bright for us with the growing recognition of the importance of information technology in improving patient safety and health care quality. There are also growing opportunities on the “bio” side as the fields of genomics and proteomics continue to advance.

Educationally we continue to excel, with the launching of our Ph.D. program, continued growth in enrollment in our on-campus and distance learning programs and international acknowledgment of our accomplishments in this arena. We also are proud of our relationship with the local informatics community outside OHSU, in particular local industry, which is providing opportunities for students and collaborating with us in other ways.

The clinical epidemiology side of the department also is having tremendous success. The Oregon Evidence-based Practice Center continues to maintain its status as a national leader...
One of this year’s big events is Medinfo 2004, a triennial medical informatics meeting taking place in San Francisco, Sept. 6-11. The meeting will bring together, from around the world, those who work in the informatics field. For more details, including how to register, visit the conference Web site www.medinfo2004.org.

Over a dozen papers and posters from DMICE faculty and students have been accepted for presentation at the meeting (see list below). We are hoping to have the DMICE program out in force at Medinfo 2004.

In addition to the paper presentations, OHSU will be an academic sponsor of the meeting and has the opportunity to promote its educational programs. We also will be hosting a social event again at the American Medical Informatics Association and Health Information Management Systems Society meetings.

The department is particularly interested in finding ways to get students to the Medinfo 2004 meeting. Transportation should be relatively inexpensive, as those on limited budgets can drive or find bargain airfares on Southwest or other airlines. However, there are still costs for lodging and the conference registration, the latter of which will be somewhat reduced for students. We have established a scholarship fund to facilitate student travel to the meeting. William Hersh, M.D., has donated the first $2,000 of the fund.

External Relations

An important part of the OHSU biomedical informatics program is its relationships with the local health care and informatics communities. Since the launch of the informatics master’s degree program in 1996, we’ve worked with local industries to create mutually beneficial relationships. Access to the local informatics community allows us to provide students with real-world experiences and allows students to show off their talents to prospective employers.

Business success also encourages individuals to further their education. The OHSU informatics program offers tuition discounts to members of the health care information technology societies, including the American Medical Informatics Association (www.amia.org), the Healthcare Information Management Systems Society (www.himss.org) and the Association of Medical Directors of Information Systems (www.amdis.org). Full-status members of these organizations receive a 5 percent tuition discount for the distance learning Graduate Certificate program.

We hope to continue to work with the local community to advance academic and industry pursuits in informatics.
Evidence-based Practice Center Keeps Rolling

The Oregon Evidence-based Practice Center, directed by DMICE faculty member Mark Helfand, M.D., M.P.H., continues to contribute important findings that improve the evidence base for clinical care. Housed in DMICE, the Oregon EPC is funded by the Agency for Healthcare Research and Quality.

One of the Oregon EPC’s flagship projects is its support of the US Preventive Services Task Force project. DMICE faculty member Heidi Nelson, M.D., M.P.H., serves as the principal investigator of this effort.

Begun in 1998 and renewed in 2002 this project involves creation of systematic reviews on screening and prevention topics. Current topics include breast cancer genetic screening, obesity screening in youth, screening for speech and language delay in children, and screening for HIV, herpes, glaucoma, gonorrhea, aortic abdominal aneurysm and hip dysplasia in children. OHSU partners with the Kaiser Permanente Center for Health Research on this project.

Another large project is the Drug Effectiveness Review Project, where the Oregon EPC produces systematic reviews on the effectiveness of drug classes. Originally producing 12 drug-class reviews for the state of Oregon, the EPC is now working for a multi-state collaboration and the OHSU Center for Evidence-Based Policy on new reviews including atypical antipsychotics, second generation antidepressants, anti-epileptic drugs, second generation antihistamines and inhaled corticosteroids. The Oregon EPC is partnering with two other EPCs at Rand Corporation and the University of North Carolina for this work, for which DMICE faculty member Marian McDonagh, Pharm.D., serves as principal investigator.

This spring the EPC will receive two new awards. One pending award will update an evidence report on telemedicine services and prepare for a telemedicine workshop to help inform Centers for Medicare and Medicaid Services staff about the viable uses of telemedicine services. DMICE chairman, William Hersh, M.D., will serve as principal investigator of this project. In addition, Roger Chou, M.D., assistant professor, received a contract from AHRQ for a methods project entitled, Evaluation of Study Design-related Bias in Assessing Complication Rates from Carotid Endarterectomy. This project builds on earlier work Chou conducted as part of an EPC evidence report on stroke management for AHRQ.

The EPC also will work with the Food and Drug Administration to produce systematic reviews of the research for qualified food-related health claims, for example, the claim that a food can lower the risk of heart disease. With Helfand as principal investigator, the project is currently developing methods for the work, along with two other EPCs at New England Medical Center and Research Triangle Institute/University of North Carolina.

The Oregon EPC has 37 current and past investigators from DMICE and many other departments on campus, including general internal medicine, neurological surgery, obstetrics and gynecology, public health and preventive medicine, dermatology, pediatrics, and the School of Nursing. Fourteen core staff (research associates, research assistants, statisticians, librarians and administrators) support the EPC. The Oregon EPC has produced more than 51 individual systematic reviews since 1997 and brought in more than $9 million in external funding in the past seven years.

More Information

Not surprisingly, the best source of information for the Department of Medical Informatics and Clinical Epidemiology is our Web site, which can be found at www.ohsu.edu/dmice. The site features a wealth of information about our research and educational programs.

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in evidence reports and related activities. We are now the sole producer of systematic reviews for the U.S. Preventive Services Task Force, and our leadership in reports on drug class effectiveness continue to attract attention. This side of the department also is active educationally, providing leadership for the Human Investigations Program, a clinical research training program at OHSU.

These times, however, are challenging as well. While the department’s success at attracting outside funding has buffered some of the pain from OHSU budget cuts, we are not immune to them. The department receives some financial support from the university for resources that cannot be obtained by grant and tuition revenues. We are dependent on a healthy OHSU and a healthy Oregon economy to continue our success and growth. In addition, grant funding is earmarked for specific projects over fixed time periods, so we need to develop other funding sources that enable us to continue to prosper and grow.

Nonetheless, we maintain our optimism for the future and are driven by the enthusiasm that our work is relevant to improving human health. We hope the wider community will continue to collaborate and support us in this quest.

William Hersh, M.D. professor and chairman
Introducing the DMICE Faculty

A key asset of any academic department is its faculty. DMICE has seen growth in the number of productive faculty, who now total over 60. For core faculty who have their primary appointment in DMICE, we present their research interests, recent publications and grant support. We then list adjunct/other (in other departments or units of OHSU) and external/clinical (volunteer faculty from outside OHSU) appointments.

William Hersh, M.D.
professor and chairman
(joint appointments: medicine, public health and preventive medicine)

Research interests:
Information retrieval – indexing and retrieval of text-based information, evaluation of telemedicine, informatics education.

Publications:

Grant Support:
• National Science Foundation, Enhancing Access to the Bibliome for Genomics, $1,206,376; 2003-2008.

Joan Ash, Ph.D.,
associate professor
(joint appointments: OHSU Library)

Research interests:
Evaluation of clinical systems using qualitative methods

Publications:

Grant Support:
• National Library of Medicine, Unintended Consequences of Physician Order Entry, $1,565,221; 2003-2006.
• National Library of Medicine, Physician Order Entry: Field Study of Success Factors, $906,000; 2000-2003.

Nancy Carney, Ph.D.
assistant professor

Research interests:
Effectiveness of interventions in the treatment of traumatic brain injury, spanning the continuum from acute medical management through rehabilitation to community reintegration. Quantitative methods for evaluating the process of recovery from traumatic brain injury.

Publications:

Christopher Dubay, Ph.D.
assistant professor
(joint appointments: medical and molecular genetics)

Research interests:
Complex genetic diseases (e.g., diabetes, hypertension, etc.) and the dissection of their genetic basis in model systems
and eventually humans. The use of bioinformatics tools to aid in the scaling up of experiments and analysis required to address the isolation of multiple genetic loci present in complex traits.

**Publications:**

**Grant Support:**

Karen Eden, Ph.D.
**Assistant professor**

**Research Interests:**
Decision-making, patient preferences, early detection, evidence-based medicine.

**Publications:**

**Grant Support:**

Paul Gorman, M.D.
**Associate professor**

(joint appointment: medicine)

**Research Interests:**
Information use by clinicians, evaluation of healthcare information systems, distributed cognition in medicine, patient safety and medical error.

**Publications:**
- Helfand M. Screening for subclinical thyroid dysfunction in non-pregnant adults; a systematic review for the US


Grant Support:
• Agency for Healthcare Research and Quality; Evidence-based practice centers (EPC-2); 2002-2007.
• VA HSR&D Service-Directed Research Project (Quality Enhancement Research Initiative); Translation of colorectal cancer screening guidelines to practice—a system intervention; 2003-2005.
• Multi-state collaboration; Drug Effectiveness Review Project; 2003-2006.

Holly Jimison, Ph.D.
assistant professor
(joint appointment: public health and preventive medicine)

Research interests:
Health management using the Internet and new communications technologies for patients in the home; technology for successful aging; consumer health informatics; ethics and patient consent issues.

Publications:


Grant Support:
• National Institute of Mental Health, Internet Multimedia Informed Consent, $100,000; 2003-2004.
• National Cancer Institute, Internet-Based Tools to Enhance Use of Online Health Resources, $83,612; 2004-2005.

Dale Kraemer, Ph.D.
assistant professor

Research interests:
Data mining, economic evaluations in health care, and outcomes research.

Publications:

Grant Support:

Marian McDonagh, Pharm.D.
assistant professor

Research interests:
Systematic review methods – relating to use of imperfect bodies of evidence, methodology and
use of drug class reviews as evidence for decision-making, implementation of evidence-based medicine.

**Publications:**

**Grant Support:**
- Multi-state collaboration; *Drug Effectiveness Review Project*; 2003-2006, $2,400,000.

Cynthia Morris, Ph.D., M.P.H. professor and vice chairwoman (joint appointments: medicine, public health and preventive medicine)

Research interests:
Clinical trials, population-based studies, patient registries, and systematic reviews. Her principal interest has been in the area of maternal and child health, with a dual focus on congenital heart malformations and preeclampsia.

**Publications:**
- Morris C.D., McCracken K.W., Seif A.E., Chan B., Reller M.D. Folic acid supplementation in early pregnancy reduces the risk of conotruncal heart defects and ventricular septal defects (submitted, 2004).

**Grant Support:**

Heidi D. Nelson, M.D., M.P.H. associate professor (joint appointments: medicine, public health and preventive medicine)

Research interests:
Women’s Health – osteoporosis, postmenopausal hormone therapy, domestic violence and other topics. Screening, prevention, evidence-based medicine.

**Publications:**

Grant Support:

Kent Spackman, M.D., Ph.D. professor (joint appointments: Pathology)

Research interests:
Clinical terminology standardization, formal ontologies, description logic, decision support, standards for electronic health records.

**Publications:**

Funding:
College of American Pathologists, SNOMED scientific director.
National Library of Medicine, *Training Program in Health Informatics*.

Patricia Tidmarsh, J.D., M.S. instructor

Research interests:
Educational technology, instructional design and qualitative research.

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DMICE Faculty
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Thomas Yackel, M.D., M.P.H., M.S.
assistant professor; associate medical information officer for OHSU
(joint appointment: medicine)

Research interests:
Clinical informatics and practical applications of medical informatics research.

Adjunct/Other OHSU
(primary OHSU appointment)

- Michelle Berlin, M.D., M.P.H., associate professor (Obstetrics & Gynecology).
- Dana Braner, M.D., associate professor (Pulmonary Medicine).
- Roger Chou, M.D., assistant professor (Internal Medicine).
- Jamie Dickey, Ph.D., assistant professor (Psychiatry).
- Richard Dykstra, M.D., adjunct assistant professor (Kaiser).
- Linda Felver, Ph.D., assistant professor (Nursing).
- Jeanne-Marie Guise, M.D., assistant professor (Obstetrics & Gynecology).
- David Hickam, M.D., M.P.H., professor (Medicine, Public Health & Preventive Medicine).
- Sandra Joos, Ph.D., assistant professor.
- John Kenagy, M.S., assistant professor (ITG).
- Robert Lowe, M.D., associate professor (Emergency Medicine, Public Health & Preventive Medicine).
- Richard Lowensohn, M.D., associate professor (Obstetrics and Gynecology).
- Shannon McWeeney, Ph.D., assistant professor (Public Health & Preventive Medicine).
- Alan Melnick, M.D., M.P.H., assistant professor (Family Medicine, Public Health & Preventive Medicine).
- Katherine O’Meara, Ph.D., assistant professor (Nursing).
- Motomi Mori, Ph.D., associate professor (Public Health & Preventive Medicine).
- Jere Retzer, M.S., assistant professor (ITG).
- Somnath Saha, M.D., assistant professor (Medicine).
- William Smith, Ph.D., adjunct professor (Educational Communications).
- Kent Spackman, M.D., Ph.D., professor (Pathology).
- Kent Thornburg, Ph.D., professor, (Medicine).
- Jessica Zeaske, Ph.D., assistant professor, (Technology Transfer).
- Warren Harrison, Ph.D., adjunct professor (Portland State University).
- Brian Hazlehurst, Ph.D., clinical assistant professor (Kaiser-Permanente Center for Health Research).
- Michael Krall, M.D., clinical assistant professor (Kaiser-Permanente).
- Mark Leavitt, M.D., clinical assistant professor, (Health Information Management Systems Society).
- J.A. Magnusson, Ph.D., clinical assistant professor (Oregon Health Division).
- Philip Marshal, M.D., M.P.H., clinical assistant professor (WellMed, Inc.).
- Brian Martin, M.D., clinical assistant professor (medPortal.net).
- Fred Masarie, M.D., clinical assistant professor.
- Robin Miller, M.D., clinical assistant professor (Asante Health Systems).
- Jeffrey Pentecost, D.O., clinical assistant professor (physiology).
- Jody Petit, M.D., clinical assistant professor (Providence Health Systems).
- Tom Riccardi, Ph.D., clinical assistant professor (GE Medical, Inc.).
- Dean Sittig, Ph.D., clinical assistant professor (Kaiser-Permanente Center for Health Research).
- Tom Stibolt, M.D., clinical assistant professor (Kaiser-Permanente).
- Nancy Vukovic, Ph.D., clinical assistant professor (Kaiser-Permanente).

External/Clinical
(place of employment)

- Diane Audiss, Ph.D., clinical assistant professor (St. Charles Medical Center).
- Brad Bowman, M.D., clinical assistant professor (Wellmed, Inc.).
- Homer Chin, M.D., M.S., clinical assistant professor (Kaiser-Permanente Northwest).
- Mary Devlin, M.L.S., clinical assistant professor.
- Jay Eisenberg, M.D., clinical associate professor (Cerner).
- Richard Gibson, M.D., Ph.D., clinical assistant professor (Providence Health System).
- Robert Gluckman, M.D., clinical assistant professor (Providence Health System).
- Mary Joos, Ph.D., assistant professor.
- John Kenagy, M.S., assistant professor (ITG).
- Robert Lowe, M.D., associate professor (Emergency Medicine, Public Health & Preventive Medicine).
- Richard Lowensohn, M.D., associate professor (Obstetrics and Gynecology).
- Shannon McWeeney, Ph.D., assistant professor (Public Health & Preventive Medicine).
- Alan Melnick, M.D., M.P.H., assistant professor (Family Medicine, Public Health & Preventive Medicine).
- Katherine O’Meara, Ph.D., assistant professor (Nursing).

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