A Leader in Service and Learning

SOUTTEREVIEW

Newsletter of the Lamar Soutter Library • University of Massachusetts Medical School • Issue 34

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LIBRARY HOURS

Monday—Thursday
7:30 am—11:00 pm
Friday 7:30 am—9:00 pm
Saturday 10:00 am—9:00 pm
Sunday 10:00 am—11:00 pm

Hours are subject to change due to exams and holidays. Please call 508-856-6099 for current library hours.

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Library Service Point
508-856-6099
Library Operations
508-856-2099
Community, Technology, and Global Relations
508-856-2206
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508-856-2205

DIRECTOR'S CORNER-- UNTANGLING THE DATA: NEW ROLES FOR MEDICAL LIBRARIANS IN E-SCIENCE

The increasing influence of molecular approaches to biological research has resulted in an expanding suite of databases, retrieval tools, and data analysis techniques for manipulating and handling the data sets generated from genomic and proteomic sequencing. Biomedical researchers must efficiently and effectively identify, locate, and use bioinformation resources tailored to their needs.

Medical librarians have begun to assist researchers with these information challenges in a variety of ways, ranging from the in-person consultation, to web development, and more. The expanding capacity of technology to enable super-computers to process large amounts of data at increasing speeds, the low cost of storage, and the ease at which information can now be distributed and shared across the internet have opened new opportunities for medical librarians to assist researchers in managing their information.

Medical libraries which want to partner with faculty and researchers have valuable skills in metadata creation, selection, and long-term preservation. The burgeoning field of bioinformatics provides numerous opportunities for librarians to partner and collaborate with non-librarian colleagues throughout their institutions. Yet, in discussions with librarians throughout the New England Region, many believe these skills are not enough to be successful partners and collaborators.

The Lamar Soutter Library, in conjunction with support from the National Network of Libraries of Medicine, libraries from the University of Massachusetts' five campuses, and the Boston Library Consortium, has been working to address the issue of e-science education and skills development for librarians throughout New England. The following stories outline a number of initiatives that have continued since 2008. Our goal is to increase awareness of the relevance of e-science and bioinformatics among librarians, to identify library roles in support of scientific research, and provide educational opportunities for New England librarians to help prepare them for work in this emerging field.

Elaine Martin, DA
Director of Library Services

e-Science is a research methodology that is networked and data-driven. It describes the collaboration among computationally intensive science disciplines that create immense data sets that are captured, transported, stored, organized, accessed, mined, visualized, and interpreted in order to extract knowledge.

References: Hey, Tony, and Hey, Jessie. [article] "e-Science and its implications for the library community." **Library Hi Tech**. 2006; 24(4); 516
National e-Science Centre. (n.d.) "Defining e-Science". Accessed from the internet on 1 Nov. 2010 at http://www.nesc.ac.uk/nesc/define.html
Rambo, Neil. [editorial] "E-science and biomedical libraries." **Journal of the Medical Library Association.** 2009; 97(3); 159.

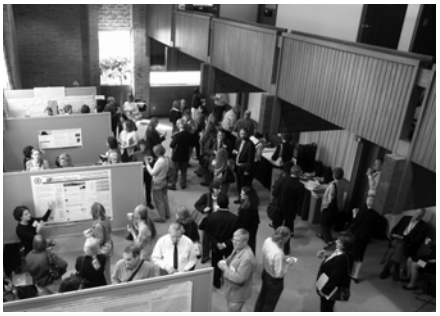
UMASS SCIENCE LIBRARIANS MEET TO DISCUSS E-SCIENCE

An ad hoc committee of science librarians from the University of Massachusetts' five campuses convened in **March 2008** to discuss the challenges of meeting the burgeoning information needs of researchers who are utilizing emerging e-science methodologies. They brainstormed ideas on ways to prepare librarians for roles in e-science initiatives. Of the three primary outcomes for the 2008–2009 year, the committee identified professional education as a major component necessary for successfully engaging faculty and researchers vis-à-vis e-science. In order to effectively collaborate with researchers generating data, librarians must be aware of the research trends in those fields and the methods used in various environments.

As the search for a more collaborative science library and researcher environment progressed, the ad hoc committee realized that only a few librarians on the committee actually had formal science education or experience. This posed problems when members began to struggle to remain current with developments in the various fields of scientific research. There was clearly a need for multi-event programs in various formats targeting various audiences designed to provide librarians with the knowledge and tools required to cooperate more fluidly with researchers and scientists.

Annual Activities

- e-Science Symposia
- Professional Development Days
- Science Boot Camps
- Presentations/Posters/Publications
- The Development of an e-Science Portal for Librarians
- Applications for additional grant funding



e-Science Symposium 2010

THE E-SCIENCE SYMPOSIUM FOR LIBRARIANS

On **April 6, 2009**, the first University of Massachusetts and New England Area Librarian e-Science Symposium was held at the Hoagland-Pincus Conference Center in Shrewsbury, MA. Co-sponsored by the UMMS Lamar Soutter Library, National Network of Libraries of Medicine, New England Region, and Boston Library Consortium, the symposium was a day-long event designed to encourage New England region librarians' collaboration with, and support for, e-science initiatives at their research institutions.

With about 70 people in attendance, 29 libraries were represented. The morning and early afternoon featured presentations delivered by librarians and researchers. Presentations were delivered by UMMS researchers, featuring Chancellor Michael Collins, MD; Vice Provost for Research John Sullivan, MD; Director of Scientific Computing David Lapointe, PhD; and Curator of the International Stem Cell Registry Kelly Smith, PhD. The presentations provided an overview on topics such as the life sciences initiative for the Commonwealth of Massachusetts, clinical and translational research, stem cell research, bioinformatics, and biotools.

In the afternoon, equipped with the information presented that morning, librarians broke into small groups to discuss topics pertinent to supporting e-science at their institutions. Following this, Elaine Martin, Director of Library Services at the Lamar Soutter Library, facilitated a dialogue to collect the ideas generated in the small groups. The brainstorming produced from the breakout sessions facilitated an action plan: the next year would be devoted to the development of an e-science portal for librarians, to encourage collaboration and transition from "planning" to "action."

After the success of the first symposium, Elaine Martin determined that a second symposium would be held the following spring, in 2010. The dialogue and ideas generated during the 2009 event would continue at the second symposium. With this foundation laid, regional librarians could once again meet to collaborate and learn more about e-science initiatives.

The success of the Second Annual e-Science Symposium, held on **April 7, 2010,** was clearly bolstered by the inaugural symposium. About 100 people attended the 2010 event, with seven additional institutions represented from outside the New England region. The programming format was similar to that of the previous year. Presentations from librarians and researchers educated the audience about national e-science initiatives. The afternoon featured a facilitated group discussion that included an update on the progress in the development of the e-science portal for librarians. An added feature was a lunchtime poster session that provided an opportunity for symposium attendees to network informally.

The e-science symposia have been successful events that have enabled regional librarians and researchers to meet and identify ways librarians might best support e-science at their institutions. A third symposium is being planned for Spring, 2011. Documents generated from all events can be found at the following URL: http://library.umassmed.edu/e-Science_symposium09.cfm.

PROFESSIONAL DEVELOPMENT DAYS

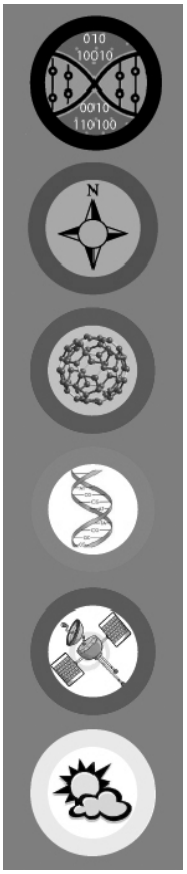
Exploring Stem Cell Research: What Does it Mean for Librarians? This was the theme of the first professional development day. Held on **May 13, 2009**, the focus was on educating health science librarians on the basics of stem cell research. It was led by staff from The Center for Stem Cell Biology and Regenerative Medicine, based at the University of Massachusetts Medical School, and included a tour of the facilities.

The second professional development day, **May 24, 2010**, focused on the study of nanotechnology in the health and applied sciences. This event was hosted by the University of Massachusetts at Amherst, at the Integrated Science Building and the Silvio O. Conte National Center for Polymer Research. The goal of this event was to provide science librarians with a basic understanding of the tools, language, trends, and resources for supporting nanotechnology research.

Librarians from the five UMASS campuses have gathered together at each of these organized, low-cost professional development days, in accordance with the goals of the Massachusetts Life Sciences Initiative signed into law in June, 2008. The ad hoc committee, now known as the "UMASS 5 Science Librarians," intends to continue these development days every spring, rotating the location among the five campuses. Rebecca Reznik-Zellen and Maxine Schmidt of the University of Massachusetts at Amherst have recently described these professional development days as opportunities that "provide librarians with subject awareness and networking opportunities [and] enable them to better engage faculty and research scientists with regard to e-science."

BOOT CAMP: SCIENCE IMMERSION FOR RESEARCH LIBRARIANS

As the scientific community begins to understand the need to organize, safeguard, and share increasingly large and complex datasets, librarians are faced with both opportunities and challenges. To address and prepare their professional staff to meet these challenges, library leadership from the five campuses of the University of Massachusetts has established an on-going e-Science initiative.



For the past two years, a committee of science librarians from the five UMass libraries has organized a Science Boot Camp for Librarians. The goal of the camp is to provide a venue for researchers to share their expertise with librarians. Lectures are geared toward educating non-specialists and providing "campers" with a framework and vocabulary that will help them engage their research faculty. At the same time, the camp creates an environment for dialogue between these two groups, whereby the information needs of scientists and the information skills of librarians can find common ground. Researchers are recruited from the disparate ranks of UMass faculty and represent the various disciplines of the campuses.

The first Science Boot Camp for Librarians was held **June 24-26, 2009** at the University of Massachusetts at Dartmouth. Five scientists outlined the current direction of research in three fields: geographic information systems, bioinformatics, and nanotechnology. The second annual event took place **June 9-11, 2010** at the Conference Center of the University of Massachusetts at Lowell. Researchers at this camp covered the topics of gene therapy, climate change, and remote sensing.

The use of University housing, coupled with financial sponsorship by the Library Directors of the five UMass campuses, business sponsors, and grant funding from the Boston Library Consortium and the National Network of Libraries of Medicine, New England

(Continued on page 5)

ONE STOP SHOPPING
E-SCIENCE RESOURCES FOR LIBRARIANS

Following the first e-Science symposium, the Lamar Soutter Library, with funding from the National Network of Libraries of Medicine, New England Region, initiated planning for the development of an e-Science web portal for librarians. In **June, 2009**, Donna Kafel was hired as the project coordinator for the portal. Donna works under the guidance of Elaine Martin, project administrator, and Javier Crespo, Associate Director, NN/LM NER. Bob Vander Hart is the portal's website manager. Librarians Sally Gore and Penny Glassman have contributed to planning the portal design. Two library school students from Simmons Graduate School of Library Science, Andrew Creamer and Myrna Morales, were hired to work on the portal needs assessment.

A key factor in developing the e-Science portal has been the collaborative participation of New England librarians. Advisory and editorial boards consisting of science librarians and library directors from diverse New England research institutions (including UMass Amherst, WPI, MIT, Massachusetts General Hospital, Genzyme, Tufts, Northeastern, and Brandeis) were appointed.

In **December, 2009**, the portal advisory board agreed on the following scope statement for the portal:

> The e-Science portal will be a central resource for librarians to learn about and discuss issues related to e-Science, e-Science subject areas, and the impact of e-Science on the profession. The portal will primarily serve librarians and library administrators working in institutions that are generating, sharing, storing, and/or using data for basic scientific, clinical, or translational research in the health, biological, and physical sciences. As such, the portal will bring together resources on education, outreach and collaboration, best-practices, and current events for e-Science. The portal will provide librarians with the tools, knowledge, and skills to effectively participate in networked science.

The advisory board identified four key content areas for the e-Science portal:

1. Front Page – the gateway to the portal, including: definition of e-Science, news, calendar of events, portal mission/vision, board charges and members
2. Virtual Community -- a discussion forum for science and medical librarians interested in e-Science librarianship
3. Current Practices – a listing of key organizations, projects, websites, and publications supporting e-Science librarianship
4. Education -- a compilation of the e-Science components in a broad range of science disciplines, existing instructional resources and experts in those disciplines and in e-Science librarianship, areas for development of new resources and instruction to meet learning needs of librarians

After a year of planning, the portal project is now in its implementation phase. Members of the editorial board are aggregating resources for the front page and for the education content areas. While much of the content for the portal will include links to existing science resources, there is a need for original tutorials in certain subject areas. Over the next few months, the portal staff will be consulting with an instructional design team to format tutorials on biochemistry and research methodology (that have been created by University of Rhode Island library school student and researcher, Jim Schroeder) into audio-enhanced, self-guided learning modules, specifically targeted to librarians.

Bob Vander Hart, Sally Gore, and Donna Kafel have been planning the portal structure, implementing content and presenting beta versions of the portal to the advisory and editorial boards. When each of the four content areas is sufficiently populated with content and the final design of the portal has undergone beta testing, the e-Science portal for New England librarians will be launched on the internet.

(Continued from page 3) *Boot Camp*

Region, make Science Boot Camp for Librarians an affordable option for professional development in the region. Fun and professional networking is also a big part of camp. Events like the non-sensible shoe contest, the smashing of a boot-shaped piñata, delicious, area-themed dinners, camp songs and merit badges are all part of the "camping" experience. Science Boot Camp has been an overwhelming success and has the support of the Library Directors to continue as an annual event.

PRESENTATIONS/POSTERS/PUBLICATIONS

Schmidt M, Reznik-Zellen R. [presentation] **Get on your boots: A model for low-cost, regional professional development for science librarians at the University of Massachusetts.** 31st Annual IATUL Conference, West Lafayette, IN, June 2010. (http://docs.lib.purdue.edu/iatul2010/conf/day2/2/; http://prezi.com/do_vopkdgcic/iatul/).

Martin, E. [presentation] **A collaborative approach to librarian involvement in e-Science initiatives.** Medical Library Association Annual Meeting, Washington, D.C., May 2010. http://bit.ly/aXwbf0

Kafel, D. [poster] **Developing an e-Science portal for librarians to support learning and collaboration.** University of Massachusetts and New England e-Science Symposium, Shrewsbury, MA, April 2010, and, Medical Library Association Annual Meeting, Washington, D.C., May 2010.

Gore, S. A. [poster] **Science boot camp for librarians: Educating researchers means educating ourselves**. Medical Library Association Annual Meeting, Washington, DC, May 2010.

Gore, S. A. and Palmer, L. A. [poster] **Mitosis and the life cycle: A metaphor for the transformation of the research librarian.** University of Massachusetts and New England e-Science Symposium, Shrewsbury, MA, April 2010. (http://works.bepress.com/lisa_palmer/13/)

Gore, S., Reznik-Zellen, R., Schmidt, M., and Kafel, D. [poster] **E-Science Initiatives across the UMass Campus Libraries: Building a strong foundation for professional success**. NERCOMP Annual Meeting, Providence, RI, March 2010.

Kafel, D., and Martin, E. "Response to Neil Rambo's editorial: 'E-science and Biomedical Libraries.'" **Journal of the Medical Library Association,** 2010 Jan; 98(1): 5. (http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2801980/)

Kafel, D. 2009. [presentation]. **The e-Science portal for librarians**. NERCOMPS SIG Science Librarians in an e-Science World, Southbridge, MA., October 9, 2009. (http://www.nercomp.org/events/media_archive.aspx?id=5894)

Schmidt, M, Reznik-Zellen R. 2009. [co-chairs] **NERCOMP SIG Science Librarians in an e-Science World.** Southbridge, MA., October 9, 2009. (http://www.nercomp.org/events/event_single.aspx?id=5839)

Creamer, A., Morales, M., Crespo, J., Kafel, D., and Martin, E. [poster] **Assessment of biomedical and science librarian e-science learner and user needs to develop an e-science web portal and support library and institutional e-science initiatives and collaborations**. Medicine 2.0, Toronto, Ont. Sept. 17, 2009.

Schmidt M, Reznik-Zellen R. [poster] **e-Science @ UMass: Anticipating and supporting e-Science activities at the University of Massachusetts**. ACRL Science and Technology Section (ACRL-STS) of ALA Annual Conference, Chicago, IL, July 2009. (http://www.ala.org/ala/mgrps/divs/acrl/about/sections/sts/conferences/posters09.cfm).

Schmidt M, Reznik-Zellen R. [poster] **e-Science @ the University of Massachusetts**. Massachusetts Library Association Annual Meeting, Springfield, MA, May 2009.

Schmidt M, Reznik-Zellen R, Rivera R, Mullen C. [presentation] **e-Science @ the University of Massachusetts**. NERCOMP Annual Meeting, Providence, RI, March 2009. (http://works.bepress.com/maxine_schmidt/10/)

SoutteReview

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IMLS National Leadership Planning Grant Awarded

The Lamar Soutter Library at the University of Massachusetts Medical School and the George C. Gordon Library at Worcester Polytechnic Institute have been awarded an Institute of Museum and Library Service National Leadership Planning grant. With this grant, the two libraries will collaboratively develop an instructional framework and delivery system for openly-accessible, online instructional modules for preserving, managing, and sharing digital data. When implemented, these modules will be delivered to students in science courses at both institutions-- from first-year science and engineering students, to graduate-level medical, nursing, and biomedical students.

The two libraries will also develop a plan for a prototype data repository for student work. The primary goal of the project is to teach essential data management skills early in the training of both science and medical professionals. Library Director, Elaine Martin, DA, serves as PI, and LSL librarians Donna Kafel and Mary Piorun serve on the project Steering Committee. Kafel also serves as Project Coordinator.

Upcoming Events

Professional Development Day
Scientific Data Management
March 16, 2011

3rd Annual
E-Science Symposium
April 6, 2011

Hoagland-Pincus Conference Center—Shrewsbury, MA
University of Massachusetts Medical School

Co-Sponsored by the National Network of Libraries of Medicine, New England Region