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Basic Biomedical Scientists: The Rediscovered Library Users

by **Susan K. Kendall** (Health Sciences Coordinator and Biology Librarian, Michigan State University Libraries) <skendall@msu.edu>

Not that long ago, maybe 10-15 years, most academic health sciences librarians seemed focused almost exclusively on the professional colleges that they served: medical and nursing, perhaps pharmacy, dentistry, or veterinary. In 2002, a *Journal of the Medical Library Association* paper on new roles for health sciences librarians mentioned several new opportunities for working with clinical patrons: participating in grand rounds and continuing medical education, working with community health professionals, filtering quality sources in the clinical environment, and incorporating more library instruction into the medical curriculum.[1] I was a new health sciences librarian in 2002, and it certainly seemed to me, when looking at programs, papers, and posters at the **Medical Library Association** conference, that the clinical areas were where librarians were having an impact. Very little mention was made of that whole other set of library users making up a large percentage of the people working in academic medical centers: the basic biomedical scientists, the PhD researchers, faculty, postdoctoral fellows, graduate students, and research assistants working in laboratories. It wasn't hard to guess why. In large part, these researchers were self-sufficient. Their happiness with the library seemed entirely dependent on an extensive journal collection. Other than that, they did not feel they needed the library. They did their own Medline searches, rarely consulted any reference books that they did not own, and passed down information seeking and management behavior along with scientific knowledge and laboratory skills from professor to student. During the past decade, however, several changes in the information environment for basic scientists have created new opportunities for librarians to interact with basic scientists, and they have become the rediscovered library users for many health sciences libraries. A 2002 "Informationist Conference" at the **National Library of Medicine** discussed expanding the concept of embedded informationists beyond the clinical setting to the research setting.[2] Many of the ideas from that meeting have become trends for health sciences libraries in the decade since.

Bioinformatics

In 1997, the 21 original members of the newly formed Molecular Biology and Genomics Special Interest Group of the **Medical Library Association** began to talk about marketing librarian services to laboratory-based library users. Their focus was on teaching users how to search the scientific molecular and genetic databases from the **National Center for Biotechnology Information (NCBI)**, a departure from strictly bibliographic databases. The first library-based bioinformatics service teaching these molecular databases was reported in the literature in 2000.[3] Novelties at the time,

more and more library positions for researcher bioinformatics support began to be advertised and filled either by librarians with specialized knowledge or non-librarian PhD biologists. By 2006, a special focus issue of the *Journal of the Medical Library Association* published 8 case studies of library bioinformatics services.[4] Now, this type of position has become almost *de rigueur* for academic health sciences libraries, and a survey of medical school-affiliated libraries in the **Association of Academic Health Sciences Libraries (AAHSL)** in 2010 showed that 46% of respondents were offering some kind of bioinformatics support, sometimes shared with other libraries or units on campus. Another significant percentage were considering offering such a service in the future, either with a librarian or a non-librarian specialist.[5, 6] The number of bioinformatics data resources has grown far beyond the publically available **NCBI** databases to include a number of commercial subscription-based bioinformatics products for statistical analysis or data mining as well as other open source software. Interestingly, the same survey showed that only about 12% of **AAHSL** libraries in 2010 were coordinating institutional licenses for these bioinformatics databases, so the focus for most is primarily on service rather than an expansion of collection policies to include these new types of resources.

Scholarly Communication Issues

The past decade or so has seen changes in the research publishing environment that have brought basic researchers and librarians together, and health sciences libraries and librarians have been in the vanguard of these trends. The late 1990s rising cost of scholarly journal subscriptions, particularly in the sciences, spurred much discussion of the "scholarly communication crisis" and the sustainability of various models for dissemination of scholarly information. The open access movement grew from the Budapest initiative in 2001 to the Berlin and Bethesda Declarations of 2003 to being a mainstream part of scholarly publishing today. Almost all major biomedical publishers now offer open access journals among their suite of publications and open access options for publishing individual articles. Public access to biomedical research has been a major topic of discussion in the academic and research communities, and several funding bodies now have access policies for research publication. Librarians and researchers have come together in workshops and symposia to discuss these issues at their institutions, and the sharing of information related to these publishing issues has led many researchers to contact their librarians as the identified experts on copyright, journal policies, how to self-archive, and how to access funds for author-paid open access publishing. While this trend does not only involve basic biomedical researchers, they are one of the

larger groups impacted by scholarly publishing issues. New roles for collections and liaison librarians and new librarian positions are being created to revolve around publishing and open access issues. Another **AAHSL** survey in 2010 showed that 75% of academic health sciences libraries are supporting faculty or working with another library or department on campus to support faculty with **NIH** public access policy manuscript submission, and over 50% of health sciences libraries have at least shared responsibility on their campuses for their institutional repository.[6] Two other articles in this issue of *Against the Grain* address librarian support for open access policies and institutional repositories in greater depth.

Clinical and Translational Research Institutes

At many universities and medical centers, the building of clinical and translational research institutes funded by the **National Institutes of Health Clinical and Translational Science Award (CTSA)** program has been another occasion of renewed interest in researchers by health sciences librarians. These new institutes pull researchers from the clinical and basic sciences together to foster interdisciplinary collaboration, more communication, and faster translation of knowledge from scientific findings to clinical relevance. The research emphasis is new for many libraries that had recently focused many of their new initiatives on supporting clinical care and medical/nursing education. For a while now, health science librarians have been strategizing among themselves about how to work with these institutes. A new Translational Sciences Collaboration Special Interest Group of the **Medical Library Association** was formed in 2011 to help foster these discussions, and a recent short communication in the *Journal of the Medical Library Association* detailed many different library-based support efforts for clinical and translational research.[7] As they work more closely with clinical researchers, basic science researchers are starting to learn about library services they did not know existed, like the professional-level searching librarians can provide to support grant proposals. Librarians are taking opportunities to communicate the services they can provide to support research design, bioinformatics education, information management, and data management. In fact, this last service, that of helping with scientific data management, is becoming yet another new role for health sciences librarians. The increase in amount of data that researchers in large interdisciplinary groups may generate (sometimes called e-science) and new federal policies requiring data management plans in grants have left many scientists seeking help and expertise in subjects that librarians have

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traditionally understood, like long-term preservation and access issues. Job descriptions of several newly posted librarian positions in the health sciences specify that the librarian will help research faculty create data management and curation plans and identify institutional and subject specific data repositories. A new focus on open data has grown naturally out of the last decade's focus on open access for research publication. So new are data management services for health sciences libraries that they were not included in the 2010 **AAHSL** survey of services being offered in health sciences libraries.

Research Networking

The development of clinical and translational research institutes and other interdisciplinary research institutes has also been the impetus for institutions to invest in some kind of online research networking tool. These are designed to create profiles of researchers at any given institution by pulling information from publications, grants, and other sources to display research expertise by way of keywords and descriptors. The profiles display research expertise and interest to others outside or inside the institution who may want to set up collaborations. VIVO is one of these tools, and it was developed through a grant from the **National Institutes of Health**. But research profiling/networking has been discovered by many major commercial vendors, and now several different tools are available by subscription and more are being developed. So far, they have been most popular in medical schools and biomedical research centers. While librarians are not usually involved in the licensing or payment for these tools, they have worked on their implementation to varying degrees with others in their institutions. Librarians can bring to the table their understanding of the workings of bibliographic databases, controlled vocabularies, and research citation, all of which are used by these tools and are important for the accuracy of the research profiles. To the extent that librarians have been able to be involved, they have found these occasions to be opportunities to demonstrate their expertise to faculty and administrators and their commitment to furthering the research missions of their institutions.

Collection Management

The trends discussed here involve new roles for librarians working with basic scientists, but more traditional collections management librarians should not be left out. While, in the past, the basic biomedical sciences collection consisted mainly of journals plus a few books, new types of products have recently become available. In the past decade, laboratory protocols books have gone online to become protocols databases with new bells and whistles. Video protocols databases are a recent new invention. The online versions of reference materials for scientists no longer look like books but have become continually updated databases. In response, librarians find themselves asking questions about their

collection policies. Should libraries provide primarily bibliographic information or should they also provide raw scientific datasets? And licensing is another consideration, particularly when vendors unused to working with libraries do not understand library values. How do we encourage licensing that perpetuates the values of information sharing, public access, and interlibrary loan when a product consists of datasets or streaming video? In the case of bioinformatics software and data, only a minority of health sciences libraries have decided to pay for institutional access.[5] More libraries seem to be subscribing to the new protocols databases and hybrid reference databases. Other types of potential library purchases are the numerous new products to help scientists keep up with the scientific literature and manage the vast number of articles they are reading. Many libraries already provide institutional access to reference management software that also allows researchers to store and mark up their pdfs. They are also starting to provide institutional access to new productivity tools and apps that allow researchers to easily access and read favorite journals and other content on their tablets and phones. While some question whether precious collection dollars should be spent on resources that do not provide content, many librarians see providing access to and training on these new tools as a way to demonstrate continuing support and value to the research scientist community.

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BORN AND LIVED: Washington, DC; Vienna, VA; Grand Rapids, MI; Ann Arbor, MI; Cleveland, OH; Champaign, IL; and now Lansing, MI.

PROFESSIONAL CAREER AND ACTIVITIES: In college I majored in biology, and I went on to do a Ph.D. in cellular and molecular biology and postdoctoral work in genetics. After that I decided to make a career switch, got a library degree, and have enjoyed working as a biology librarian at **Michigan State University Libraries** since 2002. Since 2005, I have also coordinated the Libraries' health sciences collections and librarians serving our medical, nursing, and veterinary colleges.

IN MY SPARE TIME: I enjoy hiking, birding, gardening, dancing, visiting art galleries, travelling, reading, attending acoustic music concerts, and listening to podcasts.

FAVORITE BOOKS: I like to read classic and modern classic novels and am making a special effort these days to read noteworthy novels by women authors. Also, I recently became intrigued by **Rachel Carson** after creating a library exhibit in late 2012 on the 50th anniversary of the publication of *Silent Spring*, and I enjoyed reading the biography, *Rachel Carson: Witness for Nature*, by **Linda Lear**.

HOW/WHERE DO I SEE THE INDUSTRY IN FIVE YEARS: Health sciences libraries are particularly forward thinking, and I see more and more emphasis on libraries providing non bibliographic types of resources and tools and apps for managing information.

Conclusion

Today librarians are finding many opportunities for points of contact and engagement with basic biomedical researchers. A recent systematic review of the changing roles of health sciences librarians found that many of the new roles I've mentioned here are described in the literature and in recent job postings.[8] A survey of library directors and other librarians in biomedical settings published at the same time by the same authors found that many of the roles for librarians that are "trending up," that is, more likely to be planned than already in place, relate to support for research.[9] Some of these new roles do require specialized knowledge and new skills, but others use the skills that librarians have always had but may only now be appreciated by these patrons. There can be some tension as librarians begin to negotiate with non-librarians in their institutions as to who should perform which roles. Some of these services might be performed by a librarian at one institution but someone with a different background at a different institution. Health sciences library directors are making individual decisions, based on their situations and budgets, about which of these services their libraries will offer, and librarian roles will look different from place to place. I think that librarians do bring a unique perspective and skill set to all of these different kinds of

roles and that it will be apparent to whomever they collaborate with that they can provide valuable and needed support for the research enterprise. 🐦

Endnotes

1. **Scherrer, C. S.** and **S. Jacobson**. "New Measures for New Roles: Defining and Measuring the Current Practices of Health Sciences Librarians." *Journal of the Medical Library Association* 90, no. 2 (2002): 164-72.

2. **Shipman, J. P.**, **D. J. Cunningham**, **R. Holst**, and **L. A. Watson**. "The Informationist Conference: Report." *Journal of the Medical Library Association* 90, no. 4 (2002): 458-64.

3. **Yarfitz, S.** and **D. S. Ketchell**. "A Library-Based Bioinformatics Services Program." *Bulletin of the Medical Library Association* 88, no. 1 (2000): 36-48.

4. *Journal of the Medical Library Association* 94, no. 3 (2006).

5. Association of Academic Health Sciences Libraries. *Annual Statistics of Medical School Libraries in the United States and Canada, 33rd Edition: Services and Resources Survey.* (2010), *http://aahsl.ccr.buffalo.edu/* (Accessed December 19, 2013).

6. Association of Academic Health Sciences Libraries. *Annual Statistics of Medical School Libraries in the United States and Canada, 33rd Edition: Descriptive Statistics Survey.* (2010), *http://aahsl.ccr.buffalo.edu/* (Accessed December 19, 2013).

7. **Holmes, K. L.**, **J. A. Lyon**, **L. M. Johnson**, **C. C. Sarli**, and **M. R. Tennant**. "Library-Based Clinical and Translational Research Support." *Journal of the Medical Library Association* 101, no. 4 (2013): 326-35.

8. **Cooper, I. D.** and **J. A. Crum**. "New Activities and Changing Roles of Health Sciences Librarians: A Systematic Review, 1990-2012." *Journal of the Medical Library Association* 101, no. 4 (2013): 268-77.

9. **Crum, J. A.** and **I. D. Cooper**. "Emerging Roles for Biomedical Librarians: A Survey of Current Practice, Challenges, and Changes." *J Med Libr Assoc* 101, no. 4 (2013): 278-86.

Where to Start? Opening Day Collections and Services for a Newly Founded Medical School

by **Elizabeth R. Lorbeer** (Library Director & Associate Professor, Western Michigan University Homer Stryker M.D. School of Medicine) <Elizabeth.Lorbeer@med.wmich.edu>

What if you were given the opportunity to build a new health sciences library from scratch? Where would you begin?

I arrived at the end of May 2013 to **Western Michigan University Homer Stryker M.D. School of Medicine (WMed)** in Kalamazoo to begin work on assembling the new virtual health sciences library for the new medical school. Because the medical school building on the **W.E. Upjohn** campus will not be completed until July 2014, the new faculty and staff are dispersed throughout the city, in two separate hospitals, a residence hall and the **WMed** Clinics. The library staff, which consists of the library director and a newly hired medical librarian, reside in the Pediatrics Department.

The new medical school is a collaboration involving **Western Michigan University (WMU)** and Kalamazoo's two teaching hospitals, **Borgess Health** and **Bronson Healthcare**. It is a private nonprofit corporation supported by private gifts, clinical revenue, research activity, future tuition from students, and endowment income. This unique setup required the new medical library to be built from the ground up, and seeks out resource sharing options with its partner libraries when possible to support its startup. Unlike other developing health sciences libraries, where there was an existing academic or hospital library to build upon, the **WMed** library is a wholly separate entity from the academic campus with its own IP ranges, systems, and staff.

Prior to the development of the new medical school, what was in existence was the **Kalamazoo Center for Medical Studies**, loosely affiliated with **Michigan State University (MSU)** and now known as **WMU** School of Medicine Clinics. It had a thriving residency program in which the clinical instructors and residents had adjunct faculty status at **MSU's College of Human Medicine** or **College of Osteopathic Medicine**. This meant clinical faculty had

access to library resources remotely, but there was no coordinated library outreach to the Clinics unless the user asked for help. With the arrival of the biomedical sciences instructors and new clinical faculty hires in the summer of 2013, besides myself, none of us had access to a health sciences library collection. New faculty hires were not considered for adjunct appointment to **MSU** nor were any of us **WMU** faculty, so this meant quickly assembling an online library collection before fall 2013. It was a humbling experience to find myself the library director of nothing. No Website, systems, content, or staff to manage. A month after my arrival, I went to the Michigan academic health sciences librarians meeting where all the library directors provided an update on their library's activities. Mine was pretty quick as all I could do was introduce myself and point to myself as literally being the library. I was a practicing librarian without a collection, but in these early days I was able to rely upon **PubMed** and **Google Scholar** to complete expert literature searches and retrieve articles through Open Access repositories.

Prior to my arrival to Kalamazoo, I came with a startup plan. My action list included meeting with department chairs, associate and assistant deans, department heads, and greeting new hires each week. I sought out membership to every committee that would accept me which included having input regarding the curriculum, instructional technology, clinical research, inter professional education, and training to interview future students as part of the Multiple Mini-Interview for medical school admission. Most importantly, I made it my mission to market my existence, my skills, and instill confidence in the faculty and administration that I would have a fully functional library ready before the inaugural class started in the fall of 2014.

My professional training and past experiences managing collections prepared me well, and by early August 2013, I was able to quickly launch a virtual medical library using **Serials Solutions** 360 Core. I harvested Open Access collections and tapped the **Michigan eLibrary (MeL)** to start with an opening day collection of over 10,000 unique titles. Nothing to boast about yet, as this collection did not fully meet most health professionals' needs, but it gave me a chance to customize the **PubMed** interface and **Google Scholar** search engine with identifiable holdings. Through partnerships with the libraries at **Borgess Health**, **Bronson Healthcare**, and **WMU**, we began to identify content of

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Fact Box: More about the Homer Stryker M.D. School of Medicine

Target enrollment is 50 medical students in the inaugural class, increasing to a class size of about 80.

First class begins: August 2014.

The building, widely known as Building 267, was once part of the **Upjohn**, **Pharmacia**, and **Pfizer** downtown campuses. It was donated to **Western Michigan University** by Mattawan, Michigan-based **MPI Research** in December 2011 for use by the new medical school.

In June 2012, it was announced that the site had been named the **W.E. Upjohn** Campus, in honor of the founder of the **Upjohn Co.** and the great-grandfather of **MPI's** chairman and CEO, **William U. Parfet**.

The school received over 3,570 applications to fill 50 spots in its first class. 🐦