Taubman Health Sciences Library: Looking Back, Looking Forward

Rosenzweig, Merle; Schnitzer, Anna

http://hdl.handle.net/2027.42/140724
Taubman Health Sciences Library: Looking Back, Looking Forward
Taubman Health Sciences Library: Looking Back, Looking Forward

The Past, The Present, and The Future

Compiled by the Staff of the Taubman Health Sciences Library as part of the University of Michigan’s Bicentennial

Edited by Merle Rosenzweig and Anna E. Schnitzer

Michigan Publishing
## Contents

### PART I. INTRODUCTION

1. The DNA of the Taubman Health Sciences Library  
   Merle Rosenzweig & Karin Stratton  
   3

2. Beginning of the the Collection  
   Merle Rosenzweig & Karin Stratton  
   8

### PART II. STEPPING OUTSIDE THE BOX

3. The Dentistry Library of the University of Michigan  
   PF Anderson  
   25

4. Public Health Library  
   Nancy Allee  
   30

5. Increasing Integration of the College of Pharmacy  
   with Taubman Health Sciences Library  
   Carol Shannon  
   34

6. Supporting the University of Michigan School of Nursing  
   Kate Saylor & Emily Ginier  
   36

7. MLibrary @ North Campus Research Complex (NCRC)  
   Judith Smith & Jean Song  
   39

### PART III. NEW ROLES

8. Bioinformationist  
   Marci Brandenburg  
   47
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Systematic Reviews*: Opportunities for Librarians</td>
<td>Mark Mac Eachern</td>
<td>51</td>
</tr>
<tr>
<td>10. Global Health Program at Taubman Health Sciences Library</td>
<td>Gurpreet Kaur Rana</td>
<td>54</td>
</tr>
<tr>
<td>11. Connections and Collaborations with China</td>
<td>Whitney Townsend</td>
<td>57</td>
</tr>
<tr>
<td>12. From Outreach to Disability to Diversity</td>
<td>Anna Ercoli Schnitzer</td>
<td>61</td>
</tr>
<tr>
<td>13. Anatomage</td>
<td>Chase Masters</td>
<td>63</td>
</tr>
<tr>
<td>14. Taubman Health Sciences Library Media Development Team</td>
<td>Kai Donovan, Elise Wescom, &amp; Jean Song</td>
<td>66</td>
</tr>
<tr>
<td>PART IV. REACHING OUT TO THE PUBLIC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Opening Doors: Contemporary African American Academic Surgeons Exhibit and Event</td>
<td>Anna Ercoli Schnitzer</td>
<td>77</td>
</tr>
<tr>
<td>16. Deadly Medicine: Creating the Master Race</td>
<td>Merle Rosenzweig</td>
<td>79</td>
</tr>
<tr>
<td>17. Life and Limb: The Toll of the American Civil War</td>
<td>Merle Rosenzweig</td>
<td>81</td>
</tr>
<tr>
<td>PART V. CONCLUSION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. History and Perspectives of Taubman Health Sciences Library</td>
<td>Based on an Interview by Jacqueline Freeman with the Director Jane Blumenthal</td>
<td>85</td>
</tr>
</tbody>
</table>
[PART I]

Introduction
The DNA of the Taubman Health Sciences Library

Merle Rosenzweig & Karin Stratton

The history of the Taubman Health Sciences Library has its beginnings in 1848 when the University of Michigan (UM) Board of Reagents established a three-member medical department. The first UM Medical School building was built in 1850, and was located at 450 Church Street, now the location of the Randall Laboratory. The UM Medical School was the first medical school in the United States to own and operate its own hospital.

The medical library began as part of the University Library system and remains so today. The medical library became a distinct department within the University Library in 1919. By the turn of the century, the medical library was not only an essential component of medical education at UM, but one of the most significant medical collections in the country.

In December 1977, ground was broken for the construction of the A. Alfred Taubman Medical Library.
The Medical Library was built on the site of the Catherine Street Hospital.
Figure 2. Catherine Street Hospital Site
Bentley Historical Library

Figure 3. Construction prior to opening.
Bentley Historical Library
In 1980, the A. Alfred Taubman Medical at 1135 East Catherine Street opened its doors.

Although the building had six floors, the Medical Library occupied floors four, five, and six. In 2006 and 2007, the Public House Library, housed on the second floor of School of Public Building 1 (SPH I), and the Dental School Library, located on the mezzanine of the Dental School Building closed, and their collections were incorporated into the Medical Library, hence the name changed to the A. Alfred Taubman Health Sciences Library. The collection of the Medical Library supported the discipline-based model of the medical curriculum that focused on developing a competent clinical practitioner. However, the complexities of the modern healthcare system now go beyond individual clinical practice.

The complexities of the modern healthcare system now go beyond individual clinical practice. With this in mind, the University of Michigan Medical School (UMMS) undertook a
major transformation effort for its medical curriculum. This transformation is designed to implement a curriculum that will graduate physicians who will transform healthcare. To support this new curriculum UMMS and the Taubman Health Sciences Library undertook a massive $55 million renovation that transformed the traditional book repository into a natural, light-filled medical education hub that supports in-person, collaborative and active learning.

The renovation began on March 4th, 2013 when the collection was moved to the Health Sciences Remote Shelving Facility. When all the contents of the building were moved, the library was closed on Sunday, December 22, 2013. The design of the renovated building was done by the TMP Architecture and Ballinger Architecture and Engineering, and constructed by the Christman Company. The new, renovated building was opened on August 3, 2015 with the start of the first day of the Medical School’s academic year.

Figure 5. New Taubman Health Sciences Library
Photo: Elise Wescom
The first record of expenditures for a medical collection in the University of Michigan Library was a special appropriation of $66 in 1854. The U.S. dollar experienced an average inflation rate of 2.06% per year between 1854 and 2017, $66 in the year 1854 is worth $1,817.76 in 2017. Because accession records were not kept until 1860, there is no record of what was purchased with the original $66, but early collection efforts focused on journals reporting current medical research, which would remain a guiding principle of the collection for the rest of the century.

The Library began receiving medical journals by 1855, and by 1860 received 24 publications in English, French, and German, including the American Journal of the Medical Sciences, Edinburgh Medical Journal, Boston Medical and Surgical Journal (later the New England Journal of Medicine), and American Journal of Insanity. In 1862, the library received an appropriation of $100 for binding periodicals.
In 1871 a subject catalog for the medical journals was created at the request of medical school faculty, allowing them to search the collection more easily. The library by this time subscribed to 30 of some of the most The first record of expenditures for a medical collection in the University of Michigan Library was a special appropriation of $66 in 1854. The U.S. dollar experienced an average inflation rate of 2.06% per year between 1854 and 2017, $66 in the year 1854 is worth $1,817.76 in 2017.

Because accession records were not kept until 1860, there is no record of what was purchased with the original $66, but early collection efforts focused on journals reporting current medical research, which would remain a guiding principle of the collection for the rest of the century. The Library began receiving medical journals by 1855, and by 1860 received 24 publications in English, French, and German, including the American Journal of the Medical Sciences, Edinburgh Medical Journal, Boston Medical and Surgical Journal (later the New England Journal of Medicine), and American Journal of Insanity.

In 1871 a subject catalog for the medical journals was created at the request of medical school faculty, allowing them to search the collection more easily. By this time the library subscribed to fewer than 30 of the important journals of the day and owned approximately 1500 books. In 1862, the library received a $100 appropriation for binding periodicals. In the late nineteenth century the medical collection grew significantly, and the University opened several new schools in the health sciences. By 1887 the medical collection was receiving more regular and generous funding from the Board of Regents and collection efforts focused on completing sets of periodicals to the beginnings of their publications and filling in gaps in the collection, such as publications reporting work of other laboratories and periodicals in expanding subject areas. These acquisitions reduced the need to borrow from other libraries, in particular the Library of the Surgeon General’s Office in Washington. By the turn of the 20th century, the medical collection begun in 1855 as a collection of two-dozen journals had grown to 10,420 volumes, 154 periodicals, and 806 unbound pamphlets (printed booklets not published as periodicals).
The medical library became a distinct department within the University Library in 1919. By the turn of the century, the library was not only an essential component of medical education at the University of Michigan, but one of the most significant medical collections in the country.

In December, 1977, ground was broken for the construction of a medical library named the A. Alfred Taubman Medical Library for A. Alfred Taubman who played a major role in fundraising efforts for its building. The Medical Library was constructed on the site of the Catherine Street Hospital and it opened in 1980 and it contained approximately 180,000 printed volumes that supported the discipline-based model of the medical curriculum that focused on developing a competent clinical practitioner. With the closer in 2006 and 2007 of the Dentistry and Public Health Libraries, the collection grew to over 457,000 volumes and the Taubman Medical Library became the Taubman Health Sciences Library.

The complexities of the modern healthcare system now go beyond individual clinical practice. With this in mind, the University of Michigan Medical School (UMMS) undertook a major transformation for its medical curriculum. This change seeks to design and implement a curriculum that will graduate physicians who will transform healthcare. To support this new curriculum the UM Medical School along with Taubman Health Sciences Library undertook a massive $55 million renovation. In preparing for the renovation, the contents of the building needed to be emptied.

On March 4th of 2013, the Library began to move the collection to the Health Sciences Remote Shelving Facility. With the completion of the renovation the library opened its doors on August 3, 2015 with the start of the first day of the Medical School’s academic year. Along with the renovation the collection also shifted to a focus on digital resources.

**Going Digital**

Our renovation into a bookless library space was really just the physical manifestation of a transition that had begun a decade before. Due to the advent of the internet, users were already
going online for information. We needed to go where the users were and provide a path and facilitate access to reliable information. Journal publishers began posting content in the late 1990s, typically providing short term complimentary access to print subscribers. The convenience of electronic journals was quickly realized and we began changing our subscriptions to electronic. Going to the library to find, pull, and copy articles was replaced with a few clicks of a button that allowed you to find, access, and save article from any location in just minutes.

As users were embracing the digital age, we moved our focus to electronic resources over print resources. Besides journals, electronic books and databases also became a priority. In the mid-2000s, we were subscribing to large databases containing textbooks and starting to decrease our print purchasing. We began choosing electronic over print when selecting individual titles. A decade later, our book collection was 46% digital and our journal titles were 99.84% electronic. While electronic journals quickly became the favored over print, ebooks were slower to become the preferred format. However, as the technology improved (pdfs, annotation features, etc), users became more comfortable with ebooks. The majority of the purchase requests for monographs we receive are now specifying electronic.

In addition to the traditional textbooks and journals, we are also providing access to online clinical support resources and tools. Many of our users are needing to access information in mobile clinical settings. They want to use their tablets, laptops, and smartphones to retrieve information. More importantly, they depend on the information being available immediately, no matter the time or location. They want and even require information to be easily found, available to many, and accessible from any location. Digital resources have expanded access to our users.

Besides decreasing the weight of users’ backpacks and making information quickly accessible from home, classroom, or cafe, our digital collection has created physical space, a valuable commodity. With our focus directed towards electronic resources, our print growth has become more manageable and our future space needs have decreased. Furthermore, in the
years leading up to the renovation, statistics began showing decreased circulation and browsing due to the increased dependency on electronic resources. Our digital collection gave us the freedom to move the print collection and modify the library space to better meet the needs of our users (who were wanting better study areas, more computers, a cafe, etc). Once they saw the benefits of using the space for something other than shelves of books and journals, even library traditionalists were more appreciative of our digital collection.

Another important factor to the success of our transformation to a digital library, is that we still recognize the occasional need to access print resources. We still buy print materials when electronic is not available. Furthermore, requesting print items from our offsite shelving unit is a streamlined process. With a click of a button, users can request items and they are typically delivered within 1-2 days. In addition, 7Fast (document delivery service) was made free for faculty, staff, and graduate students. Users can ask for scans of the information they need (articles, chapters, pages) from our print collection to be emailed to them. Again, this provides convenient and quick access to our information resources.

It’s important to note that a digital collection does come with challenges. Digital resources still require management and we have many different units involved in the purchasing, licensing, cataloging, link activating, and outage troubleshooting. With most of our users accessing our resources remotely, we’re providing assistance with access issues via phone and email, which can sometimes be prolonged and problematic. There’s also the fact that not everything will be available electronically. Either the resource isn’t published electronically or there is no license option for us as an institution. Lastly, electronic resources tend to be more expensive. Even with the challenges involved with a digital collection, the convenience to users can’t be beat. Electronic resources have become the preferred format to faculty, students, researchers, and hospital staff.

Quite simply, our shift to a digital collection was a response to user needs. It’s a direct reflection of how technology changed where and how information is found. A digital collection creates an environment of fewer limitations to the user. And
physically removing the books from the public library space helped re-define the image and purpose of the library. It’s a visual representation of how a library is more than a space housing books and more than staff who simply reshelve books and enforce quiet zones.

**Homeopathy Collection**

Guide to Homeopathy Materials of the former University of Michigan Taubman Medical Library (now the A. Alfred Taubman Health Sciences Library)

Definition: Homeopathy (homeo=similar; pathos=suffering) is a system of therapy developed in the early nineteenth century by Samuel Hahnemann, based on the “law of infinitesimal doses” (likes are cured by likes), which holds that a medical substance that can evoke certain symptoms in healthy people may be effective in the treatment of illnesses having symptoms closely resembling those produced by the substance.*

History: The homeopathy collection at the University of Michigan originated in the holdings of the Homeopathic Medical College, first established as part of the University in Ann Arbor in 1875 and conducted concurrently with the allopathic Medical School until 1922.
There was also a Homeopathic Hospital in existence locally from 1879 until 1891.
The collection itself contains items dating from the mid-1800’s to the present day. Of particular interest is the Bradford Homeopathy Collection, which is composed of 1027 pamphlets that detail 75 years of the history and development of the field of homeopathic medicine. Along with the other holdings of the former Homeopathic Library, these pamphlets constitute one of the most complete collections on the subject of homeopathy. In the past, visitors came from near and far to study the homeopathy pamphlets and other related material held at our library.

The former Taubman Medical Library Homeopathic Collection is now in the process of being digitized, and approximately 500+ items are available online either searchable or browsable by topic.

- Holdings: http://mirlyn.lib.umich.edu/Record/005092476
- Selected topics (Guide): http://www.lib.umich.edu/homepathy-test
- Browsable topics: http://quod.lib.umich.edu/cgi/t/text/text-idx?page=browse&c=homeop
In the past, when the collection was held in print format, a guide was compiled to facilitate locating Taubman Medical Library homeopathic materials that had been stored in various places including: Buhr Shelving Facility at Green and Hoover Streets, the microfilm collection cabinet on the fourth level (Reference Room) of Taubman Medical Library; the Taubman Medical Library stacks or Rare Book Room; secondary storage on the second floor of Taubman Medical Library, Hatcher Graduate Library, and Bentley Historical Library. The subjects in the guide were for illustrative purposes only and did not constitute an exhaustive list of all materials. The formerly-used printed card catalog, located in a cabinet on the fifth level of the stacks near the Technical Processing Office of Taubman Medical Library, had drawers #142 and #143 dedicated to the holdings of both monographs and journals in the homeopathic field, with location annotations in handwriting in many instances. Researchers should also note that delicate or older materials in the print collection, formerly held in Taubman Library’s Rare Book Room and then moved to the Harlan Hatcher Graduate Library’s Special Collections, may also have been moved to a storage area, a change that was not necessarily accurately reflected in the Mirlyn Online Catalog. (It was noted that the would-be user should check with staff at a UM Library Reference desk.)


*Stedman’s Medical Dictionary for the Health Professions and Nursing (5th ed.,) Baltimore. Lippincott, Williams & Wilkins, 2005.

**Rare Book Collection**

The early collection of medical books at the University of Michigan was primarily a reference library, made up almost
entirely of journals, with a few key books of vital interest to medical teachers and researchers. This resulted in a somewhat one-sided library, greatly lacking in medical classics and older works in medicine. There was no money to purchase these, and the ancient classics and older medical literature in the library were received mainly as gifts.

In 1908, regent Peter White donated $1,000 to the Medical Library for the purchase of books by classical medical authors and books concerning the history of medicine. Dr. Aldred Scott Warthin became chair of the library committee soon after, and purchased books published throughout medical history. The 272 volumes purchased are part of the Rare Book Room’s general collection.
Dr. Warthin had developed an early interest in Dance of Death, a medieval allegorical representation in which a personified Death leads people to the grave, designed to emphasize the equality of all before death. This was the focus of his personal collection, consisting of 129 volumes, 132 plates, and two porcelain figurines, which he donated to the Medical Library.
The first major donation of historical works was made by Dr. Lewis Pilcher, starting in 1925. Consisting of 426 volumes, including 10 incunabula (early printed works), 33 Elsevier press imprints, and several hundred medical portraits, the collection is especially strong in early anatomy, surgery and Vesaliana. In 1930, the Lewis Stephen Pilcher Room opened within the Rare Book Room of the University Library, to house a number of significant donations.

The Dr. Leroy and Myrtle Crummer collection was donated from 1929-1932. The Crummer collection consists of 1,054 volumes including 37 incunabula, 39 editions and 10 imitations of Sir Thomas Browne’s Religio Medici, 16 editions of the works of William Harvey, a significant collection of early medical fugitive sheets, Edward Jenner pamphlets, 34 editions of Regimen Sanitatis, medical portraits, medical cartoons, and a small number of medical artifacts. This collection is especially strong in 16th and 17th century anatomy. A condition of the Crummers’ gift was that they remain with the books they loved in perpetuity, and two urns containing their ashes have remained with their books.
Other significant gifts to the library are:

- Ernest W. Haass collection was based on a gift of funds used to purchase of 19 incunabula in internal medicine;
- George Dock collection, of 38 volumes on small pox and vaccination;
- Carl Weller collection with a focus on lead poisoning;
- George E. Wantz collection, of around 350 volumes, including a strong collection of books on hernia.

Another significant gift to the library was made by Dr. Frederick Coller, consisting of magical amulets purchased by Dr. Campbell Bonner. According to Dr. Bonner’s definition, an amulet was “any object which by its contact or close proximity to the person who owns it, or to any possession of his, exerts power for his good, either by keeping evil from him and his property or by endowing his with positive advantages.” The collection consists of 52 magical medical amulets dating from 100-500 C.E. U-M’s Campbell Bonner Collection is also part of an international collaboration, the Campbell Bonner Magical
Gems Database, which had made more than 1,250 of these artifacts openly available online.
[PART II]

Stepping Outside the Box
The Dentistry Library began, in a sense, before the Dental School even existed. The founding Dean of the School of Dentistry, Jonathan Taft, was a tall spare man with a goatee, who spent almost all his monies on books and charities and travel. He read voraciously, and kept well organized, detailed, and copious notes to support his frequent presentations and writing, using these also as the basis to create the first index to the dental literature, published in 1886 (on the heels of the first Index Catalog in 1880) and covering the published literature from 1839 to 1885, far deeper in history than any other periodical index, even Poole’s, which began coverage in 1853. This first index served as the foundation for all future indexes to the dental literature. Dr. Taft believed firmly, almost religiously, that being a dentist meant a commitment to public engagement and outreach, especially through writing and presenting at professional meetings.

The beginnings of the Dentistry Library were presumably
formed around the required textbooks, additional requested new publications, with a great many items donated from the personal collections of the teaching faculty.

The Dental School, at the time of its founding, was forced to share a building on North University with the Homeopathic Medical School, a situation intolerable to both, which only endured two years before they were separated. The Dental Library really first began to take on a presence in the 1880s after they moved to the School’s second location, on South University where the Clements Library now stands.

Around 1908, the Library moved to a new building, facing North University, and the series of rooms kept expanding, as did the collection. Ultimately, as the collection grew and the School kept finding more spaces for items, they ended up with a series of five unconnected rooms that comprised the Dental Library.

Figure 11. Dentistry Building 1908
Bentley Historical Library

At this time, in the late 1800s and early 1900s, library use was at least as much about protecting the collection as it was for access, meaning that most of the materials were required to be used in the Library. Students were expected to use the materials on site.

The middle and end of the 1900s saw the building of a new clinic and research tower, the consolidation of the collections
in a single space, the rise of computers, and a variety of new technologies embraced in the Dental Library.

In 1940 the Library had 7,200 volumes. In 1971, the collection comprised approximately 23,000 items. By 1985, that number had grown to 43,000, in 2001 there were 57,000 items, and by 2008 (despite extensive weeding and pruning of duplicate journal runs) the Dentistry Library contained over 70,000 volumes and media.

When the new Dentistry building was completed in 1971, the Dentistry Library occupied the elevated second level facing North University Street.

![Figure 12. UM School of Dentistry Building](https://www.flickr.com/photos/70832171@N07/7911286574/in/photostream/)

The first level contained the main collection and over forty study carrels with a variety of audio-visual equipment. Toward the back, the stairway is visible that led to the mezzanine level, containing more journals and study areas. When the new library opened, the collection held 23,000 items and continued to grow rapidly, remaining one of the world’s most comprehensive academic libraries specializing in dentistry. Soon, electronic resources were also gaining importance: by 1980, the library provided computerized searching of over 100 bibliographic databases, available to all UM students. Four years later, a
student could search 200 databases, while the print collection numbered 43,000 items.

In 2008, the Dentistry Library collection, along with librarians and library staff, moved from the School of the Dentistry (SoD) to the Taubman Health Sciences Library (THSL). As the collections merged, duplicate items were weeded out and special items were sent to the Bentley Historical Library for archival purposes. The move made economic sense to both THSL and SoD and provided the latter with an opportunity to modernize and repurpose the space. In an effort to ensure a smooth transition, the THSL and SoD created a joint task force, which, through its work, obtained feedback from the school community through a survey and other methods. The feedback was overwhelmingly positive, with much of the community understanding the justification for the change. As for concerns, the most prevalent pertained to the perceived loss of the collection and student study space. The dentistry librarian, who was actively engaged in the school’s community throughout the transition, addressed the concerns through one-on-one
conversations and dialogue at faculty meetings. In the end, the transition was successful, and it provided the dentistry librarian with an opportunity to redefine his role as a liaison librarian in the 21st century. No longer was the library just a space and a collection of books; it was a collection of librarians who were partners in education and research.
For many years the Public Health Library was a free-standing library, one of twenty distributed libraries within the University Library. The library was located on the second floor of the School of Public Health, Building II, in a large, open room with a circulation area, a staff lounge, a periodicals reading area, a student study area with cubicles and tables, book and journal stacks, a reference desk and shared office, as well as three individual staff offices; however, as an interior space in the building, there were no exterior windows.
The small group of staff who worked in the library were organizationally part of the Health Sciences Library cluster, consisting of three libraries: Taubman Medical Library, the Dentistry Library, and the Public Health Library.

The library, one of a handful of public health libraries nationwide, had one of the most comprehensive collections of public health books and journals in the U.S. At one time, the collection featured over 90,000 books and 500 journal subscriptions with coverage in the public health subject domains of health services management, environmental and industrial health, maternal and child health care, population planning, health behavior and health education, community health programs, biostatistics, informatics, human nutrition, global health, epidemiology, and public health policy and administration. The library was also part of the University of Michigan’s federal depository program and noted for its extensive collection of publications from the U.S. Department of Health and Human Services as well as the World Health Organization and the Pan American Health Organization. In addition, the Health Management and Policy department in the School had built a collection specifically focused on health services and health policy and administration, known as the Axelrod collection, and curated by a staff member hired by the department, using a uniquely developed cataloging system.
When the staff member retired, this collection was integrated into the Public Health Library collection.

The year 1995 was a turning point for the School of Public Health as well as the Public Health Library. The School underwent a reorganization, consolidating a number of academic departments down to five, and welcoming a new dean. The Public Health Library also had new leadership with the hiring of a new librarian who had not only a master’s degree in library and information science, but a second master’s in public health. Given the specialized content focus and public health credentials, the new dean requested that the library begin reporting informally to the School and that the library director join the dean’s administrative council. This realignment paved the way for more formal reporting lines, and the library merged with the School’s information technology department, expanding staffing and resources to better meet the information and computing needs of the School. The library, in partnership with the School, and the campus Information Technology Department, added a multimedia lab to its services and also redesigned the computing lab, located on the lower level of the School, in collaboration with faculty and students from the College of Architecture. Students submitted proposals for the redesign, and the renovation was based on the winning design proposal. Eventually, the library and information technology merger evolved to include an informatics division, with the new unit named Public Health Informatics Services & Access (PHISA) and focusing on library and informatics training and instruction, web administration, database development, and a suite of e-learning services.

Public health librarians participated actively in leadership roles in the Medical Library Association’s Public Health/Health Administration Section; the Public Health Training Subcommittee of the Partners in Information Access for the Public Health Workforce; the National Network of Libraries of Medicine, Greater Midwest Region’s Public Health Subcommittee; and the Learning Institute of the American Public Health Association. One librarian worked on several of the dean’s research project teams. Another librarian completed a public health informatics fellowship with the National Library
of Medicine. Public health librarians also actively worked with the School of Public Health’s Michigan Public Health Training Center and the public health practice community in Michigan in providing training on the use of social media communication technologies as part of subcontract-funded projects with the National Network of Libraries of Medicine, Greater Midwest Region. In addition, librarians partnered on a REACH Detroit grant project on diabetes information training and resources with funding from a grant from the National Library of Medicine.

A confluence of changes in the mid-2000’s, including new library leadership, growing space needs in the School, and the continued predominance and impact of digital resources, led to the free-standing Public Health Library becoming integrated into the Taubman Health Sciences Library, both collection and staffing resources. A new service model emerged, with a reduced emphasis on physical space and print collections and a greater emphasis on informationist services and digital library resources. A new Public Health Core Team, located in Taubman Health Sciences Library, was established to carry on the tradition of providing strong library connections and integrated services with the School of Public Health’s faculty, staff, and students.
Increasing Integration of the College of Pharmacy with Taubman Health Sciences Library

Carol Shannon

Figure 15. https://pharmacy.umich.edu/

After a series of conversations in 2013 with several faculty members from the College of Pharmacy, the lead Informationist proposed changing both the curriculum and methods of instruction. Because searching is such an important
skill and one that must be practiced, the purpose was to enable students to gain more experience in searching article data bases in order to be better prepared for their future work; therefore, based on the informationist’s suggestions, an optional session on literature searching was added to a class on Ethics and Evidence Based Medicine.

In addition, the informationist presented ideas on more active learning by increasing the number of classes, deliberately scaffolding the sessions; including clinical scenarios as exercises to parallel the students’ work in therapeutics classes; and using a flipped classroom model by providing online instruction prior to class and using team-based problem solving to reinforce student learning in classes. The faculty also asked the informationist to teach a class on academic integrity and effective writing. New sessions in the management of research data have also been added. The new curriculum consisted of three sessions over three terms and included assessments of student skills.
Supporting the University of Michigan School of Nursing

Kate Saylor & Emily Ginier

Figure 16. UM School of Nursing
RGO Planning & Design

The Taubman Health Sciences Library has a long history working with the University of Michigan School of Nursing
and has initiated many key relationships and partnerships with the school. Since forming our initial contacts with the school, the Taubman Health Sciences Library formally appointed a Nursing Core team of informationists to handle instruction and consultations with UMSN. Currently, the Nursing Core team is comprised of two informationists that work primarily with UMSN, an informationist that works with the Michigan Medicine Nursing Services, our Global Health informationist that works across all of the health sciences schools, and a Media Developer.

Over the years, the Nursing Core team has sustained these highly collaborative relationships with UMSN faculty and are regularly integrated into three undergraduate courses and four graduate level courses for the Master’s, Ph.D., and Doctor of Nursing Practice (DNP) programs. The Nursing Core team also provides in-person presentations at orientations, present Lunch & Learn sessions for the DNP students, and occasionally contribute to many additional undergraduate courses. The informationists routinely check in with faculty collaborators before the start of the semester to confirm our role in their course, discuss course objectives, and review potential content and activities to improve student information seeking skills. We also check in with faculty at the end of the semester to discuss ways to improve the library-focused content for the following year. This has proven to be a successful model and has led to our continued involvement in courses.

As a result of our deep involvement in the school, the UMSN Curriculum Committee (CC) has created a non-voting Ex-officio role for a THL informationist. The CC meets monthly to “review and evaluate curricular components of current undergraduate and graduate programs to be consistent with national standards and requirements.” Here, we have the opportunity to participate in the conversation as it relates to students’ information needs and skill development.

To help improve our integration into the undergraduate curriculum, we have designed a research project, the UMSN Longitudinal Information Needs Evaluation (UMSN LINE), to get a better idea of the students’ information needs and skills at various points in the curriculum. The UMSN LINE project
follows the 2019 cohort of undergraduate nursing students in the traditional Bachelor of Science in Nursing (BSN) program for 4 1/2 years. Using data collected through yearly assessment surveys, interviews, and observations, this project studies the students’ information seeking behaviors, perceptions of library resources and the role of informationists, and the library’s integration in the curriculum. Using this data and the ACRL Information Literacy Competencies for Nurses, we hope to refine current course content, develop new content, and suggest new points for integration.
[7]

MLibrary @ North Campus Research Complex (NCRC)

Judith Smith & Jean Song
The University of Michigan’s purchase of the North Campus Research Complex (NCRC) in 2009 marked the institution’s commitment to the expansion of interdisciplinary research and enabling of innovation beyond the campus. With the intent to co-locate research groups to spur collaboration and foster entrepreneurial activity, NCRC has been a model of transforming standard research practices into a new research model that fosters creativity and novel partnerships that truly impact the real world.

Opened in 2012, and spearheaded by the Taubman Health Sciences Library (THSL), the MLibrary@NCRC is located at the heart of the NCRC and is a dedicated information hub where researchers can find common tools, resources, and services tailored to their diverse needs. They can also connect with each other to engage in research innovations or to learn, collaborate, and share information on topics of interest, from small molecule science to clinical and health services research to broad market-based analyses. MLibrary@NCRC provides innovative library services to meet the unique information needs of interdisciplinary and translational researchers,
including academic and industry partners, and to support the strategic growth of the NCRC and the university. MLibrary@NCRC welcomes everyone housed at NCRC: research cores and clusters, companies, groups involved with public-private partnerships, and more.

The specialized and diverse nature of the research being conducted at NCRC requires customized or tailored services for those individuals residing there. A team of informationists with specific subject area knowledge are dedicated to being physically available at NCRC and also partner with librarians who have differing subject expertise such as the Chemistry Librarian, Biological Sciences Librarian, and the Ross School of Business’ Kresge Business Library Librarians.

Services available at MLibrary@NCRC include:

**Education and instruction**

- Instruction (one-on-one and group workshops) on both licensed and open databases, patent resources and Web resources.
- Training on basic to advanced information-seeking topics, such as using collaborative tools, comprehensive literature searching, utilizing social media, maintaining information currency, and grant seeking.
- Research assistance and consultations: How do I find….? Can you check….? Where do I begin…?

**Expert searching**

- Complex literature and other database searching.
- Partnering in the creation of systematic reviews and practice guidelines.
- Effective use of molecular and sequence databases and data analysis tools.

**Data management**

- Assistance with funding agency data management plan preparation and implementation.
- Instruction on spatial analysis tools.
• Locating and acquiring digital numeric and spatial data sets for individual research.

Consultation

• Discussions with university and corporate clients on database selection, acquisition, and licensing.
• Consultations and partnering with corporate clients to adjust services and resources based on changing information needs.
• Conducting information needs interviews (what tools are being used? are they being used efficiently? what is still needed?)

Resource services

• Facilitating cost-sharing for resources when possible.
• Identifying molecular or sequence databases and data analysis tools for use.

Outreach and other assistance

• Participation on committees, standing meetings, or projects—short or long term.
• “Information hub” services: Where on campus can I find...?
• Development of customized online resources.
• On-site departmental office hours.

In the five years since establishing the library footprint, informationists have broadened and deepened their partnerships at the research complex. Examples include: working with the Medical School Office of Research to create a consolidated campus-wide resource to connect researchers to funding opportunities; launching a series of monthly workshops on a vast range of information discovery and management issues; engaging with students through training interns in Technology Transfer and the Institute for Healthcare Policy and Innovation; collaborating with faculty in the Institute for Healthcare Policy and Innovation (IHPI) Clinical Scholars program to deliver curriculum-based instruction; working with
researchers and staff to help them meet federal agency funding requirements related to data management; and conducting complex literature searches and collaborate with faculty on research.
New Roles
Bioinformationist

Marci Brandenburg

Bioinformatics

Libraries are about more than just books and journals; they are also about people. Although once considered to be a supporting unit, the Taubman Health Sciences Library (THL) librarians, referred to as Informationists, partner with faculty and staff in departments across the university to further education and research. In 2005, the National Center for Integrative Biomedical Informatics (NCIBI)\(^1\) was formed as one of eight National Institutes of Health (NIH) National Centers for Biomedical Computing. In 2007, NCIBI partnered with THL to create a pilot part-time Bioinformationist position. Bioinformationists are “information specialists who have received graduate training and practical experience that provides them with disciplinary background both in biomedical, behavioral or biological sciences and information

sciences/informatics” as defined by the National Library of Medicine (NLM).2

The success of the pilot led to the THL hiring a full-time, permanent Bioinformationist in 2010 to focus on bioinformatics research. The Bioinformationist provided instruction and documentation, particularly on NCIBI-developed tools, via a variety of formats, including hands-on training sessions, webinars, user manuals, and video tutorials. Documentation and training sessions were necessary to expand the reach of the NCIBI tools to researchers on campus, across the country, and throughout the world.

In January 2012, the University of Michigan launched the Department of Computational Medicine & Bioinformatics (DCM&B) and the Bioinformatics Core (Core). Whereas DCM&B is a credit-bearing unit, the Core is a for-fee service unit. Based on the Bioinformationist pilot with NCIBI, the added value of a Bioinformationist was already known. As a result, DCM&B and the Core partnered with THL to cover a portion of the THL Bioinformationist’s salary. This financial agreement ensured that a portion of the Bioinformationist’s time would be spent on these groups’ specific needs. The Bioinformationist was viewed as an integrated member of all three units: THL, DCM&B, and the Core.

This successful collaboration has led to the Bioinformationist becoming a trusted partner of faculty and staff in both DCM&B and the Core. The Bioinformationist continues to create meaningful documentation for locally developed bioinformatics tools, working closely with faculty, staff, and students to fully understand tool functionality. Informationists are well-prepared for creating user manuals, as they are accustomed to providing step-by-step instructions on how to find information. The Bioinformationist’s role expanded to include all programming for a weekly DCM&B seminar series that focuses on biomedical tools and technologies. She continues to provide the community with this valuable learning opportunity that appeals to faculty, students, and staff with varying backgrounds and interests. It has increased visibility

and further solidified her role within DCM&B. The Bioinformationist is also fully embedded in the Bioinformatics Core, performing the responsibilities of project management, outreach, special projects, software licensing management, and some limited bioinformatics analysis.

**Visualization**

In a world where data sets are becoming exponentially larger and more complex, there are increasing opportunities for libraries to offer data-related services. Visualization is an excellent means for communicating data, analysis results, and related information, so providing visualization services is a logical next step for libraries. The THL’s visualization services include instruction sessions, consultations, and referrals.

Creating a useful visual can be a challenge, as there are a wide range of visualization types. For example, there are network graphs, line graphs, and bar charts. However, a bar chart is not always just a bar chart; there are grouped bar charts, stacked bar charts, and floating bar charts. Adding complexity, there are numerous free and subscription-based visualization tools that help users create the perfect visual. The THL Informationists have expertise with specific visualization software tools, for which they provide detailed instruction. They also familiarize themselves with other tools in order to answer a broader range of visualization questions.

Aside from specific tools, Informationists have an understanding of general visualization principles and guidelines. The appropriate use of color and contrast are important principles that can be easily lost when generating a visual. Purely aesthetic changes may add little value and actually distort the viewer’s perception of the data. The goal is to develop an image that provides accurate and valuable information in a way that is visually pleasing, yet simple. THL Informationists help faculty, students, and staff achieve this goal.

Visualization services provide a great opportunity for the THL to collaborate with other U-M libraries, strengthening the range of services offered. The THL Informationists are aware
of visualization technology and services available via other U-M units, allowing them to make referrals when appropriate. The THL visualization services continue to grow and expand based on need and expertise.
In 2013, the Taubman Health Sciences Library received funding from the Greater Midwest Region of the National Network of Libraries of Medicine to design a flipped course on systematic review searching. As a flipped course, much of what would have traditionally been taught in a lecture hall was moved online and supplemented by activities, such as the wonderfully simple and engaging comic strip below. Moving much of the lecture content online allowed the instructors to develop more flexible activities and be more responsive to particular learner interests and needs when they met the learners face-to-face.
The course represents an early example of flipped instruction in health sciences librarianship. While other courses and continuing education opportunities cover similar content, none leverage online and in-person instruction spaces to the extent of this course. The course has been offered twice per year since the pilot, and has consistently received exceptional reviews from its learners. The response to the course has been so positive, that institutions from around the United States have arranged to host the course locally, providing the training en masse to information professionals within their regions. For more details about the course curriculum and its general structure, see the article published in the Journal of the Medical Library Association that describes its development.
Team Members

<table>
<thead>
<tr>
<th>Course Directors</th>
<th>Course Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marisa Conte, 2013</td>
<td>Marisa Conte, Instructor, 2013</td>
</tr>
<tr>
<td></td>
<td>Judy Smith, Assessment, 2013 – 2017</td>
</tr>
<tr>
<td></td>
<td>Kai Donovan, Media Developer, 2014+</td>
</tr>
<tr>
<td></td>
<td>Whitney Townsend, Instructor, 2014+</td>
</tr>
<tr>
<td></td>
<td>Rafael Becerra, Logistics, 2015+</td>
</tr>
<tr>
<td></td>
<td>Emily Ginier, Instructor, 2015+</td>
</tr>
<tr>
<td></td>
<td>Chase Masters, Instructional Designer, 2015+</td>
</tr>
<tr>
<td></td>
<td>Patricia Anderson, Instructor, 2016+</td>
</tr>
<tr>
<td></td>
<td>Elise Wescom, Multimedia Assistant, 2016 – 2017</td>
</tr>
<tr>
<td></td>
<td>Kate Saylor, Assessment, 2017+</td>
</tr>
</tbody>
</table>

“*A systematic review summarises the results of available carefully designed healthcare studies (controlled trials) and provides a high level of evidence on the effectiveness of healthcare interventions. Judgments may be made about the evidence and inform recommendations for healthcare.”*

http://consumers.cochrane.org/what-systematic-review
Global Health Program at Taubman Health Sciences Library

Gurpreet Kaur Rana

Taubman Health Sciences Library’s Global Health program has transformed the way that the University of Michigan engages in global health with the library while also having a deep and lasting impact on global health librarianship in the library profession as a whole. It has had an impact both nationally and internationally, as well.

The Global Health Initiative has revolutionized UM’s global engagement and created an information skills and research program with deep international and campus roots. The Taubman Global Health program was established in 2011 through extensive relationship building at the University of Michigan. Led by Taubman Health Sciences Library’s Global Health Coordinator, the program has been able to leverage connections and networks in global health platforms at the U-M health sciences schools, leading to tangible outcomes. This was exemplified in collaborations on grant-funded projects such as the role Taubman Global Health developed as part of the
National Institutes of Health/Fogarty International Center’s Ghana-Michigan Post-doctoral and Research Trainee NEtwoRk-Investing in Innovation (PARTNER II) grant. THL Global Health was a part of the groundbreaking grant for its five-year period. Through this grant, the coordinator traveled to Ghana to assess information needs and to take part in a research symposium to build the capacity of health sciences scholars and researchers in institutions of higher education in Ghana.

In addition to the PARTNER II grant, through the Global Health program efforts, the library was awarded an Elsevier Foundation’s Innovative Libraries in Developing Countries grant for the initiative entitled Information Skills Training in Emergency Care: Strengthening Research and Healthcare Capacity in Ghana. Taubman Health Sciences has developed a program with the Komfo Anokye Teaching Hospital’s (KATH) and Kwame Nkrumah University of Science and Technology (KNUST) in conducting an information needs assessment of faculty, staff, residents, and nursing students, as well as creating and curating open access information resources and providing advanced information skills training. Two teams of librarians conducted this work in Ghana long-term sustainability of the program is being considered by creating train-the-trainer model of skills building with KATH trainees and KNUST nursing faculty.

Taubman Health Sciences Library’s Global Health has consulted with health sciences faculty, staff and students on projects in LMIC countries including those in India, China, Ethiopia, Ghana, South Africa, Haiti, Ecuador, Mexico, Thailand, Guatemala and Brazil. In addition, this initiative has been integrated with a role in the U-M Center for International Reproductive Health Training (CIRHT). CIRHT focuses on empowering women and girls in LMICs by building capacity in reproductive health services through the improvement of reproductive health training in health sciences education. CIRHT is piloting this program at a network of nine medical schools in Ethiopia. On behalf of the Global Health program, its coordinator travelled to Ethiopia in 2016 and 2017 to conduct an information needs assessment in cultural context at St. Paul’s Hospital and Millennium Medical College (SPHMMC) and train Ethiopian faculty, clinicians, residents and medical students on
the use of information resources to improve research workflow. As a CIRHT collaborator, the program is working to improve access to information, working towards building research capacity in women’s health services and research, and collaborating with information professionals in Ethiopia.

In the UM School of Nursing, Global Health has been partnering as the School works towards internationalizing its curriculum and providing instruction in a flagship course for global health and domestic disparities education in the nursing curriculum, Community Health Nursing. In this course, students develop community assessments in countries around the world and in local low resource settings. Through videoconferencing, they have communicated to create community assessments with nursing students in India, Haiti, Ecuador, and Botswana.

The Global Health program at the Library has contributed to the planning and implementation of the UMMS Global Health Disparities (GHD) Path of Excellence (PoE). The GHD PoE provides interested medical students with an opportunity to be agents of sustainable change to reduce domestic and global health disparities through foundational and experiential learning. This PoE was the first piloted PoE in an entirely redesigned medical school transformative curriculum and is a model for all of the other PoE’s at the UMMS. This program has interwoven information skills building in curriculum and independent learning around global health and domestic health disparities, global health policy, and social justice throughout this UMMS curriculum for both the medical school faculty and students.
Connections and Collaborations with China

Whitney Townsend

From October 8 through October 22, 2016, a Taubman Health Sciences Library informationist was a guest at Fudan University in China as part of a team coordinated and led by University of Michigan Librarian for Research. The purpose was to share information about the structure, activities, and goals of the Taubman Health Sciences Library with the Fudan University community and beyond: to build relationships, explore innovations and potential collaboration; to build and strengthen relationships with librarians in the Research unit of the UM-Library; and to gain cultural competence and a better understanding of Chinese culture, academia, and librarianship.

An unusual aspect of librarianship that the informationist was exposed to was the Ancient Books Preservation unit, a powerful reminder of the importance of physical collections to many academic fields. Another important conversation was inspired by a tour to a new-construction library in the Jiangwan campus which elicited an opportunity to discuss the ramifications of
space in the recently renovated Taubman Health Sciences Library along with the digital signage, open spaces, and integration of technology. At the Fudan University Shanghai Medical College at Fenglin, the informationist was able to tour the new outpatient medical center, their renowned anatomy museum, and the clinical pathology museum. The close working relationships between these entities and the library were very interesting to learn.

The theme of space continued through a visit to Tongji University, a short metro ride from Fudan, where the informationist had the opportunity to tour their University Museum and learn about ancient pottery and early machines invented in the area before exploring and learning about student and collection spaces in the main library, which included shared display spaces for student work and faculty presentations. The informationist next viewed the just-opened Deutche Bibliothek, a German-language focused library full of bright, open spaces and a phenomenal presentation/lecture space. Learning about the history of Germany in higher education in China was fascinating and helped to place the relationships between various campus units (including the Medical School) in historical context. A concurrent celebration of Oktoberfest was an additional opportunity to network with local library staff at Tongji.

At Shanghai Jiao Tong University, home of the Joint Institute for Engineering with the University of Michigan, the informationist had an opportunity to hear from Library Administration about their visioning and strategic planning processes, and their space-planning processes. Their innovative development of a student Makerspace was a real highlight of the tour and the institutional focus on STEM fields meant many obvious parallels with the informationists work in health sciences. There was also information presented about the role of the Press in most Chinese Universities, and the implications for relationship-building as well as potential challenges with open publishing.

The informationist also had the opportunity to take part in a number of panels as well as one-on-one discussions in a more casual setting. The focus of the presentations was often on how
informationists build relationships with faculty and researchers, specifically by attending their meetings and presentations. Another point of interest was the conceptual transition from Librarian to Informationist as a professional title. There was also considerable interest in support for Open Access publishing and Open Education. Discussions continued about the recently renovated space, Taubman’s shift to a purely digital library, and logistics of LEED certification and participatory design.

At Handan Campus there were two panel discussions. The first was a group meeting with students from the School of Information, in which the informationist offered advice about career preparation, finding a niche, and being open to new experiences. It was clear from the questions that the students asked that they are all working to find their place within the library and technical world, and their varied experiences are both challenges and opportunities within the library/information field in China. A number expressed interest in training in the US, and they were all engaged and attentive throughout the sessions. The final panel was for librarians, where the informationist provided the Taubman perspective on questions of faculty relationships, space and space planning, collections, and innovations in library collaborations and partnerships.

At the Medical Library at Fenglin, the informationist gave a presentation with frequent pauses for questions from the audience. The presentation, to which a number of librarians from other libraries were invited, focused on Taubman’s organizational transformation, which was highlighted by the reopening of the newly renovated library in August 2015. Since the Medical Library at Fenglin is planning to open the doors to their new facility next year, there were many questions about space, services, and how to engage with faculty and researchers. Once again, in particular, our shift from Librarians to Informationists was of high interest, and the informationist was able to share the visioning, opportunities, and challenges that the Taubman Library has undergone. Also, the revelation that many of the informationists at Taubman do not have a formal medical background was surprising to many of the session attendees, as the path to medical librarianship is different in
China. There was a good discussion about the variety of roles we can undertake in our respective arenas. While still in early stages, we all saw many potential opportunities for continued collaboration and information sharing for the future. We also had a chance to discuss issues surrounding librarian involvement in systematic reviews; while there was no formal presentation, the informationist did answer questions and provided 4 slide decks based on presentations and workshops taught in the past.

**Future Directions**

While this working trip was certainly a fruitful one for the informationist because of interaction with accompanying UM colleagues, it also facilitated great relationship-building with the Fudan University Libraries and librarians as had been hoped. Taubman is already reviewing a proposal put forth by Medical Library Director Ling JUN suggested inviting our informationists to a jointly sponsored international forum on medical and health sciences librarianship, with plans to continue to build relationships and foster communication and collaboration.

Due to Fudan University’s advanced biomedical research and large-scale clinical work, there are many parallels between our institutions that we can continue to explore. Taubman’s Systematic Review Workshop may be a key component for building Fudan’s systematic review capacity, and the Taubman Library Informationists can learn a great deal from the subject expertise and research integration of Fudan’s medical librarians. Therefore, an exchange program could be mutually beneficial to both institutions in cross-training and building informationist expertise. Given the already significant relationships between our University of Michigan faculty, students, and researchers it only makes sense that the library is fully engaged in cross-institutional information management as we work with our partners and collaborators, all the while continuing to share information on a global scale and developing new collaborations with our partners at Fudan University and other institutions in China and elsewhere.
From Outreach to Disability to Diversity

Anna Ercoli Schnitzer

Being flexible is the most valuable key in keeping up with the morphing roles of librarians who, over the years, have transformed themselves into Informationists in the ever-changing and constantly-re-energized environment of Taubman Health Sciences Library.

The outreach librarian provided the outlying community with reliable online medical information from the Greater Midwest Region (GMR) of the National Library of Medicine, specifically MedlinePlus or PubMed or NIH Senior Health, as appropriate. She attended sessions and workshops with audiences in the public library, at theme fairs, conferences, and other appropriate venues to demonstrate these sites of invaluable NLM-produced medical information in order to empower the layperson through education about them.

The disability Informationist worked to create a network with other interested parties through the UM Council for Disability Concerns and Michigan Medicine Ability. She also coordinated
a series of events each October with the goal of educating, de-
stigmatizing, and raising consciousness about disability issues.
She also organized and orchestrated an annual ceremony to
recognize members of the University community who had been
nominated and selected for exhibiting remarkable
achievements in the disability arena.

The diversity and inclusion Informationist collaborated with
members of the UM Office of Health Equity and Inclusion
(OHEI) as well as with the Diversity Coordinator of the Library
to reinforce the University President’s Diversity, Equity and
Inclusion (DEI) initiative. This five-year initiative encompasses
every department and unit in the entire campus, including
Michigan Medicine. She served in a number of committees
(e.g., the Provost’s Committee on DEI) that focused on mutual
goals of increasing the numbers of diverse employees by casting
a wider net for candidates and by taking part in planning
workshops dealing with unconscious bias.

These three distinct roles were all performed by the same
individual who shifted her role successively to fit the particular
function that was needed, an illustration of how quickly change
happens in a health sciences library and how important it is to
keep up by taking on a new role that corresponds with current
events.
Many students in health science programs at the University of Michigan study and learn human anatomy. While human cadavers work well for advanced courses, it can be difficult to teach anatomy actively to undergraduates and introductory classes as real cadavers are expensive and can be damaged by early learners. To overcome this obstacle, the U-M Library and Schools of Kinesiology and Dentistry purchased the Anatomage Table, which was funded through the Transforming Learning for a Third Century Initiative. The Anatomage Table is a life-size digital anatomy visualization system that displays interactive, three-dimensional models for exploration and learning. It enables users to interact with over five hundred clinical examples (including male/female, diseases, implants, animals, and more), perform virtual dissections, label anatomical structures, export images, and load their own patient scans for exploration on the 85-inch multi-touch surface.
Since its Fall 2015 debut in the Taubman Health Sciences Library, faculty have begun creatively integrating the Anatomage Table into their curriculum. Kinesiology’s Melissa Gross, PhD, and Karen Guerin, MS, PT, introduced it in their Movesci 230 and 231 courses with great success. Their optional assignments required students explore, export images, create annotations, and provide written comments on their experience with the table. Over half of their students elected to complete the Anatomage Table assignments and the vast majority provided positive feedback. Alex DaSilva, DDS, DMedSc, also integrated it into his dentistry courses by providing live demonstrations with the table’s image mirrored on a large external display in the library’s Multipurpose Room. Rather than loading the full body model, DaSilva uses a high resolution regional scan of the human head and neck to visualize structures and highlight potential areas of pain during procedures.

The library also has a license for Anatomage’s Invivo software which, along with many other use cases, enables users to prepare their own scans for use on the table. It includes high quality volume rendering, implant planning, and a variety of tools to manipulate patient scans. Once the medical image is
ready, it can be loaded on the Anatomage Table via a USB flash drive.

The Anatomage Table is located in the public space at the Taubman Health Sciences Library and is available for use outside of reserved hours. To submit new reservation requests, you may use the online form and see the online calendar for current reservations. Additional information is now available in our new overview video and we invite you to contact us with any questions or to schedule a demonstration.

Figure 20. Location of the Anatomage
BACKGROUND

As detailed in a 2014 *Medical Reference Services Quarterly* article1, the Taubman Health Sciences Library (THL) at the University of Michigan (UM) underwent a multi-year transformation to redefine itself into the health sciences library of the future. The library’s new mission reflected its values of being an externally focused, partnership-oriented organization and began its redesign of space and reimagining its staff roles. One of the outcomes of these changes is that an individual within the Technical Processing unit was given the opportunity to develop her interest in video production as the library moved its entire physical collection off-site. Given that her previous skills and job responsibilities were being centralized outside of THL, her

---

professional efforts could be redirected to another area. With the deeper influence of the online environment, the THL decided to engage in the development of multimedia objects for marketing/promotion and instructional/educational purposes, using the opportunity of staff development to start a burgeoning THL Media Development (THLMD) team. Over time, the THLMD team has grown to include a full-time Media Developer and Media Assistant and Graphic Artist.

MARKETING

A strength of having a multimedia team has been the dedicated and high quality marketing objects that the team has produced.

Midwest Medical Library Association Logo:
This logo is being used to promote the joint Midwest MLA and Michigan Health Sciences Libraries Association meeting (magnets, fliers, etc.).

Building Medicine at Michigan:
This video and poster highlighted the skills of the THLMD team as they combined photo and video technology to illustrate the changing physical spaces over time of the medical campus at the University of Michigan.
Photos of the newly renovated THL:

The THLMD team created high quality images of the renovation of the THL to document the changes and has used them in marketing videos and other materials.

DIGITAL OBJECTS

Over time, the THL increased its use of video for deeper instructional engagement as well as marketing the library and its services.

Last Book Video:

Marketing: Video parody of last book removed from the old library space.
OPCC Videos:

*Curriculum Integration:* The Optimized Patient Care Curriculum videos provided instruction on systematic review appraisal for medical students in the new medical school curriculum.

Systematic Reviews: Opportunities for Librarians:

*Professional Development:* The Systematic Reviews: Opportunities for Librarians course videos and graphics are the foundation of this course designed for librarian professional development on systematic reviews.
INNOVATION

The THLMD team has allowed the THL to engage in innovative projects that enhance the academic, research and clinical enterprises at the University of Michigan.

Comics and Systematic Reviews:
The THLMD team developed a comic about patient care for the Journal of the American College of Radiology (JACR).²
Anatomage Table Instructional Video:
The THLMD team developed a customized instructional video for the Anatomage Table to assist instructors and students in its use.

Anatomage Table:
The THLMD team provides core instruction opportunities

for this 3D virtual cadaver which has been used in multiple classes across multiple health sciences schools.

**CONCLUSION**

The THLMD team has been invaluable to the THL in fulfilling its mission to be a valued partner and “providing leadership in knowledge management for education, research, patient care, and community outreach.” The impact of the team’s work is difficult to measure, but even just looking at some of its video statistics, demonstrate how far reaching their videos have been.

---

<table>
<thead>
<tr>
<th>Rank</th>
<th>Title</th>
<th>Views</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>EndNote: Adding References Manually</td>
<td>77,641</td>
</tr>
<tr>
<td>2</td>
<td>EndNote: Editing an output style</td>
<td>58,440</td>
</tr>
<tr>
<td>3</td>
<td>Second Life and Public Health</td>
<td>9,733</td>
</tr>
<tr>
<td>4</td>
<td>Introduction to MedlinePlus</td>
<td>4,737</td>
</tr>
<tr>
<td>5</td>
<td>Introduction to Embase</td>
<td>4,362</td>
</tr>
<tr>
<td>6</td>
<td>Legacy of American Eugenics: Buck v. Bell in the Supreme Court</td>
<td>4,027</td>
</tr>
<tr>
<td>7</td>
<td>Una introducción a MedlinePlus en Español</td>
<td>3,772</td>
</tr>
<tr>
<td>8</td>
<td>MetScape App for Cytoscape</td>
<td>2,679</td>
</tr>
<tr>
<td>9</td>
<td>THL Anatomage Table Overview</td>
<td>2,044</td>
</tr>
<tr>
<td>10</td>
<td>How to Find an Author’s h index</td>
<td>1,750</td>
</tr>
</tbody>
</table>

Video Statistics: The number of views for the 10 most popular videos produced by THLMD.
[PART IV]

Reaching Out to the Public
Opening Doors: Contemporary African American Academic Surgeons Exhibit and Event

Anna Ercoli Schnitzer

The Opening Doors exhibit, developed and produced by the National Library of Medicine and the Reginald F. Lewis Museum of Maryland African American History and Culture, was hosted by Taubman Health Sciences Library on October 5, 2008. In conjunction with the exhibit in the Library Reference Room, a program was held in Harlan Hatcher Graduate Library Gallery with a panel discussion and a keynote address by Alexa Canady, M.D., with a reception that followed.

Alexa Canady (1950- ), who traveled from Florida to take part in the program, is a leading pediatric neurosurgeon and educator. Her “patient-care first” approach, her ability to set her patients at ease, and her down-to-earth attitude have all contributed to her success as a pediatric neurosurgeon. Dr. Canady believes that “Surgery is a service business. You provide a service as unobtrusively as possible. But you must be human. In order to provide good quality care, it is so important that
patients are able to talk to you and not regard you as some deity above them.”

The panelists were physicians of various ethnicities, races, and backgrounds who had been invited to describe their circumstances and, essentially, how they overcame obstacles to reach their professional goals. The group consisted of: Dr. Tara Breslin, Dr. David Gordon, Dr. Masahito Jimbo, Dr. Cheryl Lee, Dr. Sonya Miller. Inel Lewis, of the U-M Medical School’s Diversity and Career Development Office, served as moderator.

The program organizers’ main goal was to invite students and local youth to the event in order to allow them to hear the panelists’ personal stories with the possibility of becoming interested in pursuing careers in the biomedical field. Since the theme of the panel was “Overcoming Challenges,” each panelist addressed his/her own history detailing particular obstacles and their subsequent resolutions.

Further information is available at: https://www.nlm.nih.gov/exhibition/aframsurgeons/
Deadly Medicine: Creating the Master Race

Merle Rosenzweig

“From 1933 to 1945, Nazi Germany carried out a campaign to “cleanse” German society of people viewed as biological threats to the nation’s “health.” Enlisting the help of physicians and medically trained geneticists, psychiatrists, and anthropologists, the Nazis developed racial health policies that started with the mass sterilization of “hereditarily diseased” persons and ended with the near annihilation of European Jewry.

Deadly Medicine: Creating the Master Race traces this history from the early 20th-century international eugenics movement to the Nazi regime’s “science of race.” It also challenges viewers to reflect on the present-day interest in genetic manipulation that promotes the possibility of human perfection.

To relate this history, the United States Holocaust Memorial Museum has assembled objects, photographs, documents, and historic film footage from European and American collections and presents them in settings evoking medical and scientific environments. Deadly Medicine: Creating the Master Race
provokes reflection on the continuing attraction of biological utopias that promote the possibility of human perfection. From the early twentieth-century international eugenics movements to present-day dreams of eliminating inherited disabilities through genetic manipulation, the issues remain timely.”

https://www.ushmm.org/information/exhibitions/traveling-exhibitions/deadly-medicine

The Taubman Health Sciences Library hosted Deadly Medicine: Creating the Master Race on February 3 – April 13, 2012). Paul A. Lombardo delivered his keynote address, “The Legacy of American Eugenics: Buck v. Bell in the Supreme Court.” Lombardo is a professor of law at Georgia State University in Atlanta, and a senior advisor to the Presidential Commission for the Study of Bioethical Issues in Washington, D.C. There was also a panel discussion with Holocaust survivors and medical professionals.
Life and Limb: The Toll of the American Civil War

Merle Rosenzweig

The Taubman Health Sciences Library hosted the exhibit “Life and Limb” on June 27-August 6, 2011. “The perspectives of surgeons, physicians, and nurses are richly documented in the history of American Civil War medicine, which highlights the heroism and brutality of battlefield operations and the challenges of caring for the wounded during wartime. Yet the experiences of injured soldiers during the conflict and in the years afterwards are less well-known. Life and Limb: The Toll of the American Civil War focuses on disabled veterans and their role as symbols of the fractured nation.”

Conclusion
History and Perspectives of Taubman Health Sciences Library

Based on an Interview by Jacqueline Freeman with the Director Jane Blumenthal

The University of Michigan’s celebration of its Bicentennial Anniversary (1817-2017) has offered an opportunity to summarize and highlight successes and key decisions that positioned one of its outstanding institutions – the Taubman Health Sciences Library — to become a contributing partner in teaching, research, and clinical care. In this chapter, we talk to the director of the Library about those successes and decisions, and she shares her thoughts on the library’s future directions.

From her vantage point, the Director offers a view of Taubman’s last decade, which highlights important partnerships with library stakeholders, as well as directs the library’s future work. Early successes communicating with medical school administrators upon the Director’s arrival paved the way for the library’s most important collaboration — a $55 million renovation completed in 2015 after nearly 5 years of planning, coordination, and cooperation. How this project came about is
the result of relationship building — a theme that permeates the work of Taubman Health Sciences Library over the last decade and will carry its work forward into the coming decades. The Director recalled the importance of early relationship building with the Associate Dean for Medical School Education, who, she said “championed the library, included the library, welcomed partnerships, listened to our contributions, and made sure we got the credit for what we were doing.”

While the majority of her efforts to build relationships with library stakeholders were well received, there was a fundamental difference, she noted, in cultures in different schools and departments. Some preferred to be very collaborative and others to be as independent as possible. She noted how crucial the deans at the University are in setting the tone for the relationship with the library. “It’s the attitude from the top down. What does the dean think of the library? Is he or she dismissive of it or do they welcome the library as a collaborator and partner? These administrators have an important influence on the ability of the library to partner across the learning and teaching and research arenas. Their impressions of the value of the library can come from as far back as their own experiences as students.” The Director explains: “If they didn’t find anything of value in their relationship with the library, they were less likely to find that there was anything of value in a collaboration. One fascinating aspect of these perceptions is the difference between the library these administrators may have experienced in their days as students and the library today.” “The challenge,” she says, “was that they were basing their idea of what the library is and does on the library they experienced 10 or 20 years ago, and libraries are different now than they were then.”

The Director arrived at the University of Michigan with a vision of a health sciences library that was integrated rather than added on, valued as a partner — a stakeholder in the academic mission rather than a support service — and part of the culture of the health sciences schools even while administratively separate. She instituted changes that would help build relationships with library partners and that would bring the library itself into a new digital era. One of the first
changes was to the services provided in the library. “We switched from a Reference Librarian model to an Informationist-Liaison model and took the focus of the librarian’s attention away from the collection, away from answering questions at a desk that people came to and turned it around to focus on users and going out to where the users were to make contact. We consciously worked to understand the culture, the influencers, the written and unwritten agendas of the schools and departments that we were working with.” Much like the Director’s forays outward to connect to the medical school, Informationists went out from the library to connect and partner with — build relationships with — the health sciences schools and departments. “I was convinced at the time,” she states, “that if we didn’t change our model, we were going to get further behind the curve and we were going to be in danger of becoming irrelevant.” The curve referred to is the one in which the library was not necessarily the first partner stakeholders thought of to address their information needs. “We already knew that walk-in statistics were down, queries at the reference desk were down, and when we look at what those questions were... ‘Do you have this journal?’...you don’t need a librarian to answer [that].” Eventually, the liaison model became the informationist model. The Director explains that the informationist is really an extension of the departmental liaison. “They both have in common the acculturation to a subject field or a school or a particular department, becoming one with the department without moving in over there...Instead of individuals assigned to a school [as in the liaison model] we had a team of people who worked with a school.” The establishment of teams, she notes, coincided with a culture of moving quickly in decision making and away from a committee structure. The relationships among team members are ones in which people are gathered around a common field of interest to which they bring their own passions, their own thoughts and beliefs, and their own desire to do good work. Working together on teams and working relatively quickly, the informationists at Taubman Health Sciences Library were poised to work with their faculty partners who were also used to working at this quick pace.
faculty we work with work this way,” the Director notes. “If you can’t respond to them quickly, they will go another way.”

With changes to how the library collaborated with its stakeholders came necessary conversations about the space the library occupied. “We had conversations internally about how dysfunctional our space was for the way we work now. I put together a space committee and told them to rethink how we use space and not to worry about any of the obstacles.” The plan the committee came up with included a smaller collection, more comfortable seating, and more space for study and for consultations — reflecting the way users wanted to use the space and the way informationists partnered with students, faculty, and researchers. This plan came to resemble in many ways the final plans developed in collaboration with the medical school. The collaboration with the medical school took the re-imagination of space a few steps further. In the beginning the space renovation was planned to give over one floor of the library’s space to the medical school and remove half of the library’s print collection. Examining this plan revealed its shortcomings: “If half of the [book] collection was here and half was someplace else,” explains the Director, “it was going to be more confusing and more work for everyone.” Undaunted by this problem, she went back to the medical school with a new idea. She asked them if they wanted to double the size of their original renovation plan and take two floors of the library instead of just one. Little time was lost contemplating the proposal, as aspects of security and access between floors had already been discovered to be integral to the building’s design. A plan to renovate the entire building — approximately 137,000 net square feet — was decided upon. From the early foundation of the relationship that was built with the medical school, came a collaboration incorporating library expertise into how the new space would look and function.

The Director looks to this partnership and the ways that the library and informationists reach out to collaborate with the University community of researchers and learners as indicative of where the library is headed in the future. She looks to answer the question, “How can the library continue to improve its collaborations?” For a health sciences library, answering this
question requires a research mindset focused on assessing what we do and the quality of our impact. The Bicentennial, she notes, has been something for the University to celebrate, but she is future focused. “We are putting down bricks in the road we are walking on so that we can keep moving forward,” she states, paraphrasing a favorite theme of her deputy director. For the library’s future, the Director is focused on opportunities to have meaningful impact through partnerships. As the library — and as research universities — move forward through somewhat uncertain times regarding future funding and support for their initiatives, she plans for uncertainty. “When we post a position,” she says, “we always include ‘works well in ambiguity.’ Just as with any job, you can’t always know what the future holds for the library, but qualities like resilience and the ability to manage sometimes rapid changes in the environment have so far led to some wonderful successes for the Taubman Health Sciences Library.