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Feinberg School of Medicine has championed the transformation of Galter Health Sciences Library & Learning Center into a “next generation” information hub where library and informatics services keep pace—and help to advance—leading-edge patient care, research, and education. To accomplish this, Feinberg leadership integrated Galter Library within the Northwestern University Clinical and Translational Sciences Institute (NUCATS). This close relationship is, as far as we know, the only one of its kind in existence. The benefits of this partnership were immediate and continue to enable us to meet the vision set before us in unique and meaningful ways as we deliver services and resources and deeply integrate with the academic, research, and clinical enterprises.

**Notable highlights from 2017 include:**

- Award winning clinical informationist services
- CTSA Program National Center for Data to Health (CD2H) funding award
- Dissemination, Impact, and Access workshop and Scientific Writing Seminar series
- Hosted two Bibliometrics and Scientometrics workshops and the Computational Skills for Informatics workshop series
- Enhanced research data services and support
- Prolific contributions to health sciences librarianship through publication, teaching, and professional service
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<th><strong>BY THE NUMBERS</strong></th>
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<td><strong>159</strong></td>
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<td>Library workshops</td>
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Dissemination, Impact, and Access Workshop

On July 20, 2017, Galter Library offered educational programming on research dissemination, impact and access. This day-long workshop, attended by over 40 faculty, research administrators, and program coordinators addressed questions such as: How do you make your program's work more visible? How do you efficiently track scholarly work and creatively describe impact? Participants also learned how to comply with the NIH Public Access Policy and were introduced to data sharing guidelines, Northwestern’s Data Management Plan (DMP) tool, and DigitalHub, the Feinberg School of Medicine digital repository. As a result of this successful program, the Galter Library facilitators were invited to present at Getting the Word Out About Trauma: Improving Resonance and Reach, a resource dissemination workshop and fair hosted by the Center for Child Trauma Assessment, Services and Interventions (CCTASI) held on August 30-31.

Writing Seminar Series

In June 2017, Galter Library’s Scientific Writing Seminar Series, designed for residents, junior faculty, and early-career researchers, proved popular and tapped a previously unmet need: to provide knowledge and answer common questions about the writing process from page to publication. The brainchild of Patty Smith, Galter’s Impact & Dissemination Librarian, the series will likely be offered again in 2018.
Computational Skills for Informatics
The popular hands-on Computational Skills for Informatics (CSI) series returned in Fall 2017 (October 19-November 9). Hosted by NUIIT Research Computing, Galter Library and NUCATS, the CSI series offered workshops on Good Visualization Practices; Introduction to Command Line/Bash; Introduction to Bash Programming; and Introduction to High Performance Computing on Quest.

Open Science Framework
In November 2017, Galter Library sponsored the hands-on workshop, *Practical Steps for Increasing Openness and Reproducibility: An Introduction to the Open Science Framework (OSF)*, facilitated by the Center for Open Science. Participants learned how to create meaningful project documentation, implement version control, write pre-analysis plans, and use open source tools to implement these processes into their workflows.

Bibliometrics and Scientometrics
Galter Library hosted two workshops for *Bibliometrics and Scientometrics for Research Evaluation* in June and December 2017. This course, led by faculty from Leiden University’s Centre for Science and Technology Studies (CWTS), offered a deep insight into the use of citation analysis, bibliometric visualization, and other related tools for evaluating scientific research. Participants were introduced to and shown how to interpret a wide range of publication and citation-based statistics. Students also explored VOSviewer, a software tool for constructing and visualizing bibliometric networks.
Clinical informationist service receives award

Providing relevant and timely information at the point of need has been a fast-evolving goal at Northwestern Medicine, and Galter librarians are leading the charge.

Galter librarians Jonna Peterson and Corinne Miller were awarded the Midwest Chapter/Medical Library Association Jean Williams Sayre Innovation Award for the Galter Health Sciences Library clinical informationist program. The award recognizes individuals, groups, libraries, or organizations for their creative approach to the delivery and management of health information.

Galter's clinical informationist program has grown by leaps and bounds since we hired Jonna as our first clinical informationist in July 2016, so much so that we brought Corinne on board to help with this expanding service. Clinical informationists participate in clinical meetings, attend rounds, and assist the attendings, residents, and students in answering clinical questions. Galter Library is very proud that their great work has been recognized with this award. Congratulations!

**How busy are Galter's informationists? In FY2017, they rounded 123 times with 40 patient care teams and answered over 150 questions.**
Defining the Phases of Translational Research

There has been a lack of agreement as to what research activities define a given “t phase” and just how many phases there should be. In 2017 Karen Gutzman, Impact and Evaluation Librarian, and Pamela Shaw, Biosciences and Bioinformatics Librarian, collaborated with NUCATS members in co-authoring a systematic review on this topic. *Mapping the Evolving Definitions of Translational Research*, published in Journal of Clinical and Translational Science establishes a standard definition of each research phase.

This paper was published by Dan Fort, PhD, MPH, Postdoctoral Fellow in Health and Biomedical Informatics and TL1 scholar; Tim Herr, PhD Candidate in Health and Biomedical Informatics; and Justin B. Starren, MD, PhD, Chief, Division of Health and Biomedical Informatics and Director of NUCATS Center for Data Science and Informatics, along with Karen and Pamela. Working with the Galter Health Sciences librarians, Dr. Fort conducted a systematic review of 33 research papers to identify 25 distinct areas of research.

*Read about the benefits of having a librarian collaborate with you on a systematic review.*
Metrics and Impact: One Researcher’s Legacy

The Metrics and Impact Core (MIC), housed in Galter Library, has expertise in bibliometrics, data visualization, continuous improvement, information systems, and alternative metrics. The core provides extensive advisory services for researchers, groups, or departments on topics such as: developing successful publishing strategies; managing or tracking publications; maintaining an impactful online identity; measuring or assessing research impact by discipline; and communicating research impact to specific audiences.

One fascinating project involved a cross-department collaboration at Galter to analyze the lasting legacy of Dr. Benjamin Boshes, a prominent psychiatrist and former chair of the Department of Neurology and Psychiatry at Northwestern University from 1951 to 1969, and the Department of Neurology from 1969 – 1975. Dr. Boshes received all of his degrees from Northwestern (BS 1929; MD 1931; MS 1934; PhD 1938). He contributed to the war effort with his work on the effects of flight on the brain and served in World War II.

Dr. Boshes published his first peer-reviewed article in 1934 and his last publication in 1981; in total he published over 106 documents indexed in Elsevier’s Scopus database. Although he passed away almost 33 years ago in 1984, Dr. Boshes’ work continues to be cited. Since 1970, as far back as Scopus’s cited reference data goes, his works have received over 900 citations from authors in 53 countries and 11 languages.
Librarians Making a Difference

Galter Health Sciences Library & Learning Center has designated liaison librarians who act as primary contacts between the library and academic departments, institutes, centers, and educational programs. Liaison librarians can help with research proposals and in-depth systematic review support, can assist with NIH Biosketches and communication of research impact, and can make an investigators work more discoverable.

In FY 2017, Galter librarians led 331 education events, reaching 2,528 people

- 177 liaison transactions, reaching 1,449 people
- 42 curriculum-related events, reaching 1,040 students
- 168 by-request classes and consultations, reaching 1,096 people

Meet Research Librarian, Eileen Wafford who works with faculty, staff, students, and affiliated clinical researchers to provide reference and specialized research services, including assistance with search strategies and systematic reviews. Recognizing FSM researchers’ need for a better understanding of critical appraisal of the literature, Eileen created a class on Evaluating Published Studies, which covers several core aspects of assessing the quality of research evidence and examines specific methodological issues related to study design and bias in published research. Class attendees have praised the class which takes users through an example article and breaks down evaluation into manageable parts. Just one of the ways Galter Librarians are thinking of ways to meet information gaps here at Feinberg.

Do you need help with search strategies, systematic reviews, or publication support?

Reach out to your liaison librarian today!
Welcome, New Team Members to Galter

Katie Lattal was hired as the Special Collections Librarian in December 2016, after serving as the temporary Special Projects Assistant. Katie has an extensive background in Special Collections through her experience in libraries, museums, academia, and administration.

Matt Carson joined Galter in May 2017 as our new data scientist librarian, tasked with leading a new Research Data Core, including development and design of novel, sustainable data services throughout all stages of the research data life cycle. Matt will develop coordinated programming and resources to provide expert support on technology and tools that support the management, analysis, sharing, communication, and preservation of research data originating from Feinberg School of Medicine.

Austin Sharp joined us in May 2017 as the new developer/digital library programmer in the Digital Systems Department. Austin recently finished a developer fellowship program with the New York Code and Design Academy (NYCDA), an intensive twelve-week immersive programming boot camp in which he worked in a full stack capacity on the program’s Ruby on Rails application.

Brett Cimbali came on board in July 2017 to manage all of the document delivery requests from our patrons for items from both our print and electronic collections as well as any requests for items we don’t own. His last position was at Columbia University where he was a Bibliographic Assistant in the Preservation and Digital Conversion Division. Before that he worked in Interlibrary Loan at Columbia University and also as a paraprofessional in outreach services at the Ypsilanti District Library.
Every Necessary Care & Attention: George Washington & Medicine

In November 2016, the library hosted a traveling exhibit from the National Library of Medicine that explored the story of George Washington’s own health and examined the ways in which he sought to safeguard the health and wellness of those under his care. At the opening reception, Northwestern’s own Dr. Kelly Wisecup spoke on: Medicine at Home: Early American Botanical Colonization and Native American Herbal Resistance.

In conjunction with the exhibit, the Galter Library has also put together a companion display: The State of Medicine at the Start of the Nation.

Life and Limb: The Toll of the American Civil War

Life and Limb: The Toll of the American Civil War, another traveling exhibit from the NLM in May 2017, explored the experiences of amputee veterans, who served as a symbol of the fractured nation and a stark reminder of the costs of the conflict. Over three million soldiers fought in the war from 1861-1865. More than half a million died, and almost as many were wounded but survived. Hundreds of thousands were permanently disabled by battlefield injuries or surgery, which saved lives by sacrificing limbs.

Special Collections for the Future

Galter Library’s Special Collections excels at reminding Feinberg of its roots and how far we, as an institution, has come. In the past year we performed a thorough inventory of the collection in preparation for a renovation of the Special Collections space in 2018. This next year will also see efforts to expand catalog records of rare books to increase online discoverability along with a thorough inventory of the library’s medical artifact collection.
Thanks to Our Donors

These generous donors have enabled us to grow our support of research, education, and patient care like never before. We are grateful for the gifts and support to help ensure a lasting legacy and celebrate the heritage of Feinberg School of Medicine.

Adrian Codel
Dr. Meryl Haber
Evanston Community Foundation

The Galter Foundation
Sharon Kantor Bogetz
John Moore, MD
The Estate of Esther F. Teplitz

Maer B. Ozonoff, MD
Craig V. Showalter
The Estate of Nicolas Wetzel

The Brauns Family Rare Books Donation

In the fall of 2016, the Galter Health Sciences Library was pleased to accept the donation of three rare medical books made in honor of the Kenneth V. and Blanche E. Brauns family. The books (one bound volume contains a number of brief medical tracts) had remained in the family for years. The family believes the books were consulted often, especially by the grandparents of Kenneth, Dr. Thilo Brauns, and his wife, Dr. Ernestine, as evidenced by their well-thumbed appearance and notes made in them.

Jonas Salk’s Polio Vaccine Lecture

Galter Library is extremely grateful to Mark and Marilyn Labkon for their gift of a signed copy of Jonas Salk’s 1955 lecture at the University of Michigan about the polio vaccine. Dr. Salk discovered and developed one of the world’s first polio vaccines. The field trial set up to test the Salk vaccine was the most elaborate program of its kind in history, involving 20,000 physicians and public health officers, 64,000 school personnel, 220,000 volunteers, and over 1.8 million school children. The success of the vaccine would go on to largely purge one of the world’s most frightening public health problems.
New Training Opportunities

- Computational Skills for Informatics Workshop Series (Spring 2018)
- Dissemination in Action: Communicating Research in a Digital World, Medical Library Association Conference, Atlanta, GA (May 2018)
- Bibliometrics and Scientometrics for Research Evaluation in collaboration with Leiden University’s Centre for Science and Technology Studies (CWTS) (June 2018)

DataLab

The Galter DataLab is focused on training & development, collaborative innovation, and connecting faculty, staff, and students in the Feinberg School of Medicine to data-related resources here at Northwestern. Through our free DataClinic service, we provide consultation and training for all stages of the research data life cycle.

- Data Scientist joining the Galter team
- Enhancement of data-related projects, training, and consultation services
- Support for Open Science best practices
- Data management support service

Digital Projects

- DataCat data indexing system
- CDH2 Grant Implementation (see next page)
Northwestern and Galter Awarded CD2H Grant
Northwestern University, in partnership with Oregon Health & Science University, University of Washington, Johns Hopkins University School of Medicine, and Sage Bionetworks, has been awarded a five-year $25M cooperative agreement from the National Center for Advancing Translational Science (NCATS) to create a new CTSA Program National Center for Data to Health (CD2H). This award will coalesce and coordinate informatics activities across the Clinical and Translational Science Award (CTSA) Program, a network of more than 50 medical research institutions, to provide collaborative clinical and translational research infrastructure.

“The new National Center for Data to Health offers an opportunity to catalyze the cultural and technological changes necessary for data and informatics to fundamentally impact research and health care,” describes Dr. Kristi Holmes, associate professor in the Department of Preventive Medicine, director of evaluation at NUCATS, and director of the Galter Health Sciences Library & Learning Center at Feinberg School of Medicine, who is a co-director of the new center. “As scientific research is transformed by big data, high-performance computing, and real-time publishing, the structure and composition of scientific teamwork is also changing. Here we aim to grow the data and informatics-based architecture needed to support interdisciplinary teams so that diverse contributions are valued and recognized -- enhancing knowledge transfer, discovery, and impact on health.”

The CD2H will be tasked with several priorities to support a vibrant and evolving informatics ecosystem, including: support and enhancement of a collaborative informatics community; development of Good Data Practice (GDP); promotion of software standards for interoperability; growth of collaborative innovation across informatics tools, methods, and processes; advancement of cutting edge biomedical research informatics; data science education for CTSA Program researchers; and novel methods and tools for the evaluation of the impact of these activities to enhance health care through data and informatics.
Peer-reviewed Papers and Systematic Reviews


Peer-reviewed Papers and Systematic Reviews

Webinars

- **Gutzman, K. E.** (9 August 2017). Impactful partnerships: working with faculty to enhance visibility and dissemination of research National Network of Libraries of Medicine, South Central Region. Available at http://dx.doi.org/10.18131/G33F07.
- **Ilrik, V.** (15 February 2017). Beyond the manuscript: using IRs for non-traditional content types. NISO Virtual Conference: Institutional repositories: ensuring yours is populated, useful and thriving. Available at http://dx.doi.org/10.18131/G3VP6R.
- **Pastva, J.** (28 September 2016). Simplified cataloging for non-catalogers through FAST. Using FAST for Faster Workflows and Discovery.
- **Shaw, P. L.** (28 February 2017). Providing literature support as part of the biomedical research team. Library Connect. Available at https://libraryconnect.elsevier.com/articles/providing-literature-support-part-biomedical-research-team.
Conference Papers & Posters

Conference Papers & Posters


- **Shank, J.** (2017). Does COUNTER tell the whole story? Case-by-case examples demonstrating the limitations of COUNTER, and suggestions for alternative evaluation metrics. Paper presented at the CARLI Spring Forum on Collections Data Analysis and Maintenance, Chicago, IL.


Pamela [Shaw] is the most amazing librarian and an integral part of my research team. Without her, my team and I would not be able to produce the research that we are able to do. She is amicable, always ready to help and works at lightning speed!

I feel that everyone should have a Pamela!
- Mamta Swaroop, Associate Professor of Surgery

Galter Clinical Informationists Jonna Peterson and Corinne Miller exemplify the power of a strong partnership with those of us in the clinical environment, empowering us with better access to evidence we can apply at the point of care. .. These kinds of novel partnerships help ensure that the physicians that come to Northwestern for training have access to a world-class experience and an opportunity to learn how to apply evidence in patient care.
- Aashish Didwania, MD, Associate Vice Chair of Education

My department recently received a lecture from Patty Smith regarding systematic reviews. I wanted to write you and let you know how excited we were to have her and how happy we were with her lecture! … Everyone keeps asking me to arrange additional library resources lectures :-) 
- Nevert Badreldin, Maternal Fetal Medicine Fellow

I am chagrined that it took me so long to send your team a note thanking you for your help with the data visualizations and summaries of impact for our […] application. [Others] were impressed with the presentation of results and the accomplishments and collaborative activities of our team members.
- Mercedes Carnethon, Ph.D., FAHA, Associate Professor and Vice Chair
Department of Preventive Medicine