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Library Reports   Becker Medical Library

2016

Becker Medical Library Annual Report 2016

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A CATALYST FOR LEARNING AND DISCOVERY

BERNARD BECKER MEDICAL LIBRARY

FY2016 ANNUAL REPORT

Washington University in St. Louis

SCHOOL OF MEDICINE

Washington University School of Medicine and its teaching hospitals make up a complex organization on the vanguard of biomedical research, patient care, public health, and educating the next generation of professionals.

Becker Library provides resources and services to help *all* of our faculty, staff and students accomplish their goals.
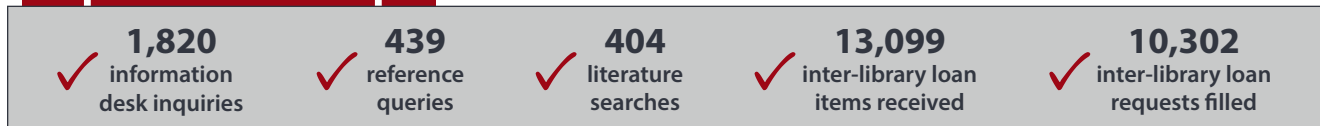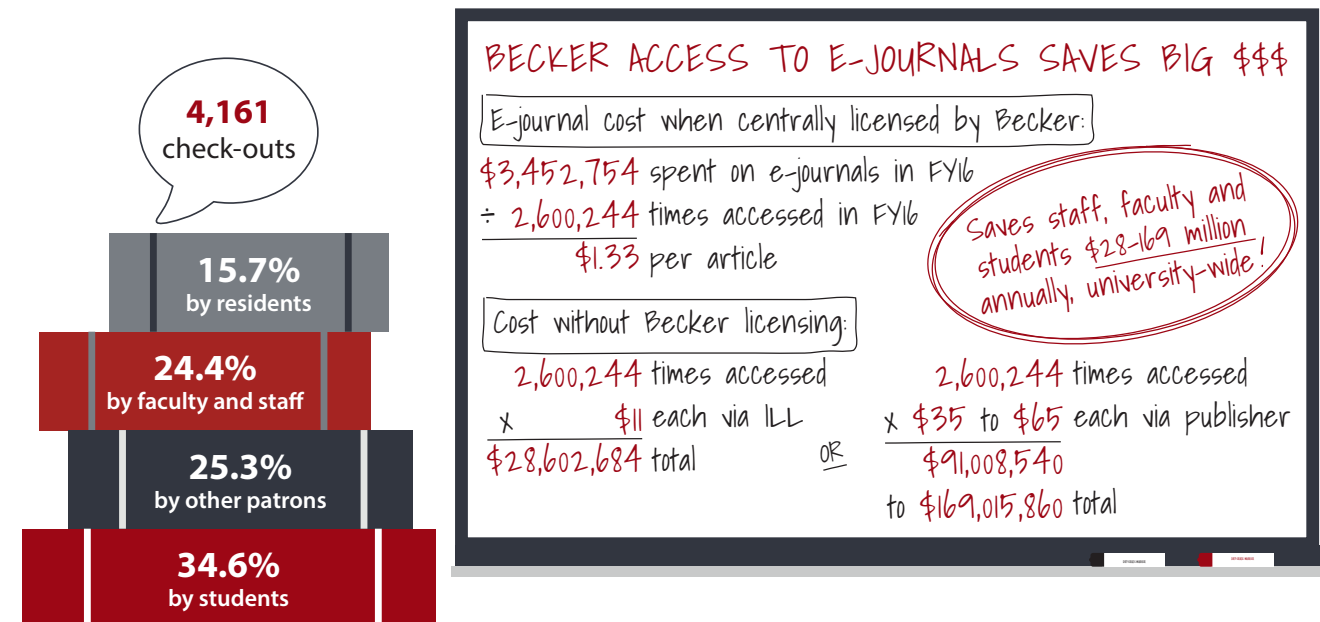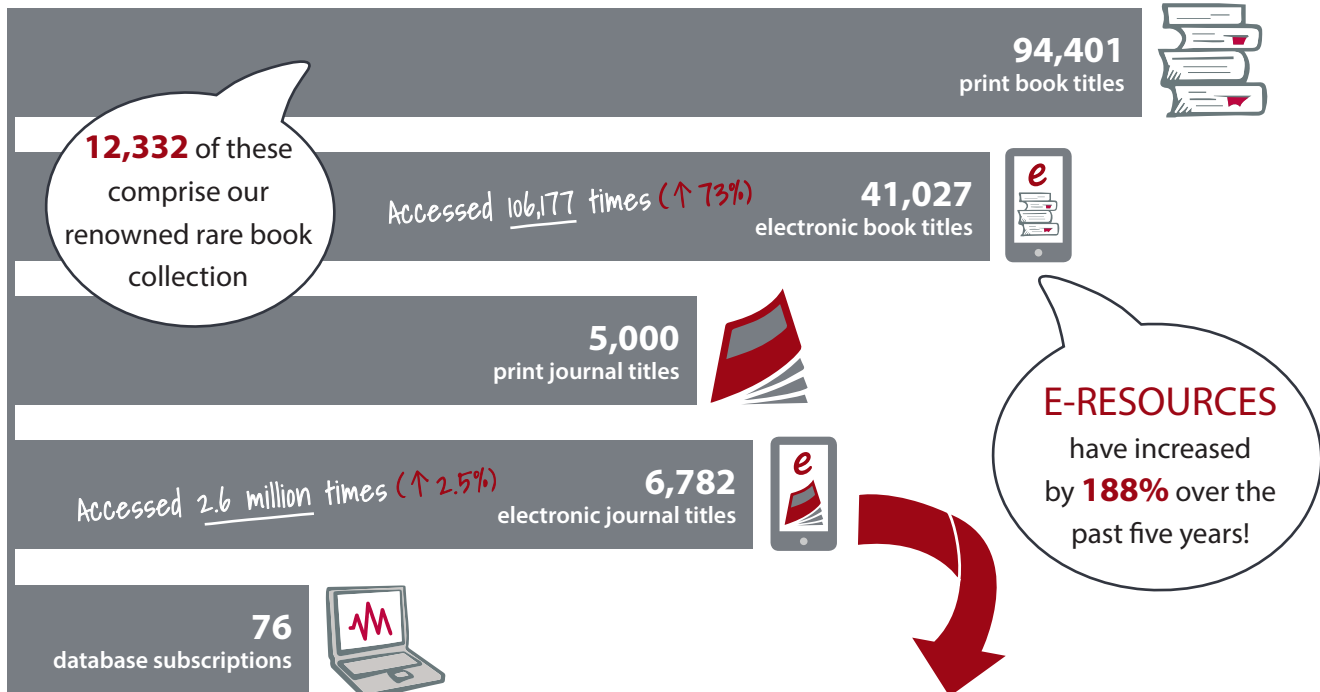
In essence, our job is to act as a catalyst in the process of learning and discovery. We seek opportunities to assist people by giving them the tools, information, training, and connections to enable, improve, or accelerate their work.

Accelerating Research

Our primary focus is supporting a cutting-edge research university with innovative tools and services.

Providing Information Essential to Our Scientists

Becker Library's world-class collection and expert staff arm researchers with the resources they need right when they need them in the process of discovery.

94,401
print book titles

12,332 of these comprise our renowned rare book collection

Accessed 106,177 times (↑ 73%)

41,027
electronic book titles

5,000
print journal titles

E-RESOURCES have increased by **188%** over the past five years!

Accessed 2.6 million times (↑ 2.5%)

6,782
electronic journal titles

76
database subscriptions

4,161
check-outs

15.7%
by residents

24.4%
by faculty and staff

25.3%
by other patrons

34.6%
by students

BECKER ACCESS TO E-JOURNALS SAVES BIG $$$

E-journal cost when centrally licensed by Becker:

$3,452,754 spent on e-journals in FY16
÷ 2,600,244 times accessed in FY16
————————————————————
$1.33 per article

Saves staff, faculty and students $28-169 million annually, university-wide!

Cost without Becker licensing:

2,600,244 times accessed
x $11 each via ILL
————————————————
$28,602,684 total

OR

2,600,244 times accessed
x $35 to $65 each via publisher
————————————————
$91,008,540
to $169,015,860 total

✓ **1,820** information desk inquiries	✓ **439** reference queries	✓ **404** literature searches	✓ **13,099** inter-library loan items received	✓ **10,302** inter-library loan requests filled

Helping Researchers Prepare Stronger Grant Applications

Support for investigators submitting grant proposals, reports, and renewals continued to be in high demand. There was a great need among the research community for instruction and guidance on the NIH Biosketch and SciENcv modules. Librarians provided training and consultations to over 100 researchers and staff from a wide variety of campus programs and departments through a combination of seminars and informational sessions.

Librarians assisted investigators by creating graphs and tables of publication data metrics (citations, co-authors, etc.), which are now frequently employed to supplement and strengthen grant proposals, renewals and invited lectures.

Demand for evaluation and assessment services continued to grow along with the scope and variety of requests. Librarians generated reports using publication data and data visualizations for individuals, research groups, divisions and departments.
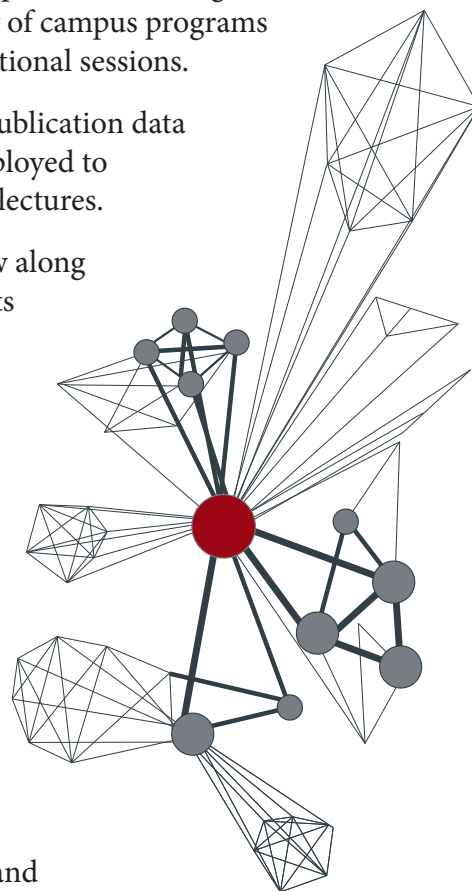
Areas of interest included departmental productivity and performance, individual productivity and performance for tenure purposes, university performance in specific subject areas, h index reports and publication reports.

Librarians also produced an instructional video for Becker's website called "Understanding the h-index" to give an overview of that popular topic.

Approximately 50 faculty, trainees and graduate students attended a revised and updated version of the popular Enhancing the Visibility & Impact of Your Research workshop, which helps researchers enhance their author profile, promote discoverability and access to research findings, and document evidence of research impact.

Administrators and faculty continue to express a growing interest in more specific evaluation metrics such as journal impact factor score, the v index, and how to best compare the scholarly and research outputs of clinicians and bench researchers.

Example of a co-author network

Librarians also assisted investigators with activities such as setting up their faculty profile pages, establishing their online profiles and providing recommendations for enhancing their impact.

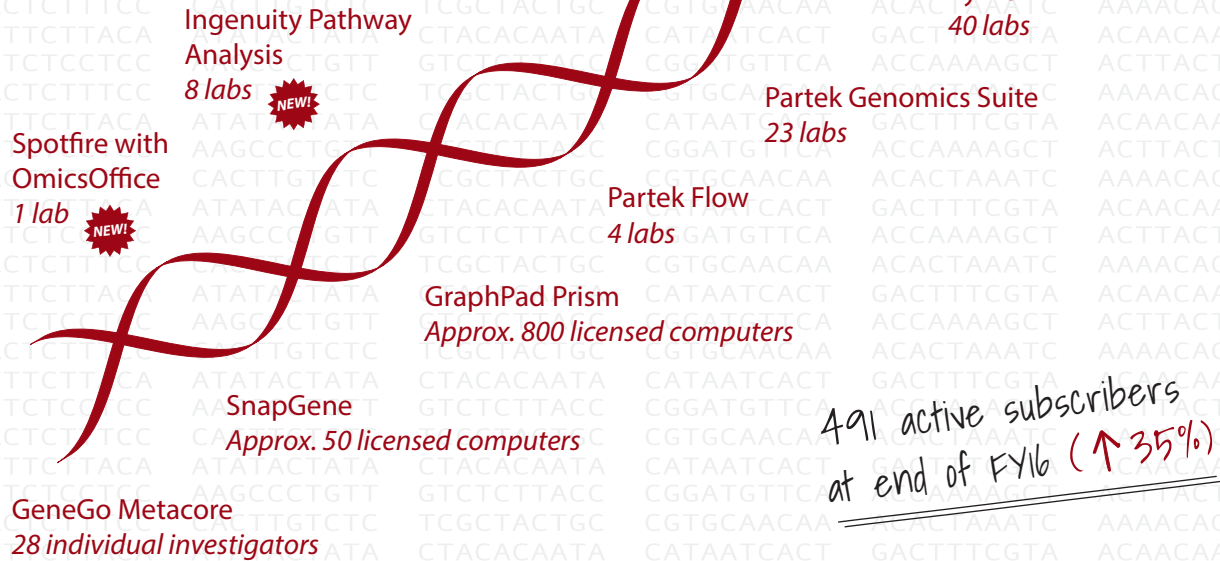### INSTITUTE OF CLINICAL AND TRANSLATIONAL SCIENCES (ICTS) PARTNERSHIP

In their role as permanent members of the ICTS Tracking & Evaluation Team, librarians provided publication reports for all ICTS members, including citation analysis and recommendations on bibliographic metrics for evaluation purposes. They also provided assistance with the ICTS renewal application submitted in May 2016, and content for the ICTS website and newsletter related to authorship, evaluation and assessment.

Meeting the Demand for Data Analysis Tools

Becker Library's Science Support program includes licensing of specialized research software and organizing training workshops for the campus community.

Subscriptions by labs and individual researchers to software licensed and administered by the library continued to grow.

Lasergene
Core Suite
71 labs

PyMOL
40 labs

Ingenuity Pathway Analysis
8 labs
NEW!

Partek Genomics Suite
23 labs

Spotfire with OmicsOffice
1 lab
NEW!

Partek Flow
4 labs

GraphPad Prism
Approx. 800 licensed computers

491 active subscribers at end of FY16 (↑ 35%)

SnapGene
Approx. 50 licensed computers
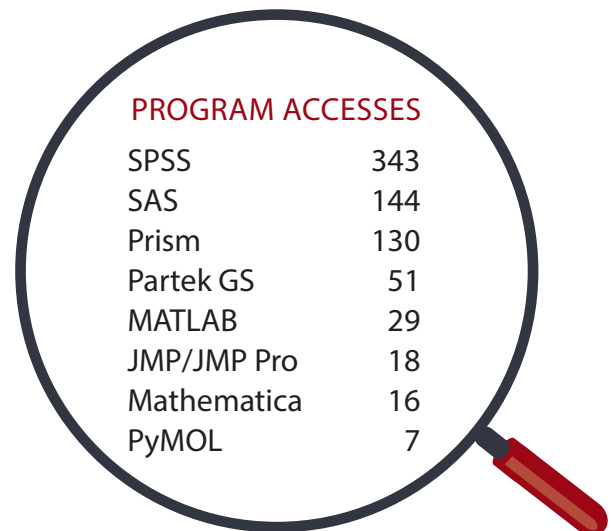
GeneGo Metacore
28 individual investigators

SOFTWARE TRAINING WORKSHOPS

Becker Library continued to coordinate on-site vendor training and workshops for the entire WUSM campus. Last year, the library presented trainings and demonstrations of software licensed by the library or tools of interest to the research community to 175 researchers and graduate students, representing a 46% increase.

THE RESEARCH POD

To provide WUSM researchers and their staff with access to specialized software tools and resources, Becker Library offers a computing resource called "The Research Pod"—a cluster of customized iMacs and PCs conveniently located on the library's first floor.
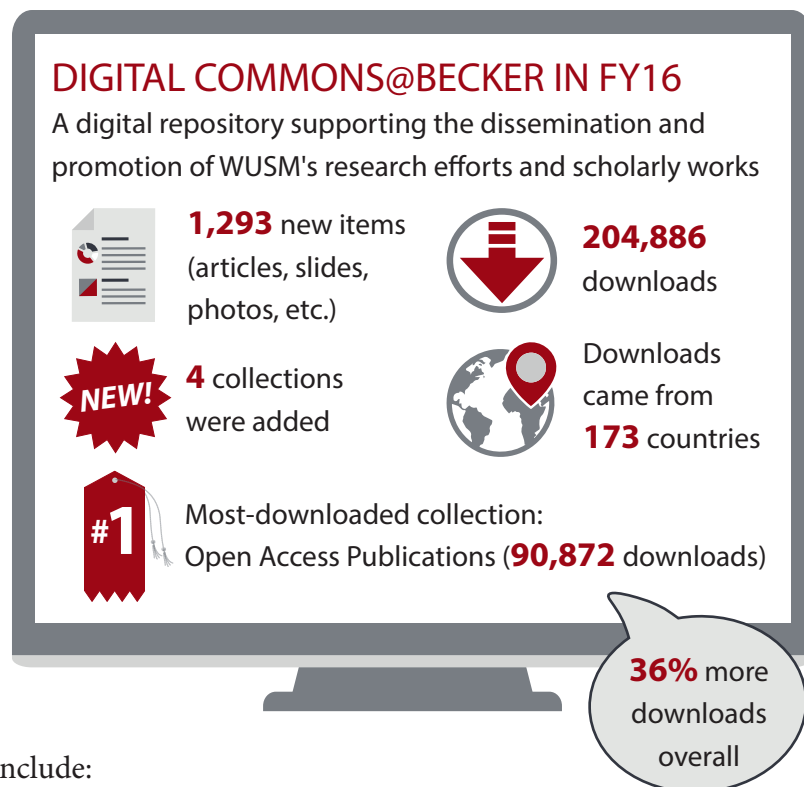
The graphic to the right lists the Research Pod's scientific and statistical software programs by total program accesses last year.

PROGRAM ACCESSES

SPSS	343
SAS	144
Prism	130
Partek GS	51
MATLAB	29
JMP/JMP Pro	18
Mathematica	16
PyMOL	7

Extending Access to Research Discoveries

Since 2010, Becker Library has supported the dissemination and promotion of WUSM's research efforts and scholarly works through its digital repository, Digital Commons@Becker.

The repository now contains over 9,500 items. Collections with the most downloads since 2010 include Program in Audiology and Communication Science Capstone Projects (291,000), Washington University Open Access Publications (250,000), and the faculty publications of the Institute of Clinical and Translational Sciences (175,000).

DIGITAL COMMONS@BECKER IN FY16

A digital repository supporting the dissemination and promotion of WUSM's research efforts and scholarly works

1,293 new items (articles, slides, photos, etc.)

204,886 downloads

NEW! **4** collections were added

Downloads came from **173** countries

#1 Most-downloaded collection: Open Access Publications (**90,872** downloads)

36% more downloads overall

New collections added in the past year include:

- *Environmental Enteric Dysfunction: Advancing Current Knowledge* (an electronic book made available as an open-access resource, supported by funding from the Bill and Melinda Gates Foundation)
- Division of Public Health Sciences (multimedia collection)
- Genomics in Medicine Lecture Series 2015–2016 (recorded talks with PowerPoint slides)
- Becker Library Archival Collections (General Hospital 21 Records, "The Fighting 21st")

BEYOND THE JOURNAL ARTICLE

Becker staff developed the new Beyond the Journal Article presentation to offer guidance to faculty, staff and students on communicating their research using formats and platforms outside of the traditional journal article. Elevator speeches and simple social media messages feature prominently in the presentation.

NIH PUBLIC ACCESS POLICY

← *Catalyzing research by demystifying NIH funding compliance*

The library and the Office of the Vice Chancellor for Research continue to work together to promote compliance with the NIH Public Access Policy. Answering questions and providing support regarding the policy continues to be an active area of the library's support service.

Approximately 70 researchers and staff attended presentations on this topic through brown bags, department meetings and administrator forums. Trainings have been adapted to include material covering the revised NIH Biosketch and NCBI tools such as My Bibliography and SciENcv.

OPEN RESEARCHER AND CONTRIBUTOR ID

Becker Library and Olin Library continued to work together to promote institutional awareness and adoption of Open Researcher and Contributor ID (ORCID). Established in 2010 as a non-profit effort to maintain a registry of unique and persistent identifiers for researchers and authors, the ORCID initiative aims to address the ongoing challenge of author name disambiguation. Washington University purchased an institutional membership to ORCID last year, and libraries on both campuses are now working together to encourage faculty and students to register for ORCID IDs, and developing programs and resources to promote greater awareness and adoption.

Creating Interdisciplinary Growth Opportunities

RESEARCH ANALYSIS PLATFORM—GALAXY

Becker Library continues to work with the Center for High-Performance Computing (CHPC) to maintain and enhance a local installation of Galaxy, a web-based bioinformatics analysis tool that allows biologists without a programming background to perform data-intensive analyses.

Last year, Becker support scientists worked with CHPC staff to install a new Galaxy instance on a new computing cluster. Already, 17 researchers have generated Galaxy accounts and are using the resource.

RESEARCH ANALYSIS TOOL—KYOTO ENCYCLOPEDIA OF GENES & GENOMES (KEGG)

For a second year, Becker Library partnered with the Center for Genome Sciences & Systems Biology and the McDonnell Genome Institute to host and manage a local mirror of the popular KEGG resource for understanding high-level functions and utilities of the biological system. Researchers on both campuses accessed the KEGG database 325 times last year.

Catalyzing research through partnerships that increase efficiency

INTRODUCTION TO RESEARCH COMPUTING WORKSHOP

Last year, librarians completed planning for an October 2016 workshop series jointly taught by library support scientists and CHPC staff. It serves as an introduction to research computing and the related resources available on campus. Topics include basic instruction in core components such as Linux, R and cluster computing to reduce the barriers that biologists and other basic scientists face when embarking on research computing.

GENOMICS IN THE ERA OF PERSONALIZED MEDICINE

For a fourth year, the library co-hosted a weekly lecture series with the Departments of Medicine, Genetics, Pediatrics, and Pathology & Immunology.

The purpose is to give clinicians, fellows and postdoctoral scholars a practical background in molecular biology, an introduction to genomic research and applications of genomic technologies as they relate to the clinical environment.

There were approximately 1,100 attendees at the 26 Genomics in Medicine lectures given by WUSM faculty experts during the fall and spring of FY16.

Attendees came from every WUSM department, demonstrating the tremendous interdisciplinary value of the lectures.
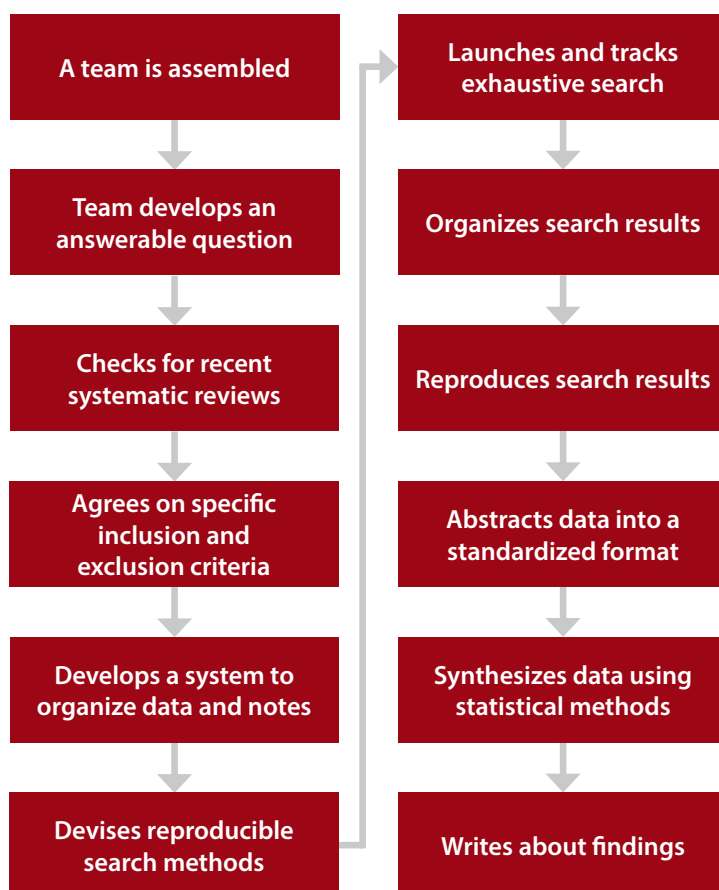
Contributing Significantly to Research Teams

The number of systematic reviews increased by 31% from last fiscal year with a total of 64 completed. Becker librarians adhere to the highest national standards for methodology and were listed as co-authors on at least 10 published systematic reviews because of their significant contributions.

Literature searches also continued to grow with a total of 404 completed for an increase of 69%.

SYSTEMATIC REVIEWS

Each review analyzes a variety of research studies or papers to determine if a question has already been sufficiently answered, requiring an average of 18 months of work.

A team is assembled

↓

Team develops an answerable question

↓

Checks for recent systematic reviews

↓

Agrees on specific inclusion and exclusion criteria

↓

Develops a system to organize data and notes

↓

Devises reproducible search methods

Launches and tracks exhaustive search

↓

Organizes search results

↓

Reproduces search results

↓

Abstracts data into a standardized format

↓

Synthesizes data using statistical methods

↓

Writes about findings

Strengthening Patient Care

We bring expertise and thoughtfully curated resources to clinicians at the point of care.

Delivering Evidence-Based Information Where and When It's Needed

Clinical librarians have expanded their participation in teaching rounds at Barnes-Jewish Hospital from one to three rounding teams and also continue rounding at St. Louis Children's Hospital, adding a valued academic dimension. Rounding librarians save clinicians time by connecting them to resources at the point of care and have advocated for the increased availability of digital resources that can be accessed as needed in real time.

Becker Library added two mobile medical apps to its clinical collection last year—The Washington Manual of Medical Therapeutics and The Johns Hopkins ABX Guide—which librarians demonstrate how to utilize during rounding. The apps have become widely used for patient care, reaching 3,224 combined downloads for the year.

LIBRARIANS AT THE POINT OF CARE

Barnes-Jewish Hospital

- **2** clinical librarians attending rounds
- **20** rounds attended
- **45** hours spent on medical units

St. Louis Children's Hospital

- **1** clinical librarian attending rounds
- **38** rounds attended
- **75** hours spent on pediatric and newborn units

Improving Access to Clinical Resources Across the Health System

Librarians were integral members of the team that worked to determine which point-of-care tool would be integrated into the EPIC electronic medical records system. Librarians also negotiated new enterprise licensing for UpToDate and provided critical insight and guidance to the Library Resource Supply Chain Committee with the goal of economizing university and hospital resources.

Teaching Caregivers to Communicate Clearly

Catalyzing compassion ←

BUILDING A BETTER CONSENT FORM

For the second year, the library partnered with the Human Research Protection Office (HRPO) to conduct a workshop series that helps researchers improve and enhance their consent forms for clearer language and readability. HRPO staff and the library's Health Literacy and Community Outreach Coordinator conducted four workshops, which covered topic-specific key issues and walked participants through effective examples of consent forms for guidance. There was a total of 97 attendees at the workshops, which included research study coordinators, staff and faculty.

HEALTH LITERACY AND PLAIN LANGUAGE REVIEW SERVICE

According to the US Department of Health and Human Services, more than a third of all adults have basic or below-basic ability to comprehend simple information about their health care. Becker Library's Health Literacy and Plain Language Review service assists with the vital but often-overlooked task of revising and tailoring written materials to meet the average adult's health literacy needs.

Through one-on-one consultations, individuals from 15 labs and departments utilized the service and received assistance with a wide variety of materials including informed consent documents, interview scripts for research studies, teach-back basics, patient handouts, research recruitment flyers, forms for providing patients with screening results, a patient handbook for use by students in training, and HIPAA and conflict-of-interest forms.

IMPROVING PHYSICIANS' UNDERSTANDING OF GENETIC TEST RESULTS

Becker Library partnered with the Department of Pathology on an innovative training session in which support scientists from Becker Library lead Pathology residents and fellows in learning to interpret and sign out clinical next-generation sequencing tests.

The objective of the workshop is to introduce tools for next-generation sequencing data analysis through a hands-on exercise using the Galaxy web-based data analysis platform. This provides a unique opportunity for a behind-the-scenes glimpse at what goes into producing a patient's test results, thus improving understanding of and giving context for those results in a patient care setting. Workshops are conducted multiple times throughout the year as part of the Laboratory and Genomic Medicine curriculum.

Enriching Teaching

We train students to become thorough and agile researchers in order to become better caregivers.

Helping Students Become Better Researchers

Becker librarians partnered with faculty to critically evaluate students' abilities to articulate and structure questions and to use the best information resources.

As a part of the Practice of Medicine course, librarians conducted several small-group training sessions for public health debates issues and designed and conducted a two-hour evidence-based medicine overview for all first-year medical students. This class provided the foundation for later Scientific Methods sessions.

In collaboration with faculty, and to fulfill an LCME element, Becker librarians created a learning management system (LMS) assignment rubric to assess information-seeking skills and provide feedback for a Practice of Medicine II course case-development assignment.

Becker Library provided curriculum support with two in-class sessions for the following Physical Therapy and Occupational Therapy courses: Tool Box to Support Practice, Diagnosis and Evidence Analysis I, and Diagnosis and Evidence Analysis II. The instruction included database searching techniques and an introduction to EndNote.

Becker Library provided a session within the Systematic Reviews and Meta-Analysis in Public Health and Clinical Medicine course instructing students how to define a research question and search the literature for conducting a systematic review.

Catalyzing learning through smarter searching

Developing New Inter-Disciplinary Learning Opportunities

As an information hub, Becker Library is uniquely poised to facilitate partnerships among various campus entities. Last year, the library collaborated broadly to offer the Genomics in Medicine lecture series, genetic analysis software training, and to plan an Introduction to Research Computing lecture series and a symposium on Communicating Science (both offered early in fiscal year 2017).

Teaching Students to Communicate Better With Patients

Librarians presented an introduction and overview of health literacy to first-year medical students as part of the Practice of Medicine course. The lecture and in-class exercises will continue to be a component of the Practice of Medicine curriculum.

Becker Library launched an introductory training session on health literacy and communication principles for student coordinators and volunteers at the Saturday Neighborhood Health Clinic. Approximately 36 student volunteers and coordinators attended the training, which was offered several times during the academic year as volunteers rotated through the clinic.

Librarians also assisted the Saturday Neighborhood Health Clinic and the St. Louis Health Exchange student groups with developing surveys and intake materials.
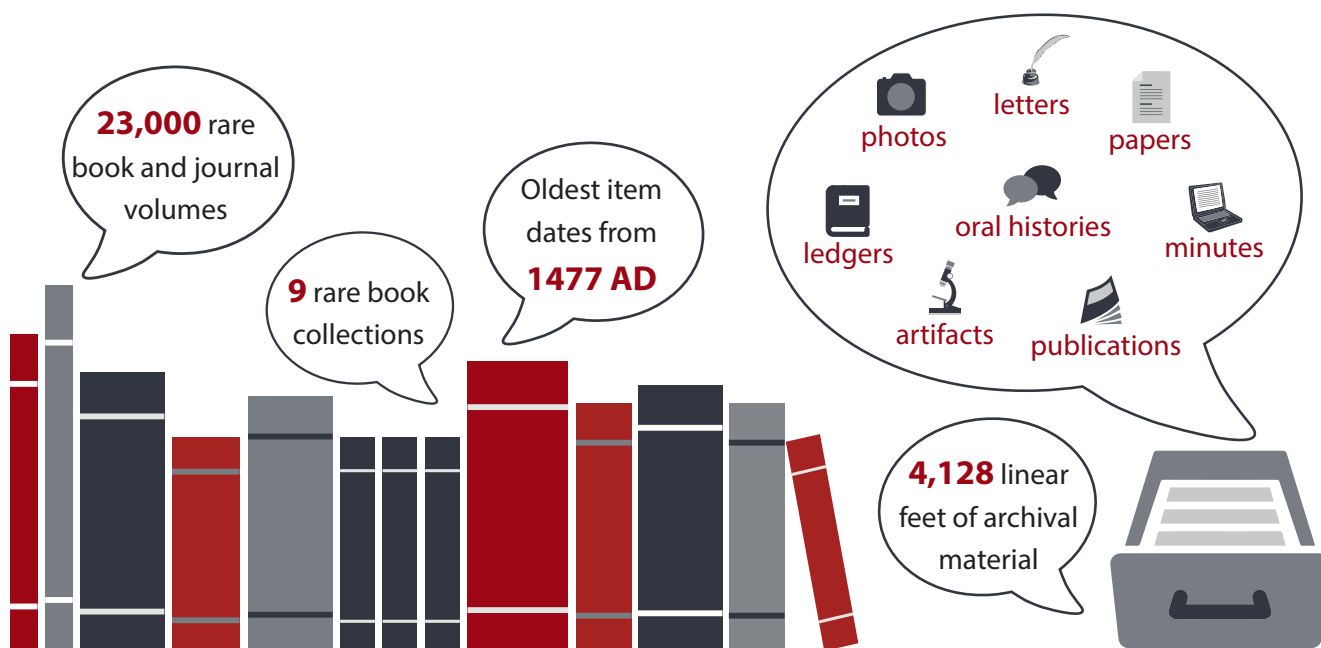
Preserving the History of Medicine

We conserve and retain a renowned collection of rare books and archival material for posterity.

Serving Scholars of History

Becker Library's Archives and Rare Books section houses one of the nation's finest collections of historical materials and serves as a continuing resource to visiting scholars and the general public. Since 1912, Becker has maintained a collection of rare medical texts devoted to scholarship and teaching. The collection's strengths include ophthalmology, neurology, anatomy, ENT, dentistry, obstetrics and gynecology. Archival and rare book items are regularly exhibited in the Glaser Gallery and on request.

Retaining the History of the Medical Center

The archival collections document the history and development of WUSM and its affiliated hospitals and research institutions. The collections include administrative records of the school's departments, programs and affiliated institutions, as well as faculty papers, photographs, artifacts and oral histories.

23,000 rare book and journal volumes

9 rare book collections

Oldest item dates from **1477 AD**

photos   letters   papers

ledgers   oral histories   minutes

artifacts   publications

4,128 linear feet of archival material

BERNARD BECKER MEDICAL LIBRARY

Books, journals and databases

Assistance searching the literature

Clinical support

Systematic reviews

Science support

Publishing and evaluation services

Health literacy and communication services

Special collections

becker.wustl.edu