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## Annual Report 2023

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*Front Cover*: Support Analyst Otuo Acheampong views a 3D model of a brain using a virtual reality (VR) headset. ITS has been experimenting with VR technology to support the Anatomy curriculum at WCM. **Pages 22-23**: First-year medical students at the White Coat Ceremony. Photo by Studio Brooke.



# Message from our CIO

As my first year as your CIO ends, I'm delighted to share with you a few observations about IT at Weill Cornell and our future trajectory. I am proud of the work done by ITS staff in partnership with the WCM community. This has been a year of recovery, transition, and renewal for us. Our report highlights our pursuit of a culture dedicated to serving our institution's missions and achieving consistent progress.

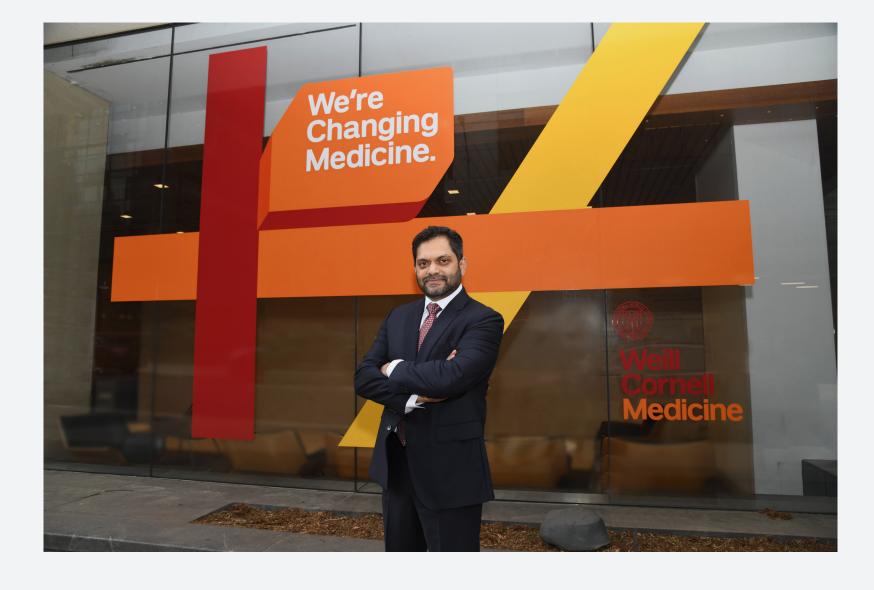
Technology needs to be resilient and adaptable as must the people who support and advance it. No 2023 annual report would be complete without mentioning AI and its profound influence on daily life. I believe that academic medical centers like ours are uniquely impacted by AI's potential to transform research, patient care, and education. While the full potential remains unrealized, our goal next year is to build on our already mature core services to provide our faculty, physicians, staff, and students with innovative tools and toolkits to harness AI in their endeavors. We are excited to do this work in close partnership with our Ithaca campus colleagues. I am astonished by the work our faculty has already done to build innovative AIbased experimental models and algorithms for teaching and for research. We aim to further support their work further by connecting them to vendors eager to advance AI's art and science.

Our shared clinical service with NYP continues to grow as our clinical mission expands. We have focused on simplifying the daily tasks of our clinical staff by enhancing our core clinical systems and services. Aligning with the Dean's vision of us being leaders in data science, we have also strengthened our infrastructure and services for clinical research preparing us for Al's coming innovations.

More than ever, the work of IT is forged through a network of partnerships and collaborations. Our relationships with Cornell University (including the Ithaca and Tech campuses), Qatar, and NewYork-Presbyterian Hospital are foundational to our growth in upcoming years. ITS is your trusted broker and advisor to facilitate these dialogs with our partners and with our vendors to realize our strategic initiatives.

I sense excitement and apprehension in my conversations with faculty and senior leaders. We aspire to do so much yet confront the reality of limited resources. We want to be part of the solution, sustaining that enthusiasm while tackling the concerns by exploring economies of scale across the campuses and negotiating assertively with our vendors. I remain optimistic that we can find innovative solutions to these challenges with your guidance.

We are prepared to navigate this dynamic shift in our missions and support the Dean and the President's visions for the years to come.



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# ITS **Senior Leadership**



Curtis L. Cole, MD VP & CHIEF GLOBAL INFORMATION OFFICER



Vipin Kamath CHIEF INFORMATION OFFICER



Daniel Splitgerber DEPARTMENT ADMINISTRATOR



Thomas Campion, PhD CHIEF RESEARCH INFORMATICS OFFICER



Paula Herber DIRECTOR, SERVICE OPERATIONS



Harish Babu Chava DIRECTOR, ADMINISTRATIVE COMPUTING



Maria Joseph CHIEF PRIVACY & CLINICAL COMPLIANCE OFFICER



Doug Cohen DIRECTOR, EDUCATION COMPUTING



Alex Izaguirre CHIEF DATA OFFICER



Badar Khan

CHIEF INFORMATION OFFICER, QATAR



Tru Tran DIRECTOR, RI KNOWLEDGE ENGINEERING



Mark Weiner, MD DEPUTY CIO, HEALTH SYSTEM & RESEARCH ANALYTICS



Mary



COMPLIANCE OPERATIONS



**Tschinkel** CHIEF INFORMATION SECURITY OFFICER



Christy O'Connor DIRECTOR, PRIVACY



Vinay Varughese SR.TECHNOLOGY OFFICER



Terrie Wheeler DIRECTOR, LIBRARY

# FY24 Goals

## Research

- Ease administration process for researchers in WBG: reimplement the Human Subjects module, update eForms, launch Post Award Management module, optimize Sponsored Programs, and automate new Effort Tracking system.
- Launch new Data Coordinating Center IT cloud service to support large grants (e.g., RECOVER).
- Complete ARCH Amazon Web Services (AWS) data warehouse migration to alleviate speed and capacity bottlenecks.
- Expand Brooklyn, Queens, and Meyer Cancer Center support with Epic data integration, EMERSE free text note search implementation, and Natural Language Processing (NLP).
- Support Cornell and NIH data management/ sharing policies with WCM Institutional Data Repository for Research (WIDRR) and Library consultations.
- Expand guidance and consults for PRMC/IRB protocols, mobile app/website lifecycle, and deidentification and sensitive data handling.
- Expand and modernize scientific computing storage to assist researchers with their highperformance computing projects.
- Support user development and reduce compliance risks with tools like git or Jira.
- Support compliant Digital Health Intervention (DHI) development for research studies, like mobile and wearable apps (e.g., Maya CBT).

## Education

- Replace older iMacs in the Education Center to meet security standards and help students continue interactive and problem-based learning.
- Expand access to PowerFAIDS within Student Financial Services so more staff can support financial aid and debt-free tuition initiative.
- Introduce NetPartner portal to streamline the financial aid packaging process.
- Migrate Helpfiles to cloud services to improve training experience for WBG.
- Expand and improve training guides in myHelpdesk to provide users with necessary and relevant support.
- Improve operational efficiencies within Jenzabar and implement various modules to improve student experience.
- Redesign Graduate School website.

## Clinical

- Improve consistent patient experience across WCM, NYP, and Columbia's digital properties (i.e., provider profiles, Find-a-Doctor, online scheduling, patient portal, and virtual care).
- Improve physician content on weillcornell.org: practice locations, conditions, specialties, etc.
- Offer more HealthStream compliance training so faculty can better navigate WCM's regulations and ethical responsibilities.
- Expand Hyro chatbot for operational efficiencies.

## Library & Scholarship

- Implement new collection management system on the Medical Center Archives website.
- Launch Institute of Museum and Library Services grant to encourage high school students to pursue careers in library science.
- Implement OverDrive platform through Cornell Ithaca's license to offer popular fiction and nonfiction ebooks and audiobooks.
- Improve accuracy of ReCiter by maintaining ORCID IDs for researchers and sharing ReCiter data with departmental and lab websites.

## **Administration**

- Ensure security and compliance of our cloud services in AWS, GCP, and Azure through better monitoring and scanning.
- Create and enhance BI reports for WBG, WRG, and other departments to help leaders make informed decisions about staffing, budgets, etc.
- Launch Ariba Spend Analytics.
- Qatar Process Review for HR and Finance including training and security/role analysis.
- Launch Employee Central Benefits.
- Add additional states for payroll/taxation for remote workforce-related policy changes.
- Explore and implement new departmental use cases for ServiceNow to automate processes.
- Add new features to Academic Staff
  Management System: CV generation, Offer
  Letter Creation, and Faculty Activity Reporting.
- Modernize Identity Management (IDM) architecture to meet current integration needs with other enterprise systems across WCM/NYP.
- Support Onasys, the EHS shipping database.

## **Enabling Technologies**

- Transition WCM websites to newer version of Drupal content management system to provide updated features and better site infrastructure.
- Audit data on WCM sites to clean up info and provide more accurate information for call center.
- Transition intranet sites from Nexus (an end-oflife service) to Microsoft SharePoint for better user experience.
- Upgrade Zoom Rooms and audiovisual equipment to improve in-person, virtual, and hybrid meetings.
- Improve virtual server hardware infrastructure, the backbone of our on-premise IT services, to ensure faster and more reliable access to all the digital tools and resources relied on daily.
- Develop a new billing/reporting system for our hosted cloud services to provide detailed breakdown of spending and projected costs, and better manage decisions about IT cloud investments.
- Launch Microsoft Azure Cloud Platform to enhance our community's access to a wide range of popular Microsoft services, including Azure OpenAI and Machine Learning.
- Reduce costs by maximizing existing license entitlements, such as Microsoft SQL and Windows Server, which can often come with additional expenses on other cloud platforms.

# Clinical Initiatives



## **Data & Analytics collaboration with Physician** Organization

- PO Executive Dashboard: Gives Physician Organization leadership a centralized view of monthly trends for various clinical and financial metrics such as practice efficiency, patient demographics, encounters, and revenue. The new iteration will include new SQL views, adjusted views, and new metrics.
- **Composite Index Dashboard:** Allows Chairs and CAOs to monitor scored metrics and evaluate their performance.
- Copay Collection Optimization Dashboard: Helps • departments analyze data behind Copay Collection Ratios and look for opportunities for improvements.
- **Pediatrics Clinical Productivity Dashboard: Lets** . faculty and divisional leadership track clinical activity and incentive compensation.
- Average Appointment Availability Dashboard: Offers • a visualization of a provider's scheduling template in Epic, which improves patient access and scheduling, and helps identify marketing opportunities.



# New and improved virtual server for Otolaryngology

The Department of Otolaryngology had been running its practice for years on an old, unsupported physical server.

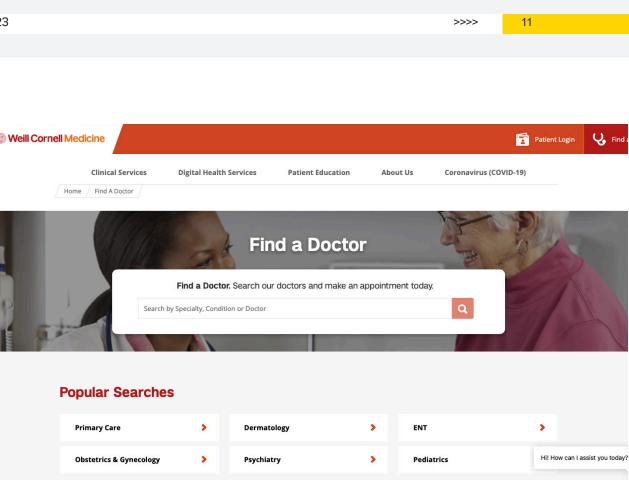
The server had a major hardware failure, and the department couldn't access the 18TB of data they had stored. They also couldn't perform endoscopies, a key component of their clinical care. Time was of the essence in getting a fix in place.

Our infrastructure team devised a plan to build a virtual server.

In about a day, the new solution was ready. When we checked in with the department, they reported that not only were they operational, but running better than ever.

This new design provides a redundant and highly available environment, which reduces the risk of downtime while providing increased stability, robust backup, and much faster recovery.





Primary Care	,
Obstetrics & Gynecology	,

# Improvements to Find a Doctor

We released a major new iteration of the Find a Doctor online scheduling tool on weillcornell.org, which sees nearly 4 million visitors per year.

This release improves online scheduling by using Epic's "decision tree" feature. Clinical practices can now ask additional questions when patients are scheduling appointments.

Employing a combination of technologies, redundant systems, and proactive measures, ITS enhanced the WCM campus infrastructure to improve networking resiliency. This is particularly beneficial to clinical spaces in the NYC metro area.

This helps direct patients to the appropriate specialist and the right type of visit, saving time and energy for call center and scheduling staff. In addition, the Find a Doctor search results and doctor profiles are now more closely in line with NYP.

Patients will have a more consistent experience whether they are searching for doctors on WCM or NYP's websites.

# Innovative Research Support

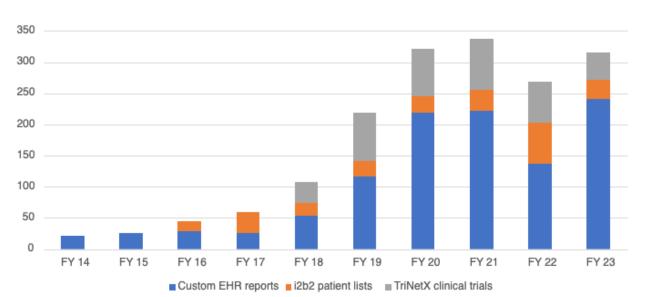
ITS has spent the year continuing to support researchers with new technologies and upgrades to current systems to streamline research processes so WCM staff can focus on the science.

## **Research Studies**

This year, we delivered 315 "data packages" to WCM investigators to support retrospective observational studies and prospective clinical trials, including requests from potential pharmaceutical sponsors. In the past decade, ITS has increased the number of EHR data deliveries for research per year by more than 14-fold. With support from the NIHfunded Clinical and Translational Science Center (CTSC), ITS and the Physicians' Organization initially provided custom reports beginning in FY14. Since

then, we have increased the availability and sources for patient data by launching the Architecture for Research Computing in Health (ARCH) program and i2b2 self-service search tool, and connected with pharmaceutical sponsors via TriNetX. ARCH use increased over time, but surged in FY20 and FY21 in response to COVID-19 (see graph below). Not pictured are quarterly and monthly data packages delivered for thousands-to-millions of patients to multi-institutional efforts like INSIGHT, RECOVER, N3C, and the NIH All of Us Research Program.

## A Decade of Delivering Data to Researchers



# Understanding mothers & babies

ITS is currently assisting the Departments of Pediatrics and Obstetrics & Gynecology to build one of the world's largest repositories for studying mothers and babies as a linked pair, or dyad. The repository will include 30,000 births with data integrated from multiple systems – ultrasound machines, electronic health records, and laboratories. Researchers will be able to extract millions of variables to ask questions about which patients with high-risk pregnancies are most likely to hemorrhage during delivery, analyze different types of gestational diabetes, and predict postpartum depression in vulnerable populations.

More details on this study are available in *Impact* magazine at **impact.weill.cornell.edu/summer-2023**.



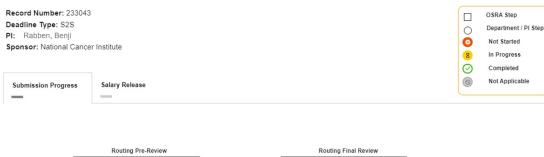
## **Weill Research Gateway**

More enhancements were implemented in the Weill Research Gateway (WRG), our online portal that helps faculty and staff navigate various facets of research administration. The new grants submission widget in the Sponsored Programs module provides researchers and their teams with transparent, real-time updates of their submissions (see image below). The widget both empowers and educates users on the progress of their work and gives time back to staff in the Office of Sponsored Research Administration (OSRA), who often had to

answer simple but time-consuming inquiries. A similar widget was also created to help manage contracts.

Abbreviated forms were also added to the Human Subjects module, which streamlined protocol submission to the Institutional Review Board (IRB). By employing specific language and clearer formatting, the changes help research teams more easily provide relevant information about their studies and prevent unnecessary misunderstanding as part of the review process.

"The creation of the widget has completely transformed the way OSRA Contracts operationalizes and reviews contracts. OSRA processed its highest volume of contracts this year and I directly attribute this to the widget." - Jazmin Kirby, Assoc. Dir. of Contracts





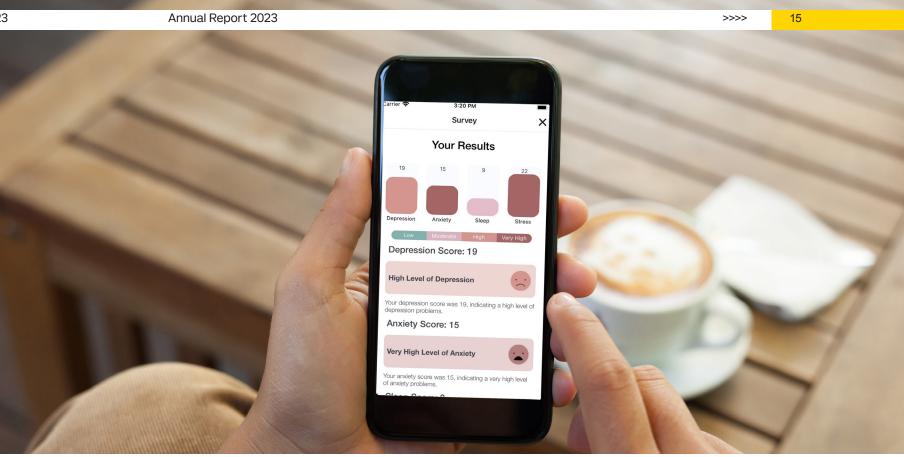
The Grants widget provides simple visuals that help users track their grant process.

## **Departmental Support**

ITS is currently working with the Meyer Cancer Center to identify and implement strategies that meet the requirements to successfully apply for National Cancer Institute accreditation, a prestigious distinction that would elevate the institution in the field of research. To assist, we've provided business analysis and continue to implement workflow processes and reporting solutions to meet these requirements, discovering discrepant data, inefficient

processes, and undefined policies. We have developed and documented best practices for using research administrative-supported systems to meet this long-term objective.

We also worked with departments to develop the Quarterly Entity Interest report in the BI Gateway to show faculty disclosures from the past 12 months, helping them better understand the scope of their faculty's external activities.



The RISE app (pictured above) is an example of making research studies accessible to more subjects using custom mobile apps. This year, we worked with the Department of Psychiatry to develop this wellness app designed to encourage users to document and track their mental health symptoms over time. This allowed users to have a better understanding of their own mental health.

## Expanding patient outreach with digital tools

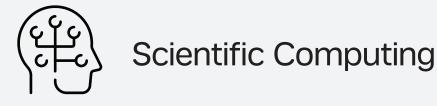
Digital health interventions-mobile phone apps, wearable devices, and websites-have potential to improve clinical care and patient experience, but studying them is challenging due to privacy, security, connectivity, and consent, along with a risk of spreading misinformation. To improve support for researchers, ITS launched digital health intervention reviews in coordination with the Institutional Review Board (IRB) and Office of General Counsel to address the complex lifecycle of studying emerging patient technologies. We've conducted 31 reviews in less than 12 months.

Our Privacy Office has also collaborated closely with the Office of General Counsel (OGC), Research Administration, and all clinical departments to provide guidance on uses of mobile applications, websites, and wearable devices in patient care and research. The guidance encompasses updates to patient authorization forms, informed consent forms (ICFs), research study protocols, system and app controls, as well as business associate agreements.

Visit your smart device's app store and search for "Weill Cornell Medicine" to find other supported mobile apps, like Maya for managing anxiety, and the PedScripts tool for medical students.

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ITS oversees a wide range of analytical and data activities, serving multiple cores, departments, and over a hundred laboratories and students. Here are some accomplishments from FY2023:

## **New Al Cluster**

## **>>**

In collaboration with Dr. Mert Sabuncu in Radiology, ITS built out the framework of a new high-performance computing (HPC) cluster dedicated to image training using Al tools. The new cluster consists of high memory nodes, A100 class GPU servers, a multiprotocol 200GB/s InfiniBand cluster network and storage to specifically serve Al workloads. The cluster will support large language models (LLMs) for multiple disciplines.

## **New Caguya Cluster**

## **>>**

Cayuga is the result of a collaboration with Cornell's Center for Advanced Computing. This cluster offers A100 and A40 GPUs, high memory nodes and 200GB/s HPC cluster network. The system is coupled with a hybrid (flash/HDD) DDN Lustre storage, scalable to 10PB. The high public bandwidth makes it especially suitable for large data transport for outside collaborations.

**Burke Neurological Institute Support** 

## **>>**

ITS is working with Dr. James Marshel to provide a localized cluster, storage, and high-speed network configuration and management for data ingested from an Ultima 2Pplus multiphoton microscope.

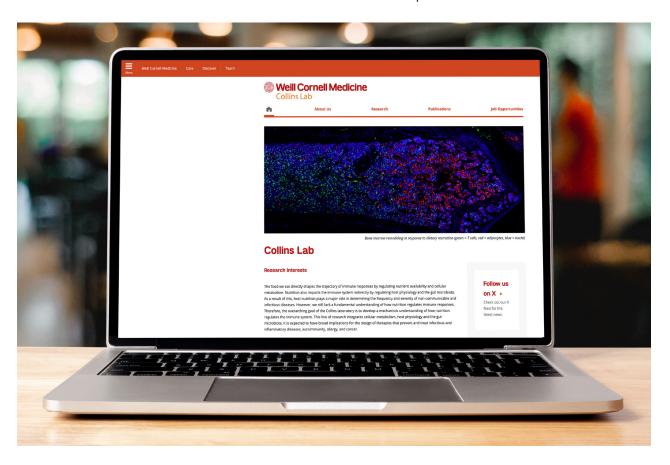
**New Cancer Center Onboarding** 

## **>>**

ITS undertook the data migration process from Sloan Kettering. We now support emerging analytical needs with HPC cluster accounts, cluster partitions, and high-memory GPU intensive visualization node.

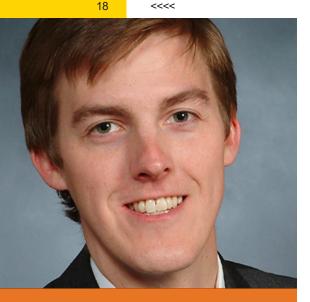


**Data Core** The WCM Data Core currently hosts 24 research With new requirements from the Center for Medicare studies using CMS data, with additional studies and Medicaid Services (CMS) requiring extensive awaiting to be approved. The service also includes security and privacy controls to host Medicare and HIPAA-compliant cloud hosting, helping researchers Medicaid data sets, the Library enhanced its WCM analyze any restricted datasets in a secure Data Core service. Researchers can now use both environment, and enabling the flexibility to scale cloud and on-premises computing environments to computational resources on-demand. As a result, comply, allowing population health researchers to computational costs can be reduced as resources analyze massive CMS data sets to find medical best are only charged when used. At present, three practices and improve patient care. research projects have been migrated to the cloud, with more expected as this service matures.



## Supporting labs online

Several WCM labs and research programs received a polished web presence with new websites. We launched seven lab sites (including the Collins Lab site shown above) and the Blood Cancer Research Initiative Developing Greater Engagement (BRIDGE) Program site. As we look to the future we seek to evaluate and improve the web development experience for labs to accommodate for greater self-service, visually aesthetic web templates, and site analytics.



AAMC GIR **Excellence** Award

In recognition for contributions to Enterprise Data Warehouse for Research (EDW4R) practice and theory, Dr. Tom Campion, Director of Research Informatics, received the Association of American Medical Colleges (AAMC) Group on Information Resources (GIR) Excellence Award.

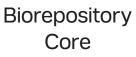
Together with Boyd Knosp from the University of Iowa, Dr. Campion has helped define best practices for EDW4R operations across the NIH's Clinical and Translational Science Awards consortium, the 60 largest academic medical centers that are the backbone of the biomedical research enterprise. Many of the EDW4R best practices reflect WCM ARCH activities. (JAMIA) focused on EDW4R.

# Improving REDCap Service

Our data collection survey tool, REDCap, was migrated to Amazon Web Services (AWS) hosting. This greatly improved the service, with additional features and a better user experience. REDCap is now more resilient, with better storage and recovery options.

Visit redcap.ctsc.weill.cornell.edu to learn more about using REDCap for research studies.

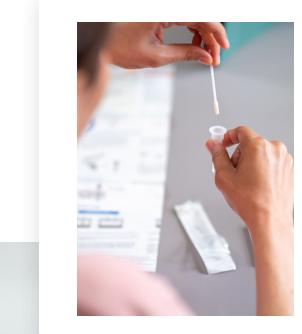
# OpenSpecimen **Studies**





Supported the Institutional Biorepository Core with OpenSpecimen software to launch 5 new studies, increasing the total number of studies in OpenSpecimen to 30.

Enabled the Institutional **Biorepository Core** to accession 19,043 and distribute 4,427 biospecimens, a 23% utilization rate more than double the previous year.



ITS contributed to pilot grants awarded for international collaborations using electronic health record data for research. One project with King's College London compares US and UK approaches to defining COVID exposure to prepare for future pandemics sweeping from Europe to North America. Another project with National University of Singapore leverages an artificial intelligence algorithm for emergency room triage.

# 5

# 1,500+

Number of HPC clusters that provide resources for processing of MRI, PET, general AI, and big data.

# 100 +

Number of **publications** in FY2023 from principal investigators using our Scientific Computing resources.

Number of software packages supported via HPC clusters, including latest AI packages for large-scale batch analysis.

# 1,200+

Number of patient samples processed for various cancer types using Clinical Genomic **HPC** resources

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# Supporting award-winning research



# 6.3PB

Number of petabytes of data served to HPC clusters for active, daily analysis by research community.

# 1,500+

Number of active projects hosted in our Gitlab scientific code repository.

# Supporting Education

ITS implemented several new solutions this year to improve processes for Student Services and the Graduate School, and to promote inclusivity for the entire WCM community.

# Enhancing student support services

# **National Student Clearinghouse (NSC)** initiative

Goal: Address the federal requirement to report the enrollment status of students who receive federal loans.

**Solution:** ITS implemented an automated system that improves the degree verifications process, reduces the risk that WCM will violate requirements, and ensures students continue to qualify for student loans.

# **Global Health Learning Opportunities (GHLO)** initiative

Goal: Ensure visiting students have a great experience regardless of domestic or international status, and increase opportunities for students at peer institutions.

**Solution:** ITS implemented an automated system that allows access to visiting student information in the event of an emergency.



ITS helped the Graduate School launch Slate this year - the same admissions tool used by Cornell University. WCGS used Slate for PhD admissions as well as for admissions to two Masters programs, with additional programs scheduled to adopt the tool next year.

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In a feat of technical maneuvering, we were able to integrate federated login in the implementation, which allows for login from multiple institutions. The Graduate School will also use Slate to build a system for tracking non-course academic requirements and milestones, which will make it easier for students and leadership to access academic records whenever they need them.

# New admissions system for **Graduate School Programs**

# Promoting inclusivity and belonging

# **Hearing Happiness**

As part of WCM's Diversity Week, the Medical Center Archives and Library coordinated a Heberden Society lecture open to the public, as well as a book club open to the WCM-NYP, Memorial-Sloan Kettering, and Rockefeller University community.

The topic of the lecture and book club was the award-winning **Hearing Happiness**: Deafness Cultures in History by Dr. Jaipreet Virdi. The 95 people who attended enjoyed the opportunity to learn about and discuss deafness and accessibility in American society

This year, ITS staff added **2,833 articles** to our Knowledge Base in ServiceNow, which received **102,121 views**.

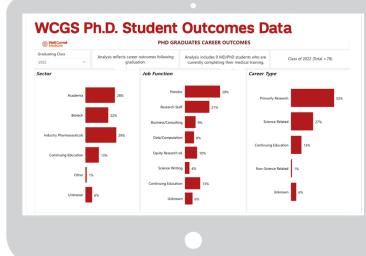
All WCM users get free access to self-paced content on LinkedIn Learning and Skillsoft Percipio. This year, they watched a total of 62,157 videos and 12,854 courses.



# Exploring the world of Extended Reality (XR)

The term "Extended Reality" can encompass Augmented Reality (AR) and Virtual Reality (VR) tools, all of which are new frontiers without a formal ITS support model. We embarked on a project to study and explore XR use across WCM. Together with Cornell University and WCM-Qatar, we'll continue to develop support for these technologies across the enterprise.





The Data and Analytics team collaborated with the Graduate School Analytics & Institutional Reporting office to build a visualization that shows career outcomes for the most recent graduating class and alumni. This data helps evaluate the effectiveness of our programs and helps identify areas for improvement. The interactive visualization is available at gradschool.weill.cornell.edu.

# Presenting WCM's approach to strategic planning

Educational Technology Group leaders Doug Cohen and Cynthia Morel joined leadership from Medical Education, and Sr. Associate Dean of Education, Yoon Kang, for the AAMC GBA/GIP 2023 Joint Spring Meeting. The conference brought together professionals from academic health centers and teaching hospitals. WCM delegates presented our approach to meeting the CQI requirement in Liaison Committee on Medical Education (LCME) accreditation and how it can be used for strategic planning. We added 8 new videos to our **TipUp** series. Our TipUp videos received **21,849 views** this year.

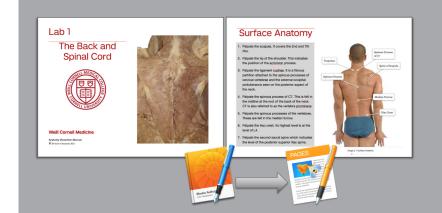
We hosted **27 Tech Tuesday sessions** that introduced **2,282 users** to popular tech tools and software.

Training metrics

We trained **5,375 users** in the **Weill Business Gateway** and **Weill Research Gateway**.



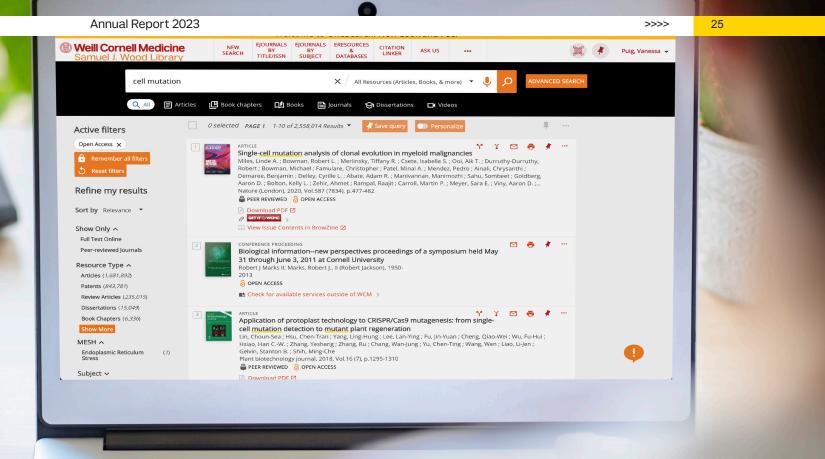
We held **165 Coaching Labs** for **1,364 participants**, covering the BI Gateway, eTime, Change of Funding, and Employee Central.



The Division of Anatomy wanted to enhance their existing anatomy dissection manuals, but iBooks Author is going defunct. ITS created a template to migrate the manuals to Apple's Pages, which lets staff create new guides that leverage iPad features. Library &

**Scholarship** 

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In January 2023, the National Institutes of Health (NIH) issued a new Data Management and Sharing (DMS) policy to promote the sharing of scientific data and enable validation of research results. Our Library staff prepared hundreds of faculty members for this update with a website, training sessions, office hours and consultations, and data management reviews prior to NIH submission. Librarians introduced faculty to helpful tools, like the WCM Institutional Data Repository for Research (WIDRR), LabArchives electronic lab notebook, and the DMPTool for storing research data.

## Data Management & Sharing Assistance January - June 2023

Activity	Numbers
Data Management & Sharing Plans Reviewed	23
Consultations	60
Faculty Presentations	21
Data Retention Requests	110
Tech Tuesday Presentation Attendees (DMPTool, WIDRR, LabArchives)	372

### **ReCiter Publication Manager now** Grant editing service contributes to \$1.5 million award available to WCM authors

The Library launched ReCiter Publication Manager (reciter.weill.cornell.edu), an NIH-funded web application designed for curating and reporting on publications authored by members of the WCM community. This dynamic tool allows users to compile publications from PubMed – updated daily – and offers the convenience of filtering by first or last author, as well as sorting by Journal Impact Factor.

Previously creating publication reports was a timeconsuming task that could take hours, but ReCiter Publication Manager has reduced that to mere seconds.

Furthermore, it boasts advanced reporting features, "Edits made our proposal sound more concise and including the option to export data to spreadsheets or cohesive. Would definitely use your editing services again," said PSDP program manager, Janet Lam. Word documents and showcases vital metrics such as h-index, h5-index, and NIH citation metrics.

In another exciting update, we've expanded access for our alumni to specific collections of licensed content. OneSearch, the premier database on the Library's website (library.weill.cornell.edu), is now optimized to highlight open access materials.

The Library's Grant Editing Service contributed to a successful K12 renewal of the National Institute of Child Health and Development's Pediatric Scientist Development Program (PSDP), led by WCM Chair of Pediatrics, Dr. Sallie Permar.

The service reviewed 40 pages of the PSDP application, which was funded in the amount of \$1.5 million for FY23 and supports five first-year and five second-year positions. The program provides a career development pathway for pediatric fellows from which 192 physician-scientists have graduated since 1987.

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268 Hours spent on patient rounds

# The Myra Mahon Patient **Resource Center**

The Myra Mahon Patient Resource Center (PRC) aims to make accurate, science-based health information easily available so that patients and their families can make informed decisions about their care.

and NYP on topics like cancer treatments Parkinson's disease, and nutriton.

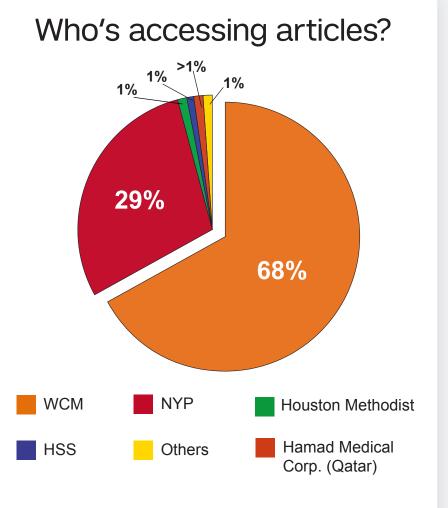
Contact mmprc@med.cornell.edu for more info.



# Library **Key Highlights**

The Wood Library supports thousands of faculty, staff, and students every year, whether it's in person or virtual. Here's how we were able to assist WCM in FY2023.

# Access to Library Resources



EZproxy is used to access articles when outside of the WCM network

During FY2023, over 692,000 full text articles were accessed using EZproxy, allowing faculty, staff, and students to easily find electronic resources no matter where they are. The chart at left shows access by affiliation. While WCM accounted for the majority of users, NYP made up about 29% of all content from 172 different publishers.

37K

on our Myra Mahon Patient Resource



Number of requests for access to scientific software



Sixth-grade students from Brooklyn, NY learned about Dr. George Papanicolaou in the Medical Center Archives.



## Systematic Review Requests in FY23

# Sci Soft

The Library supports statistics, and software library.weill.cornell.edu to make a request.

# Systematic Reviews

Faculty and researchers can collaborate with librarians to publish their systematic review through an evidence-based process. This collaboration can include defining research questions, conducting literature searches, targeting specific databases and resources, and more. Systematic reviews allow us to synthesize a vast quantity of data in an evidence based and reproducible manner.

This year, 20 evidence reviews were published and requests are up 34% since 2019.

# **Clinical Medical Librarian** Service

Clinical Medical Librarians provide biomedical research, info management, and instructional reviews and case reports, support grant editing attend Grand Rounds, and educate the community on data and information literacy.

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# Experience Design

In our pursuit of improving the customer experience, we have created several WCM user personas. These personas serve as representations of our different users (e.g., researchers, faculty,etc.), and detail their experience when using or seeking ITS services.

In lieu of expecting our users learn how to navigate ITS, we plan to use these personas to organize the delivery of products and services in a way that better aligns with the experience users may expect.

Enabling Fechnologies	
How can we help?	just now
	Hello, Vanessa.
	Let me know how I can help you today. What's your issue or request? Or take a look at what I can help with.
	IT Ticket Status Talk to Live Agent Show me everything
	I need help with Duo

# New services

ITS introduces new services each year to help the WCM community conduct their work more efficiently and easily. Learn more about the services we introduced in FY2023. With so many employees working remotely or traveling on the job, we introduced our **Remote Apps** service to allow users to launch applications from any location. This service simplifies access to WCM resources while removing the need for VPN. Currently, we have over 600 users in Neurology, Library, Reproductive Medicine, Managed Care, and Finance successfully subscribed to Remote Apps, with opportunities for expansion to other areas of the organization. Visit our website at its.weill.cornell.edu/remoteapps for more information.

As our **Evergreen laptop service** grows in popularity, we've added more computer models to our available selections. With Evergreen, a department can get laptops provisioned and replaced after end-of-life within days, rather than run into cumbersome and lengthy purchasing lead times. This year, our new options include two MacBook models for users who prefer working on an Apple device. In the future, we plan to expand our Evergreen subscription service to also offer additional Lenovo options. Visit its.weill.cornell.edu/evergreen for more information.

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ITS introduced our new myHelpdesk Virtual Agent (**myhelpdesk.weill.cornell.edu**) for more expedient assistance in lieu of calls or tickets.

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The Virtual Agent responds to common support questions and issues, walks users through solutions, and opens tickets when needed.

FAQ

Popular topics include ticket status, Epic, Duo, and device tagging. Users can opt out of chatting with the Virtual Agent to speak with a live technician at any time.

Since launching in March 2023, the Virtual Agent has had 944 unique users and over 2,100 conversations.



I	Number of Tickets Resolved
/	Average number of tickets
ä	an individual Service Desk
1	echnician resolves per month.

FY2023 FY2022 National Avg. 188 188 108-198

Our numbers are holding steady from last year and have decreased 26% since FY2019 as we continue to add selfservice tools for IT assistance (e.g., Virtual Agent).



**Average Resolution Time** Average duration (in hours) for Service Desk to resolve a user's ticket.

FY2023	FY2022	National Avg.
28 hrs	32 hrs	48 hrs

Our Service Desk is resolving your issues quicker than before, with the average time decreasing by 39% since FY2019.



## **Customer Satisfaction**

Percent satisfaction reported by users after the Service Desk closed their requests.

FY2023	FY2022	National Avg.
92%	93%	90%

ITS continues to be above industry standard when it comes to customer satisfaction, maintaining a rate of over 90% from our surveys submitted after an incident is closed.

# Service Highlights

# 100Gbps 80 apps

**Faster Service** 

**Better Reliability** 

Took first step towards 100Gbps infrastructure to handle data transfer and streaming at a rapid pace.

Implemented transaction monitoring system to check 80 major apps before issues impact users.



# Service Enhancements

- Online Archiving for additional email storage for older messages, freeing up inbox space to over 99GBs.
- Transitioned to cloud monitoring for 24/7 system alerts.
- Expanded BI Gateway to include 306 stories and 16 dashboards for better departmental decision-making.

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6.5M Web Visits in FY23

Number of unique visitors to main WCM website. More updates are coming soon to improve user experience.

# 210 **Upgraded Servers**

Number of servers upgraded to comply with Microsoft support.

- Expanded cloud hosting account options to meet compliance and security standards.
- Upgraded our virtual server infrastructure to four times greater speed and improved reliability.

# Administration

ITS supports a wide range of administrative systems and technology solutions that keep WCM's operations running smoothly.

# Listening to our users

To ensure we are collecting as much user feedback as possible, ITS implemented a Voice of the Customer survey where Weill Cornell Medicine users can weigh in on the ITS request process.

Our group of ITS Liaisons now act as a concierge to all new faculty as they are joining the organization. If faculty experience any technology issues, the Liaisons triage with HR, ITS, and NYP to ensure all issues are resolved in a timely manner.



Since launching in 2022, ITS has taken feedback from users of our new procurement system, **Ariba**, and used it to improve the service.

This year, we simplified requisitions and filled a gap allowing multiple funds for more purchase types.

ITS improved the Optical Character Recognition (OCR) solution used to process invoices against Ariba purchase orders and avoid manual intervention from Accounts Payable users. With over 3,000 invoices per month processed in OCR, the enhancement led to a significant reduction of hours spent on error resolution by the AP team.



# Improving access to work spaces, virtually and in person

The **Zoom Rooms** platform was selected to help ensure a more consistent conferencing experience across WCM-supported conference rooms. ITS has helped coordinate installation throughout the institution in cooperation with Capital Planning and individual departments.

ITS launched a customized **Deskbooking** application for WCM designated hotel spaces at 575 Lexington. The app lets hybrid and remote staff reserve offices and cubicles when they come onsite.



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# Transforming how we interact with employees

The new **Employee Central** module in WBG has transformed the way employees and department heads access and manage their own data.

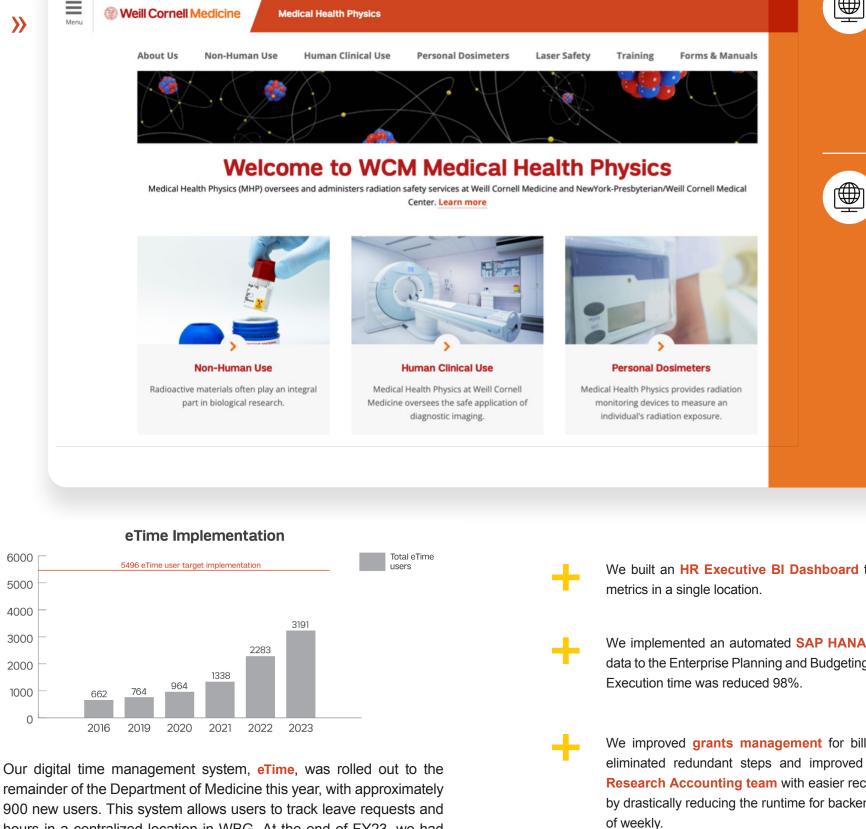
Changes to data like name, job title, and compensation can now be made online rather than through a cumbersome manual PDF process.

Department leaders and end users can now see more data related to their organization and employees, and request changes quickly in the system.

Additionally, we released 53 HR and Payroll BI reports in the BI Gateway that comprise historical data from the previous SAP system and new data from Employee Central.



# Improving our » web presence



# New way to view IT footprint



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In response to user feedback, ITS launched the **Department** IT Profile, an interactive Power BI dashboard that allows departments to view details for device types and asset totals, cost breakdowns, OS compliance and aged devices data, incident and request submissions, and more. Data is refreshed monthly and is easily accessible through the BI Gateway.

remainder of the Department of Medicine this year, with approximately 900 new users. This system allows users to track leave requests and hours in a centralized location in WBG. At the end of FY23, we had 22 departments and approximately 3,200 users on eTime. We plan to onboard 18 more departments this year, with the ultimate goal of retiring all PDF timesheet submissions.

ITS released a new compact header to WCM's web sites. The header is an option for all existing WCM sites, and all new sites will use the new header, too. The header facilitates better consistency of WCM's logo, and allows more content to be visible without needing to scroll, especially on mobile devices.



We launched two new intranet sites for Medical Health Physics, and Staff & Organizational Development.



We built an HR Executive BI Dashboard that allows Executive leadership to view important HR

We implemented an automated SAP HANA solution for the Budget Office to help them upload data to the Enterprise Planning and Budgeting Cloud Service (EBPSC) Oracle database more quickly.

We improved grants management for billing, availability control, and payment processes. We eliminated redundant steps and improved functionality, and enhanced reporting to assist the Research Accounting team with easier reconciliations. Real-time data was made readily available by drastically reducing the runtime for backend system jobs (IDC), allowing them to run daily instead

# Testing and $\gg$ strengthening Security

Our Security team continually stress tests and strengthens our systems to ensure they provide robust protection in any situation.

This year, we streamlined the user experience when logging into key services like Office 365. The improved multi-factor authentication solution can foil attackers who may have guessed or phished a user's password.



## Boosted engagement with vend

As part of our improvements to the Privacy Agreement Repository (PAR), we gained 37 new vendors in the areas of software, consulting, and more. We also established a quarterly review process for vendor relationships with WCM Departments.

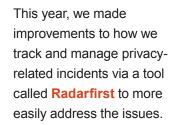
## **Collaboration with NYP and Columbia** on tripartite use of Epic

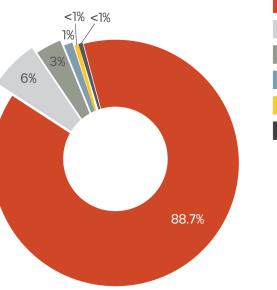
We focused on Epic user access controls, contract compliance, privacy restrictions, and ensuring the availability and accuracy of information. Specifically, we implemented Epic privacy features for controlled access to clinical info in the EMR and patient portal.

# Security & Privacy



# **Tracking Privacy Incidents at WCM**





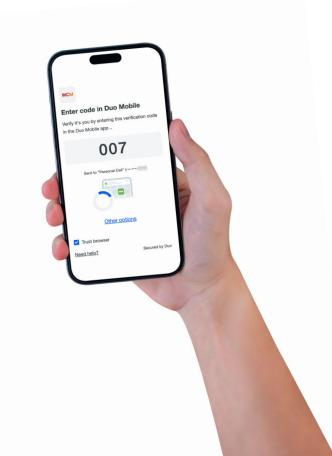
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» Enhanced our email security by reducing spoofing and impersonation to protect our brand reputation.

» Participated in a joint cyber-ransomware exercise facilitated by experts from the Cybersecurity and Infrastructure Security Agency (CISA) that focused on the shared Epic system with representatives from NYP and CUIMC.

» Performed successful Disaster Recovery tests for over fifty services and systems, which help ITS evaluate our ability to effectively restore critical systems and data in the event of an outage or failure.

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