Research Core Development Updates and Initiatives

Ben Wright, Director of Research Core Development Office of Sponsored Programs

Kara Clissold, Associate Director School of Medicine Office of Research Technologies





September 28, 2023

Contact Information

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FY2023 Highlights

110 official recharge centers; approx. 125 total research cores

Total Revenue Generated: \$43 million (\$41 million FY2022)

Research Supported:

700 labs on campus

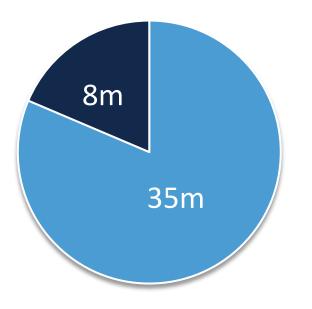
40 external universities

40 external businesses



FY2023 Revenue Metrics

FY2023 Total Revenue: \$43 million



Sponsored Research

\$7.6 million generated in F&A

2,152 projects charged

Total impact to research: \$1.6B*

Internal Revenue
External Revenue



Core Support Infrastructure at UNC

Research Core Development Team (OSP/VCR)

Ben Wright – Director RCD Meghan Kraft– Interim Director

Research Core Strategy

Michael Akridge– Financial Analyst

OSP Cost Analysis & Compliance Brian BertIshofer– Director J.R. Pike– Manager Latoia Smith – Lead Analyst David Coyle – Cost Analyst Valeshia Dobson – Cost Analyst

Office of Research Technologies (SOM) Chris Gregory– Director Kara Clissold – Assoc. Director

Lineberger Comprehensive Cancer Center (SOM)

Holly Dressman – Asst. Dir. of Shared Resources and Operations UNC College of Arts and Sciences Jim Cahoon– Exec. Dir. of Research Core Facilities

2023 SYMPOSIUM

Core Support Infrastructure at UNC

Research Core Development Team (OSP/VCR)

- Partner with departments, schools, and existing recharge centers to develop a campus-wide Core strategy
- Survey equipment and resources to establish a central asset repository
- Consult on core management, business process improvement and marketing
- Provide options for treatment of volatile rates and assist with more frequent rate reviews
- Manage iLab adoption and training
- Serve as *ad hoc* members of CFAC

OSP Cost Analysis & Compliance Team

- Initiate rate reviews on biannual basis
- Review operating plans and rate development worksheets
- Approve rates and provide MOAs
- Ensure compliance to financial policies for recharge centers

Office of Research Technologies (SOM)

- Supports cores with all operational processes, from starting a new core to rate reviews and developing operating plans
- The Core Facility Advocacy Committee (CFAC) provides funding
- Advocates within the School of Medicine with a commitment to all cores within the UNC Chapel Hill ecosystem
- Educates core personnel on areas of interest, including providing ABRF membership and supporting grant writing, career development and sustainability initiatives

LCCC (SOM) Asst. Director

- Partner with existing recharge centers in LCCC to support operations, finance, funding requests, etc.
- Consult on core management and business process improvement
- Assist with solutions for marketing core facility services
- Serve as *ad hoc* member of CFAC

UNC College of Arts and Sciences Exec. Director

- Partner with existing recharge centers in CAS to support operations, finance, funding requests, etc.
- Consult on core management and business process improvement
- Assist with solutions for marketing core facility services
- Serve as liaison with Research Core Development Team (OSP/VCR) and ORT (SOM)
- Serve as *ad hoc* member of CFAC

2023 SYMPOSIUM

Research Core Development Outreach

58 core tours CY2023

• Thank you!

Research Week Core Open House Tours

- Monday October 23 Wednesday October 25
- <u>https://www.med.unc.edu/corefacilities/research-week-core-tours-</u> 2023/
- Open house tours of over 40 UNC core facilities
- Please pass the word along to customers, colleagues, etc.



Rate Reviews



OSP Cost Analysis and Compliance Team performs reviews



Reviews completed since October 2022: 69



Median time to complete rate review: 92 days



Rate review status information available in Tableau "Totals" dashboard



Templates and FAQs available on RCD webpage



Financial Reporting

Financial reporting tools available via Tableau. Access for over 100 cores and 300 users.

https://tableau.unc.edu/#/site/oris/projects/1282



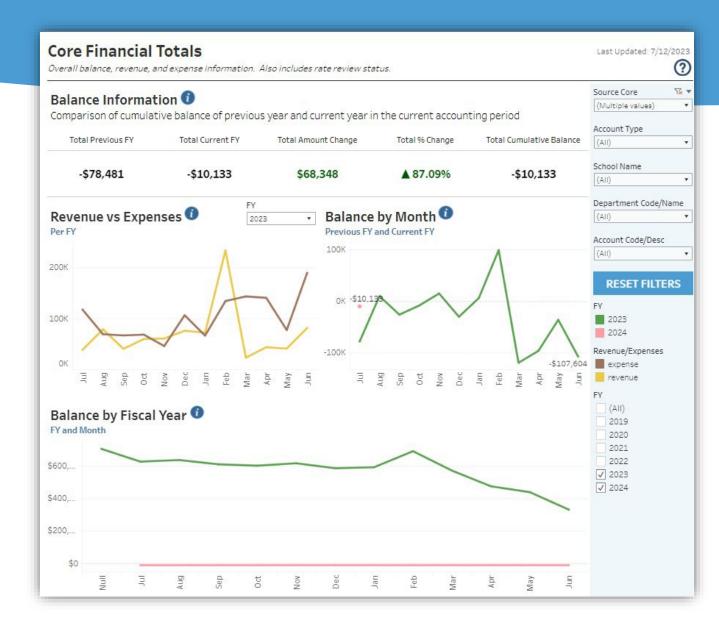
For questions, technical issues, or to request access changes, please contact <u>RCD@unc.edu</u>

Link, training session recording, and FAQ document located on RCD Webpage

Rate Review status available via "Cores – Totals" dashboard



Cores - Totals



Revenues

- Expenses
- + Balance Carryforward
- + Transfers

Total Balance

- One-stop-shop for all financial data
- Reports expenses and revenue charged to core source – no subsidies or grant funding yet
- Filters at right can be used to refine data shown
- FY filters available for most elements
- Rate review information at bottom of dashboard



Cores – Financial Data

	ancial Data d expense data.	a														Last Updated: 7,	(12/202
Row ID	journal_id	fiscal_year	budget_per.		accounting_date	source	core_name acti	ivity_ty acco	unt_ty	account_group	account	account_description reference1	reference2	chartfield1	chartfield2 (FY	
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2821526	ARD0875408	2023	2023	2	08/10/2022	19050	Cystic Fibro reve			NO_BILL	441911	Sales- Other Outside Null	Null	Null	Null P		
2821527	ARD0875152	2023	2023	2	08/11/2022	19050	Cystic Fibro reve			NO_BILL	441911	Sales-Other Outside Null	Null	Null	Null P		
2821528	ARD0873790	2023	2023	2	08/04/2022	19050	Cystic Fibro reve			NO_BILL	441911	Sales- Other Outside Null	Null	Null	Null P		
2821529	ARD0880148	2023	2023	2	08/31/2022	19050	Cystic Fibro reve			NO BILL	441911	Sales- Other Outside Null	Null	Null	Null P		
2821530	ARD0880148	2023	2023	2	08/31/2022	19050	Cystic Fibro reve			NO_BILL	441911	Sales- Other Outside Null	Null	Null	Null P		

- Transactional detail for core since 2018
- Filters available at right
- Ability to export to Excel
- Accounting Date and Transaction ID included



Core Comparison



- Information for multiple cores
- Each core presented separately
- Use filters to adjust view as needed
- Cores are limited to user's access



iLab Information and Updates



CoreSupport@med.unc.edu for iLab support

Michael Akridge, Financial Analyst, OSP



8 cores onboarded during CY2023

If interested in more information or a demo, contact us



iLab Improvements







Training and guidance documents coming soon! Let us know what you need. Subsidy Function

Collaborating Cores Function



iLab Institutional Landing Page

About UNC Cores UNC Core Facilities by Category Search		
iLab Cores at University of North Carolina at Chapel Hill THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL Cores at Analytical Chemistry		
Core Name	Primary Contact	
(CHASE) Center for Hybrid Approaches in Solar Energy to Liquid Fuels Our mission is to develop molecule/material hybrid photoelectrodes for cooperative sunlight-driven generation of liquid fuels from carbon dioxide, nitrogen, and water.	Renato Neiva Sampaio	
Chemistry NMR The Chemistry Department's Nucelar Magnetic Resonance (NMR) Core Laboratory provides training and access to NMR spectroscopy. We also participate in NMR investigations of chemical samples, prepare samples and acquire data.	Marc ter Horst	
Mass Spectrometry Core Laboratory We provide equipment, expertise and training in small molecule applications utilizing mass spectrometry in an open-access facility. We also support high-throughput catalysis research for inorganic and organic research labs in our Reaction Innovation Sub-Core for Excellence (RISE) Catalysis Center.	Brandie M. Ehrmann, Ph.D.	
X-Ray Crystallography Core Laboratory (XCL) XCL primarily functions as a service crystallographic facility for the University and are actively collaborating with Department of Chemistry, Inorganic, Organic, and Material Division, Physics and Astronomy, biology, as well as the School of Pharmacy and the School of Medicine.	Chun-Hsing (Josh) Chen, Ph.D.	2023 SYMPOSIUM

RCD Webpage



FAQs, rate review document templates, and guidance documents



Financial reporting link, guidance, and training presentation



Research core agreements



Future enhancements



https://research.unc.edu/sponsored-programs/resources/research-core-development/

FOR RESEARCH ADMINISTRATORS

RCD Webpage

About Resources Research Core Agreements News & Events Contact Us FAQs Feedback

Core Facility Financial Reporting

- <u>Core Facility Financial Reports</u>
- <u>Core Facility Financial Reporting Tableau Reports Frequently Asked Questions</u>
- <u>Core Facility Reporting Tools Session</u>

Rate Review Guidance

 <u>Research Service Center Operating Plan Form</u> Instructions

Research Core External Agreements

<u>Research Core Agreements Guidance</u>

Resources

- <u>UNC SOM Core Facilities Website</u>
- <u>Core Facilities Advocacy Committee (CFAC)</u>
- OSP Operating Standards: Office of Sponsored Research 900.01 Research Service Centers
- <u>NC Biotechnology Center Cores Website</u>
- <u>iLab</u>
- <u>Research Service Center Rate Increases</u>

Forms

<u>RSC Operating Plan Form</u>

Clicking the link for the Operating Plan Form will automatically download the form to your computer's designated download folder. Open the file from that download folder using Adobe Acrobat DC or Adobe Acrobat Reader.

- <u>Rate Development Worksheet With Member Subsidy</u> (30 rates)
- <u>Rate Development Worksheet No Member Subsidy</u> (30 rates)

If your core expects to utilize more than 30 rates, please use the following worksheets:

- <u>Rate Development Worksheet With Member Subsidy</u> (50 rates)
- <u>Rate Development Worksheet No Member Subsidy</u> (50 rates)



Asset & Equipment Database



RCD currently working with ORIS to create an asset database



Ability to record and track equipment and service contracts



Greater discounts on purchases and service contracts



Ability to forecast useful life and anticipate replacements



Office of Research Technologies Core Updates

Kara Clissold Associate Director, Office of Research Technologies





September 28, 2023

SOM Office of Research Technologies





Within the Office of Research in the School of Medicine



Reports to Dr. Blossom Damania, Vice Dean for Research



https://www.med.unc.edu/corefacilities

Christopher W. Gregory, PhD Director Kara A. Clissold, MA Associate Director



SOM Office of Research Technologies

Since 2008, ORT has focused on:

- Advocating for cores within the School of Medicine through CFAC
- Supporting cores with all operational processes: starting a new core, rate reviews, developing operating plans, preparing for audits, process mapping, marketing
- Educating core personnel on areas of interest (e.g., communication strategies, SWOT analysis, "green" initiatives); providing ABRF membership and supporting grant writing, career development and sustainability initiatives, brought iLab onto campus
- Core Facility Advocacy Committee (CFAC) provides funding for method development, equipment, PI vouchers, training/certifications, and emergency requests - to all eligible UNC cores



Current Initiative: Support for Instrumentation Grant Submissions

Assess needs of core directors and encourage short- and longterm planning of replacement or addition of core equipment Assist core directors in identifying funding mechanisms appropriate for the equipment they need (CFAC, NCBC, NIH, NSF, DoD) Facilitate connection to a core director who has successfully utilized that mechanism and who can serve as a peer mentor and connect with other resources on campus to improve grantsmanship

Support the process of requesting matching funds



Current Initiative: Support for Instrumentation Grant Submissions

ORT is hosting an **Instrumentation Grant Panel Discussion** on **October 12, 2023**, to discuss NSF MRI, NIH S10, DoD DURIP, and NCBC IIG grant mechanisms

Expert panel of core directors will discuss grant mechanisms during a roundtable:

- Dr. Pablo Ariel (Microscopy Services Laboratory; NIH S10)
- Dr. Brandie Ehrmann (Dept. of Chemistry Mass Spectrometry; DoD DURIP)
- Dr. Chun Hsing (Josh) Chen (Dept. of Chemistry X-Ray Crystallography; NSF MRI)
- Dr. Ashutosh Tripathy (Macromolecular Interactions Facility; NCBC)
- Dr. Paul Maddox (NIH S10 study section member)

RSVP to kara clissold@med.unc.edu



Current Initiative: Measuring the Impact of Core Facilities

Financial

 New reporting tools and dashboards being developed by RCD team

Educational

• Student dissertations and theses supported by core facilities

Scientific

• Journal articles and grants supported by expertise and instrumentation housed within core facilities



Acknowledgment Tracking for Core Facilities

Why this matters:

- Demonstrates the return on investment in cores
- Centers need to report publications supported by affiliated cores
- "Knowledge is power" OVCR, OoR, departments, and cores should know the impact that cores have on research and education at UNC

Current methods insufficient:

- Relying on PI self-reports
- A static simple PubMed search string method

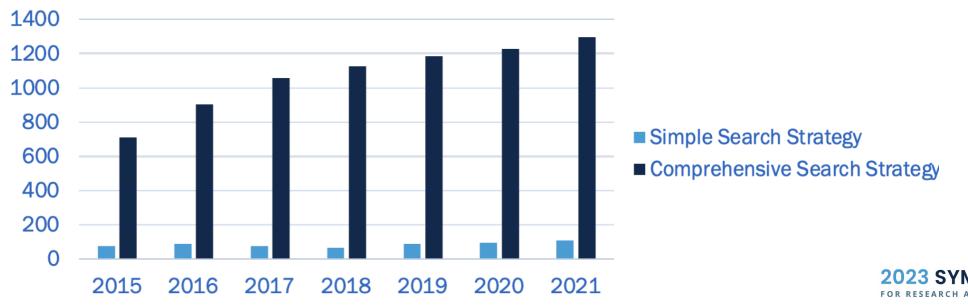
A universal challenge:

- Failure to include specific acknowledgment of cores that generated data for manuscripts
- Inconsistencies in acknowledgment statements (variations in core name, core director names, grants, equipment, etc.)



Acknowledgement Tracking for Core Facilities

Comprehensive search strategies (expanded lists of key words for each core) are dramatically more effective at accurately identifying acknowledgments affiliated with core facilities



Publications Identified for 64 core facilities

Acknowledgment Tracking for Core Facilities



Searches for 64 core facilities yielded 2,453 acknowledgments of those cores in student dissertations and theses at **190 institutions** around the world

87% of acknowledgments were from **students** receiving a degree from **UNC-Chapel Hill**



88% of acknowledgments were in PhD (or international equivalent) dissertations

17% of dissertations or theses acknowledged more than one UNC-Chapel Hill core facility



New ORT Initiatives

0





A reporting tool for acknowledgment tracking specifically for core facilities at UNC Chapel Hill Travel awards for core facility directors and staff to attend scientific conferences Peer mentorship program for core directors



Questions?

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THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL