

# Core Directors Meeting

September 2023



## Agenda



- Core infrastructure at UNC organization chart
- Fixed-term faculty promotion advocacy
- Data Management and Sharing Plans
- Rigor and Reproducibility
- MAD SSCi wrap up
- Planning for core instrumentation needs
- Upcoming ORT events
- Acknowledgment tracking
- OSP metrics
- iLab website updates and asset tracking updates
- Financial reporting
- Resources available for equipment grants (Nate Blouin)
- Working with external customers (Kickstarter)

## **Core 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 BERTLSHOFER - Director
JR PIKE - Manager
LATOIA SMITH - Lead
DAVID COYLE - Analyst
VALESHIA DOBSON - Analyst

Office of Research
Technologies (SOM)

CHRIS GREGORY – Director
KARA CLISSOLD – Assoc.

Director

## <u>Cancer Center (SOM)</u>

HOLLY DRESSMAN – Asst. Dir. of Shared Resources and Operations

## UNC College of Arts and Sciences

JIM CAHOON – Exec. Dir. of Research Core Facilities

## **Core 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

# <u>Lineberger</u> <u>Comprehensive Cancer</u> <u>Center (SOM) Asst.</u> 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

## **Fixed-Term Faculty Promotion for Core Directors**



- Core directors who are fixed-term faculty are eligible for promotion in rank. Departments
  must initiate the promotion process (chair, ACA, HR) but you may need to advocate for
  yourself
- Administration, Clinical, Community Professional Service, Education and Research
- "Meet the mark" criteria are included in the SOM APT Guidelines (see next slide). While
  other schools may not have these criteria, the documentation required is the same
- Documentation required: CV in SOM format; reference letters from outside of home department (2 required, no more than 4); evidence of teaching/mentoring/training (with student surveys/letters and a peer evaluation letter); chair's letter recommending the promotion, chair's checklist
- Committee approvals required after submission by HR Fixed-Term Promotions Committee and Dean's Advisory Committee (both meet monthly)
- Timeframe for completion of process ~ 6 months. Collecting reference letters is the bottleneck

## "Meet the Mark" Criteria for Research



# Assistant to Associate Professor (Research Track)

Documentation of substantial research activity and productivity

Excellent local reputation as a researcher documented in letters of reference external to the department

Scholarship – minimum of five examples of scholarship (progressive and enduring)

One of the following demonstrating progressive achievement

-Successful operation of a core facility

-External funding

-Key role in facilitating research activity for dept or center

# Associate to Full Professor (Research Track)

Documentation of substantial research activity and productivity

Excellent regional or truly exceptional local reputation as a researcher documented in letters of reference external to the department

Scholarship – minimum of five examples of scholarship (progressive and enduring)

One of the following demonstrating progressive achievement

-Successful operation of a core facility

-External funding

-Key role in facilitating research activity for dept or center

# **Core Survey: Data Management and Sharing Plans**



- NOT-OD-21-013: Final NIH Policy for Data Management & Sharing
- Went into effect on January 25, 2023
- Applies to all research, funded or conducted in whole or in part by NIH, that results in the generation of scientific data.
- "Scientific data" is defined as:
  - "data commonly accepted in the scientific community as of sufficient quality to validate and replicate research findings, regardless of whether the data are used to support scholarly publications."
  - Includes any data needed to validate and replicate research findings
  - Excludes lab notebooks, preliminary analyses, completed case report forms, drafts of scientific papers, plans for future research, peer reviews, communications with colleagues, or physical objects such as lab specimens
- If your core will be generating scientific data for a grant, you should build a DMSP to be included in the application

## Six Elements of a DMS Plan





- Data type
  - Identifying data to be preserved and shared
- Related tools, software, code
  - Tools and software needed to access and manipulate data
- Standards
  - Standards to be applied to scientific data and metadata
- Data preservation, access, timelines
  - Repository to be used, persistent unique identifier, and when/ how long data will be available
- Access, distribution, reuse considerations
  - Description of factors for data access, distribution, or reuse
- Oversight of data management and sharing
  - Plan compliance will be monitored/ managed and by whom

NIH Program staff will assess DMS Plans, but not part of overall impact score

See Writing a Data Management & Sharing Plan for details

## **DMP Tool**



- Is a free web-based form managed by the <u>California Digital Library</u>
- Used by institutions around the world (82,235 users), updated based on user feedback: view example public plans
- Provides guidance from NIH and your institution, suggested answers, and additional resources for each part of the plan
- Also has templates for other federal and private funders (i.e. NSF)
- Machine actionable DMP allows for automated exchange of information about your research by connecting to ORCID iD (useful for funded projects, tracking over time)
- <a href="https://dmptool.org">https://dmptool.org</a> Sign in with SSO; UNC has an institutional account

## Rigor and Reproducibility



- Thank you!
- UNC Chapel Hill is the standard for developing rigor and reproducibility statements within the ABRF core community. The ORT R&R template has been posted on the ABRF website and published in a recent JBT manuscript
- If you are a new core director, are updating your website, or need to add a rigor and reproducibility statement to your website, please visit:
  - https://www.med.unc.edu/corefacilities/rrt/

## MAD SSCI



- Thank you for all who attended, presented, and assisted in making this meeting successful!
- If you enjoyed MAD SSCi, please consider attending again next year (Rutgers University, NJ) or attending the national ABRF meeting (Minneapolis, MN)
  - Expenses for conferences can be built into your rates, ORT/CFAC can also provide funding for conference attendance.
  - Have an idea for future sessions? oc@maddsci.abrf.org

# Planning for Instrumentation Needs and Lifecycles



- "Knowledge is power"
  - What is the expected lifecycle of your equipment? Will it need replacement sooner due to heavy usage, pace of technological development, etc.?
- Develop a plan
  - CFAC Emergency funds should not be the planned financial avenue when you know your instrumentation is reaching or has surpassed its end of life.
  - CFAC Fall/Spring RFAs can be an avenue to replace aging instrumentation.
  - Cost-shares, either for grants or with other internal entities, can be submitted alongside RFAs, or submitted at other strategic timepoints to coordinate with cost-share requests that go through the OVCR.
  - NCBC, NIH S10 or R24, NSF, DoD DURIP, etc.
  - NCBC IIG grant deadline is October 3, 2023
- Communicate early
  - Let ORT or your CFAC representative know what your needs are or will be if you
    plan to use a CFAC funding mechanism (even matching funds).

## Instrumentation Grant Panel



#### October 12, 2023, 12-1:30pm

- Roundtable discussion with your peer core directors who have successfully submitted grant applications as well as a PI who has participated in the NIH S10 study sections. They will present their own grants as case studies and discuss tips and tricks, timelines, how to secure matching funds, and more
  - Ashutosh Tripathy, Pablo Ariel, Josh Chen, Brandie Ehrmann, Paul Maddox
- In person meeting lunch will be provided. Open to core directors and stakeholders across all schools. RSVPs will be required - keep an eye out for a meeting invitation.
- Please attend if you are planning or considering submitting an instrumentation grant (NCBC, NIH, NSF, DoD)

## **Peer Mentoring**



- Several core directors expressed interest in peer mentoring and networking events
- We will be hosting a small-group session 11/13/2023 to brainstorm what this would look like. If you would like to participate in the organization and structure of this mentorship opportunity please reach out to Kara Clissold (kara\_clissold@med.unc.edu)
- Aim to begin events in January 2024

## **Acknowledgment Tracking Update**

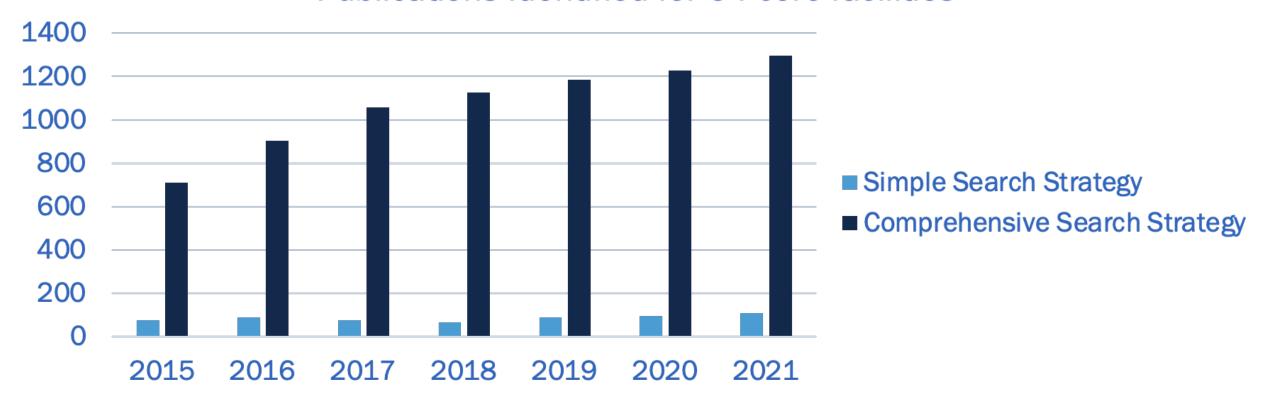


- Chris presented a poster outlining our comprehensive search strategy at the 2022
   ABRF meeting in Boston
- We are working on a sustainable, Al-database driven tool for acknowledgment tracking with a reporting feature that could be used campus-wide. In the meantime, we are continuing to collect historic acknowledgment data for our cores and the search terms we discover will be used to drive the Al software. Thank you to those who have helped us amass this data.
- If you need assistance with acknowledgment tracking for grant reporting or other needs please reach out to Kara (kara\_clissold@med.unc.edu)

## **Acknowledgment Tracking Data**



#### Publications Identified for 64 core facilities



## **Worldwide Impact of Core Facilities**





 Google Scholar searches for 64 core facilities yielded 2,453 acknowledgments of those cores in student dissertations and theses at institutions around the world to date.

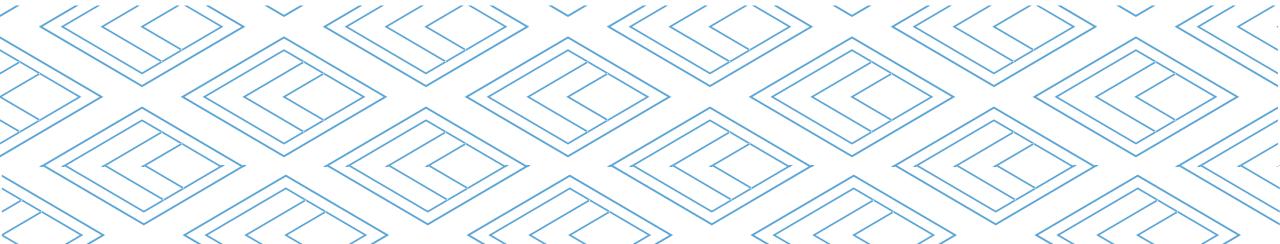
Customized Google Map. 190 pins correspond to a unique institution where a student dissertation or thesis acknowledged a UNC-Chapel Hill core facility.



# Research Core Development

Meghan Kraft, Interim Director of Research Core Strategy

Ben Wright, Director of Research Core Development



## FY2023 Highlights

110 official recharge centers; approx. 125 total research cores

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

Research Supported:

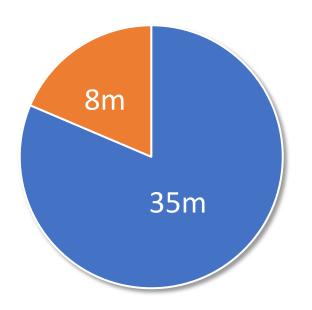
700 labs on campus

40 external universities

40 external businesses

### **FY2023 Revenue Metrics**

FY2023 Total Revenue: \$43 million



■ Internal Revenue ■ External Revenue

Sponsored Research

\$7.6 million generated in F&A

2,152 projects charged

Total impact to research: \$1.6B\*

## Research Core Development Outreach

#### 58 core tours CY2023

Thank you!

#### **UNC Symposium for Research Administrators**

- Thursday September 27 Friday September 28
- https://symposium.web.unc.edu/
- RCD Updates and Initiatives
- Rate Reviews (OSP CAC and RCD)
- Contracts with External Customers
- iLab: General Info, Tips, and Tricks

### Rate Reviews



OSP Cost Analysis and Compliance Team performs reviews



Reviews completed since October 2022: 63



Median time to complete rate review: 92 days



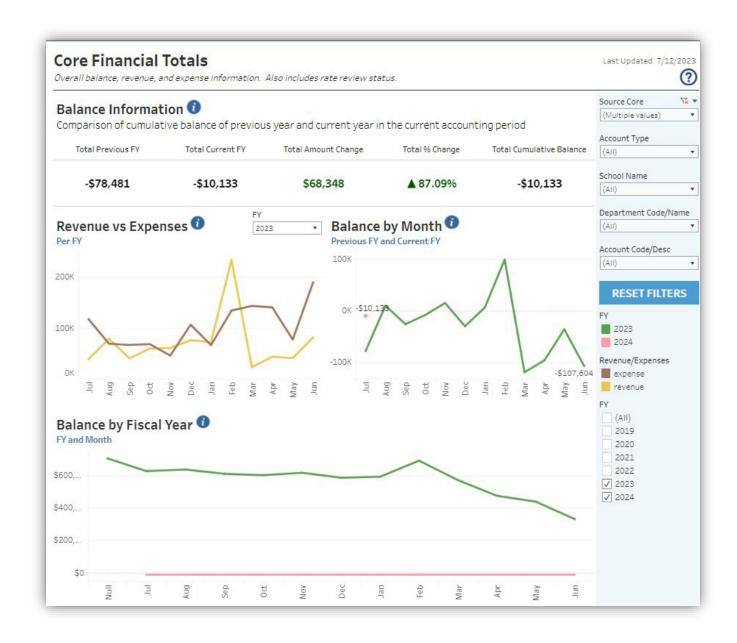
Rate review status information available in Tableau "Totals" dashboard



Templates and FAQs available on RCD webpage

## Financial Reporting

- Financial reporting tools available via Tableau
- Now available! 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 <a href="RCD@unc.edu">RCD@unc.edu</a>
- Link, training session recording, and FAQ document located on RCD Webpage
- Rate Review status available via "Cores Totals" dashboard



#### **Cores - Totals**

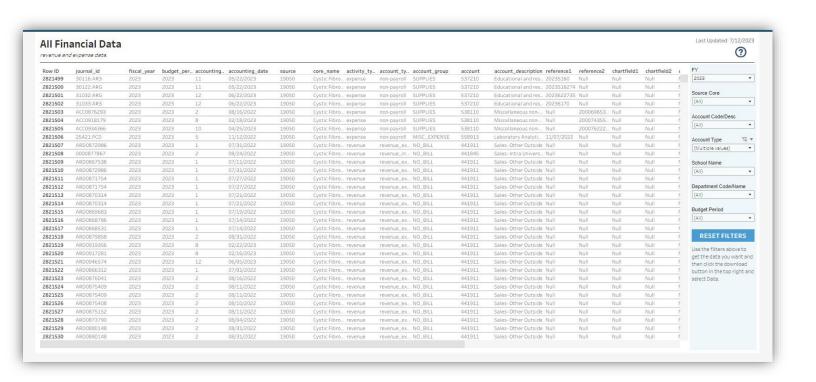
#### Revenues

- Expenses
- + Balance Carryforward
- + Transfers

**Total Balance** 

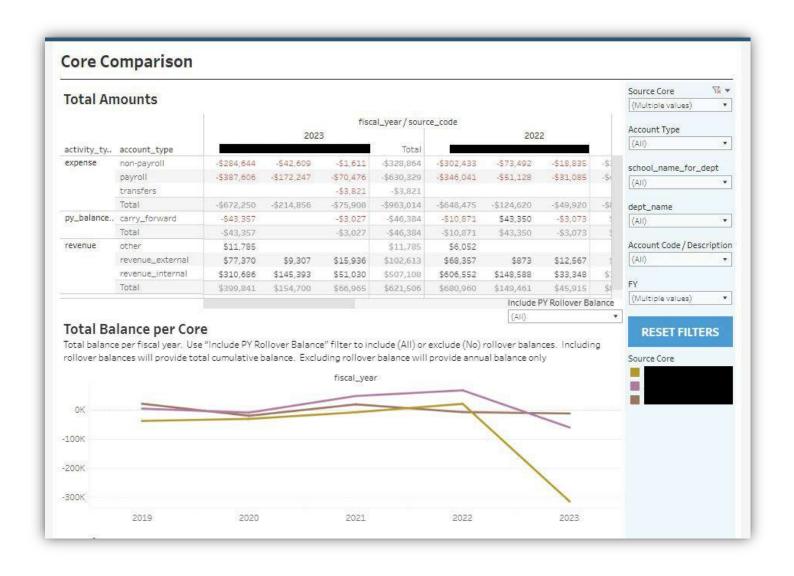
- One-stop-shop for all financial data
- Reports expenses and revenue charged to core source – no subsidies or grant funding yet
- Filters at right can be used to refine data shown
- FY filters available for most elements
- Rate review information at bottom of dashboard





# Cores – Financial Data

- 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



7 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
Our mission is	ter for Hybrid Approaches in Solar Energy to Liquid Fuels to develop molecule/material hybrid photoelectrodes for cooperative sunlight-driven generation of liquid fuels from e, nitrogen, and water.	Renato Neiva Sampaio
	MR Department's Nucelar Magnetic Resonance (NMR) Core Laboratory provides training and access to NMR We also participate in NMR investigations of chemical samples, prepare samples and acquire data.	Marc ter Horst
We provide eq We also suppo	ometry Core Laboratory uipment, expertise and training in small molecule applications utilizing mass spectrometry in an open-access facility. rt high-throughput catalysis research for inorganic and organic research labs in our Reaction Innovation Sub-Core (RISE) Catalysis Center.	Brandie M. Ehrmann, Ph.D.
XCL primarily	Ilography Core Laboratory (XCL) functions as a service crystallographic facility for the University and are actively collaborating with Department of rganic, Organic, and Material Division, Physics and Astronomy, biology, as well as the School of Pharmacy and the icine.	Chun-Hsing (Josh) Chen, Ph.D.

## 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/

## RCD Webpage

About Resources Rese

Research Core Agreements News & Events

Contact Us

FAQs

Feedback

#### Core Facility Financial Reporting

- Core Facility Financial Reports
- . Core Facility Financial Reporting Tableau Reports Frequently Asked Questions
- Core Facility Reporting Tools Session

#### Rate Review Guidance

 Research Service Center Operating Plan Form Instructions

#### Research Core External Agreements

· Research Core Agreements Guidance

#### Resources

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

#### **Forms**

- . RSC Operating Plan Form
  - 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.
- Rate Development Worksheet With Member Subsidy (30 rates)
- Rate Development Worksheet No Member Subsidy (30 rates)

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

- · Rate Development Worksheet With Member Subsidy (50 rates)
- Rate Development Worksheet No Member Subsidy (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

## Questions?

#### **Ben Wright**

Director, Research Core Development

bwright1@email.unc.edu

#### **Meghan Kraft**

Interim Director, Research Core Strategy

kraftmeg@unc.edu

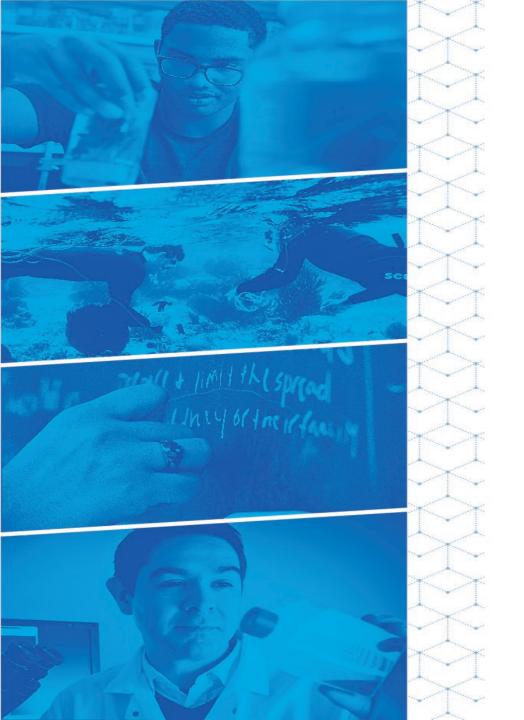
#### Michael Akridge

Financial Analyst

michael akridge@med.unc.edu

#### **iLab Support**

coresupport@med.unc.edu





# Core Facilities proposal coordination discussion

Nathan Blouin, MBA, CRA

Director

nathan blouin@unc.edu

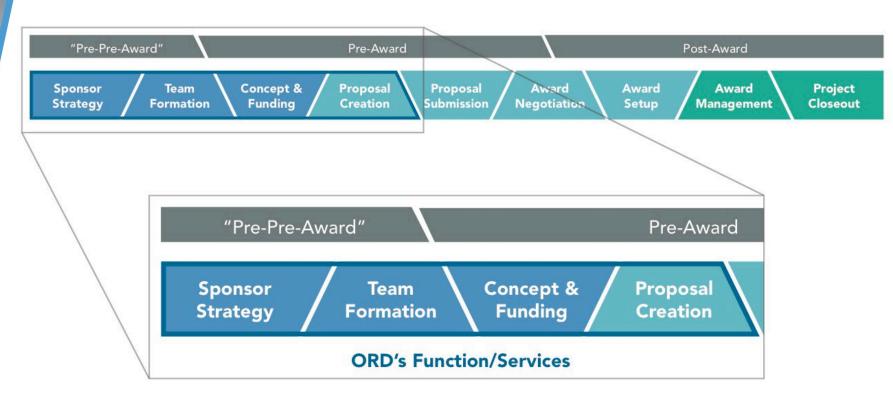
#### **Rachelle Davenport**

Limited Submissions and Administrative Coordinator rachedav@unc.edu

**UNC Office of Research Development** *September 14, 2023* 



## What is Research Development?





# **UNC Limited Submissions Process Flow Chart** – adapted!

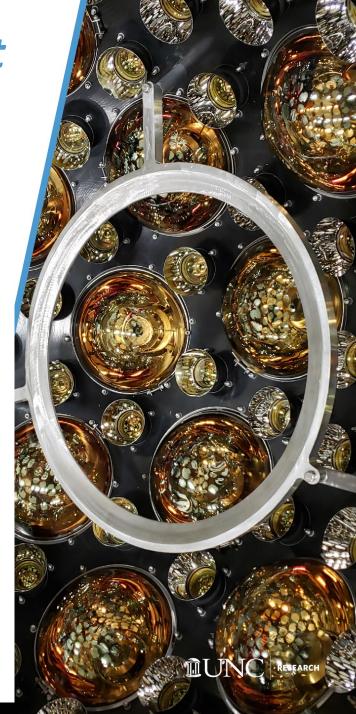


**ORD** Identifies Limited Submission Funding Opportunities

ORD Announces Internal Call for University Community

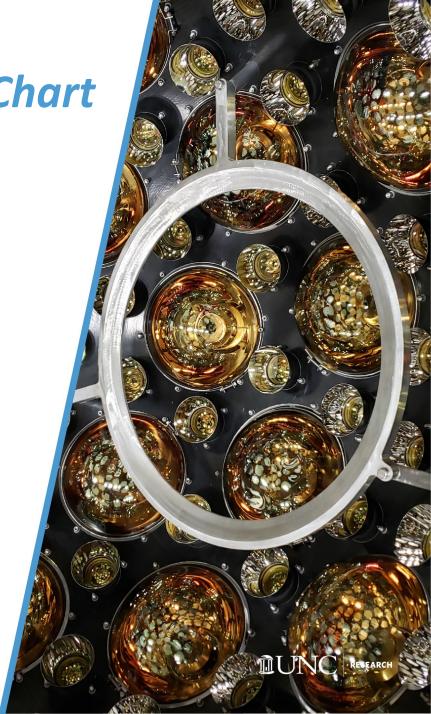
**Faculty Submit** Internal Pre-proposals to ORD

If Applicant Number Exceeds Limit, then Internal **Review Begins**  Peer Review Committee Meeting



UNC Limited Submissions Process Flow Chart – adapted!

- Long cycle internal competitions on NSF, NIH, DoD/DURIPs etc., to help centralize equipment planning and resource alignment
  - Purchase & Acquisition timelines
  - Space upfits & Construction
  - Installation
  - Integration with current lifecycles
  - Cost-share request alignment
- Builds flexibility for strategic equipment requests based on leadership need
- Neutral-party moderated stakeholder peer-review



Limited Submissions Management System



### Opportunity Intake Plans

Standard Channels
Agency Announcements
State Bulletins
INFO Ed SPIN

<u>Targeted Channels</u>

NIH Institute & Director Mtgs

**NSF Webinars & DCLs** 

### **Distribution Plans**

Broad Platforms
Limited Submissions
listserves
FUNDAMentals

**Targeted Channels** 

This group

Others?

### **QUESTIONS?**

#### Contact:

research.unc.edu/research-development

ord@unc.edu

nathan blouin@unc.edu

rachedav@email.unc.edu

limited\_submission@unc.edu 919-962-7504



UNC Alum and Astronaut Candidate, Zena Cardman



## **KickStart Venture Services**

Jeff Speakman, PhD KickStart Accelerator



Powered by Innovate Carolina



Mireya McKee Director



Judy Prasad Assistant Director



Hallie French Ops &. Prog M gr



Jeff Speakman Accelerator Lab M gr



Kathleen Lowry
EDA Proj M gr



Kyle Glochik Admin & Finance



Rachel Mintel I-Corps Coord



Chris Morrison Market Dev lead/advisor



Pepper Landson EIR



Chris Rusconi EIR



Perry Genova BR



Adrienne Day



Jaap Schut EIR

#### THE KICKSTART TEAM

#### **MISSION**

Support IPbased startup formation, business development & growth by:

- Providing coaching and mentoring,
- Early-stage funding,
- Connection with key service providers, management, & investors and
- Incubation space



#### **Educate**

- KickStart Workshops
- Customer Discovery & SBIR/STTR workshops
- 1:1 Meetings with researchers



#### Assess

- Business case support
- Entrepreneurs-in-Residence
- Advisory panels
- IP and Market Landscape services
- I-Corps Program







#### **Grow**

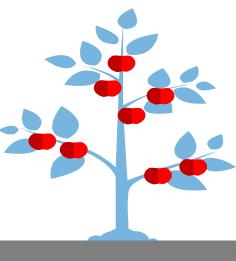
- Intros to potential management
- SBIR Grant application support
- 7,500 SF Wet-lab space
- Showcase & networking events
- Board set-up advice & connections





#### Graduate

- VC funding
- Partnerships
- IPO





Launch



- Connection to service providers
- Venture Catalyst Fellows program (MBAs and PhD students)
- KVS PoC Awards



# TRANSLATIONAL RESEARCH SUPPORT

#### **STARTUP SUPPORT**



# KICKSTART METRICS



158 Companies

- 122 Active
- 36 Inactive

CY18-CY22: 46 CY13-CY17: 57

Funding Raised: \$7.6B

SBIR/STTR Grants: \$244M

2022 Employees: 2,171 2022 Revenues: \$277M

# KICKSTART FUNDING FOR STARTUPS

#### **KICKSTART AWARDS (SINCE 2010)**

\$2.8M in KVS awards to 75 UNC IP-based Startups

- Up to \$100K per award
- For technology commercialization /business development
- Helps de-risk technologies and makes them more competitive for dilutive and non-dilutive funding

#### **GRANT WRITING SUPPORT SERVICES (SINCE 2017)**

Support from Grant writing firms:

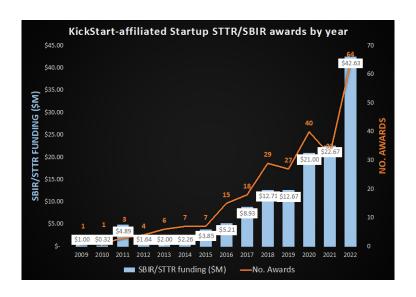
- Intelispark
- Grant Engine
- Eva Garland Consulting
- Inspiralia

#### MICROSTART AWARDS

- Up to \$5k
- Work with service providers

### PROGRAM IMPACT

#### STTR/SBIR Growth



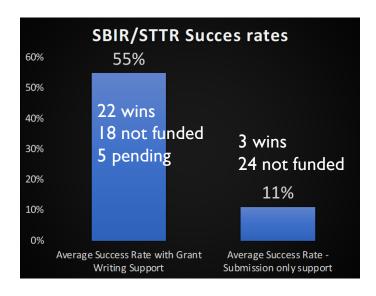
Our startups have received over >\$140M STTR/SBIR funding since KickStart programmatic support was established in 2009

#### **KVS Award Leverage**



Up to \$100K Award (since 2009)
69 companies supported (75 awards)
43X leverage non-dilutive funding
274X leverage dilutive funding

#### Grant writing support impact



\$8.9M funded proposals since 2018 \$21.6M additional SBIR/STTR raised by companies receiving grant writing support from KickStart.

# Located in the Genome Sciences Building:

Key location with proximity to UNC research & core labs





# KICKSTART ACCELERATOR: A FLEXIBLE SPACE FOR EARLY-STAGE STARTUPS (well suited for PI STTR/SBIRs)





#### **Current Companies**

AccuNovo Biotechnologies Inc.

AnelleO, Inc.

BlueSky Polymers

Delgen Biosciences

**LED RadioFluidics** 

NeuroGT, Inc.

Perotech Inc.

Syzygy Optics LLC



#### **Accelerator Graduates**

Enzerna Biosciences

Triangle Biotechnology Inc.

**Vast Therapeutics** 

Codetta Bio Inc.

Irex Pharma LLC

**Enfuego Therapeutics** 

Epigenos Biosciences, Inc.

# KICKSTART ACCELERATOR COMPANIES

#### **Accelerator Lab Overview**

- 7,500 square-foot facility in UNC's Genome Science Building.
- The lab opened in late 2019.
- 8 companies currently occupy accelerator space.
- 7 companies have successfully graduated to larger lab space in the RTP area.
- 4–5 additional UNC faculty led startups have expressed interest and are in process of applying for lab space.
- 9 full (21') or 18 half (10.5') benches available for UNC IP-based startups (2 full benches currently rented).
- 6 private lab spaces available for lease (2 currently rented).
- Currently at ca. 35% occupancy and expect to be at ca. 70% occupancy in Q1 2023.

#### 7,500 SF lab space for UNC IP-based startups

#### **Powered by Innovate Carolina**

- Shared lab space/equipment (ca. 1600 sf)
- Private lab space (ca. 1000 sf)
- Open Wet Lab Space (ca. 2800 sf)
- Cubicle Space / Hot Desks (ca. 850 sf)
- KickStart Admin Space (ca. 1100 sf)
- Shared conference rooms (ca. 300 sf)





### **KickStart Accelerator Shared Equipment**















#### KickStart Accelerator Shared Laboratory Equipment

#### Tissue Culture Room

VWR® Air Jacketed CO2 Incubator (x2)

REDISHIP Purifier Logic+ Class II A2 Biosafety Cabinets (x2)

Fisherbrand<sup>™</sup> Isotemp<sup>™</sup> General Purpose Deluxe Water Baths (x2)

Olympus CK30 Culture Microscope, Inverted with Phase Contrast

Nikon TMS Culture Microscope, Inverted with Phase Contrast

Invitrogen™ Countess™ II Automated Cell Counter

BD Accuri Flow Cytometer

#### General-Use Shared Lab Equipment

Applied Biosystems MiniAmp Plus Thermal Cycler

Beckman Avanti High Performance refrigerated benchtop centrifuge

Beckman Coulter Microfuge

Binder 4 cf Laboratory Convection Oven

BioTek™ Synergy™ H1 Hybrid Multi-Mode Monochromator Fluorescence Microplate Readers

Buchi Rotavapor w/Vacuum Pump

CurranTaylor Panasonic 1000 Watt Commercial Microwave Oven

Eppendorf / New Brunswick Scientific Incubated Floor Model Shaker

Fisher Scientific Dry Bath Incubator

Fisher Scientific Isotemp 205 water bath

Fisher Scientific Water Bath

Fisherbrand Entry Level Research Grade Inverted Microscope (x2)

Fisherbrand Variable Speed Mini Vortex Mixer

HERA VIOS 160I CO2 CU Incubator

Invitrogen Evos Floid Cell Imaging System w/ fixed blue, green, and red LED lights

Invitrogen Evos XL Core brightfield microscope

Invitrogen Hula Sample Mixer

Invitrogen IBright Imaging System

Invitrogen Mini Gel Tank and Blot Module Set

Invitrogen PowerEase Touch 350W Power Supply

Invitrogen Qubit Flex Quantitation

Invitrogen Life Technologies E-Gel™ Imager System with UV Light Base

LabNet Prism Mini Centrifuge

MaxvGene II Thermal Cycler (x2)

Quant Studio 3 QPCR System

Sartorius Entris II Balance

Sartorius Quintix Semi-Micro Balance

Thermo Scientific Sorvall ST8R Microcentrifuge

Thermo Scientific Thermal Mixer w 1.5 mL block

Thermo Scientific™ NanoDrop™ One Microvolume UV-Vis Spectrophotometer

VWR 3500 Standard Orbital Shaker

VWR BALANCE B-SERIES ANAL .1MG .2MG 210G

VWR Benchtop Meter Kits B10P Benchtop pH Meter with pH Probe

VWR Heater Block Analog 2 120V

VWR Personal Low Temperature Incubator

VWR P-Series Portable Balances (x2)

VWR Standard Hot Plate Stirrers

VWR STIRRER LOW PROF 15-1500RPM 100-240V

VWR Tube Rotator

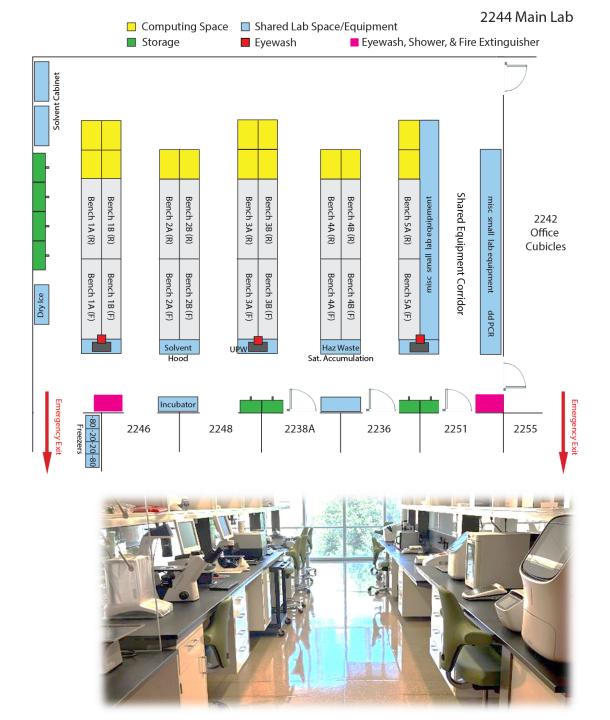
VWR Variable Speed Rocker



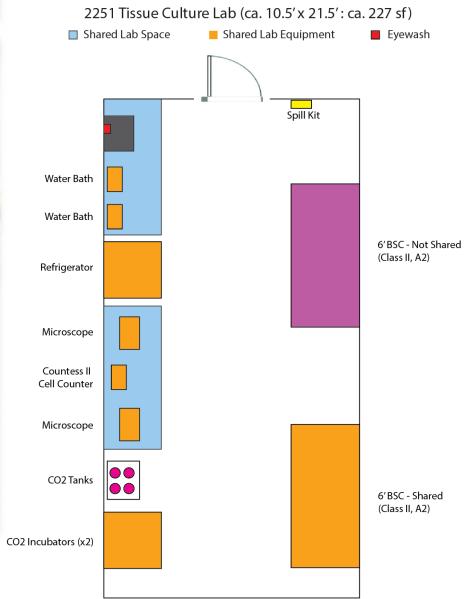


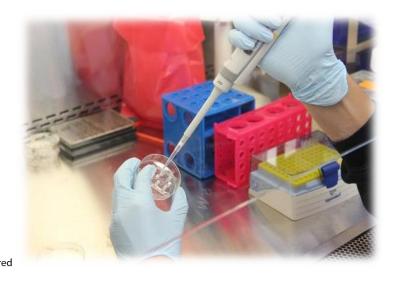


Main Lab & Shared Equipment Corridor







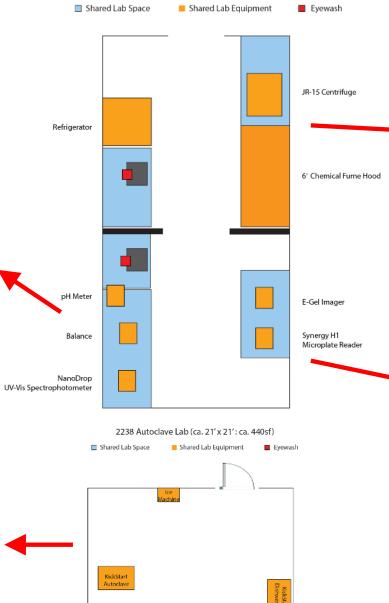




**BSL-2 Lab** 

#### 2248 Molecular Biology (ca. 10.5' x 21.5': ca. 227 sf)

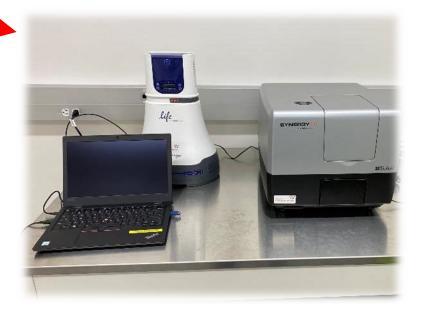




KickStart Autodave



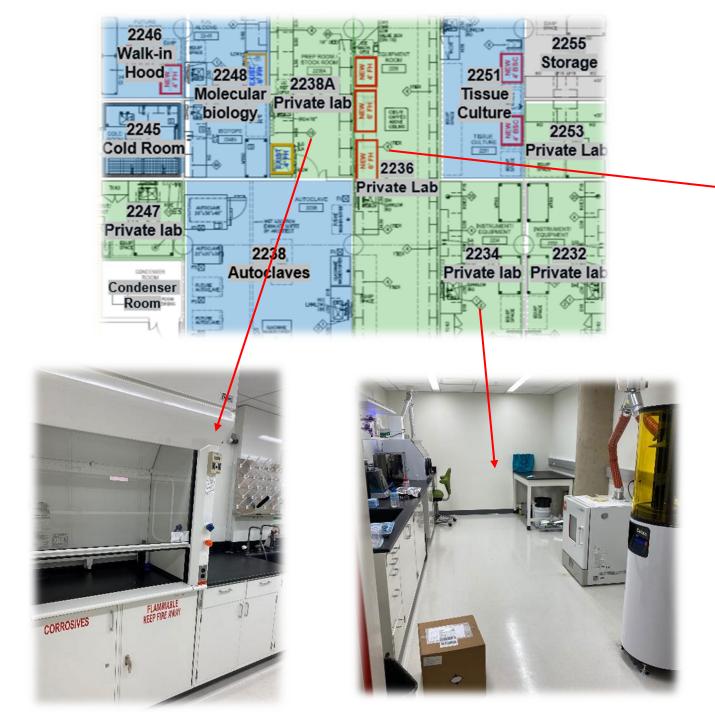








**Cold Room** 





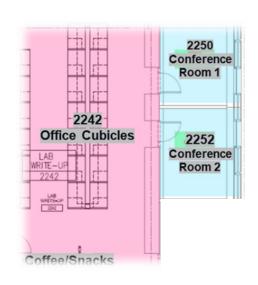
**6 Private Lab Spaces** 

### **KickStart Accelerator Amenities**











# For Additional Information about KickStart Venture Services Contact:

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To Schedule a Tour of the Accelerator Lab Contact: Jeff Speakman <a href="mailto:rspeakman@unc.edu">rspeakman@unc.edu</a>





# Core Directors Meeting

September 2023

