Agenda
Thursday, April 4

- NU Clinical & Translational Sciences Institute (NUCATS)
- Research Safety
- Institutional Review Board (IRB) Office
- Institutional Animal Care & Use Committee (IACUC) Office
- Center for Comparative Medicine (CCM)
- Research Portal (NUIT)
- Cybersecurity (NUIT)
- Data Management & Repository Services (Library)
- Core Facilities Administration
- NU Research Administration Professionals (NURAP)
- Foundation Relations

Speeding transformative research discoveries to patients and the community
NUCATS is At Your Service!

- A centralized hub of resources available to your research team
- We provide **training**, **tools**, and **services** to support investigators across the full spectrum of clinical and transitional science research

Grant Preparation Resources

- **NUCATS Studio Consultations**: gives investigators planning a center/program grant an opportunity to identify relevant NUCATS resources and leverage existing infrastructure
- **Resources & Environment boilerplate language**: an up-to-date, editable document detailing the resources and services provided by NUCATS, our clinical affiliates, and Northwestern University research cores and units
- **ACT Network**: provides a roadmap for institutions to implement the NIH Single IRB Review policy
- **Grant Writing Groups**: an alternative approach to teaching the art and science of writing NIH-style research proposals, led by Rick McGee, MD
Education & Professional Development

- **Opportunities for research staff**
  - Master of Science in Regulatory Compliance (MSRC)
  - Good Clinical Practice and Clinical Research Coordinator Training (Live & Online Education)
  - Introduction to Research Online Modules
  - Annual translational research conference

- **Opportunities for investigators**
  - Training grants and workshops for early career faculty
  - Team Science training modules
  - Mentor development

Clinical Research Support

- **Budget & Finance**: study budget preparation, billing and reconciliation
- **Regulatory Compliance**: assists with IRB process and FDA submissions
- **Recruitment & Retention**: research participant recruitment strategy development, creation & distribution of marketing materials
- **Study Coordination Support**: clinical research nurse and non-nurse coordinators for hire
- **Clinical Research Unit (CRU)**: at Lurie and NMH
Data Science, Informatics & Analytics

Secure, Web-based Applications
- REDCap (Research Electronic Data Capture): Data collection forms
- Study Tracker: Clinical trial management system
- Recruit: Research registry system

Northwestern Medicine® Enterprise Data Warehouse (NMEDW)
- NMEDW: Repository of research data on more than 6 million people
- i2B2: a free tool to determine the feasibility of conducting a clinical trial

Biostatistics Collaboration Center (BCC)
- Biostatistics
- Epidemiology
- Research Design

Community Engaged Research Support
- Develops partnerships between community, clinical, public health and policy sectors
- Workshops, seminars and programs on community and stakeholder engagement
- Seed grants for community-academic research teams
- Consultations for design and implementation of community engaged/based projects
Innovation, Commercialization & Entrepreneurship

- Partnership with INVO
- Support for new drug and device development
- Expertise in technology commercialization and innovation
- Funding opportunities

Galter Health Sciences Library & Learning Center

Research Services
- Access to more than 8,600 e-journals, 3,000 e-books, and 300 databases
- Consultations
- Training and workshops
- Bioinformatics and biosciences support

Scholarly Services
- Preserving and sharing scholarly content with DigitalHub
- Impact measurement and evaluation
- NIH Public Access Policy
- Biosketch development
Stanley Manne Children’s Research Institute

- Resources and services for Lurie Children’s researchers
- Research Scientist Navigator
- Lurie Clinical Research Units
- Coordinator and Research Staff Services Pool
- Pilot funding
- IRB Authorization Agreement for joint review panel for studies that involve both adults and children

The CTSA Network

Chicagoland Clinical and Translational Science Award (CTSA) Shared Resources:
- Investigators and research staff at Northwestern, University of Chicago, and University of Illinois at Chicago CTSA have access to select resources at the other institutions

Trial Innovation Network
- Allows Investigators and research teams to execute multi-center clinical trials and studies better, faster and more cost-efficiently

ACT Network
- a real-time platform for multisite cohort discovery allowing researchers to explore and validate feasibility for clinical studies across many of the Clinical and Translational Science Award (CTSA) hubs around the country
Cite and Acknowledge the CTSA

NUCATS Institute is funded in part by a CTSA grant from the NIH. Publications are the key metric that Congress, the NIH, and Northwestern use to demonstrate effective use of grant funding.

If NUCATS assists you with research please remember to cite the grant.

To learn more visit: nucats.northwestern.edu/about/ctsa-resources.html

Become a NUCATS member

NUCATS Membership allows you to:
• Request NUCATS services
• Request a consultation
• Apply for funding
• Get the latest news about NUCATS

To join visit: membership.nucats.northwestern.edu
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safety-training@northwestern.edu

Office and Contact Information

Evanston: Tech NG-71, 847-491-5581
Chicago: Ward B-106, 312-503-8300
E-mail: researchsafety@northwestern.edu
Why does Northwestern need RS?

- Identify hazards
- Control risks
- Manage compliance

Regulatory Agencies
Consequences of Noncompliance

• Employee exposure to hazards
• Fines
• Loss of funding
• Legal consequences

Research Safety Programs

• Biological Safety
• Laboratory and Chemical Safety
• Radiation and Laser Safety
• Emergency Response
• Hazardous Waste Disposal
• Training
Biological Safety

Dr. Andrea Hall, Biological Safety Officer

Programs:
- Laboratory Safety Reviews
- Recombinant DNA registration
- Human gene transfer
- Bloodborne pathogens
- Infectious agents
- Biohazard waste
- BSL3 laboratories
- Select agents
- Biosecurity

Laboratory and Chemical Safety

Dr. Ben Williams, Chemical Hygiene Officer

Programs:
- Laboratory Safety Reviews
- Laboratory Safety and Chemical Hygiene Plan
- Lab design review
- General safe work practices
- Engineering controls
- Personal protective equipment
- Respiratory protection
- Safety equipment
- Hazardous processes
- Chemical Fume Hood Inspections
- Engineered nanoparticles
Radiation and Laser Safety

**Program Areas:**

*Radiation Safety* (Jose Macatangay)
- Training and Audits
- Radioactive material use authorization
- RAM inventory, accountability, receiving/shipping
- X-ray
- Irradiator Security

*Laser Safety* (TJ Whittenhall)
- Training and Audits
- Laser use authorization
- Laser Inventory

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Emergency Response

- Hazmat response
- Spill kits
- Incident reporting
Hazardous Waste Disposal

Heritage Environmental Services

- Chemical waste
- Biological waste
- Radioactive waste

http://researchsafety.northwestern.edu/hazardous-waste/hazardous-waste-disposal-guide
Lumen

Send a request to researchsafety@northwestern.edu to be added to the system.

Training

https://learn.northwestern.edu
Safety Services from Other Depts.

Risk Management
• Fire safety, evacuation plans, workers compensation

Procurement and Payment Services
• Purchasing, compressed gases, dry ice and liquid nitrogen

University Police
• Personal safety, security threats and breaches

Visitors and Volunteers
• Safety regulations extend to visitors and volunteers
• Training required if the person will work unsupervised
• See Human Resources site

http://www.researchsafety.northwestern.edu/training/laboratory-visitors-volunteers
What Now?

http://www.researchsafety.northwestern.edu

Questions?
Northwestern University
Institutional Review Board (IRB)

Kathleen E. Murphy, PhD, CIP
Manager, social and Behavioral IRB

What is an IRB?

An Institutional Review Board (IRB) is a committee established to review and approve research involving humans.

The purpose of the IRB is to ensure that all human research be conducted in accordance with all federal, institutional, and ethical guidelines.

The sole mission of the IRB is the protection of humans who participate in research.
The structure of the NU IRB

NU IRB Facts

- >15,000+ Submissions a Year
- 6 IRB Review Boards (2 Campuses)
- 70% Biomedical and 30% Social Behavioral
Three administrative areas:

Human Research

Training and Education

Compliance

Northwestern IRB Affiliated Partners

Northwestern Medicine

Shirley Ryan Ability Lab

Lurie Children’s Hospital

Research Privacy Board

Other affiliates
Why do we need IRB?

Timeline of Events

1946-1945 Tuskegee Syphilis Study
1947-1972 Stanford Prison Study
1950s-1960s Willowbrook Hepatitis Study
1968-1972 University of Minnesota Psychosis Study

Source: NIH Office of Extramural Research-Training Modules
It is required by federal regulation but even without that it is a moral responsibility.

We need IRB because:
- No one can be objective about their own work
- People underestimate the risks involved with areas they are very familiar
- People overestimate the benefit of things that are important to them.

More importantly, society trusts researchers to do the right thing. Trust is the highest honor and obligation in research.

Day-to-day IRB
When Does the IRB Get Involved?

When it is Human Research.

It's Research when there is a systematic investigation intended to develop or contribute to generalizable knowledge.

It's Human Research when there are:
- Living individual(s) **about** whom information is collected through intervention or interaction; or
- Identifiable Private Information

When it is a systematic investigation that involves living people or their identifiable information about whom the information collected is intended to develop or contribute to generalizable knowledge the IRB needs to see it.

Factors that inform the IRB review:

- Codes of Ethics
- Standards of practice
- NU HSPP
- Academic / Professional Values
- Ethical decision making
- Framework for ethical decision making
- Moral Virtue
- Cultural values, norms and other local considerations
- Standards
- CFR, FDA, FERPA, HIPAA, MHDDCA
- International Country Codes
IRB Ethical Responsibilities

Belmont Report (1979): 3 Ethical Principles

1. Respect for Persons
2. Beneficence
3. Justice

IRB Review Categories

<table>
<thead>
<tr>
<th>Review Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exempt</td>
<td>Minimal risk</td>
</tr>
<tr>
<td></td>
<td>Belmont Principles still apply</td>
</tr>
<tr>
<td></td>
<td>Does not apply to FDA regulated research unless it falls under Emergency Use</td>
</tr>
<tr>
<td>Expedited</td>
<td>Minimal risk, identifiable, more personal information</td>
</tr>
<tr>
<td></td>
<td>Reviewed in the office except for vulnerable populations.</td>
</tr>
<tr>
<td></td>
<td>If expedited reviewer does not approve, the study must go to the full board.</td>
</tr>
<tr>
<td>Full Board</td>
<td>Minimal risk research not in exempt or expedited review categories</td>
</tr>
<tr>
<td></td>
<td>Research that is more than minimal risk</td>
</tr>
<tr>
<td></td>
<td>Certain research with vulnerable populations (children, pregnant women, prisoners)</td>
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</tbody>
</table>
Speaking “IRB”

What the IRB is looking for:

1. The research methodology is reasonable and will accomplish the purpose of the study.
2. Risks to participants are minimized and are reasonable in relation to anticipated benefits.
3. Selection of participants is equitable.
4. Informed consent is sought from each participant and is appropriately documented.
5. The researcher has adequate training and experience and there is not a conflict of interest.
6. Privacy and confidentiality of participants is protected.
7. Additional safeguards are included for vulnerable populations.
8. Data collection is monitored to ensure participant safety.
9. Participants are fully debriefed if deception used.
NU IRB Submission Process

**PI Submits New Application**

**IRB Coordinator Pre-Review**

**Assigned to Reviewer or Panel**

**Approval Criteria Met?**

**Modification Required for Formal Review**

**Changes Requested**

**Post Approval Modifications Continuing Review Reportable new information**

General Contact Information

For additional information on IRB submission templates, regulatory guidance, upcoming education/training opportunities, and staff contacts, please visit our website:

https://eirbplus.northwestern.edu

**CHICAGO:**

Biomedical Research Panels A, B, C, D, Q
Arthur Rubloff Building, 7th Floor
750 N. Lake Shore Dr.
Chicago, IL 60611
Phone: (312) 503-9338
irb@northwestern.edu

**EVANSTON:**

Social and Behavioral Research Panel E
Chambers Hall, 2nd Floor
600 Foster St
Evanston, IL 60208
Phone: 847-467-1767
sbsirb@northwestern.edu
QUESTIONS?

Institutional Animal Care & Use Committee (IACUC)

Jeremiah Dunlap
PAM Compliance Analyst
The IACUC Office – Office for Research
j-dunlap@northwestern.edu
Humans and animals have many comparable physiological processes. Genetically modified animals, usually mice, can be bred to increase these similarities with humans.

Basic research (compared to applied research) provides the underpinnings for development of new medical and veterinary treatments.
- Basic research seeks to expand our knowledge
- Applied research seeks to answer a specific question or need (e.g., create a new device)

Why is there an IACUC?

- New medical treatments are required by law to be tested on animals before entering human clinical trials.
- To regulate the use of animals in research, and ensure that they are afforded humane care and that ethical standards of research are maintained.
- The law requires research institutions to have an IACUC!
  - Mandated by the Health Research Extension Act (HREA), the Animal Welfare Act (AWA), and Public Health Service (PHS) Policy.
  - Regulatory agencies ensure humane care and use of animals in research:
    - The United States Department of Agriculture (USDA)
    - The Office of Laboratory Animal Welfare (OLAW)
COMPONENTS OF AN ANIMAL CARE AND USE PROGRAM

INSTITUTIONAL LEADERSHIP

PI RESPONSIBILITY

Animal Welfare

DAILY ANIMAL CARE (CCM)

IACUC

Our Mission

The IACUC balances the possible harm to an animal against the potential benefit of the research involving each animal.

The IACUC makes recommendations to improve animal welfare. *Better standards of animal welfare produce better quality research.*
When applicable, the IACUC encourages investigators to discover alternative methods by:

- Replacing animals with other research methods
- Refining procedures to minimize potential pain/distress
- Reducing animal numbers
CCM & IACUC

Center for Comparative Medicine (CCM)
- Maintains animal facilities at all NU research sites
- Manages access to the animal facilities
- Provides husbandry and veterinary care to the animals
- Provides training to research personnel

Institutional Animal Care and Use Committee (IACUC)
- Reviews research protocols for work at all NU research sites
- Evaluates the animal care program (e.g., PAM, inspections)
- Advises on program policy and training requirements
- Facilitates online training and occupational health for research personnel

Before Protocol Approval...

Getting Started
REQUIREMENTS FOR PERSONNEL
- Attend all required training
- Review and comply with all applicable guidelines

TRAINING AND OCCUPATIONAL HEALTH

http://www.iacuc.northwestern.edu/training.html
Review: How It Works

Protocols receive either Designated Review or Full Committee Review

- **Designated Reviews** are completed by at least two Committee members and a veterinarian

- **Full Committee Review** involves a presentation to the full Committee by two members, assigned to review that protocol in advance of the meeting

IACUC Review Process

PI submits the study application to the IACUC

Application reviewed by IACUC coordinator for completeness

Application is assigned to Designated or Full Committee review

Application may require clarification or modification

Application is approved

If necessary

Application is returned to the PI for revisions and resubmission

Revised application is returned to the IACUC for re-review

Process continues until Reviewers are satisfied

PI Action is Required

IACUC Action

Bubble Color Legend

IACUC
IACUC Approval

- The IACUC approves protocols for a three year period, even if sponsored funding is for a longer term.
- Protocols involving work with USDA covered species must be submitted for annual re-certification.
- A de novo protocol must be submitted to the IACUC prior to the end of the three year approval period to avoid inactivation.

What Does It Mean to Be Approved?

*The project may begin!*

- The PI works with OSR to open accounts to spend their grant money
- Project personnel may gain access to the animal facilities (through CCM), following training and individual approval
- The PI may order animals (through CCM)
Federal Funding & IACUC Approval

• If a PI receives federal funding (e.g., an NIH grant), the institution is required to assess the grant application and animal study protocol, ensuring that they are congruent.

• Key points:
  – The full grant application needs to be attached to the electronic protocol in order to facilitate the grant-protocol congruency review.
  – It is strongly recommended that a PI begin work on the protocol when they are notified that their score is fundable.
  – Greater pressure to have IACUC approval more quickly
A Numerical Summary

- In 2018, the IACUC approved:
  - Over 200 new protocols.
  - 2,081 amendments (i.e., changes/updates to active protocols).
- Currently 956 protocols are active.

Metrics?! Yum!
Questions?

You are also welcome to contact the IACUC Office:

Phone: (312) 503-9339
Email: acuc@northwestern.edu

Center for Comparative Medicine (CCM)
Center for Comparative Medicine:
Facts for you to know!

• What is ‘Comparative Medicine’?
  – A distinct discipline of experimental medicine that uses animal models of human and animal disease in translational and biomedical research.
  – At its most basic level, it is the study of animals to learn more about humankind

• AAALAC, International (Association for Assessment and Accreditation of Laboratory Animal Care) accredited since 1985

• PHS Assurance - receive federal funding

• USDA registration - use USDA covered species in biomedical research

CCM’s Mission

The Center for Comparative Medicine is a core service, teaching and training unit dedicated to supporting humane animal care and use in research and education at Northwestern University. We provide quality animal care, and promote animal welfare and regulatory compliance through efficient operations and positive collaborations with faculty, students and staff

We Care for the Animals that Care for Us All
CCM Responsibilities:

- Support faculty using animals
- Oversee the humane care and use of animals
- House research animals, maintain support space and services for the use of animals
- Provide training in the care and use of animals

Partnership with the IACUC

- IACUC and CCM veterinarians work together to:
  - Review, approve, and provide assistance with ASPs
  - Perform semi-annual inspections
  - Generate/modify policies
  - Generate/modify training
- New research personnel work with both the IACUC and CCM
Types of Animal Facilities

- **Centralized** - CCM “assigned” and managed space
- **Decentralized** - Typically department “assigned” space but CCM manages animal care
- **Satellite** - Department or PI “assigned” space where PI manages all animal care. Requires IACUC review and approval. PI must justify why use of a satellite is necessary versus animals housed in a CCM managed space. A satellite is defined when rats and mice are kept in the space for greater than 24 hrs and USDA covered species are kept in the space for greater than 12 hrs.

How is CCM Organized?

- Veterinary
- Husbandry
- Procurement, Receiving, Census
- Business Office
- Quality & Training
Veterinary Staff

• Attending veterinarian is a mandatory member of the IACUC
  – CCM veterinarians review ASPs and provide guidance to researchers

• Provide training and assistance during study-related procedures

• Manage surgical suites and other facility resources

• Organize quarantine and rodent sentinel programs

• Organize enrichment program for all research animal

• Treat animal health problems

Husbandry Staff

• Comprised of Animal Care Technicians (ACTs), Cage Wash Technicians, Group Leaders, Supervisors, & Managers

• Perform daily checks on every animal housed in CCM facilities

• Report animal health problems to the Veterinary Staff

• Clean, stock, and otherwise maintain CCM facilities

• Work with the Procurement, Receiving, & Census (PRC) Office to capture weekly census of all research animals
PRC Staff

- **Procurement:** Place orders and provide updates on the availability of new research animals. Coordinate the movement of research animals within and out of the facilities.

- **Receiving:** Initially receive shipments of animals

- **Census:** Maintain a database tracking all animal housing activities.
  - Per Diem (by the day) charge for every cage, pen and tank housed in facilities.
  - Census is taken on Friday's with the assistance of Husbandry ACTs

Business Office

- Prepare monthly invoices to bill laboratories

- Bills are comprised of the following:
  - Research animal procurement costs
  - Per diem costs
  - Fees
  - Special service charges
Quality & Training Staff

• Provide orientation sessions for new research personnel

• Provide training on:
  – Specific pieces of equipment
  – Technical procedures
  – Work in specific areas within the animal facility

• Train new and existing CCM staff members

• Setup security access for anyone entering the vivarium

• Coordinate TB testing for anyone accessing areas with non-human primates

https://ccm.northwestern.edu/
Online Resources

- Online training provides easy access to important information
  - AALAS Learning Library
  - Can be viewed as often as one wishes, in a quick but secure fashion
  - Especially convenient for research personnel on the Evanston Campus
  - Great resource for new PIs and their staff

- Information on and access to CCM’s Rodent Technical Service Unit (RTSU) is also available on the website. The following services are offered currently:
  - Drug Dosing Studies/Compound Administration
  - Blood Collection
  - Tail Biopsy
  - Administration of Special Feed or Fluid
  - Weighing of Animals
Research Portal

Susan Held, FFRA
(Finance, Facilities and Research Administration)

Agenda

• Why do we have a Research Portal?
• What is it?
• Live demo!
• Resources
• What are the future plans for the project?
Background

• Information stored in many systems with different login and security procedures
• High level of training and effort required to answer simple questions such as “what is my balance?”
• No “faculty-friendly” options

Solution

researchportal.northwestern.edu

• Modern web application using Amazon Web Services
• Developed with significant faculty and staff input
Live Demo

Let's take a look!

Resources

- Tips and tricks
- Security details
- Videos
- Data use guide
- Enhancement log

www.it.northwestern.edu/supportcenter/
Future Development

- More non-financial information
- More transparency into sponsored life cycle
- Ability to identify and process pending action items
- Continuing opportunity for staff to serve on focus groups

Questions?
Cybersecurity

Tom Murphy
Chief Information Security Officer

Recent Trends and Events

The World:

- 14 million subscriber's data breached
- 145.5 million consumer's data breached
- Malware on payment systems (not disclosing number of records)
- 57 million user's data breached (paid hackers $100,000 to keep quiet)

Higher Education:

- A hard drive containing the personal information of approximately one million people was stolen from a University storage unit in Olympia, WA.

- Names, birthdates, Social Security numbers and salary information for nearly 10,000 non-teaching university employees.

- Several universities victimized by one bad actor, who used common exploits to break in, then offered to sell backdoor access to their systems on anonymous web sites.
Recent Trends and Events

Northwestern:

Impersonation: Increased targeted email and phishing messages purporting to be from senior leaders. These messages include malicious links, ask for wire transfers, or contain language that threatens personal and institutional reputation.

Phishing: Despite blocking over eighty million spam and phishing messages each month, our community continues to fall prey using Northwestern and personal email accounts.

Compromised accounts: At least once per week, account-holders are duped into providing their passwords either through phishing messages or click-bait on web sites.

Vulnerabilities: Meltdown and Spectre global threat based on flaws in nearly all modern computer processors.

Malware downloads: Notification from U.S. Department of Justice that five devices within our networks were infected with Fruitfly malware which turns on the camera on a Mac. Northwestern Information Technology and school support areas eradicated.

The Northwestern Environment

- Measures of scale:
  - 65,000 NetIDs
  - 80,000 wired network ports (58,000 unique)
  - 6,000 wireless access points
  - Wireless access totals (Fall 2016): 135,000 unique devices accessed by NetID, 50,000 unique devices accessed by guests
  - Over 20,000 unique, unmanaged mobile devices connect each month
  - Accessed from more than 190 countries

- Systems, servers, and storage:
  - More than 6,000 servers
  - 3.0 petabytes of storage (equivalent to 25,000 DVRs)

- Measures of volume:
  - Six gigabits per second of inbound traffic
  - 150M email messages a month

- Growth of external partnerships:
  - 100+ cloud apps
  - 60+ service provider assessments per year

- Attack Volume:
  - 80 million spam/phishing emails blocked each month
  - 16 million Internet attacks blocked each month originating from:
    - 20 compromised accounts/month
    - 10 compromised computers per month
    - 2-3 impactful events/year (loss or compromise of device, system, or account)
Northwestern’s Top Enterprise Information Security Risks

Northwestern’s top enterprise information security risks have been identified in alignment with the Enterprise Risk Management (ERM) framework:

- Exposure or compromise of Health Insurance Portability and Accountability Act (HIPAA)/Health Information Technology for Economic and Clinical Health (HITECH) data
- Exposure or compromise of data resulting from gaps in coordination of risk between the Feinberg School of Medicine and Northwestern Memorial Hospital Corporation (NMHC)
- Compromise of key research or institutional data
- Third-party vendor security
- Systems availability or disruption
- Breakdown in breach response
- Ransomware

Major potential impacts of reputational damage and loss of confidence

Information Security Office

Enhance role definitions to increase capacity and maturity required to protect the University’s information assets and to provide essential resources to help members of the Northwestern Community fully participate in this effort.

Chief Information Security Officer

- Ongoing development and delivery of a comprehensive, University-wide information security strategy and program
- Provides vision and leadership for the University’s information security program
- Aligns program to incorporate best practices in information security

Security Governance, Risk and Compliance
- Policy creation and maintenance
- Security and Compliance reviews
- Service Provider Security Assessments
- Audit response and investigations
- Security Reporting
- Awareness and Training

Security Architecture and Engineering
- Incident response executions
- Security controls and systems design, installation and documentation
- Security project management
- Project participation

Security Operations
- Incident response
- Security tool monitoring
- Threat detection and response
- Security email and ticket queue handling
- Digital Millennium Copyright Act (DMCA) abuse response
- Phishing response
- Compromised account response

External Service Providers
- In-depth Security and Risk Assessment and Consulting
- Aon
- Deloitte
- KPMG
- Nuvon
- PwC
- RSM
- Scalar
- SecureWorks
- BTAM GE
tics
- REIN/SGC
Information Security Support & Resources

- FSM
  847-491-4357 or 1-HELP (from on campus)
  
  FSMIT-policy@northwestern.edu
  http://www.feinberg.northwestern.edu/it/standards-policies/information-security/index.html

  Carl Cammarata, Senior Director, Chief Information Security Officer, 312-503-2822
  David Gundrum, Senior Information Security Analyst, 312-503-9869
  Marvina Roebuck, Senior Information Security Analyst, 312-503-5735
  Leon Tran, Information Security Analyst, 312-503-6140

- Northwestern Information Security Office (ISO)
  847-491-4357 or 1-HELP (from on campus)
  
  security@northwestern.edu

  Thomas Murphy, Chief Information Security Officer, 847-467-6422

Questions and Answers
Data Management & Repository Services

University Libraries,
Digital Scholarship Services

Northwestern

IS THERE A REPRODUCIBILITY CRISIS?

7% Don’t know
52% Yes, a significant crisis
3% No, there is no crisis
38% Yes, a slight crisis

1,576 researchers surveyed

https://www.nature.com/news/1-500-scientists-lift-the-lid-on-reproducibility-1.19970

Northwestern
Data Management

SAVES YOU TIME & MONEY
MIGHT BE REQUIRED

Data Sharing

INCREASES WORK’S RECOGNITION
FACILITATES NEW RESEARCH
MIGHT ALSO BE REQUIRED
Help Guide

Resources for…
- Data Management Plans
- Funding Agency Policies
- Data repositories
- Data Citation
- Metadata

Contact Cunera Buys for assistance: c-buys@northwestern.edu

libguides.northwestern.edu/datamanagement

DMP Tool

Login with NetID
Generates Data Management Plans
Templates from federal agencies and private foundations
Saves your plans for reuse and adoption
Export as PDF, DOCX

dmptool.org
Repository Services
COMPLIANT WITH PUBLIC ACCESS POLICIES
SELF-SERVICE OR MEDIATED OPTIONS

DigitalHub
Northwestern Medicine only
- Research papers
- Technical reports
- Documentation
- Presentations
- Case studies
- Datasets
- Posters

Managed by the Galter Library
digitalhub.northwestern.edu
DigitalHub@northwestern.edu
Arch

All Northwestern University
- Research papers
- Technical reports
- Documentation
- Presentations
- Case studies
- Datasets
- Posters

Managed by the Main Library

digitalscholarship@northwestern.edu

Self-deposit Process
- Go to arch.library.northwestern.edu
- Log in with your NetID
- Describe your work
- Upload files
- Select visibility setting
- Agree to Deposit Agreement
- Save to the repository
Example: Dataset

Faculty member in Chemical and Biological Engineering wants to provide access to the underlying data in support of his publication:

- Digital Object Identifier (DOI)
- Cited in journal article
- Publicly available

Contact Chris Diaz for assistance with any deposit: chris-diaz@northwestern.edu

Data Management & Repository Services
University Libraries, Digital Scholarship Services

Cunera Buys
Data Management Librarian
c-buys@northwestern.edu

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Core Facilities Administration

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What does CFA do?

- Core Facilities Administration provides financial support, administrative oversight, professional development, assessment and communication of shared research resources to advance the research mission of Northwestern University.
  - Institutional Policies and Procedures
  - Federal Regulations and Compliance
  - Annual Report Review
  - Program Review
  - Inter-Institutional Activities (OAI, Cores at Argonne, SHyNE)
  - Marketing and Communications (business consulting, support services, website, brochure)
What are Core Facilities?

- Core Facilities are centralized research laboratories with state-of-the-art (expensive) equipment
- "Recharge Centers" operating under a fee-for-service model, with the mission of enabling research at Northwestern
  - Department Core Facilities serve researchers in a single department, earning revenue less than $30K/year
  - University Core Facilities serve researchers in multiple departments, earning revenue greater than $30K/year
  - Clinical Core Facilities serve the research needs of researchers/clinicians engaged in clinical research studies
- Cores provide centralized services to researchers:
  - Genomics/Proteomics/Animal Model services
  - Synthesis and characterization of biomolecules (small molecules, peptides, proteins)
How are Core Facilities Supported?

- **Central Oversight of University Core Facilities**
  - Administrative and Financial Services (NUcore)
  - Rigorous Evaluation of Annual Reports (Awards)
  - Policies and Regulations (Federal, University)
  - Professional Development Opportunities

- **Annual Financial Support**
  - OR (approx. $2M/yr)
  - Centers, Schools, Departments (approx. $2M/yr)

- **Construction and Improvements of Space for Core Facilities**
  - [http://www.researchspace.northwestern.edu/](http://www.researchspace.northwestern.edu/)
How are Core Facilities Supported? (cont’d)

- **Office for Research Equipment Grants**: two competitive rounds per year, support equipment purchases up to $100K, ReLODE loan program up to $500K (10 yr. to pay back)
- **Office for Research Operating Support**: requested via the Annual Report, supports expenses not allowable on recharge, facility growth, unexpected expenses
- **FSM Dean’s Office Support**: competitive, single round per year, provides subsidies for cores serving FSM researchers
- **Voucher Program**: when a PI donates new equipment to a core facility, they are eligible for a voucher to use the equipment

Additional Support of Core Facilities

- Schools and Departments provide operating subsidies or annual deficit coverage to core facilities
- Core-specific grants reduce the operating costs (NIH RHLCCC grant and other P30’s, NSF MRSEC grant)
- External users charged a higher rates - especially commercial users that can help a core facility balance its budget (some transactions may be taxable!)

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**NATIONAL SCIENCE FOUNDATION**

**MRSEC**

**MATERIALS RESEARCH SCIENCE & ENGINEERING CENTERS**

**Robert H. Lurie Comprehensive Cancer Center**

**Northwestern University**
CFA and Research Administration

• NUcore
  – Purchase items, request services, schedule instruments, billing, journaling
  – Allows RA’s and BA’s to see grant money spent in cores
  – nucore@northwestern.edu
  – sites.northwestern.edu/nucore

CFA and Research Administration (cont.)

• Instrumentation Grants (NSF MRI, NIH S10) letters of intent submitted to CFA/reviewed by Associate VPR
• Collection of summary statements for instrumentation proposals
How can I learn more about Core Facilities?

- Visit our website: http://facilities.research.northwestern.edu
- Internal Opportunities
  - Core Facility Listserv
  - Quarterly Brown Bags + Quarterly NUcore Tech Talks
  - Kellogg Course: Leadership and Management in Core Facilities
- External Opportunities
  - National: ABRF (Association of Biomolecular Resource Facilities)
  - Regional: MWACD (Midwest chapter of ABRF)
Mission

NURAP strives for a diverse membership of research administration and support professionals in departments, divisions, centers, schools and central administration units.

With an emphasis on operations and organizational management, NURAP provides an educational forum to discuss current policies, exchange best practices/ideas and network.

Grassroots Leadership

Nathan Youngblood, President, MEAS, Research Administration, EV
Juleen Morford, Vice President, FSM, Preventive Medicine/IPHAM, CH
Maria Galent, Secretary, School of Communication, EV
Jody Hirsh, OR, Chemistry of Life Processes Institute, EV
Maura Cleffi, OR, NAISE, EV
Brent Bell, FSM, RA
Rebecca McNaughton, ORD
Yael Mayer, MEAS, Research Administration, EV
Agnes Engstrom, WCAS, Physics & Astronomy
Den Gonzalez, FSM Basic Science Administration
Yael Mayer, Biomedical Engineering and the Center for Synthetic Biology (CSB)
Toby Singer, WCAS Chemistry
Katie Wu, ASRSP
Education and Information

NURAP Newsletter
(Information)
Member recognition, advice column, organizational news

NURAP Listserv
(Information)
Job opportunities, event announcements, internal training

NURAP Website
(Information)
Organizational information, list of previous events, membership information, resources for research administrators
[www.nurap.northwestern.edu](http://www.nurap.northwestern.edu)

NURAP at Noon
(Programming)
Informal informational sessions

NURAP@NOON Sessions

Best Practices for Reconciliations and Projections

Stored Value Cards – presented by Treasury Financial Operations

Project Closeout – panel discussion

NCURA Webinar on Research Terms and Conditions
Website:

http://www.nurap.northwestern.edu/

Joining NURAP

How do you become a member of NURAP?
✓ Join the listserv by emailing us at nurap@northwestern.edu
✓ Membership in NURAP is free!
✓ Membership in NURAP is open to all members of the Northwestern University community involved in any aspect of research

Please Join us on Twitter, Facebook or LinkedIn
Questions?

Office of Foundation Relations

Maureen Scherrer
Assistant Director
maureen.scherrer@northwestern.edu
What, Who, Where is OFR?

Northwestern University's central office supporting faculty and staff across all schools and units who seek funding from private, professional foundations.

Who We Are

Sarah Fodor, PhD
Executive Director
Institutional Priorities, NU-Qatar, The Graduate School, Feinberg

Susan Dauber, PhD
Director
Communication, IPR, Kellogg, Law, SESF, SPS, Weinberg-Social Sciences

Heidi Jurgens, PhD
Senior Associate Director
Communication-CSD, McCormick, Biomedical & ChBE, Weinberg-Life and Physical Sciences

Chloe Taft Kang, PhD
Senior Associate Director
Bienen, Block, McCormick, Libraries, Weinberg-Humanities and History

Maureen Scherrer
Assistant Director
Student life and scholarships, prospect research, reporting and analytics

Thomas Martin
Program Assistant
Gift/grant processing, stewardship support

*Much of Feinberg’s private foundation and public charity activity is managed by Michelle Melin-Rogovin, Senior Associate Director of Foundation Relations, Feinberg School of Medicine.
What Private Foundations Fund

- **Research/programs** that align with their **mission** and current areas of interest

- Many have programs for **early-career investigators** (windows of eligibility)

- Applying for funding:
  - Open Requests for Proposals (RFPs)
  - Invited/Limited RFPs
  - “Not accepting unsolicited proposals” (but may accept inquiries)

**FY18 Private Foundation Funding:**

$54.7M

- Feinberg $18.6M
- Weinberg $14.6M
- SESP $5.4M
- McCormick $6.5M

Source: Alumni Relations and Development CATracks Database
## OFR Services

### Strategy and Planning
- One-on-one meetings with faculty
- PI- or project-specific prospect research
- Share relevant opportunities with individual faculty as they occur
- Biweekly RFP newsletter
- Funding opportunities on website
- Presentations at departmental meetings/other convenings

### Proposals and Foundation Communication
- Proposal consulting (strategy/writing/editing) to develop compelling proposals
- LOIs, emails to foundations
- Plan and staff foundation visits
- Grant management advice
- Track all private foundation activity across the University

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### When should I contact OFR?

When your PI (or you)…

1. needs help writing or revising a proposal
2. is curious about private foundation funding/planning to apply
3. wants to know about possible foundation opportunities
4. will be visiting a foundation
5. needs institutional documents, like our 501(c)(3) letter or board list
What are restricted foundations and what do I need to know about them?

Restricted due to...
- the nature of the University’s relationship with the foundation,
- because the foundation may limit the number of applications that can be made from Northwestern, or
- particular interests of the funder.

See the list of restricted foundations

My PI is interested in approaching a family foundation for funding. Can you help?

- OFR works solely with private, professionally staffed foundations.
- Some family foundations, in name, do have formal RFP processes and we do manage those.
- We can connect you with the appropriate Alumni Relations and Development team if appropriate.
What role does OFR play in limited submissions?

• Process managed by the Office for Research Development

• Once the Northwestern nominee is selected, OFR works closely with the PI to prepare a compelling proposal and ensure submission.

Resources

• OFR Website – RFPs

• Sign up for Email/Listserv for upcoming funding opportunities

• Foundation Directory Online (FDO)

• Institutional Documents
Thank You

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www.northwestern.edu/foundationrelations
@NUFoundRel