Welcome!

- Agenda, handouts, contacts
- Presentations: [researchintegrity.northwestern.edu/research-administration-training-seminar](researchintegrity.northwestern.edu/research-administration-training-seminar)
- Questions/participation
- Breaks
- Feedback
Training Goals

Let’s discuss:

- Research administration roles and responsibilities
- Office for Research, related offices, and research-related resources
- Regulatory fundamentals that form the foundation of research administration
- Research administration process and the sponsored project lifecycle
- Financial and non-financial policies and procedures

Agenda

Day 1: Tuesday, April 2
- Research Roles & Responsibilities
- Sponsored Research: An Overview
- Research Development
- Corporate Engagement
- Innovations & New Ventures (NVO)
- Conflict of Interest (COI) Office
- Export Controls Compliance

Day 2: Thursday, April 4
- NUCATS
- Research Safety
- Institutional Review Board (IRB) Office
- Institutional Animal Care & Use Committee (IACUC) Office
- Center for Comparative Medicine (CCM)
- Research Portal
- Cybersecurity (NUIT)
- Data Management & Repository Services (Library)
- Core Facilities Administration
- NU Research Administration Professionals (NURAP)
- Foundation Relations

Day 3: Tuesday, April 9
- Pre-Award Overview
- Working with Industry
- Post-Award Non-Financial Management
- Cost Sharing
- Research Accounting (ASRSP – Office of Accounting Services for Research and Sponsored Programs)
- Research Misconduct & Compliance

Day 4: Thursday, April 11
- Cost Principles for Sponsored Projects Administration
- Facilities & Administrative (F&A) Rate
- Service (Recharge) Centers & Program Income
- Cost Transfers
- Faculty Salary Planning
- Compensation: Personal Services & Effort Reporting
Introduction

Questions?
Research Roles and Responsibilities

Michelle Stalilonis
Senior Compliance Specialist
Office for Research Integrity

Research Administration Roles

Everyone works together to support research, the research process, and research administration

Roles & Responsibilities

- Principal Investigator
- School / Department / Lab
- Central Offices
- Departmental and school-level administrators, co-investigators, students, postdoctoral researchers, and technical research personnel
- For example:
  - Financial Operations
  - Office for Research Integrity
Research Administration Roles

**Principal Investigator (PI)**
- Directs and oversees all research activities
- Fosters a culture of research integrity
- Conducts research in an objective and unbiased manner, in compliance with policies and regulations
- Responsible for fiscal and administrative management of research

**Department Chair / Center Director**
- Liaison to other University units
- Ensures research objectives of the department, school, and University are consistent
- Confirms commitment to policies and regulations, and takes appropriate actions to ensure compliance
- Oversees the faculty in relation to their research activities
- Ensures resources are sufficient to meet departmental research needs and strategic vision
- Communicates research-related training requirements to faculty and staff

**Unit Administrators**
- Provides support for PI’s research pursuits, while ensuring adherence to regulations and policies
- Supports PI with fiscal and administrative management of research
- Communicates proposal deadlines, pre-award processes, and policies to PI
- Completes post-award administration of research grants and/or contracts
- Communicates with PI to complete effort commitment profile and to track and monitor effort commitments

Roles & Responsibilities

http://www.researchroles.northwestern.edu
University Policies and Procedures

Example:
Northwestern’s Effort Reporting Policies and Procedures
https://www.northwestern.edu/coststudies/links.html

Grant or Contract Terms

University Policies and Procedures
Northwestern determines how to meet these guidelines via its Effort Reporting policies

Sponsor-Specific Policies
NIH and NSF further define expectations

Federal Policies
Uniform Guidance sets requirements for effort reporting

Roles & Responsibilities

Office for Research
Vice President for Research

• Oversees Office for Research and University research operations
• Fosters new research initiatives
• Oversees partnerships with industry, government, and partner institutions
• Acts as the University representative at national committees and labs
• Official institution nominator for limited submission candidates

Associate Vice Presidents for Research

• Work with the VP for Research to guide the strategic direction of research and improve the Office for Research’s customer service orientation
• Oversee OR compliance and operational units, Research Centers, and Core Facilities
• Represent OR on University committees
Office for Research

Sponsored Research
- Identifies funding sources
- Assists in proposal development
- Reviews and endorses proposals
- Accepts and appropriates awards
- Promotes compliance with agency and University policies

Office of Research Development
- Identifies funding opportunities
- Provides research administration support for large and/or complex grants
- Assists with grant proposal development
- Provides grantsmanship training
- Provides assistance with institutional commitments and cost-sharing for proposals
- Assists in establishing external partnerships

Office for Research Integrity
- Promotes research integrity and the responsible conduct of research
- Helps researchers navigate the complex research compliance and administrative arenas
- Serves as a confidential source for reporting research-related concerns
- Facilitates review of alleged research misconduct
- Coordinates quarterly research administration training seminars
- Tracks compliance with NSF RCR training requirements

Institutional Review Board (IRB) Office
- Supports the IRB
- Assists PIs and research community in minimizing risk to human subjects
- Ensures compliance with laws and policies regarding human subject research
- Responds to allegations of human subject research noncompliance
- Conducts quality assurance and training

Institutional Animal Care and Use Committee (IACUC) Office
- Supports IACUC
- Works with CCM to protect welfare of animal subjects
- Ensures compliance laws and policies regarding animal subject research
- Inspects animal facilities and laboratories
- Responds to allegations of animal subject research noncompliance
- Conducts post-approval monitoring and training

Center for Comparative Medicine (CCM)
- Supports faculty using animals
- Oversees the humane care and use of animals
- Houses research animals, maintains support space and services for the use of animals
- Provides training in the care and use of animals
Office for Research

Office for Research Safety
- Oversees training and compliance programs for chemical, biological, radiation, and lab safety
- Manages collection and proper disposal of chemical, radioactive, and biological waste generated by the research, teaching, and clinical operations
- Provides emergency response resources and information
- Provides security oversight for materials of national security interest

Conflict of Interest Office (NUCOI)
- Oversees and implements the faculty and staff conflict of interest policies and procedures
- Ensures compliance with applicable conflict of interest regulatory requirements
- Provides guidance and support regarding conflict of interest policies, systems, standards, and procedures
- Administers and supports the activities of conflict of interest committees

Export Controls Compliance
- Establishes and oversees a centralized resource ensuring compliance with export control regulations
- Provides education and outreach
- Maintains records demonstrating steps taken to comply with the regulations
- Conducts restricted party screenings

Innovation and New Ventures Office (INVO)
- Entrance point for moving Northwestern's inventions to the public
- INVO handles:
  - Invention Management – commercialization of scientific inventions
  - Patent, Licensing and Legal Issues
  - New Business Ventures, Venture Fund Programs, Technology Marketing
  - Startup Resources and Work Spaces
  - Mentorship and Training Programs

Core Facilities Administration
- Core facilities are recharge centers, operating under a fee-for-service model
- CFA provides financial support, administrative oversight, professional development, assessment, and communication of shared research resources such as:
  - Electron and confocal microscopes
  - Mass spectroscopy facilities
  - Functional MRI facilities

Northwestern Scholars
- Searchable database of research expertise across all disciplines
- Explore the profiles and research output of 4,450+ faculty, and learn about 50+ core research facilities
- 200,000+ publications (updated weekly)
- View collaboration networks among researchers within Northwestern and with external scholars
  https://www.scholars.northwestern.edu
Other Research-Related Offices

ASRSP and Office of Cost Studies

- President
  - Provost
  - Vice President for Research
  - Office for Research
- Executive Vice President
  - Vice President of Financial Operations & Treasurer
  - Executive Director for Research Financial Operations
    - Accounting Services for Research and Sponsored Projects (ASRSP)
    - Office of Cost Studies
## Roles & Responsibilities

### Office of Accounting Services for Research and Sponsored Programs (ASRSP)
- Assists in financial status reporting, sponsor reimbursements, and award close-out
- Approves transactions over 90 days
- Coordinates financial audits
- Inventories government-titled equipment
- Administers the effort certification process
- Processes subcontract invoices
- Promotes compliance with policies

### Office of Cost Studies
- Oversees conformance with Northwestern’s policies and procedures related to cost accounting and effort reporting for sponsored programs
- Manages development and negotiation of Northwestern’s F&A Rate
- Maintains Effort Reporting System/Committed Effort Management (ERS/CEM)
- Provides determination of cost transfer policies and review of cost transfers

## Research Centers

- President
- Provost
- Dean
- Office for Research
- School-based Research Centers
- University Research Centers
- 52 university research centers
- University Research Institutes and Centers Administration (URICA) office facilitates the planning and deployment of strategic resources coordination

[http://www.research.northwestern.edu/centers](http://www.research.northwestern.edu/centers)
Questions?

Sponsored Research
An Overview
What is Sponsored Research?

- **Sponsored Research / Project**: specific research, training, service, or similar activity for which funding, data and/or material support is provided by an external sponsor under an agreement with the University.

Sponsors & Agreements

- **Common sponsor types**:
  - Federal government (largest source of funding)
  - State/local government
  - Industry
  - Foundations/nonprofits
  - International entities

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<thead>
<tr>
<th>Funded agreements</th>
<th>Non-funded agreements</th>
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<tr>
<td>Grants</td>
<td>Data Use Agreements (DUA)</td>
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<tr>
<td>Cooperative agreements</td>
<td>Confidential Disclosure Agreements (CDA)</td>
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<tr>
<td>Contracts</td>
<td>Facility Use Agreements</td>
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<tr>
<td>Subcontracts</td>
<td>Material Transfer Agreements (MTA)</td>
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Grants vs. Gifts

**Grants**
- Funding provided in response to an institutionally-endorsed proposal submitted to sponsor
- Specified statement of work, deliverables, budget, and period of performance
- Technical and financial reporting requirements
- Subject to terms and conditions of sponsor
- Must be routed through OSR
- Subject to University policy

**Gifts**
- No specified statement of work, deliverables, budget, or period of performance
- Minimal reporting requirements
- Irrevocable
- Work with Development Office
- Subject to University policy

For Additional Information:
http://osr.northwestern.edu/policies/sponsored-projects-versus-gifts

The Sponsored Project Life Cycle

[Diagram showing the life cycle of sponsored projects, including stages such as identify funding opportunities, proposal development & submission, award negotiation & acceptance, award set-up, award management, and award closeout.]
Sponsored Research: Who we are and what we do

Sponsored Research Mission

Sponsored Research assists investigators in proposing and managing sponsored programs in support of Northwestern University’s mission of innovative research, excellent teaching, and public service.

- Northwestern’s central research administration office
- Institutional point of contact for external research sponsors
- Comprehensive pre-award and non-financial post-award services
- Assistance with the interpretation of regulatory requirements and policy
- Development and distribution of sponsored research training and resources
Services

- **Facilitating all** Northwestern sponsored research activities
- **Advising** faculty and staff on proposal development and broader sponsored research issues
- **Interpreting** agency and Northwestern policy, guidelines, and terms and conditions
- **Endorsement** of Institutional proposals and resulting awards
- **Negotiation** and acceptance of awards
- **Award establishment**
- **Subcontracts issuance**
- **Reporting** on Northwestern sponsored research activity
- **Guidance** on award management issues
- **Represent** Northwestern nationally
- **Respond** to audits and subpoenas
- **Train** and **provide** educational materials for the sponsored research community

FY 2018 Metrics

- **294 Proposals/mo**
- **280 Awards/mo**
- **367 Contracts/mo**
Sponsored Research Organization Chart

Roles & Responsibilities: Grants Team

Grants Officers
- Pre-award services
- Award review and negotiation
- Post-award non-financial management
- Liaison with sponsors and funding agencies on behalf of faculty and administrators

Grants Assistants
- Pre- and post-award support services to Grants Officers
- Award set-up
- Liaison with Accounting Services for Research and Sponsored Programs (ASRSP), research administrators, and other departmental administrators

Review budgets for accuracy and compliance with NU and sponsor requirements

Find out more: https://osr.northwestern.edu/proposals
Find out more: https://osr.northwestern.edu/awards/awards
Roles & Responsibilities: Contracts Team

Contracts Officers
- Draft, review, and negotiate agreements and contracts
- Ensure compliance with sponsor & University policies and processes

Research Analyst / Coordinators of Administration and Grants
- Provide administrative support for industry-sponsored clinical trial budgets
- Process support Contract Officers with related agreements
- Review and maintain proposal and award data in InfoEd

Ensure compliance with sponsor and University processes

Find out more: https://osr.northwestern.edu/agreements

Roles & Responsibilities: Info Team

Systems and Data
- Provide functional assistance for InfoEd
- Analyze and report research data
- Ensure data integrity for proposal and award activity
- Maintain institutional ERA accounts and assist individuals with external ERA systems (e.g. ERA Commons, Fast Lane)

Communications & Education
- Manage sponsored research website and listservs
- Provide a centralized help resources
- Create and deliver sponsored research learning resources
- Collaborate with research offices and university partners to develop resources and implement electronic projects
Our Collaborators

| Accounting Services for Research and Sponsored Programs (ASRSP) |
| Center for Clinical Research (CCR) |
| Conflict of Interest at Northwestern University (NUCOI) |
| Innovation and New Ventures Office (INVO) |
| Institutional Animal Care and Use Committee (IACUC) |
| Institutional Review Board (IRB) |
| Export Controls Compliance |
| Foundation Relations |
| Office of General Counsel (OGC) |
| Risk Management |

*not an exhaustive list, examples of common engagements

Tips & Resources
Tips for engaging with us

• Know who your GO / GA / CO are and develop a good working relationship
  – Use the “Find my Grants/Contracts Officer” list on the “Contact” page of the OSR website

• Be proactive
  – Read documents (e.g. sponsor terms and conditions, award documents) ASAP
  – Stay current on issues (e.g. policy changes) that could affect projects you work on
  – Reach out in advance for help

Resources & Training

• OSR Website: https://osr.northwestern.edu
  – Job aids
  – Contact info
  – Presentation archive

• Sponsored Project Online Training (SPOT)
  – Mini courses
  – Micro-learning modules

• In-person offerings
  – In-person courses
  – OSR monthly meetings
  – Ad hoc brown bag sessions

• OSR Listserv
Contact Us

Visit our website: http://osr.northwestern.edu
Subscribe to our Listserv: https://osr.northwestern.edu/contact/listserv

SPONSORED RESEARCH EVANSTON OFFICE
1801 Maple Street
2nd Floor, Suite 2410
Evanston, IL 60201-3149
Phone: (847) 491-3003
Fax: (847) 491-4800
Email: OSR-Evanston@northwestern.edu
Hours: 8:30am - 5:00pm
Find Sponsored Research Evanston Staff

SPONSORED RESEARCH CHICAGO OFFICE
750 N. Lake Shore Dr., 7th Floor
Rubloff Building
Chicago, IL 60611-4579
Phone: (312) 503-7955
Fax: (312) 503-2234
Email: OSR-Chicago@northwestern.edu
Hours: 8:30am - 5:00pm
Find Sponsored Research Chicago Staff

Questions
Office of Research Development

Office for Research
Our Mission

The Office of Research Development promotes, stimulates and advances the diverse research enterprise across Northwestern University through:

- Facilitating Interdisciplinary Research Programs
- Supporting the Pursuit of Funding Opportunities
- Promoting the Submission of Outstanding Proposals
- Guiding Early Career Investigators

Constituents and Stakeholders

- Northwestern Research Community
  - Deans, Faculty, Researchers, Research Administrators, Post-docs, Graduate and Undergraduate Students
- Federal Funding Agencies
- Office of Foundation Relations
- Office of Government Relations
- Office of Corporate Engagement
- Office for Sponsored Research
- Partners: Affiliates, Industry, Academic and Non-Academic Institutions
Facilitating Interdisciplinary Research Programs

- Supporting the Pursuit of Funding Opportunities
- Promoting the Submission of Outstanding Proposals
- Guiding Early Career Investigators

Research Program Development

- Anticipate New Interdisciplinary Federal Agency Initiatives
- Support Investigator Initiated Ideas & Centers
- Identify, Connect, and Guide Formation of Collaborative Teams
- Coordinate Preliminary Workshops
- Assist in Development of a "white paper"
- Support Proposal Development Process
Large Interdisciplinary Proposal Development

Programmatic Support

- Develop “Writer’s Outline”
- Guide the conceptual development and writing of: vision, administrative core, management plan, broader impact, education, outreach, postdoc mentoring plan, data management plan, data sharing plan, etc.
- Advise on budget development
- Letters of support
- Sponsor’s summary statements
- Resubmission

Large Interdisciplinary Proposal Development

Project Management Support

- Generate time-line/roles and responsibilities framework
- Coordinate video/audio conference meetings (PIs, administrators)
- Prepare meeting agenda
- Provide meeting minutes
- Liaise with local RA, OSR, external partners, internal resources, local and external grant writers
- Manage internal and/or external review
- Coordinate site visits
Large Interdisciplinary Proposal Development

Research Administration Support

• Liaise between RA and technical team
• Confirm registrations for all personnel
• Facilitate subcontract procurement
• Budget development
• Format current & pendings and biosketches
• Consolidate facilities documents
• Review all documents as 2nd set of eyes

Large Interdisciplinary Proposal Development: Seed Funding

NU-Interdisciplinary Program 1-2-3

• I1: $1,000 for a workshop; rolling submission
• I2: $15,000 for expenses pertinent to the submission of a large proposal; rolling submission
• I3: $95,000/year for up to 2 years for promoting effective team assembly, developing track record of collaboration, generating preliminary data and submitting a large/center proposal to an external sponsor; annual due date

http://www.research.northwestern.edu/interdisciplinary123/

Requirements:
  o Interdisciplinary team (at least 2 schools and 3 departments)
  o Innovation
  o Societal impact
ORD LINC Series

- Quarterly Event
- Promote anticipated federal funding opportunities
- Bridge communication between schools on a federal agency initiative
- Transfer knowledge between disciplines
- Establish new interdisciplinary connections

Past Events: “Microbiome”, “Internet of Things”, “Quantum Sciences”
New Weekly Funding Opportunity Alert (ORD INSIGHT)

Anticipate, monitor, identify, and disseminate federal funding opportunities and related information to faculty and staff

- **News and Events**
  - Agency strategic plans, proposer days, meetings/webinars
  - Notice of intent to publish a FOA – NIH
  - Dear Colleague Letters – NSF
  - Information on new federal funding initiatives

- **Funding Opportunities**
  - FOAs screened weekly for eligibility and relevance to NU research
  - FOA summary is hyperlinked to Pivot database listing
  - "Limited Submission" funding opportunities
  - Divided into 6 research areas: Biomedical & Life Sciences; Engineering & Computer Science; Learning Sciences; Media, Arts & Humanities; Physical Sciences; Social Sciences & Law

Individual FOA listing in Pivot database (or grants.gov)

Ongoing “curated” list by research area in Pivot database
I. Facilitating Interdisciplinary Research Programs

II. Supporting the Pursuit of Funding Opportunities

III. Promoting the Submission of Outstanding Proposals

IV. Guiding Early Career Investigators

Promote the Submission of Outstanding Proposals

- Personalized service to faculty from all disciplines (smaller scale proposals, single investigator, etc.)
  - Clarify and confirm sponsor’s expectations and guidelines
  - Enhance faculty communications with program officers
  - Advise on strategic approaches to developing a proposal
- Outreach and resources
  - "ORD Presents" workshops (DARPA, large grant proposal, shared instrumentation, NSF CAREER)
  - Bring program officers to Northwestern
  - Provide institutional subscription to "Research Development and Grant Writing News"
- Manage the Institutional Limited Submissions Process
Limited Submission

- Funding opportunities for which the sponsor limits the number of applications that may be submitted per institution
- ORD manages the institutional process for selecting nominees for Federal, Foundation, and Corporation funding opportunities
- Northwestern has established a transparent, efficient and effective process for selecting successful nominees

https://ord.northwestern.edu/limited-submissions

Northwestern’s Limited Submission (LS) Process

- Identification of LS funding opportunities
- Dissemination of announcements
- Collect Internal Letters of Intent
- Notification
- Internal Review
- Collect Internal Proposals
- Nomination
- Sponsor Proposal Due
Limited Submission: Dissemination of Announcements

- Targeted and inclusive dissemination
- Subject: LIMITED FUNDING OPPORTUNITY: ...
- Summary of opportunity and eligibility criteria
- Link to the sponsor’s website
- Key dates: LOI, internal proposal submission, notification, sponsor deadline
- Instructions: LOI form, internal proposal components, upload information
- All announcements and their status are posted on ORD's website
- You can opt-in to receive all announcements

Limited Submission: LOIs

- Submission of the LOI by the deadline is required, but no binding
- Based on institutional interest:
  - First come, first served
  - Applicants are authorized by ORD to submit a proposal to sponsor
  - A competition is required, all applicants are invited to submit internal proposals
Limited Submission: Review Process

- The Limited Submission Advisory Committee is charged with selecting the most nationally competitive applicants
- Senior faculty from FSM, WCAS, McC, SESP and SoC
- Humanities ad hoc panel is invited as necessary
- Ex officio and ad hoc reviewers are invited as appropriate
- Panel review (video-conference between campuses)
- Selection is requires approval by the VPR

Limited Submission: Notification

- All candidates are notified by email by the stated deadline
- Feedback is provided to all applicants
- Nominees are invited to work with the Office of Foundation Relations on Foundation proposals
- OSR GO is notified
Limited Submission: Outcomes

• Packard Science and Engineering Fellows
  National awardee each year 2007-11, 2013
  (of an annual total of 16 fellows from 50 Universities)

• Pew Biomedical Scholars
  (of an annual total of 21 scholars nationally)
Guiding Early Career Investigators

- Reach out to new faculty, present at new faculty orientations
- Consult and perform customized funding opportunities search, recommend collaborators
- Develop a strategy of applying to prestigious fellowships
- Provide NSF CAREER consultations
- Provide resources for early career investigators on ORD’s website
- Host “ORD Presents” Series

Guiding Early Career Investigators: ORD Presents

- NSF CAREER Workshop
- Introduction to Funding Opportunities
- Early Career Funding Opportunities
- Broader Impacts Forum
Please contact ORD if you…

- Are working on a complex proposal
- Find a limited submission opportunity not on our website
- Want to receive ORD Insight and LS FOAs
- Have a question about a federal funding opportunity
- Want to advertise internal seed funding or research events
- Have ideas for future events or thoughts on ways we can improve

ORD Website

https://ord.northwestern.edu/
Thank you!

Questions??
Corporate Engagement

Annalise Robinson– Program Assistant

Northwestern

Corporate Engagement | Who We Are

Jim Bray
Director
Corporate strategy, Coordinate team activities

Kara Moore
Researcher
The Garage, Segal, DFA

Annalise Robinson
Program Assistant
Gift/Grant support, Corporate visits, Social media

Tim Angell
Senior Associate Director
Medill, Pritzker, SoC, SESP, Athletics

Sheila Kessler
Associate Director
Farley, FSM, SQI, CLP, Library, Student Groups

Kate Rice
Senior Associate Director
ISEN, Kellogg, Weinberg, NUTC

Maggie Waldron
Senior Associate Director
Biomedical Engineering, Civil & Environmental Engineering

Northwestern
Corporate Engagement | Who We Are

• Independent from:
  • Feinberg Corporate Relations
  • Kellogg Corporate Partnerships
  • Pritzker External Partnerships

How companies interact on campus
Managing relationships: on campus

Faculty, Depts, Research Centers

Northwestern Career Advancement, McCormick Career Development, Medill Career Services, Student Groups

INVO, Faculty, The Garage

Tech Transfer & Startups

Research

CE

Recruiting

Regulatory Support

Office of Sponsored Research, Gift and Record Services, Office of General Counsel (OGC)

Campus Engagement is NEVER linear

You can’t manage what you don’t measure...

University-Industry Partnership Continuum
Levels of Engagement Activity as a relationship moves through traditional engagement to more holistic engagement

* Source: Wayne Johnson, Former VP, HP

Awareness
- Career fairs
- Interviews
- EDU accounts

Involvement
- Industry Affiliates/Advisory Program
- Research Grants
- Internships/Co-op
- Software Grants

Support
- Student Consultant
- Hardware Grants
- Curriculum Development/ABET Support & Fundraising
- Workshops/Seminars
- Student Organization Sponsorship
- Philanthropic Support
- Guest Speaking/Lectures

Sponsorship
- University Initiative Sponsorship
- Undergraduate Research Program Support
- Graduate Fellowships
- Collaborative Research Program Support
- Outreach Programs
- Support for Proposals for Education (NSF, NASA, etc.)
- BETA programs

Strategic Partner
- Executive Sponsorship
- Joint Partnership
- State Education Lobbying
- Major Gifts
- Business Development

Northwestern
The Boeing Company

NU Trustee
- Dennis Muilenburg

Board Involvement
- NUTC BAC
- CHiMaD

Student Group & Curriculum
- McCormick Student Groups
  - Car teams, Rocketry, Robotics
  - EXCEL, WiC, NSBE, SWE
- Nuvention Transportation

Research
- Master Research Agreement

Talent: Recruitment
- EAHI: Fall Quarter
- NU a preferred school for Engineering & Data Science

Master Research Agreements

Highlighted MRA

MRA Alliance members
- Corporate Engagement (alliance manager) INVO, OSR, Department staff – RA's and PI's

Meeting frequency
- Kick-off then quarterly check-ins with a variety of attendees

Topics covered:
- Introductions (roles and responsibilities), research overview, relationship importance, getting ahead of challenges
Corporate Engagement | Pre-Award

- Identify Industry Funding Opportunities
  - If Research Funding – we work with ORD
  - If Program Funding – we send to all relevant parties
  - Ensure limited submissions coordination

- Help with Proposal Development
  - Help with common (and uncommon) deliverables
  - Indirect costs
  - Collaborate with OSR and ORD

Corporate Engagement | Post-Award

- Appropriate accounting for grants, awards, gifts
  - Checks, Wire Transfers, In-kind
  - Gift vs Grant
  - Work with OSR, OGC, ASRSP

- Relationship Management
  - Share appropriate information
  - Find new corporate connections for PIs and Administrators
Data available for CE priority companies

- Northwestern data for recent campus activity/stats
  - Giving
  - Relationship Managers
  - Recent Activity
  - Key Contacts
  - Senior Leaders

- External data
  - Information on new strategy/initiatives
  - Recent press releases
  - News on other school engagements

Information Needs?

<table>
<thead>
<tr>
<th>Northwestern Relationship Managers</th>
<th>On Campus Recruiting Activity</th>
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<tr>
<td>Jeff Miller</td>
<td>Senior Director Corporate Relations</td>
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<tr>
<td>Jim Bruns</td>
<td>Director Corporate Engagement</td>
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<tr>
<td>Mary Roberts</td>
<td>Senior Director and Lead Offer (Master Clinical Trial Agreement)</td>
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Recent Activity

- **2019**: April - Laura Ellerocker (Cassie) "C" (CL), CSF, External Affairs, General Counsel, participated in the Lundbergs Foundation Breakfast. Exhibits for Foundation.
- **2017**: April - North American LLI Post Doc, QSR - MEDICINE/ADVANCED TECHNOLOGY. Nordic Pharmaceuticals attending in spring. CST CEO conference where we fully collaborated with Nordic. And SETC CEO conference participated in work.
- **February**: Visited scholars to participate in the CLIP organization's spring conference and to learn about giving for organizations.

Key Contacts

- Campus Director
- College/Department on campus Foundation
- Program Director
- External/Department on campus Foundation

Additional Senior Leaders

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<td>John Doe</td>
<td>JD</td>
<td>Director Strategy Office, Public Affairs</td>
<td>Global Affairs</td>
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<tr>
<td>Jane Smith</td>
<td>JS</td>
<td>Director, Medicine, Precision Medicine</td>
<td>Global Affairs</td>
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<tr>
<td>John Watson</td>
<td>JW</td>
<td>Director, Engineering, Innovation</td>
<td>Global Affairs</td>
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Partnering with You
Corporate Engagement

Next Steps

- Reach out to us with company research questions
- Update NU Scholars with PI information
- Sign up for the Foundation Relations & Corporate Engagement RFP newsletter
Thank You
& Questions

Innovation & New Ventures
at Northwestern

Northwestern
Today’s Goals

1. Who are we & what do we do at Northwestern?
2. What does the invention disclosure process look like?
3. What should research administrators know about INVO?
4. How can you learn more about what we do at INVO?

INVO | Our Mission

To catalyze the translation of Northwestern innovations to benefit the public

- Become a source of impactful innovations and products that improve lives
- Become a magnet for entrepreneurial talent
INVO | Our Activities

**Technology Transfer**
- IP Support (Consultation, Filing, Office Actions, etc.)
- Technology Evaluations
- Marketing Efforts

**Innovation & Entrepreneurship Programming**
- Workshops
- Seminars
- Mentoring
- Internships
- Coordination with Classes, etc.

**Space**
- The Garage
- Faculty Hub
- University Memberships (mHub, 1871 & MATTER)

**Funds**
- N.XT Fund ($10M)
- NuSeeds Fund ($4M)

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INVO | Areas of Innovation

**Areas of Innovation**

- life sciences
- physical sciences
- therapeutics
- engineering
- manufacturing
- research tools
- advanced materials
- nanotechnology
- biotechnology
- computer science
- medical devices
- chemistry
- electronics
Technology Transfer

Technology transfer activities focus on moving technology from the University to the public domain

BAYH-DOLE ACT of 1980

Change in IP Ownership

BAYH-DOLE ACT
Impact of Bayh-Dole on IP*

**PRE-BAYH-DOLE**
- <250 issued patents/year
- 30K university patents
- 5% led to new products

**POST-BAYH-DOLE**
- 5-6k issued patents/year (’12-’14)
- 80k university patents (’94-’14)
- 10-15% new products (’12-’14)

**Significant Economic Impact of Bayh-Dole Act**
- 5000 startup companies
- >$500B GDP increase
- 3.8M US jobs

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**INVO Staff**

**INVENTION MANAGEMENT TEAM**
- Alice Leffer, PhD, Executive Director
- Michael Moore, PhD, Life Sciences
- Nicole Janesick, JD, PhD, Life Sciences, Copyright
- Guendolyn Humphreys, PhD, Life Sciences, Research Tools
- Wintering Luo, PhD, Life Sciences

**NEW VENTURES TEAM**
- Andrea Mitrone, Finance & Administration
- Arjan Quist, PhD, Physical Sciences, Engineering
- Sarah Kenner, PhD, Chemistry
- Isabella Ortiz, JD, Engineering, Computer Science
- Anne-Isabelle Henry, PhD, Chemistry, Materials, BME

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*AUTM US Licensing Activity Survey Highlights 2012-2014
The Invention Disclosure

An INVENTION DISCLOSURE is Northwestern’s record of an invention, the inventors involved, sponsorships, & other public disclosures and publications.

Inventors should plan to submit their invention disclosure 3-4 weeks prior to a public disclosure

- Posters/abstracts/proceedings
- Journal articles, book chapters
- Conference presentations
- Some departmental seminars & thesis defenses
- Some grant proposals

DISCLOSING AN INVENTION TO INVO DOES NOT PROTECT AN INVENTION. A PATENT APPLICATION MUST BE SUBMITTED TO THE USPTO
Reasons to Disclose to INVO

1. **PROTECT COMMERCIAL POTENTIAL**
   INVO can provide feedback on how to proceed in the commercialization process.

2. **PROTECT INTELLECTUAL PROPERTY**
   If IP protection is appropriate, INVO can maximize IP protection if invention is disclosed in advance of public disclosure.

3. **FULFILL NU’S RESPONSIBILITY TO REPORT TO RESEARCH SPONSORS**
   INVO must report all inventions to respective public and private research sponsors.

4. **IMPROVE MARKETING WITH INDUSTRY PARTNERS**
   INVO can help provide industry with insight into available technologies and the research that is taking place at the university.
Invention Disclosure Form

Definition of Inventorship vs Authorship*

Accuracy of Grant Information*

- Describe the invention in a less technical manner.
- What is the relevance to the public?

- Describe the invention in a more technical manner.
- This helps our team and outside counsel to understand how this invention is distinct from other inventions.
Invention Disclosure Form

• Note work that is similar and differentiate. Better to disclose information upfront.

Provide COMPLETE contact information.*
• Name should be a LEGAL name—what’s on a passport and legal documents.
• For patent filing, we need to include the country of citizenship.
• Please inform us of any address changes for future correspondences & royalty checks.
• Electronic signature is acceptable.
Life of a Patented Technology

1. DISCLOSURE SUBMISSION
2. INVENTION ASSESSMENT
3. PROVISIONAL PATENT APP
4. UTILITY PATENT APP
5. INTERNATIONAL PATENT APP
6. US ISSUED PATENT
7. FOREIGN ISSUED PATENT

Important Take-Homes

- Complete the disclosure as thoroughly as possible.
- Be available to meet with IM to discuss your technology.
- Respond to IM as quickly as possible as they may have time-sensitive questions.
- Send relevant updates to IM, such as future public disclosures or technology development.
Commercializing Technologies

1. Explore Additional Sponsored Research Opportunities
   INVO coordinates with other offices to review IP stipulations.
   Ideally, several weeks are needed to review these agreements.

2. License Technology to Existing Company
   INVO helps identify and negotiate license agreements.
   If there’s interest, IMs contact faculty to discuss.

3. Create University Startup
   INVO has Startup Guide online.

Northwestern Licensees (Past & Present)
Our Startup Playground

Northwestern Startups
NU Startup Funding & Acquisitions

$56M+ SBIR/STTR Funded Active Startups (2006-2016)

$306M+ VC-Backed Startups

$2.72B+ Acquired Startups

Recent Issues for Discussion

Pre-Award
- Commercialization Plan or IP Provisions – Reach out to INVO/Invention Manager early

Disclosures – Key items
- Employee ID to identify personnel @ NU – our system is linked to myHR
- Funding accuracy
  - Corrections result in costly fees to NU – each one can be hundreds of $
  - When possible, include grant Project Award Summary as an attachment to disclosure

Agency Requests
- If you are ever asked from an agency about reporting, please reach out to INVO early
- iEdison Reporting – INVO takes care of this; Please reach out to INVO/Invention Manager if asked by agency
- Foundation/Private funding compliance – INVO takes care of this; Please reach out to INVO if asked by agency
Ways to Learn More about INVO

WEBSITE: Visit www.invo.northwestern.edu. For global I&E, visit https://www.northwestern.edu/innovation/index.html

INVO NEWSLETTER: Sign up on our home page

SOCIAL MEDIA: Follow us on Twitter (@INVOatNU)

STUDENT OPPORTUNITIES: INVO Practicum Interns and N.XT Associates

THANK YOU

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Conflict of Interest/Commitment
Conflict of Interest Office (NUCOI)

Kate Booth
Director, NUCOI

Overview

1. Defining COI, regulations & polices
2. Northwestern’s COI process – theory
3. Northwestern’s COI process – systems / workflow
Defining a Conflict of Interest

A situation where an individual's external financial interests may bias or compromise – or appear to bias or compromise – an individual's judgment, objectivity, or decision-making.

Why Are We Concerned About COI?

1. To protect the objectivity, credibility, and trustworthiness of our research, our research community, and our institution

2. To meet regulations that require the University to have policies and procedures for soliciting disclosure, review, and management of COIs
COI Regulatory Environment

Federal Regulations (UG, PHS, NSF)  
Sponsor Requirements

Sources

Project Terms and Conditions  
Institutional Policies

Applicable Policies

Northwestern has three policies:
- Policy on Conflict of Interest and Conflict of Commitment
- Conflict of Interest in Research
- Institutional Conflict of Interest in Research

http://www.northwestern.edu/coi
Applicability of Northwestern’s COI in Research Policy:

- All *federally-sponsored* research
  - *PHS, NSF, DOD, DOE, DOJ, etc.*
- All *industry-sponsored* research
- All *human subjects research*, regardless of funding source
- Agencies that have adopted PHS COI regulations:
  - *AHA, PCORI, Susan G. Komen, etc.*
- Other sponsors with specific COI requirements

How Does Northwestern Handle COI?

- Disclosure of external interests and relationships
- Review of interests and research to identify COIs
- Elimination, reduction, or management of COIs
- Monitoring compliance with management strategies
Disclosure Requirements: Who

Q: Who needs to disclose?
A: Investigators

- Any individual acting as project director or principal investigator, **AND**
- Any other person, *regardless of position or title*, who is independently responsible for the design, conduct, or reporting of research

Who are Investigators?

<table>
<thead>
<tr>
<th>Role on Project/Proposal</th>
<th>Is that person an Investigator?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Personnel</td>
<td><strong>YES - ALWAYS</strong></td>
</tr>
<tr>
<td>Consultant</td>
<td><strong>MAYBE</strong> – are they independently responsible for the design, conduct or reporting of the research?</td>
</tr>
<tr>
<td>Other Significant Contributor</td>
<td></td>
</tr>
<tr>
<td>Research Coordinator</td>
<td></td>
</tr>
<tr>
<td>Graduate Student / Postdoc</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Role on IRB Study</th>
<th>Is that person an Investigator?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal Investigator</td>
<td><strong>YES - ALWAYS</strong></td>
</tr>
<tr>
<td>Co-Investigator</td>
<td><strong>YES - ALWAYS</strong></td>
</tr>
<tr>
<td>Study Team Member</td>
<td><strong>NO</strong></td>
</tr>
</tbody>
</table>
Who are Investigators?

Q: What if a person is Key Personnel, but has 0% effort?
A: That person is an Investigator and needs to complete the COI requirements.

Effort is unrelated to the definition of Investigator

For example:
• The mentor of a graduate student or postdoc on a fellowship may have 0% effort because they are advisory, and may only meet with the trainee quarterly.
• Do they significantly contribute to the design, conduct, or reporting of research? YES.

Disclosure Requirements: What?

Q: What do Investigators need to disclose?
A: Significant Financial Interests (SFIs) related to their Institutional Responsibilities

• SFI =
  • Any equity / ownership / investment in a non-publicly traded company
  • Payment, reimbursed travel, equity in a publicly traded company, or IP licensed outside of Northwestern valued at / exceeding $5,000
  • Common related activities include: Editing, Scientific Advisory Board, Consulting, Training
Disclosure Requirements: When?

Q: When do Investigators need to disclose?
A: Prior to proposing or initiating a project, and on an ongoing basis:
✓ when they have a new financial interest, and
✓ at least annually

Note! A grant cannot be submitted until all Investigators have completed a disclosure.

Disclosure Requirements: Where?

Log-in link:
https://coi.northwestern.edu
Disclosure Requirements

Investigators are required to disclose outside financial interests / activities that are related to their Northwestern responsibilities before proposing or participating in research, when they get a new interest, and at least annually.

How Does Northwestern Handle COI?

- Disclosure of external interests and relationships
- Review of interests and research to identify COIs
- Elimination, reduction, or management of COIs
- Monitoring compliance with management strategies
Review: What Does a COI Look Like?

- Not every disclosed interest/relationship is a COI
- COIs are not necessarily bad things

Examples of apparent or actual COIs related to research:
- Extensive consulting or other relationship with, or equity interest in, an entity sponsoring research
- Intellectual property rights for product being tested in research
- Use of students/support staff/university resources on external activities
- University dealings with entities with which a personal relationship exists

How Does Northwestern Handle COI?

- Disclosure of external interests and relationships
- Review of interests and research to identify COIs
- Elimination, reduction, or management of COIs
- Monitoring compliance with management strategies
Manage: How do you manage a COI?

Transparency:
- Disclosure in publications, presentations & press releases
- Disclosure to research team members

Oversight / Firewalls / Separate Activities:
- Restrictions on use of resources (space, personnel, time, supplies) in company activities
- Requiring an SSJ for any purchases / vendor activity from company

How Does Northwestern Handle COI?

Disclosure of external interests and relationships

Review of interests and research to identify COIs

Elimination, reduction, or management of COIs

Monitoring compliance with management strategies
Where Does COI Fit in Workflows?

NUCOI works with OSR and the IRB to align processes and respond to shifting priorities.

Systems

- Filters for projects subject to policy
- Project details & personnel come in to eDisclosure
- Reports
- InfoEd
- eIRB+
- Database
- eDisclosure

COI
Disclosure Review Process: Grants

- **Project Status**
  - Proposal can be submitted
  - All investigators have disclosed

- **Compliance**
  - NOA is received: Proposal enters Award Workflow; OSR checks for COI determinations
  - JIT Notification received: Proposal status set to JIT; NUCOI begins review

- **Investigator Statuses**
  - Disclosed

- **Project Status**
  - Projects are not reviewed until the status is set to JIT, Prespend, or an Award status

- **Compliance Checkpoints: Grants**
  - **All investigators have:**
    - Disclosed SFIs
    - Completed training

  - **Proposal can be submitted**

  - **NUCOI & School Deans have:**
    - Reviewed each Investigator and made a determination
    - Managed any identified conflicts
    - Reported any conflicts, as needed / applicable

  - **Chartstrings can be issued**
Disclosure Review Process: IRB Study

- Proposal is submitted in eIRB+ and imported into eDisclosure
- Study can be Approved by IRB
  - Disclosures are reviewed, any conflicts are managed & reported

Investigator Statuses
- Disclosed
  - COI tab status: No Conflict
  - At the time of import, NUCOI will reach out to any individuals who have not disclosed
- Disclosed
  - COI tab status: Under Review
- Disclosed
  - COI tab status: Under Review
- Disclosed
  - NUCOI / School communicates with Investigator & study team to manage any identified conflicts

Compliance Checkpoints: IRB Study

**All investigators have:**
- Disclosed SFIs
- Completed training

**NUCOI & School Deans have:**
- Reviewed each Investigator and made a determination
- Managed any identified conflicts
- Reported any conflicts, as needed / applicable
- Communicated with Investigator/study team to request any needed changes to the study

Study can be Approved by IRB
Tools for Meeting Compliance Points

- COI Compliance Page in eDisclosure

- COI tab in eIRB+

Roles & Responsibilities

**Investigators**
- Disclose financial interests related to their institutional responsibilities
- (PI) Identify all individuals who are Investigators on projects

**NUCOI**
- Review disclosed interests relative to research projects
- Work to manage, reduce or eliminate conflicts
- Report to sponsors, as needed
- Assist all other parties

**RAs / OSR – RCs / IRB**
- Verify compliance of disclosure & training dates prior to proposal submission / project initiation / study approval
- Assist PIs in identifying all Investigators on a project

**School Deans / Committees**
- Review cases referred by NUCOI
- Assist in managing, reducing or eliminating conflicts for faculty and the institution
Resources

- **Policy on Conflict of Interest and Conflict of Commitment:**
  http://www.northwestern.edu/coi/policy/core_coi_policy.pdf

- **Policy on Conflict of Interest in Research:**
  http://www.northwestern.edu/coi/policy/research_policy.pdf

- **Northwestern’s Conflict of Interest Office:**
  http://www.northwestern.edu/coi/index.html

- **FDP Clearinghouse:**
  http://sites.nationalacademies.org/PGA/fdp/PGA_070596

Questions?
Help/Assistance

Northwestern Conflict of Interest Office (NUCOI)
nucoi@northwestern.edu / 847.467.4515

Kate Cosgrove Booth – Director
k-cosgrove@northwestern.edu / 847.491.4163

Export Controls:
What Are They and How Do They Impact Research?

Lane Campbell
Director, Office for Export Controls Compliance (OECC)
Overview and Background

- “Export Controls” are federal rules and regulations governing the shipment or transmission of items/information out of the U.S., including disclosures or transfers of technical data to foreign persons, whether in the U.S. or abroad.
Overview and Background

- Export control concerns arise due to three primary reasons:
  - The characteristics of the item itself (e.g. if it has military applications)
  - The destination of the item (both the country and the individual or entity)
  - The suspected end use of the item
Overview and Background

- Export controls are intended to address several concerns:
  - Protect U.S. national security
  - Implement U.S. foreign policy
  - Maintain a military and economic edge

Regulating Agencies

- Department of Commerce
- Department of State
- Department of Treasury
Restricted Parties

- The federal government publishes various lists which indicate certain parties (both individuals and companies) subject to restrictions.

- Primary lists include the Entity List, Specially Designated Nationals, Denied Persons, and Debarred Parties.

- Northwestern is now using screening software to conduct comprehensive and dynamic screening of restricted parties.

Embargoed Nations

- The U.S. has embargoes in place against several countries:
  - Cuba, Iran, the Sudan, Syria, and North Korea
  - Engagement with any of these countries requires a review of potential export control concerns
Export Controls Impact on Research

- "Deemed exports" involve the release of controlled technology to a foreign national.
  - The item is "deemed" to have been exported to the home country of the foreign national.
  - "Foreign national": not a US citizen, a lawful permanent resident, or a "protected person."

Fundamental Research Exclusion

Fundamental Research vs. Proprietary Research
The "Fundamental Research Exclusion" ("FRE") was established in a memo signed by President Reagan.

- NSDD-189 Memo, issued in 1985

- Characterizes "fundamental research", "the results of which ordinarily are published and shared broadly within the scientific community."

- "It is the policy of [the federal government] that, to the maximum extent possible, the products of fundamental research remain unrestricted."

The FRE is intended to control the flow of science, technology, and engineering information produced in federally-funded fundamental research at colleges, universities, and labs.

- Has subsequently been reaffirmed by 2 additional memos issued by the Department of Defense (DOD).
Fundamental Research Exclusion

• The FRE is destroyed when:
  
  - Sponsor is provided with the right to approve publications
  
  - Foreign nationals are restricted from participating in the research

  - “Side deals” are struck, wherein the researcher agrees to cooperate in some way with the sponsor to act inconsistent with “fundamental research”

Beyond the FRE

• The FRE does not apply to all university activities, e.g.:

  - All overseas physical shipments must be in compliance with export control regulations.

  - Anything provided under a non-disclosure agreement is potentially subject to controls.

  - Restricted parties and embargoes must always be considered when evaluating export control compliance concerns.
Consequences of non-compliance

- Failure to comply with export control regulations may have many consequences

  - Criminal charges
  - Monetary penalties
  - Damage to reputation
  - Loss of export control privileges

J. Reece Roth Case

- Professor Emeritus at the University of Tennessee who illegally exported sensitive technical information to China.

- Traveled to China with his laptop, which contained sensitive information.

- Shared information with foreign nationals, despite being put on notice by his employer and by the research contract.
In the News

• UMass Lowell was fined $100,000 for the unlicensed export of equipment to a company in Pakistan.
  – At the time, the company was listed on the Entity List.
  – The equipment was classified “EAR99.”

• More recently, a former postdoc at the University of Michigan was criminally charged with exporting equipment to his home country of Iran.
  – The defendant faces up to 20 years in prison.
  – The violation involved the shipment of humanitarian items to an embargoed country.

CITI Training for Export Compliance

• Northwestern has a subscription to CITI, the Collaborative Institutional Training Initiative
  
https://citiprogram.org/

  • Over ten different modules developed by experts in the field across the country (University-oriented)
The Role of OECC

- Established November 2012

- Intended to provide a central resource dedicated to export controls compliance.

- Coordinates with other offices to ensure that Northwestern is in compliance with the export control regulations.

- When in doubt, contact us.

Questions and Contact Information

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