Cornell Research

Overview, Administration and Support

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Purpose of Faculty Research Orientation

• Provide a brief, summary overview of Cornell Research

• Provide an introduction to:
  – Cornell research administration services
  – Research administration staff
  – University-level support available for research
  – The expectations of Cornell researchers
Cornell Research

- Leadership in multidisciplinary research
  - founded on excellence in the disciplines
  - enabled by outstanding facilities and a world-class library
  - invigorated by a highly collaborative environment
  - yielding leading-edge discoveries and technological breakthroughs
  - in the public interest and for global societal benefit

- Our new faculty, and students, will define the future and impact of Cornell research
Federal and Non-Profit Sponsored Research

Non-profit = $15.5M in FY10
DISTRIBUTION OF EXTERNAL FUNDING SOURCES

- DHHS: 36%
- NSF: 23%
- DOD: 4%
- DOE: 2%
- NASA: 2%
- USDA: 4%
- Corp: 4%
- Non-Profit: 2%
- Other Fed: 2%
- Other Non-Fed: 0%
- Fed Approp: 1%
- NY Approp: 8%
- State&Loc: 3%
- Found: 9%
Funding Sources for Cornell “Organized” Research

- Federal
- State & local gov
- Industry
- Institution funds
- All other sources

- PUBLIC FY08
- PRIVATE FY08
- CORNELL FY10
NSF Award Trends ($M)

Top 7 univ. for 2010 plus select others
Cornell Proposal Success Rates

- NIH – 29.7% (2009)  
  NIH National Average – 22.5%

- NSF – 35.4% (2009)  
  NSF National Average – 32% (FY09)
- NSF – 34.3% (2010)  
  NSF National Average – 23% (FY10)

- All Federal – 35.1% (2009)

- Non-Federal – 44.5% (2009)

- See NSF (dellweb.bfa.nsf.gov) and NIH websites for more info.
Limited Competitions

- Federal and foundation funding opportunities that limit the number of proposals or nominations that can be submitted.

- Mostly handled by an internal pre-competition. Shortened proposals/nominations are submitted by PIs or department heads.

- The “Local Advisory Committee” reviews and ranks proposals. Top ranked proposals submitted

- Sole criterion: Which proposal/nomination is most likely to win
Research Strategy

• **Renew our faculty**
  – recruit aggressively but carefully
  – focus on maintaining and expanding strategic areas of research leadership
  
  *160 new faculty since 2009 (10%) of the total faculty*

• **Recruit highest possible quality graduate students and postdocs**
  – educating them to be outstanding leaders of the next generations

• **Leverage resources**
  – strengthen Cornell’s advantages in state-of-the-art shared facilities and research infrastructure

• **Achieve excellence in research administration staff and systems**
  – reduce burdens on Cornell researchers and better enable their success

• **Establish appropriate metrics for determining Cornell’s strengths**
  – strategically deploy our resources to optimize our impact
Cornell Research FY 2010

A robust pipeline of research in a wide range of disciplines
2 national research centers
14 other major multidisciplinary research centers and facilities
Over 100 other research institutes, centers and laboratories in colleges

- > $750 million in “organized” research expenditures
- > 4,000 active sponsored awards
- > 1,200 Principal Investigators on active awards
- > 1,200 sponsors (awards and sub-awards)
- > 4,000 personnel engaged in research
- > 500 active animal use protocols
- > 1,500 active human subject research protocols
- > 400 patents filed, 140 issued, 12 startup companies
- > 200 research administrative support staff- central and distributed
Cornell’s Direct Support for Research

• Most of Cornell’s direct support for research projects in form of start-up funds, matching funds, 50% graduate tuition fellowships, etc., and support for centers and shared research facilities
• Some direct support for PIs (from NY State) in contract colleges
• Currently no general support for seed funding, internal project support, etc. centrally from the Research Division
• Some seed funding opportunities across the campus
  – Weill – Ithaca joint project seed funding program
  – Atkinson Center for a Sustainable Future – academic venture fund
  – Center for Materials Research – seed funding
  – Small amounts of seed funding from other centers and institutes
  – Society for the Humanities annual grant competition
  – Institute for the Social Sciences annual grant competition
  – Funding from individual colleges
What about overhead?

Handling overhead, or indirect cost (IDC) recovery, or recovery of facilities and administration costs (F&A) Cornell

- F&A revenue - the less than full recovery of the costs of sponsored research
- Current rate 59% in endowed, 56% in contract, restricted gifts - 10%
- 26% is due to administration costs – capped by federal regulation
  - Actual research administration costs would require a 32% to 34% rate.
  - Do recover the audited costs of research facilities (buildings) use.
- Unless those costs are already covered by some other source (NY State, gifts, endowment or .......) F&A revenue is not “profit”
- Some partial return of F&A to departments in contract colleges
- No direct return of F&A to departments or PI in endowed colleges
Roles of the Research Division

• Advocate for research with Federal agencies, Congress, and NY State
  – enhanced funding and sensible, outcomes-based regulations

• Help showcase Cornell research to public

• Provide leadership and support for multidisciplinary research initiatives

• Oversee major research centers and major facilities that span multiple colleges
  – Many additional facilities within the colleges and departments

• Administer Cornell’s central research support units
  – Enabling and supporting sponsored research
  – Ensuring regulatory compliance
Research Division

• A prime responsibility of the Research Division is to facilitate your research.

• Thus the quality of our research administration services and support must equal the world class research we expect from our faculty.
Support and services for your research

Many individuals and offices provide support and services for your research at every step of the way....

- Departments and College Research Offices
- Office of Sponsored Programs (OSP) (pre-award)
- Sponsored Financial Services (SFS) (post-award financial matters)
- Office of Research Integrity and Assurance (ORIA)
- Environmental Health and Safety (EH&S)
- Center for Animal Resources and Education (CARE)
- Center for Technology, Enterprise and Commercialization (CCTEC)
- Research Centers and Shared Facilities
- Occupational Medicine (Gannett Health Services)
Project Planning and Approval

Unit Research Office
- Assistance with budget, unit requirements
- Identify institutional resources for research
- Route for review, for compliance/ approval

OSP
- Consult and Review of sponsor/univ. requirements
- Review/negotiate terms and conditions
- Submit proposals to sponsors, manage process

ORIA
- Consult, review and approve for compliance:
  - financial conflicts of interest, human participants, use of animals, biohazards, export controls

CARE
- Animals use - provide Vet consultation and guidance, animal use training, Vet services
- Animal housing and procedure facilities,

EH&S
- Consultation and approval of practices for safe conduct of research, lab safety, radiation safety, chemical waste. Environmental compliance

Research Centers/Shared Facilities
- Consultation on capabilities—services, rates, options
- Opportunities for collaborative research - Center proposals
Conducting Research

**Unit Research Office**
- Manage research appointments
- Provide administrative support for research
- Provide financial support and information to PIs

**OSP**
- Accept and distribute awards
- Manage post award interactions with sponsor

**EH&S**
- Lab inspections and consultation
- Incident and accident reporting and management
- Monitor ongoing compliance

**ORIA**
- Consultation on ongoing compliance
- Manage research protocol review and approval

**CARE**
- Provide Veterinary care and guidance, ongoing training, Vet services for procedures and care
- Animal housing and procedure facilities

**Research Centers/Shared Facilities**
- Support interdisciplinary research programs
- Provide shared, core facilities for research
Managing the funding

- Track expenses, provide reporting and assist in managing actuals/budget
- Facilitate with central offices where needed
- Negotiate with sponsor if changes to finances, project leadership or scope
- Handles central accounting tasks for sponsored research funds
- Ensures compliance with federal financial rules
CCTEC

- Handles disclosures of Cornell inventions
- Handles the patenting process
- Marketing and licensing of inventions, including licensing to startups
Your Responsibility as a Researcher

....you are responsible for conducting your research following Cornell requirements and external regulations

You and your research represent Cornell, and will define Cornell’s future reputation

• Make use of/seek information and education
• Plan in advance, seek advice
• Follow the rules!
• Successfully educate and mentor the next generation of scholars and researchers
Current Concerns in Academic Research

• Financial Conflicts of Interest
• Responsible Conduct of Research and Research Misconduct
• Research with Human Subjects
• Use of Animals in Research - Activism
• Effort Reporting for Sponsored Awards
• Industrial Funding of University Research
• Effectiveness in Technology Transfer