Goals of the Certificate Program

- Learn the roles and responsibilities of various offices on campus in the acceptance and management of sponsored projects
- Become knowledgeable about University of Maryland Board of Regents Policies that relate to sponsored projects administration
- Understand the myriad of federal rules and regulations that govern research administration and how these are implemented at UM
- Learn to recognize and manage compliance issues as they relate to sponsored projects administration
- Learn what questions to ask and where to find the answers

Life Cycle of a Research Project

1. Find
2. Apply
3. Manage
4. Closeout
Goals of Sponsored Project Overview Part I

- Discuss how research plays a key role in the overall mission of the University of Maryland
- Identify the key players involved with research and other types of sponsored projects on campus
- Become acquainted with types of funding agreements, types of projects, and types of funders

What is a research university?

- A research university is a university which considers research to be one of its primary purposes.
- The University of Maryland is a public research university committed to preeminence as a national center of research and graduate education.

The what and why of research

- What is research?
  - Research is a process to discover new knowledge. It is the systematic investigation into and study of materials and sources in order to establish facts and reach new conclusions.
- Why?
  - The object of research is to extend human knowledge of the physical, biological, or social world beyond what is already known.
UM Funding Trends

- The Federal Government funds about 75% of the sponsored projects at UM
- Sponsored project award dollars have increased by 40% in the last 10 years

ORA and non-ORA Awards

FY2015 ORA Awards

<table>
<thead>
<tr>
<th>UM College</th>
<th>Award Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGNR</td>
<td>$39,577,100</td>
</tr>
<tr>
<td>ARCH</td>
<td>$4,166,039</td>
</tr>
<tr>
<td>ARHU</td>
<td>$18,206,357</td>
</tr>
<tr>
<td>BMGT</td>
<td>$2,099,533</td>
</tr>
<tr>
<td>BSOS</td>
<td>$61,165,129</td>
</tr>
<tr>
<td>CAMG</td>
<td>$182,724,493</td>
</tr>
<tr>
<td>EDUC</td>
<td>$8,480,092</td>
</tr>
<tr>
<td>ENGR</td>
<td>$109,387,985</td>
</tr>
<tr>
<td>GRSO</td>
<td>$1,885,063</td>
</tr>
<tr>
<td>INFO</td>
<td>$5,992,263</td>
</tr>
<tr>
<td>JUFA</td>
<td>$2,702,624</td>
</tr>
<tr>
<td>SVPAAP</td>
<td>$18,724,799</td>
</tr>
<tr>
<td>VPR</td>
<td>$10,341,156</td>
</tr>
<tr>
<td>VPSA</td>
<td>$1,827,964</td>
</tr>
<tr>
<td>OTHER*</td>
<td>$1,264,901</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$491,120,929</td>
</tr>
</tbody>
</table>

*Other includes EXST, IT, JOFA, LDR, PEEI, and VIF/F
What is research administration?

- Research Administration involves the development, management, and implementation of research initiatives.
- Research administrators are active in developing research collaborations and partnerships, strategic planning for research programs, proposal preparation and submission, contracts negotiation and management of research projects, financial management and oversight, compliance to federal regulations and policies.

Roles & Responsibilities - the who

- A look at some of the people/offices that play a role in Sponsored Projects Funding
The Principal Investigator: Every Project Begins with an Idea

- The Principal Investigator (PI) designs the project and is designated by the University of Maryland to direct the activity being supported by sponsored funding.
- The PI is responsible for the technical success of his or her project and is accountable for compliance with University and Sponsor requirements.
- The PI is ultimately responsible for the overall technical and financial management of the project.

Departments and Colleges

- Chairs/Directors
- Deans
- Coordinators
- Departmental Research Administrators
- Payroll/HR

The Division of Research

- Office of the Vice President for Research
- Office of Research Development
- Office of Research Administration
- Office of Technology Commercialization
- Research Compliance Office
- Office of Contract and Grant Accounting
Research Assurance Committees

- Institutional Animal Care and Use Committee (IACUC)
- Institutional Review Board (IRB)
- Biological and Chemical Hygiene Committee
- Institutional Biosafety Committee
- Radiation Safety Committee
- Conflict of Interest Committee

Across Campus

- Academic Affairs
- Accounts Payable
- Business Services
- Environmental Safety
- Human Resources
- Office of General Counsel
- Procurement and Supply

<table>
<thead>
<tr>
<th>Roles and Responsibilities</th>
<th>PI</th>
<th>Dept</th>
<th>College</th>
<th>ORA</th>
<th>OCGA</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>provide guidance on funding opportunities</td>
<td>x</td>
<td>b</td>
<td>a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>write technical narrative (the research proposal)</td>
<td>x</td>
<td></td>
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<tr>
<td>develop the proposal budget</td>
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<tr>
<td>identify the need for cost sharing and obtain necessary cost sharing commitments/approvals</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
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<tr>
<td>Prepare Small Business Subcontracting Plan</td>
<td></td>
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</tr>
<tr>
<td>Complete compliance forms: Institutional Review Board, Animal Care and Use, Institutional BioSafety, Dept. of Health and Safety, Financial Conflict of Interest Disclosures, Conflict of Interest forms etc.</td>
<td></td>
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<tr>
<td>institutional oversight and facilitation of compliance issues</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>provide institutional review and approval of proposal</td>
<td>x</td>
<td></td>
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<tr>
<td>provide feedback on nonstandard terms and conditions when applicable</td>
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</tr>
<tr>
<td>accept award terms and conditions &amp; execute award on behalf of UM</td>
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<tr>
<td>review and approve financial transactions as part of the ongoing project</td>
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</tr>
</tbody>
</table>
## Roles and Responsibilities

<table>
<thead>
<tr>
<th>Role and Responsibility</th>
<th>PI</th>
<th>Dept</th>
<th>College</th>
<th>ORA</th>
<th>OCGA</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify and initiate any screenings required (e.g., foreign visitor screening)</td>
<td>X</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Prepare and submit technical reports to sponsor</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Prepare and submit the invoice or financial asset</td>
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<tr>
<td>Subrecipient monitoring</td>
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<tr>
<td>Non-financial reports to monitor and oversee expenditures</td>
<td></td>
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</tr>
<tr>
<td>Maintain official project closeout documents for sponsored projects</td>
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<tr>
<td>Market, negotiate and enter into license agreements for University IP</td>
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<td>OTC</td>
</tr>
<tr>
<td>Provide support and/or source documentation as requested by auditors</td>
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<td></td>
<td></td>
<td></td>
<td>OTC</td>
</tr>
<tr>
<td>Provide training to the research community regarding changes to policies and regulations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OTC and VPR</td>
</tr>
</tbody>
</table>

### Sponsor Types

- Federal
- State
- Foundations
- Corporations
- Individuals

### FY 15 ORA Awards by Major Sponsor Type

- **Federal Gov't:** $370,744,415
- **State Gov't:** $40,292,673
- **Corporations:** $19,258,227
- **Foundations:** $12,214,192
- **Other Non-Federal:** $48,611,422
- **Total:** $535,946,531
Federal & State Government

- Clear process
- Firm deadlines
- About six months from proposal to notice of award
- Source of funds is taxpayer dollars
- Reviewers comment and score proposal

Foundations, Corporations, Individuals

- Less formal application process
- More flexible deadlines
- Funding decision may take weeks
- Board of Directors makes the decisions
Most Common Funded Agreements

- Grants
- Cooperative Agreements
- Contracts

Basic Purpose of Grants

- Awarded to assist the organization in fulfilling a goal or public purpose
- Supports further knowledge in subject area or field of research

Basic Purpose of Cooperative Agreements

- Awarded to transfer money, property, services, or something of value
- Allows the accomplishment of public purpose
Basic Purpose of a Contract

- Awarded to acquire property or services
- For the direct benefit or use by the sponsor

External Support to the University

- Gifts
  - Routed through the Foundation
  - Include capital support and endowment support
- Sponsored Projects
  - Routed through ORA
  - Includes grants, contracts, cooperative agreements

Basic Purpose of Gifts

- Donated for general or specific purpose
- Charitable in nature
We Need Good Data

Types of Sponsored Project Activities

- Basic Research
- Applied Research
- Development Research
- Clinical Trial
- Training/Instruction
- Fellowship
- Intergovernmental Personnel Assignment (IPA)
- Service/Other

Types of Sponsored Project Activities

**Basic Research**: systematic study directed toward fuller knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications towards processes or products in mind.
Types of Sponsored Project Activities

**Applied Research**: research assessing and using some part of accumulated theories, knowledge, methods, and techniques for a specific driven purpose


Types of Sponsored Project Activities

**Development Research**: systematic application of knowledge or understanding, directed toward the production of useful materials, devices, and systems or methods including design, development, and improvement of prototype and new processes to meet specific requirements


Types of Sponsored Project Activities

**Clinical Trial**: research studying the effectiveness of a particular device or therapy or drug with humans
Types of Sponsored Project Activities

- **Training/Instruction:** projects which incorporate teaching as its main objective.

Types of Sponsored Project Activities

- **Fellowship:** projects which provide a stipend to faculty or students in support of their undirected research or advanced study.

Types of Sponsored Project Activities

- **IPA:** Intergovernmental Personnel Assignments of personnel on
temporary assignment to federal agencies.
Types of Sponsored Project Activities

**Service/Other:** projects which involve the performance of work other than instruction/training and research. Examples of such projects are health and community service projects.

What type of activity is it?

- Using the information that was just presented, can you determine what type of sponsored project activity is being performed?

Enforcing Underage Drinking Laws Program

“Enforcing Underage Drinking Laws Program” targets the enforcement of underage drinking laws in Maryland. The program supports overtime for officers who will increase enforcement activities at house parties adjacent to the University of Maryland in the City of College Park where underage drinking commonly occurs. Enforcement activities will be focused during times when underage drinking and hospital transports by ambulance for alcohol-related incidents for underage persons is most prevalent, including at the beginning of the academic year, before “spring break,” etc.
<table>
<thead>
<tr>
<th><strong>Interplanetary Vehicle Design</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>This proposal offers a multidisciplinary approach to the optimization of high lift-to-drag ratio interplanetary vehicle designs. The fellow supported by this award will have the opportunity to complete his dissertation with the data generated by this study.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Arabic Immersion</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>This project supports the teaching of Arabic in an immersion environment, with scholarship support available for a year of study abroad for the purpose of achieving a high level of language proficiency upon completion of the program.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Medium Range Thermosphere Ionosphere Storm Forecasts</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The proposal will develop space weather forecasts using data-driven models based on dynamical systems and data assimilation approaches. These efforts will be part of a multi-institutional consortium project to develop a space weather forecasting system. The University of Maryland team will focus on data-driven models based on extensive data from the ground-based and spacecraft data to build forecasting models and on the integration of these models to a comprehensive model of space weather.</td>
</tr>
</tbody>
</table>
Safe, High-Energy Density, Solid Lithium Batteries

- The aim of this project is to better understand the electrochemical properties and microstructure of novel thin film non-flammable solid polymer electrolytes and solid state (ceramic) garnet based electrolytes with enhanced performance. The proposed project has two objectives:
  - (1) Develop a novel flexible solid polymer electrolyte possessing the conductivity of a conventional liquid electrolyte with low volatility and mechanical properties of a solid; and
  - (2) Develop thin-film high-conductivity garnet-type solid lithium-ion electrolytes in low-interfacial-impedance tailored micro/nano structures.

NicVAX vaccine

This is a Phase III, Multi-center, Randomized, Double-blinded, Placebo-controlled follow-up safety study to assess long-term immunogenicity and safety of 3’-aminomethylnicotine-P. aeruginosa r-Exoprotein A Conjugate Vaccine (NicVAX) as an aid to smoking cessation. The NicVAX vaccine causes the body to produce special antibodies (proteins) that bind to nicotine. The rationale for conducting this study consist of: (a) to obtain longer term safety data up to 2 years after initial injection for subjects that participated in the phase II study and (b) to obtain additional data regarding the rate of decline of nicotine antibodies; (c) record any changes to subjects’ health; and (d) collect information about subjects’ smoking status since they were last seen for the study.

Improving Capabilities in Under-Resourced Languages

Languages of Africa and Southeast Asia pose a special challenge in their general lack of contemporary resources and adequate description, compounded by the vast numbers of diverse language varieties spoken in these world regions. Because African and Southeast Asian languages are largely under-resourced, maintaining and developing capabilities in them becomes especially challenging. UMD will assist in combatting this challenge by conducting specialized research in the highest priority, geopolitically strategic languages spoken in these world regions. Using UMD’s regional expertise in these two world areas, we will assess and organize existing resources on select African and Southeast Asian languages and conduct fieldwork with native language speakers to create novel resources, instructional aids, and computational tools geared toward applied, operational use that focus on modern, contemporary usage of these languages.
Transportation Security

The participating employee will provide expertise in transportation system resilience, protection and security to the USDOT. He will help the USDOT to identify gaps and redundancies, as well as opportunities for greater efficiency and improved security in our nation’s transportation systems. The participating employee will benefit from this assignment through greater insight into transportation security matters of national priority. These insights will inform him future research at UMD, giving greater value to his efforts in these areas.

Questions?