Turning Over Every Rock – Strategic Approach To Secure Research Funding

SRA International

October 22\textsuperscript{nd} 2019
Objectives

In this session we will **explore strategies to grow and strengthen the research enterprise.**

**Discussion Topics:**

- Obtain more funding from federal and non-federal Sponsors
- Establish support structures for Jr. faculty in securing funding
- Leverage Resources to aid in the grant writing process

Additionally, we will describe best practices used to identify funding opportunities and streamline the proposal development process.
### Contents

The following outlines today session, focusing on UTMB as the primary case study.

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<th>An overview of the value proposition and strategies on where to look for funding</th>
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<td>Organizational Structure</td>
<td>Showcasing UTMB’s current organizational structure for research advancement</td>
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<td>Research Concepts</td>
<td>A deep dive into the grant writing process UTMB is in the process of adapting</td>
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<td>4</td>
<td>Technology, Data and Other Resources</td>
<td>Examples of UTMB tools for the research enterprise</td>
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Obtaining Funding
Value Proposition

UTMB has had significant success by using some of the processes and resources that we will review today.

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>NIH Success Rates* (%)</th>
<th>UTMB Federal Success Rates (%)</th>
<th>Research Development Success Rates (%)</th>
</tr>
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<tbody>
<tr>
<td>FY 16</td>
<td>19.1</td>
<td>20.6</td>
<td>54</td>
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<tr>
<td>FY 17</td>
<td>18.7</td>
<td>21.1</td>
<td>42</td>
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<tr>
<td>FY 18</td>
<td>20.2</td>
<td>21.3</td>
<td>33/50**</td>
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* Success rates are defined as the percentage of reviewed grant applications that receive funding. Applications having one or more submissions for the same project in the same fiscal year are only counted once.
Opportunities To Increase Research Funding

There are various strategies and infrastructure in place to increase the likelihood of research funding.

**Strategies**
- Explore Opportunities with Non-federal Sponsors
- Explore Opportunities with Various Agencies within National NIH
- Leverage Industry Relationships:
  - Technology Transfer
  - Clinical Trials
  - Industry Collaborations
- Grant Budget Development (Modular vs Non-modular Grants)
- Faculty Mentoring
- Collaboration across Entities
- Internal Peer Review Process (Research Concepts)

**Infrastructure**
- Organizational Structure
- Personnel
- Business Process
- Technology, Data and Other Resources
Organizational Structure
A Classic Look at Pre-Award

- Organization depends on institutional size
- Generally split between a central structure and an imbedded structure (Sponsored Programs Office vs Departmental Office)
- Focus on submitting grants and following rules
Research Development Office

Dark Blue: Faculty
Red: Research Development
Light Blue: Various Pre-Award Staff
Green: OSP
Research Concepts
Below is an overview of the research concepts process:
~6 months prior to submission

Chalk talks are encouraged to be in *small informal settings* where a faculty member discusses *free form ideas* (interesting ideas in their initial states of conceptualization that could later develop into a grant)
~4-5 months prior to submission

Research Concepts Meetings are conducted in more structured settings where a faculty member elaborates the problem they are trying to solve.

A specific aims page and research concepts rubric are used to inform the audience the week before the meeting.

Outcomes include possible preliminary data needed for the application.
Preliminary data is an essential part of a research grant application and helps establish the likelihood of success of the proposed project.
Research Concepts

This phase focuses on the technical aspects of constructing the grant.
Starts with Aims Page ~3 months prior to submission
Iterative process on research strategy: ~3 months prior to submission
- Technical
- Writing Style
- Rigor
Research Concepts

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Starts at “Good Draft” stage, faculty are encouraged to have feedback from departmental or an external reviewer.

For example, researchers could leverage an external review organizations such as:

- [HRA](#)
- [Bio Science Writers LLC](#)
- [Science Docs Inc](#)
- [Internal Mock Study Sections](#)
Goal: My group is out of the picture between 3-10 days prior to submission.

If all goes well, final review can take 30-45 minutes prior to submission.
Research Concepts

Action Plan:

- What additional experiments and data are needed to strengthen the proposal?
- Are there different or more resources (collaborators, equipment etc.) that are needed to strengthen the proposal?
- Are there other sponsors or funding mechanisms that are more appropriate for the proposal?
Technology, Data and Other Resources
Putting all Together
The Importance of Tools

If **our** job is to make **their** job easier, **who** makes **our** job easier?

**We** make tools!
Proposal Scatter: Success Rate to Number of Proposals, Sized by % of Total

Proposals Details: By Department

<table>
<thead>
<tr>
<th>Department</th>
<th>2019 Proposals</th>
<th>2018 Proposals</th>
<th>FYTD Variance</th>
<th>2019 Awarded Count</th>
<th>2018 Awarded Count</th>
<th>FYTD Variance</th>
<th>2019 Success %</th>
<th>2018 Success %</th>
<th>FYTD Variance %</th>
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<tbody>
<tr>
<td>Pediatrics</td>
<td>19</td>
<td>16</td>
<td>-3</td>
<td>3</td>
<td>4</td>
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<td>25.00%</td>
<td>-9.21%</td>
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<td>Pharmacology &amp; Toxicology</td>
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<td>57</td>
<td>-23</td>
<td>7</td>
<td>6</td>
<td>1</td>
<td>20.59%</td>
<td>10.53%</td>
<td>10.06%</td>
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<tr>
<td>PMCH excluding AHEC</td>
<td>17</td>
<td>18</td>
<td>-1</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>17.65%</td>
<td>16.67%</td>
<td>0.98%</td>
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<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.00%</td>
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</table>
To generate customized timelines and checklist for your NIH RO1, R21, or R03 proposal, please answer the questions highlighted in blue. You may also provide additional details in the provided blanks here and in the PHS Assignment Request Form Tab to assist your departmental pre-award staff with completing the required administrative forms for your submission.

### Proposal Preparation Timeline

#### Stage 1: Final Contemplation
- **11/6/19**: Present project idea at departmental Chalk Talk or Research Concepts meeting.

#### Stage 2: Initial Writing
- **11/20/19**: Begin drafting specific aims.
  - Provide Research Development staff with solicitation and/or study section choice.
- **11/25/19**: Send initial draft of specific aims to mentors, collaborators, &/or Res. Development staff.
- **12/10/19**: Send revised aims and first draft of research strategy to mentors/collaborators.
- **12/18/19**: Send revised aims and research strategy to Research Development staff.
  - Contact subawardees (if applicable) to request required documentation.

#### Stage 3: Revision
- **1/1/20**: Notify departmental pre-award staff of intent to submit and begin formally drafting budget.
- **1/6/20**: Send revised draft of Research Plan (Aims, Strategy, and Animals, Human Subjects &/or Select agents as applicable) to mentors/collaborators.
- **1/8/20**: If proposal involves investigators from Pharmacology & Toxicology, send grant memo to reviewers.

#### Stage 4: Final Polishing
- **1/15/20**: Attend Mock Study Section.
  - Send auxiliary components (including budget & justification) to Research.
- **1/20/20**: Submit internal routing package (routing form, final budget/Justification, draft aims) for approval.
- **1/23/20**: Fully approved internal routing package due to OSP.

### Key Dates:
- **Chalk Talk/Concepts Presentation**: 11/6/19
- **Mock Study Section Meeting**: 1/15/20
- **OSP Deadline**: 1/23/20
- **Submission Deadline**: 2/5/20

### Attachment Details

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<th>Attachment</th>
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<th>Description</th>
<th>Document With: (select from dropdown)</th>
<th>Estimate Handoff Schedule?</th>
<th>Notes</th>
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<td>1 page</td>
<td>Include only for supplements and A1 submissions</td>
<td>PI</td>
<td></td>
<td></td>
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<tr>
<td>Specific Aims</td>
<td>1 page</td>
<td>State concisely the goals of the proposed research and summarize the expected outcome(s), including the overall impact on the research field(s).</td>
<td>PI</td>
<td></td>
<td></td>
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<tr>
<td>Research Strategy</td>
<td>1 page</td>
<td>Should include Significance, Innovation, &amp; Approach sections; Approach section must include details as to how chosen approach will achieve unbiased results &amp; how appropriate biological variables (e.g. sex) are factored into the design.</td>
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<td>References Cited</td>
<td>12 pages</td>
<td>References must include the names of all authors in the same sequence in which they appear in print</td>
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<td>Provide brief description of data management plan</td>
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<td>PI</td>
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**Title:**

**Days to Deadline:** 136
Questions?