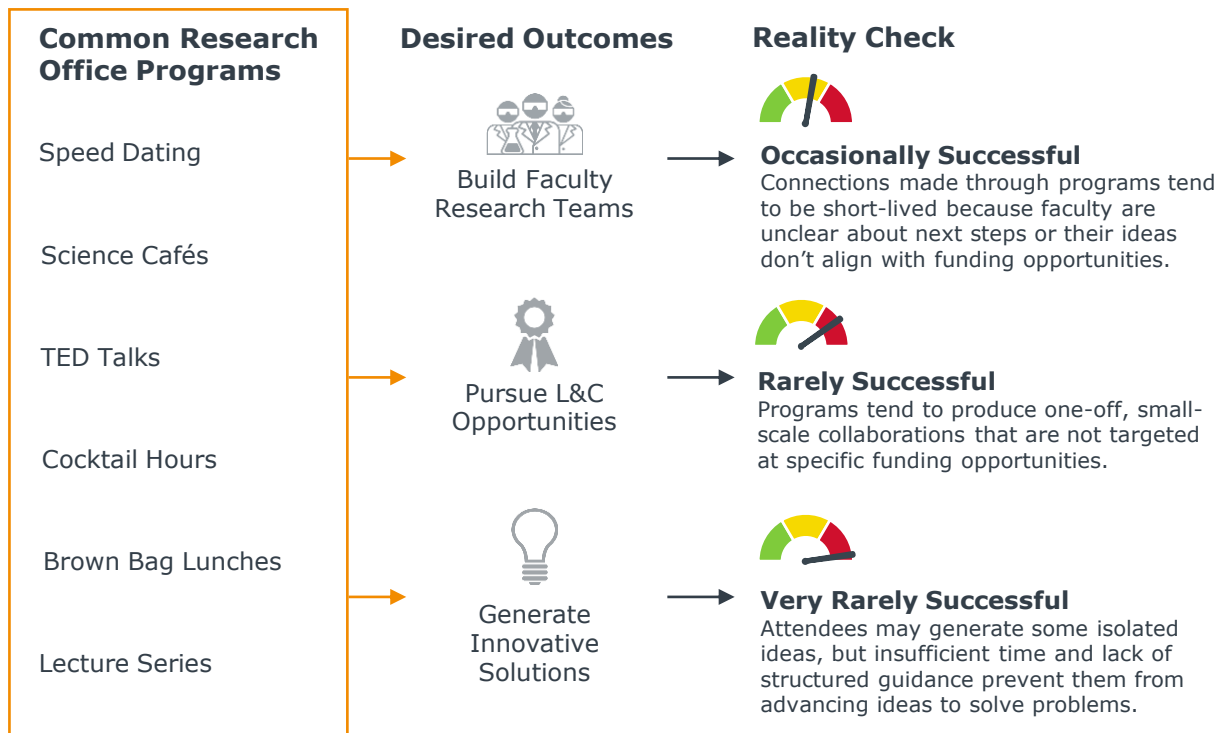




Building Teams by Trial and Error

Costly and Poorly Targeted Programs Don't Yield Desired Outcomes



Manufacturing Serendipity

Four Ways Research Offices Can Guide Team Formation

Approach	Focus	Audience	Cost ¹	Time ¹	Return
1. Networking Sessions	Targeted programs for faculty to make connections with others interested in specific topics	Small group of internal faculty	Low (e.g., venue, marketing)	Low (e.g., invitations, outreach)	Short-term, small-scale faculty teams
2. Seminars	Structured programs to teach faculty about emergent topics and agency opportunities	Medium group of internal faculty	Medium-low (e.g., room reservations, speakers)	Medium-Low (e.g., content development, speaker recruitment, advertising)	Short-term, medium-scale faculty teams
3. Symposia	Large-scale programs to convene experts on a specific topic	Large group of internal and external faculty, experts, and partners	Medium (e.g., speakers, travel)	Medium (e.g., speaker recruitment, logistic coordination)	Long-term, large-scale faculty teams
4. Pop-Up Institutes	Short-term initiatives to catalyze interdisciplinary team formation around topic area	Medium to large group of internal faculty and external partners (as needed)	High (e.g., core facility use, space, seed funding)	High (e.g., coordinating proposal reviews, reporting)	Long-term, large-scale faculty teams

1) Evaluated on a four-point scale of low, medium-low, medium, and high.



Network with Intention and Focus

Iowa Hosts Speed Networking for New Core Research Facility



Traditional Speed Networking Program

✘ Vague purpose and agenda



✘ Advertised to all faculty (e.g., no targeted outreach or recruitment)



✘ Focused solely on building personal connections



✘ Not oriented around collaborative funding opportunities



✘ No structured conversation support or prompts



University of Iowa Microfabrication Facility (UIMF) Speed Networking Event

✔ Used the launch of new microfabrication facility to focus the program

✔ Targeted biomedical scientists and engineering researchers most likely to benefit from attending

✔ Raised awareness of interdisciplinary applications of available microfabrication technology

✔ Reviewed upcoming funding opportunities relevant to the research focus areas of UIMF

✔ Facilitated cross-unit collaborations by highlighting potential topic convergence across disciplines

Iowa's Networking Results



75% Survey respondents reported a new potential research collaboration



Keep Faculty Abreast of Emergent Trends

Northwestern Organizes Seminar to Catalyze Collaboration in Quantum

Office of Research Development (ORD) Launching INterdisciplinary Connections Series (LINCS)



ORD LINCS events feature short presentations by faculty to catalyze ideas and collaborations in emergent interdisciplinary areas (e.g., Internet of Things, National Microbiome Initiative) that align with federal funding.

Engineering Quantum Technologies



Presentations

- ORD provides introduction to funder priorities related to quantum technologies
- Faculty experts present on sub-topics and potential opportunities



Agency Reports

- Provides attendees with repository of agency briefings and materials
- Shares analyses of agency strategic plans and emergent research priority areas



Funding Opportunities

- Raises awareness of current and past related opportunities
- Establishes networks and discussion forums for future funding opportunities



Helps convince faculty to collaborate in this area



Saves faculty time by not having to find and analyze materials themselves



Provides faculty with list of already identified opportunities



Allows attendees to identify potential peer collaborators



Encourages faculty to consider agency priorities when forming teams



Prompts faculty to plan ahead for upcoming awards



Use External Facilitators to Help Generate Ideas

Iowa Hosts Three-Day Symposium to Solve the Opioid Crisis



Opioids Ideas Lab

Research office partnered with external organization to convene a multidisciplinary group of faculty experts for three days to examine the opioid crisis and collaboratively generate solutions.



Day 1 Build Rapport

- Get to know participant expertise and backgrounds
- Engage in team building activities
- Discuss specific topics and explain key program objectives



Day 2 Redefine & Iterate

- Redefine research problems from varying perspectives
- Form interdisciplinary research teams
- Generate innovative ideas and outline preliminary proposals



Day 3 Presentations

- Present proposals to competing teams and leadership
- Collaboratively use peer feedback process
- Incorporate critiques into proposal plans and development

Outcomes

4

Collaborative team projects emerged related to opioid crisis

2

Extramural research grants won as result of program

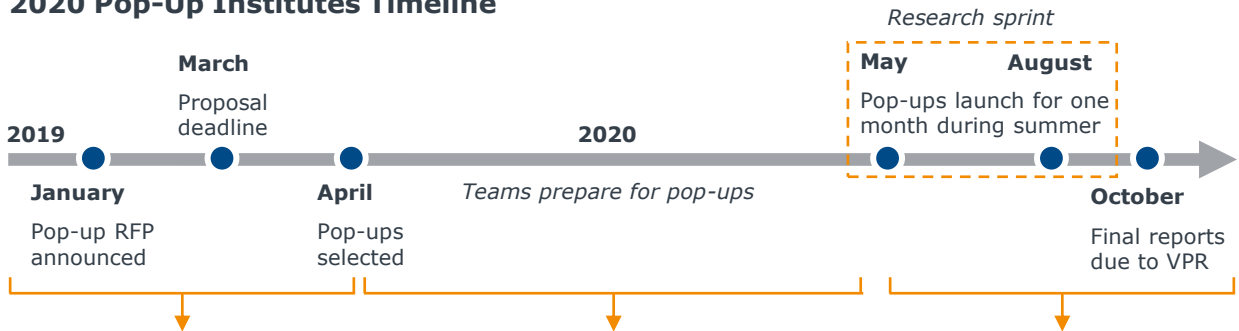


Temporary Locations, Permanent Collaborations

UT Austin Establishes Pop-Up Institutes to Rally Faculty



2020 Pop-Up Institutes Timeline



Proposal Development

Research teams submit proposals for short-term centers designed to provide structure and support for rapid team formation and productivity. Proposals include abstracts, budgets, and letters of time commitment.

Pop-Up Preparation

Research office provides funding (maximum \$50,000) and admin support for up to three pop-up institutes per year. Selected teams spend a year preparing for a burst of research activity. They must work with the research office to finalize program work plans and logistics.

Sample 2020 Pop-Up Institute

- Creating Inclusivity and Improving Outcomes for Sexual and Gender-Diverse People

Launch & Reporting

Each pop-up spends one month conducting high intensity research in preparation for a larger future research initiative. This timescale is longer than a workshop or conference but shorter than the creation of a permanent research structure.



Even a Well-Crewed Ship Strays Without a Captain

CROs Struggle to Find Suitable Faculty Leaders for L&C Projects

Importance of Faculty Leaders for L&C Awards

- ✓ Provide credibility through their disciplinary reputation and funding track record
- ✓ Help build research teams using networks and connections
- ✓ Manage varying scientific perspectives using their content expertise
- ✓ Bridge communication gaps between research office and faculty research team

Challenges of Finding Equipped Leaders

- x Research offices are unclear on which factors to consider when identifying leaders
- x Faculty are not recognized or rewarded for developing leadership skillset
- x Existing leadership trainings fail to address L&C proposal management
- x Faculty resist research office directives

Opportunities for CROs



Use quantitative and qualitative data to identify faculty best positioned to lead L&C research teams



Develop trainings specifically for faculty leading L&C research teams

Filtering the Pool of Prospective Leaders



Funding Credibility



Faculty must have successful funding track record for sponsoring agencies to view them as credible leaders.

Key Indicators:

- Total sponsored research funding (by relevant agency)
- Number of awards (by size and complexity)
- Number of times served as a lead or co-PI
- Number of co-authored publications
- Reputation and name recognition

Interest Level



Faculty must be willing to invest time and effort required to lead a collaborative team.

Key Indicators:

- Time and capacity
- Number of postdoc and graduate students advised
- Internal leadership positions (within department, college, center, institute)
- External leadership positions (within professional associations and agencies)
- Engagement with research office

Personal Attributes



Faculty must possess the skills and disposition needed to effectively lead research teams.

Key Indicators:

- Personal disposition
- Networks and connections to other researchers, institutions, partners
- Communication skills
- Management skills

Building Research Leadership Capacity



Purdue's FLAIR Program Provides Targeted Research Leadership Training

Faculty Leadership Academy for Interdisciplinary Research (FLAIR) Program Focus



Foundational Leadership Skills in Research Context

- ✓ Team assembly
- ✓ Vision setting
- ✓ Communication and media use
- ✓ Time management
- ✓ Conflict resolution
- ✓ Group dynamics



Targeted Skills Needed For Leaders Of Large and Interdisciplinary Research Teams

- ✓ Federal agency knowledge
- ✓ Coalition building
- ✓ Complex RFP analysis
- ✓ Outreach and engagement
- ✓ Budget and funding strategy
- ✓ Complex proposal development

Program Details



Agenda Creation

Selected agenda topics based on gaps in current programs and personal knowledge of VPR, research staff, and past leaders of large research teams



Application Process

Received 24 completed applications (each included a one-page statement of interest, a one-page description of research, and a CV)



Fellow Selection

Chose a diverse cohort of 12 associate and full professors from across a broad range of disciplines and colleges

2019 FLAIR Sessions

*All sessions are Mondays, 1:30-3:30pm
ME 2180, SCHL B038, GRIS 10*

*Session 1 – Marching in the Same Direction:
Forming Large, Interdisciplinary Centers
and Institutes*

Panel:

- Director of Center for Plant Biology
- Director of Institute for Global Security and Defense Innovation
- Former Director of Purdue Institute for Integrative Neuroscience

Sub-Topics:

- Garnering faculty interest with limited resources
- Balancing inclusion with focus
- Organizational structure
- Campus outreach, partnering, and bridge building
- Generate a sustainable funding strategy

Bi-weekly sessions with consistent time and place

Sessions are 2 hours: 1 hour for expert presentations and 1 hour for Q&A

Panel includes variety of speakers with real-world experience leading interdisciplinary teams

Topics are broadly focused, but panelists are given a list of potential sub-topics

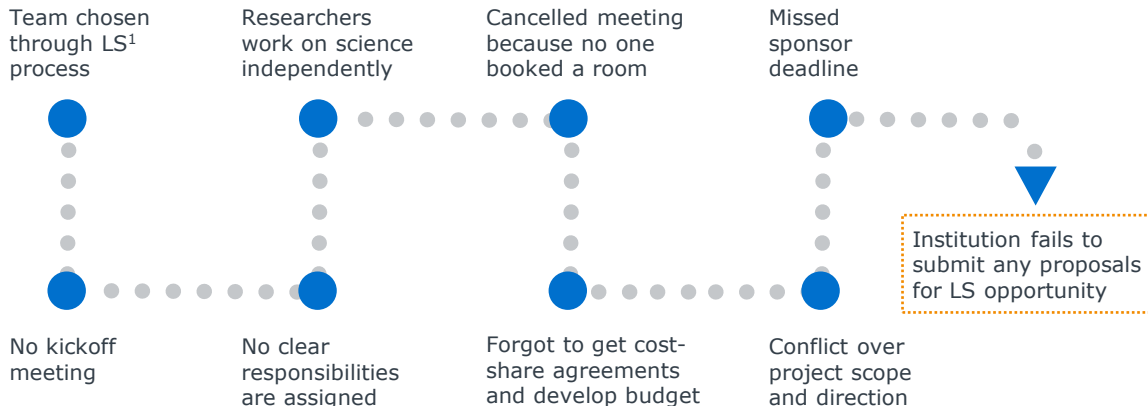
Results

Program averaged 80% fellow attendance per session and has built strong reputation across campus

When the Ball Gets Dropped

Faculty Tend to Prioritize Science over Administrative Requirements

Common Failure Points in Coordinating Team Proposals



Research Project Management Resources



Self-Service
Toolkit



Ad Hoc
Support Team



Dedicated
Project Manager

1) Limited submission.

Build a Repository of Self-Service Tools


Memorial Translates Project Management Principles to Research Context



RPM ¹ Tools	Purpose
Intro to RPM¹ Guide and Video	Educate researchers on purpose of RPM, key processes, and tools
Project Scope Template and User Guide	Develop high-level project overview that includes objectives, deliverables, and activities
Project Schedule Template and User Guide	Create timeline and visual representation of milestones with workload descriptions
Project Budget Template and User Guide	Build financial plan by anticipating direct costs, F&A costs, and funding sources
Risk Register Template and User Guide	Identify and proactively manage project risks after quantifying probability and potential impact
Roles and Responsibilities Template and User Guide	Clarify team member roles and responsibilities, along with accountability mechanisms
Stakeholder Communication Template	Create communication strategy for project stakeholders



Project Scope Template



Research Project Management
 Tools and Templates
<https://research-tools.memu.ca/rpm/>

Scope Statement

Research Project Name:	<input type="text"/>
Principal Investigator:	<input type="text"/>
Project Manager (if applicable):	<input type="text"/>
Project Start Date:	<input type="text"/>
Project End Date:	<input type="text"/>
Approved:	<input type="text"/>
Date:	<input type="text"/>
Version:	<input type="text"/>
Approved:	<input type="text"/>

Project Scope	
Project Description	<input style="width: 80%;" type="text"/>
Objectives and Deliverables	<input style="width: 80%;" type="text"/>
Project Exclusions	<input style="width: 80%;" type="text"/>
Constraints/Dependencies	<input style="width: 80%;" type="text"/>
Assumptions	<input style="width: 80%;" type="text"/>
Project Budget (Total including In-Kind)	<input style="width: 80%;" type="text"/>
Funding Source(s)	<input style="width: 80%;" type="text"/>
Start Date	<input style="width: 80%;" type="text"/>
End Date	<input style="width: 80%;" type="text"/>

1) Research project management.

Calling In the Rapid-Response Team

Research Staff Deployed for Short Term Proposal Development

University of Central Florida's "REACT" Approach



UNIVERSITY OF
CENTRAL FLORIDA

R

Rapid Response

Determine availability and capacity to support teams pursuing L&C opportunities

E

Evaluate

Review RFP guidelines and determine needs (e.g., samples, templates)

A

Assist Faculty

Help with non-technical elements (e.g., biosketches, letters of collaboration, budgets)

C

Coordinate

Monitor project progress and liaise with collaborators

T

Track

Manage revisions and finalization—then document lessons learned



Tap Existing Staff to Support Faculty

Research development leaders assess availability and expertise of staff in their own unit, the broader research office, and cross-campus units (as needed) to form an ad hoc REACT support team.



Deploy On Case-By-Case Basis

Research development team does not require minimum award dollar amount to be eligible for REACT services, but they assess the complexity of projects seeking REACT support based on the number of PIs, types of disciplines represented, and potential impact.



Provide PM training for research staff to increase potential pool of people who can support L&C faculty teams.

Advantages of Dedicated PM Staff



Specialized Expertise

All PMs¹ are trained and certified to manage complex projects—those with university research experience can provide more targeted support for managing L&C proposals and awards.



Staff Capacity Planning

Dedicated PMs for L&C proposal development can allow other research office staff to reclaim time and prioritize other activities.



Assessment and Evaluation

PMs regularly capture and analyze process data that can be used to identify and address service gaps experienced by faculty.



Case in Brief: Simon Fraser University

- Hiring one-off PMs in the greater Vancouver area was too expensive due to high demand and salary expectations
- Office of Institutional Strategic Awards created team of 7 dedicated research PMs to deploy against L&C opportunities
- PMs serve as liaisons between research team, funding agencies, partnering institutions, and administrative units
- PMs spend time:
 - Facilitating communication
 - Developing project schedules
 - Coordinating proposal development
 - Ensuring budget and RFP compliance
- Faculty can use existing grant funding to buyout PM time, which helps research office cover PM staffing costs

1) Project managers.