

ABSTRACT: 2019 ELAM Institutional Action Project

Project Title: Development of the Research Vision for the UCF Lake Nona Cancer Center

Name and Institution: Annette R Khaled, Ph.D. University of Central Florida

Collaborators and Mentors: Suhtling Wong, Claudia Andl, Deborah Altomare, Alicja Copik, Otto Phanstiel, Greg Norris, Charles Roberts, Teri Gotschall, Nadine Dexter, Wendy Sarrubbi, Jeanette Schreiber, Griffith Parks, Deborah German.

Topic Category (choose 1): Administration Clinical Education Faculty Development **Research**

Background, Significance of project: University of Central Florida (UCF) is building a new cancer center driven by the acquisition of a 175,000 square-foot facility adjacent to the new UCF teaching hospital at Lake Nona. Until November 2018, this facility housed the Sanford Burnham Prebys (SBP) Institute. SBP's loss became UCF's gain when the university purchased this multi-million dollar building to create the UCF Lake Nona Cancer Center (ULNCC). While UCF has acquired the physical keys to the building, next is the need to acquire the keys for a successful cancer center. These include patient care, education, and research. While all three components are important, a successful research enterprise is the key that will elevate the status of the ULNCC as a world-class cancer center, creating opportunities to advance patient care and education

Purpose/Objectives: Creating a vision for the research enterprise of the ULNCC is essential for the decision-making process taking place as UCF builds the cancer center and is the purpose of my ELAM IAP project. The initial objective is to develop the guiding principles for the design of the research space, creating an infrastructure that not only enables ground-breaking discoveries but fosters collaborative basic, translational and clinical research across multiple disciplines.

Methods/Approach/Evaluation Strategy: Methods used involved small group and individual discussions with cancer researchers as well as experts in Development, Marketing and Communications, Legal Affairs, the Library, and Accounting. In addition to a literature search for innovative research cores at other institutions, a site visit to the new Center for Collaborative Research (CCR) at Nova Southeastern University (NSU) was also conducted. A survey of stakeholders served as an additional source of information and was the strategy for evaluation.

Outcomes/Results: Outcomes were divided into three categories: (1) Findings from one-on-one discussions and small group meetings, (2) Survey and literature results, and (3) Findings from the site visit to NSU. These outcomes led to the development of three models for research space utilization and equipment core development: (1) traditional model with each investigator responsible for their independent lab, (2) collaborative model with shared lab space and fee-for-service equipment cores, and (3) a hybrid model that combines features of the first two models.

Discussion/Conclusion with Statement of Impact/Potential Impact: The decision-making process for research space at the ULNCC will need to consider the following: meeting the researchers' need for an infrastructure that supports collaborative science, developing a business/financial model for the scientific equipment cores/facilities, and integrating clinicians in research discovery. UCF cancer researchers are enthusiastic for the ULNCC but have concerns about resource availability. After three years, the CCR at NSU and its equipment cores remains underutilized. While, some shared research facilities at other institutions are successful (e.g. Green Labs at University of Colorado), users of similar cores at other institutions have issues with high fee-for-service costs. The challenge for the ULNCC will be to enable scientific discovery while being cost-effective and reducing waste but still maximizing the use of available resources.



Development of the Research Vision for the UCF Lake Nona Cancer Center

Annette R Khaled, Ph.D., Professor and Head, Division of Cancer Research, College of Medicine, University of Central Florida
 Collaborators: Suhtling Wong-Vienneau, Wendy Sarubbi, Charles Roberts, Nadine Dexter, Teri Gotschall, Greg Norris, Claudia Andl, Alijca Copik, Deborah Altomare, Jeanette Schreiber, Griffith Parks, Deborah German

BACKGROUND/SIGNIFICANCE



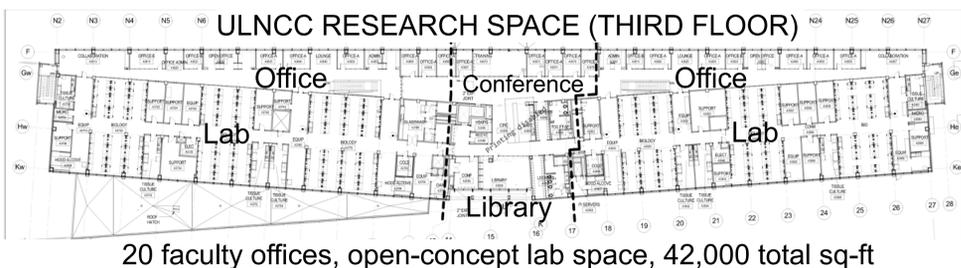
On December 1, 2018, the University of Central Florida (UCF) officially took over the former Sanford Burnham Prebys research building with the vision of turning the 175,000 square-foot facility into a world renowned cancer center. The UCF Lake Nona Cancer Center (ULNCC) will bring together the areas of cancer research, education, and patient care so that clinical and scientific professionals can work closely to share ideas, advancing research innovations that will transform medical education and cancer patient care.

PURPOSE/OBJECTIVES

A vision for the research enterprise of the ULNCC is essential for the decision-making process. This is the purpose of my IAP project. The *objective* is to develop the guiding principles for the design and utilization of the research space, creating an infrastructure that fosters ground-breaking discoveries resulting from collaborative basic, translational, and clinical research.

METHODS/APPROACH

- ❖ Individuals and small groups discussions with leaders and cancer researchers that led to connections with other experts in Development, Communications and Marketing, Legal Affairs, Library Sciences, and Finance
- ❖ Research on facility management at other institutions that led to a site visit at the new Center for Collaborative Research (CCR) at Nova Southeastern University (NSU), Davie, FL
- ❖ Survey of future ULNCC faculty and stakeholders to evaluate ideas for the use of research space that informed plans



RESULTS (survey and NSU site visit)

<p>Strengths</p> <ul style="list-style-type: none"> 10 basic cancer researchers Collaborations with other units Leverage scale of UCF Nearby clinical partners HCA teaching hospital Sarah Cannon partnership 	<p>Weaknesses</p> <ul style="list-style-type: none"> Modest translational and clinical cancer research Workloads that restrict research/grant-writing time Young medical school building its reputation
<p>Opportunities</p> <ul style="list-style-type: none"> Create new research focuses Open fee-for-service cores that unite researchers Develop cost-saving and efficient research design New practices that improve grant success and impactful publications 	<p>Threats</p> <ul style="list-style-type: none"> Limited resources Seen as competition Perceived conflicts with shared research space Lack of robust local/state biotechnology

OUTCOMES

Results led to *three* potential models for research space utilization.

<p>Model 1: Traditional</p> <ul style="list-style-type: none"> Each PI establishes and staffs own lab Minimal cores: microscopy, flow cytometry One technician to oversee cores Number of PIs limited by lab space, based on project needs Grant writing done by each PI 	<p>Model 2: Collaborative</p> <ul style="list-style-type: none"> Establish fee-for-use cores with a range of technologies Facility manager oversees trained technicians and common stockroom Number of PIs limited by office space; lab space shared based on project needs and staff size Grant writing team in library space 	<p>Model 3: Hybrid</p> <ul style="list-style-type: none"> PIs are responsible for own lab with more core support Specialized cores with a few trained technicians Number of PIs limited by lab space, some utilization of shared space Grant writing team in library space
--	---	---

Model	# of PIs	# of Support Techs/(Mgr)	PI Start-up Funds	One time costs to start	Recurring costs	Indirect cost recovery from grants
Traditional	10	1	\$\$\$	\$	\$	\$
Collaborative	20	6-8 (1)	\$	SSS	SSS	SSS
Hybrid	14	2-3	\$\$	\$\$	\$\$	\$\$

INITIAL RECOMMENDATIONS

Category	Recommendation
Shared Resources	<ul style="list-style-type: none"> Determine occupancy of research spaces to prioritize resources for equipment cores Plan timeline of occupancy to determine set-up of cores and hiring of manager and/or technical staff Conduct financial analysis and develop business plan for the fee-for-service cores
Strategic Plans	<ul style="list-style-type: none"> Establish the mission and vision for the ULNCC Plan co-operative agreements with Sarah Cannon Develop the governance plan and timeline for hiring of a ULNCC medical director and new researchers Decide on short, mid and long term objectives and correlate with resources and financial planning Develop educational tracks in biotechnology and student training lab
Interactions/ Collaborations	<ul style="list-style-type: none"> Establish research groups based on current composition of the Division of Cancer Research and existing collaborations Identify future collaborations with Sarah Cannon and HCA clinicians and plan team science approaches
Communications	<ul style="list-style-type: none"> Presentations, generating mock-ups, videos, pamphlets, social media (e.g. Facebook), website
Sustainability	<ul style="list-style-type: none"> Financial analysis that leads to the development of a business plan and a budget. Bring the local community together around the cancer research that will be done at the ULNCC Decide on benchmarks/metrics to assess progress towards strategic plans. Plan philanthropy/donor involvement in the ULNCC

FUTURE STEPS/GROWTH



- ❖ Continue meetings at the ULNCC
- ❖ Develop strategic plan
- ❖ Conduct financial analysis
- ❖ Contact local business bureaus
- ❖ Explore paths to phase I clinical trials
- ❖ Explore paths to commercialization