Office of Research
College of Graduate Studies Report

Vice President of Research and Dean of the College of Graduate Studies

Elizabeth Klonoff, 2021

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Previously handled by two individuals, this position was developed to facilitate meeting the research and graduate studies UCF Strategic Plan goals. Faculty conducting research and graduate students are the backbone of many labs, so it makes sense to have someone oversee the entire research ecosystem.

Each role requires overseeing large budgets, problem solving and working collaboratively with leadership and faculty across all colleges as well as working with industry, the military, local business, government agencies and communities. And I work with virtually every administrative unit in the university.

As VPR I also have fiduciary and compliance responsibility and oversight for all research conducted in the name of the university; this includes developing appropriate policies and procedures, overseeing the creation of innovative technologies and ideas, bringing these to the marketplace, and ensuring that faculty and university interests are well-represented. The VPR also chairs the UCF Research Foundation Board.

As **Dean of the College of Graduate Studies** I also provide academic leadership for the development of new programs and the recruitment and retention of students into existing programs at the master's, doctoral, and post-doctoral levels and provide promotion and tenure review for faculty with tenure homes in the College.

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Overview and contents

To facilitate reading, this report is split into OR and CGS sections, but keep in mind that initiatives in one area, often are designed to benefit the other.

Part I: Office of Research

- Progress toward strategic priorities
- Administrative Outlook
- Challenges Ahead
- Future Goals

Part II: College of Graduate Studies

- Progress toward strategic priorities
- Administrative Outlook
- Challenges Ahead
- Future Goals

Outlook in 2016: Office Of Research

I arrived at UCF in 2016 to a newly created position that joined the Vice President for Research and Dean of the College of Graduate Studies into a single position held by one person. There was uncertainty and staff from both groups were concerned about the future of their own division. We had several goals set out for us in the UCF Collective Impact Strategic Plan.

To meet those goals, we had monumental work to do which included, but was not limited to:

- A complete reorganization of OR operations to improve efficiency
- Modernization of software and operations to national standards
- Incentivizing faculty to conduct more research
- Enhance support services
- Communications needed bolstering

Alignment with UCF Strategic Plan

The UCF Strategic Plan is the OR plan.

- **Double Research Awards to $250 million in 5 years**
  - From $133M in 2016 to $204.5M in 2020 despite two government shutdowns and downturn in the economy
- **Become a top public research university by 2035**
  - Cracked top 50 in 2018, but slipped to top 100 in 2019
  - Many metrics used outside OR control: annual giving, SAT scores, # of National Academy members
- **Achieve 135 patents awarded by US Patent and Trademark Office over 3 years**
  - Achieved, ranked among best in the nation since 2013
- **Reach 200 postdoctoral research appointees**
  - Almost there, COVID and funding are challenges

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Notable Progress: Operational

Reorganization of OR completed in 2018

- Hired new Associate VP for Research Administration
- Relocated post-award staff formerly housed in and reporting to Finance and Accounting to OR and training them to be grant administrators
- Revamping Institution Review Board, creating second IRB to serve biomedical sciences
- Implemented changes to contracts/grants Legal Review to speed up process
- Implemented new electronic research administration system
- Established the Department Administrator Research Focus Group (DARF). The group consists of 15 department administrators from approximately 10 colleges/departments. The group was created to provide input as the VP for Research embarked on reorganizing OR operations and to help communicate change management during the restructuring process
- DARF continues today as an important advisory group to the VPR as we continue to look for ways to provide better service

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Notable Progress: Operational

Other changes critical to increasing operational efficiency

- Assumed responsibility for 9 Faculty Clusters
- Developed master agreements, contracts and NDAs to speed up review and completion of contracts and supporting documents
- Meet regularly with all college deans and associate deans of research to get input and share information
- Created a communications unit dedicated to supporting OR and CGS. Goal was to increase reputation for research and create an internal communication system for OR.
- Working with UCF IT, Information Security Office and other collaborators across the university implement digital security protocols to meet NIST standards

Current OR Structure

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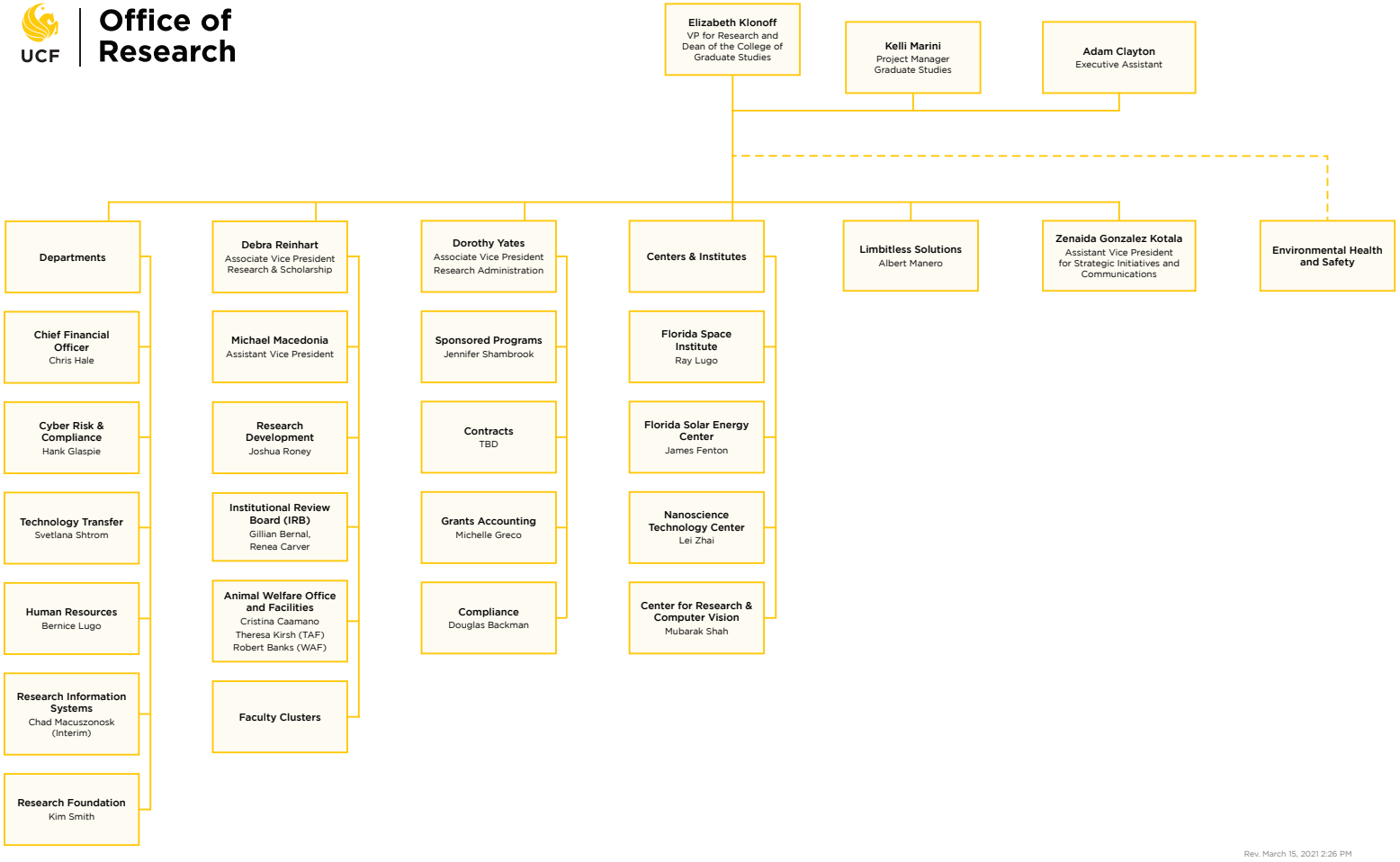

*Note that the Commercialization efforts at UCF are not under the Office of Research.

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Notable Progress: Investing in Faculty

- Empowered Associate VP to launch Researcher Experience Development Initiative: REDi for writing large multi-discipline proposals

- Empowered AVP to launch ReACT program – targeted support to develop large research proposals

- Provided course release or 1 month of summer salary for PI to prepare large proposals

- Launched mentoring program with incentives for junior faculty to go after large proposals
  - Program resulted in record year of NSF CAREER awards
  - led the state in 2020 and ranked 6th in the nation

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Notable Progress: Investing in Faculty

- Created partnerships across the university and with industry to make more then $4.1 million available for research in 4 years
- Collaborated with Provost Office to revamp SEED funding program to provide two rounds of funding at $1 million a year in 2019, 2020
- Created funding programs for targeted areas: Big Data, COVID
- Facilitated faculty collaborating with imec using support from the President's Office
- Collaborating with COM, CECS for new biomedical engineering research pilot program to start in 2021

Notable Progress: Investing in Faculty

- Supported launch of National Academy of Inventors chapter at UCF
- Supported Academy of Science, Engineering & Medicine of Florida launched in 2018 at UCF
- Created websites and email communication delivery of grant opportunities

Faculty Research Incentive Programs

Program	Amount	No. of Faculty Supported
Year 1 Seed Funding	$1,000,000,00	65
Equipment Match Program	$1,000,000,00 (unit & OR 50/50 split)	27 (PIs only)
AI/COVID-19 Seed Funding	$185,000.00	5 teams
Year 2 Seed Funding	$1,000,000,00	65 (est)**
Salary Support for Large Proposal Development FY20	$148,000.00	5
Sr. Mentoring FY20	$57,000.00	19
Young Investigator Award Incentive	$150,000.00	15
CAREER Support FY20	N/A	43
Workshop Attendance FY20	N/A	569
PI Consultations* FY20	N/A	128
Peer and Editorial Reviews FY20	N/A	41
Large Proposal Course Release (four years)	$150,000.00/yr	17
Large Proposal Support (REACT) FY20	N/A	13 (PIs only)
imec Seed Funding	$500,000	N/A
Biomedical Engineering Research Pilot Program	$50,000	N/A

**Funding searches, competitive intelligence, proposal support,collaborators, new faculty ramp up, and proposal triage. In partnership with the President's Office.*
***Estimate based on receiving the same funding level, similar number of submissions, and similar number of members per application as previous round.*

Notable Progress: Recognizing Faculty

- Created Annual Luminary Awards to recognize faculty who have achieved national or international prominence for research and scholarship.
- Re-animated Faculty Authors Celebration to recognize faculty who have published books.
- Special Kick off Event During Research Week.
- Launched monthly *InSight* Research newsletter to recognize excellence across the university.
- Launched OR Annual Report with data and feature research stories from each college.
- Formally recognize Early Career Grant Recipients.

Recognizing Faculty

Research Week Kick Off Event

Faculty Authors Celebration

Luminary Awards

Notable Progress: Student Impact

- Stronger collaboration with Undergraduate Research for a comprehensive Student Research Week Celebration 2018-2021 – record number participants each year

- Raised the profile of Student Research Week in 2021
  - President Cartwright kicked off promotions, BOT member to participate in awards

- Sponsor Women in STEM events aimed at students

- Support events about research ethics aimed at students and faculty

- Launched 3-Minute Thesis (3MT) program at UCF in 2019
  - Graduate students present research results for prizes

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Student Impact

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Examples of Impactful Initiatives

Convened Blue Ribbon Panel on Energy in 2018

- Panel included industry representatives, led to conversations between industry and faculty/industry and university.
- Director of Energy Initiatives named in 2018 to lead university wide coordination of efforts.
- UCF Energy Research Council (ERC) was formed to enable a coordinated effort across UCF in Energy related education and research.
- Coordinated $4M Federal Priority Funding for Resilient Energy Systems that was included in national FY2020-21 Budget appropriation.
- Assisted in/promoted the development of multiple Energy graduate certificate programs and a MS program.
- Conducted a Pareto ranking exercise to help prioritize recommended actions from the Energy Blue Ribbon Panel report.

Examples of Impactful Initiatives

Convened Blue Ribbon Task Force in A.I. and Big Data in 2018

- Task Force included industry representatives
- Resulted in inventory of research in this area
- Led to new collaborations between industry and faculty
- Official initiative launched in 2020
- Funding provided to generate pilot data which is expected to result in large external grants
- Launching website dedicated to Big Data research to help match researchers with opportunities in 2021
- Launched PhD program in Big Data, with a student summer fellowship supported by Microsoft
- Featured in Florida Trend as a program to watch in 2020

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Examples of impactful Initiatives

Smart/Cost Effective Operations

Created **shared facilities** agreement with multiple colleges (CREOL, COS, CECS) to improve efficiency and services to faculty and reduce costs in 2018. The facilities are overseen by a faculty committee.

Change in grant/contract process, 2021: Sponsored research agreements with an assigned research contract manager will no longer require **legal review** unless the manager asks for one. This will provide more time for legal review when warranted and speed up processing of routine agreements.

Impact on Partnerships

OR has encouraged interdisciplinary collaborations in research through:

- SEED funding programs, preference giving to interdisciplinary teams
- Blue Ribbon panels facilitated meetings with industry leaders
- Supporting Centers, Institutes and Clusters with strong cross collaboration
- Collaboration with colleges to provide constituent relations with enhanced briefings for elected officials
- Leveraged partnerships to successfully win Arecibo Observatory grant
- Master agreements with Lockheed and others to facilitate research projects

Impact on Broader Central Florida Community/Economy

- Reached agreement with Naval Air Warfare Center Training Systems Division and the UCF Research Foundation to launch Team Orlando Tech Grove in 2020
  - Agreement opens new avenues for collaboration between a wide range of businesses, entrepreneurs, innovators, academia and Team Orlando's military modeling and simulation commands.

- Secured grant from Orange County in 2021 to re-launch new and improved Venture Lab
  - Will support technology development
  - Will support business development to take products to market

Impact on Broader Central Florida Community/Economy

- Continue to support community events that emphasize STEM including
  - Orlando Science Center Otronicon major sponsor, 2016-present
  - Limbitless Solutions K-12 STEM outreach to Orange, Seminole county schools and in partnership with the DOE through its Sunshine State Scholars
  - Communication unit placed more than 4,000 science and research stories in local and national media outlets from 2018-2020.
  - Facilitated visits by industry and elected officials to labs
  - In early days of COVID-19 facilitated production of PPE for local hospitals through Limbitless and IST laboratories

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Administrative Outlook:

UCF as the opportunity to become one of the best public research universities in the nation. OR has taken several steps to prepare the way.

Space

- Research II, which would house labs for a variety of disciplines, has been proposed to the BOG.
- Creative alternatives are being explored for additional space.

Resources

- Most of HURON Research Suite (HRS) has been implemented, with COI and EH&S labs schedule in the coming year.
- Integration between HRS and a new ERP to facilitate operations is already underway university wide.
- A move to the cloud is necessary for efficiency and cost savings.
- Graduate Research IT offering additional computing power services and referrals for big data needs.

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Challenges and Opportunities:

Operational changes made since 2016 have improved research administration, but to become a top 50 public research institution will take additional collective action beyond OR to solve. They include:

- Finding more physical space to conduct research.
- Creating incentives to hire and keep faculty who conduct research.
- Balancing compliance requirements and unfunded mandates with effective and efficient sponsored research administration.
- Focusing in key areas where there is potential for huge return. Currently OR is working with a consulting team to recommend a strategic plan for research growth.
- Investing in sustainable infrastructure that serves all researchers such as centralized chemical/supply system.
- Finding comprehensive insurance plan/methodology for expensive and specialized equipment.

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Leadership Roles

Member of UCF ECIRT
Member of the Cabinet
Member of Provost Council
Dean's Council
College of Sciences Dean Search Committee
University Budget Committee
SUS Vice Presidents of Research Group
Limbitless Solutions Board of Directors
Knight Vision Executive Steering Committee
Research Foundation Chair
Microsoft Partnership Core Team member
Orange County Research and Development Authority Board

Future Goals:

UCF is at a crossroads when it comes to research. We want to be among the best public research universities in the world.

More interdisciplinary research and collaboration is certainly part of that future.

Growing UCF's research reputation will be critical to attracting faculty and high caliber graduate students, which are the backbone of research at a university.

WE need to continue to find smart ways to operate efficiently while delivering quality service to our faculty and students.

OR is working with a consulting team to bring recommendations to the president and BOT, which will help define where research at UCF will go in the next 10 years.

Part II: College of Graduate Studies

Outlook in 2016: College of Graduate Studies

When I arrived at UCF, the college had fewer than 10,000 graduate students and many challenges including an outdated application system, high turnover among staff and a sense that graduate students were invisible at UCF. There was also a big change – the college dean was now also responsible for overseeing the Office of Research. My charge was to achieve all the UCF strategic goals for the college. To achieve these goals, it is also necessary to build a strong graduate student community that will help attract among the best students in the nation.

Current CGS Structure

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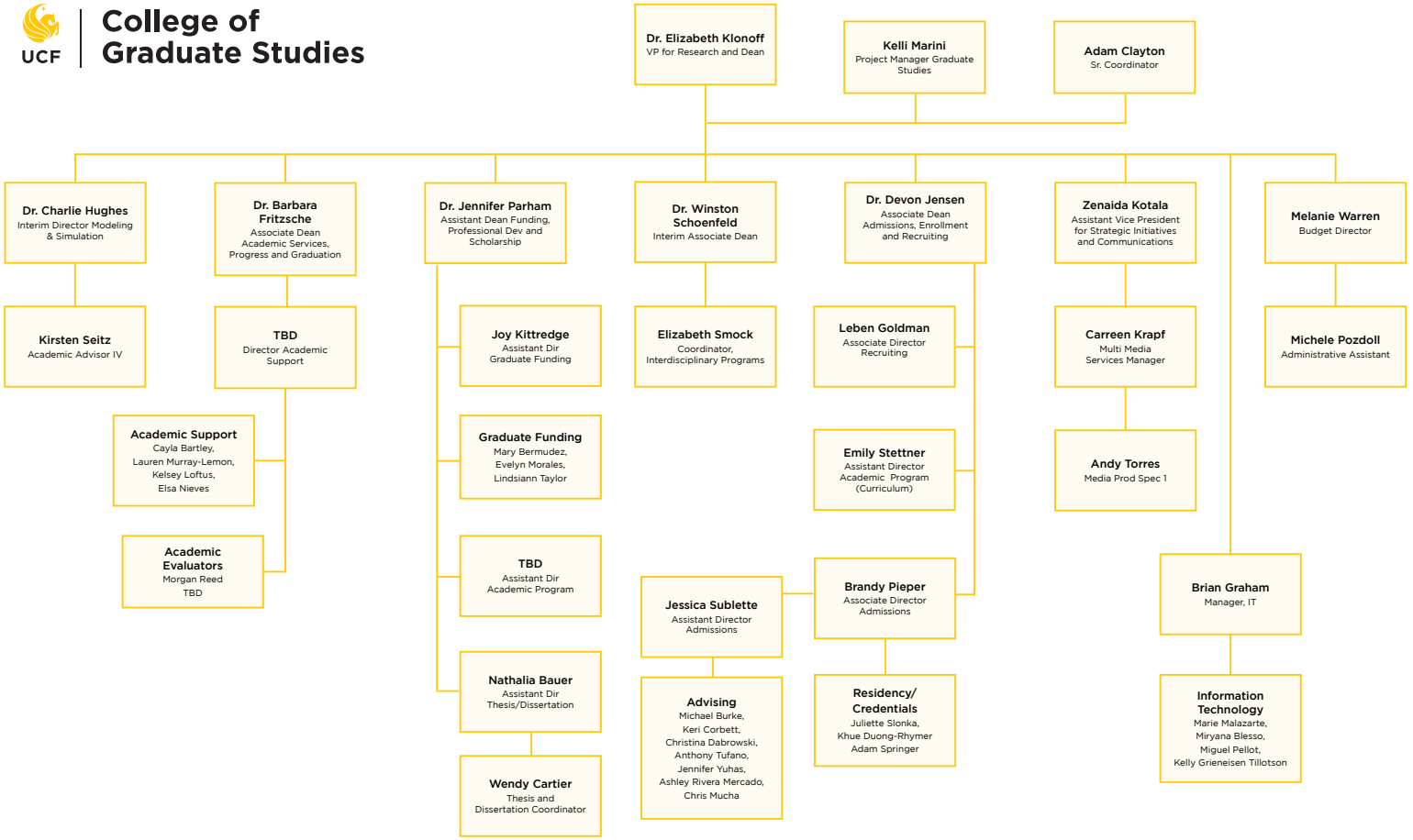

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Alignment with Strategic Plan

Expand to 10,000 graduate students

- Goal met. In Fall 2016 there were 8,031 graduate students. In 2019 we hit 10,000.

Reach at least 200 postdoctoral appointees

- Developed and implemented the P3 program to cooperatively fund post-doctoral fellows. Total number of fellows before the program (November 2016) was 62; there are currently 162, with over 45 more in the pipeline

Achieve 300 PhD and MFA degrees annually

- Goal met and growing. In 2016 there were 316. In 2020 there were 349.

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Progress Toward Strategic Priorities

Hitting 10,000

- Hired an Associate Director of Recruitment to allow for the development of focused initiatives and efforts both internal and external to UCF.

- Implemented new Graduate School Application system, SLATE, to improve the efficiency of application services, modernize business practices, and improve communication systems with all potential and actively applying students and enhance recruitment efforts.

- Facilitated the establishment of new Graduate Enrollment data reports that better link college-level enrollment projections to meeting the institutional goal of 10,000 grad students.

- Developed the Diverse Academic Opportunities Program to recruit students of diverse backgrounds to our STEM PhD programs.

- Supported discipline specific programs aimed at increasing under-represented groups such as BRIDGE program in Physics.

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Progress Toward Strategic Priorities

Reaching 200 postdoctoral appointees

- Continuing the P3 program to cooperatively fund post-doctoral fellows.
- Began implementation of a digital annual reporting system to track progress of doctoral students and post-doctoral fellows, consistent with NIH requirements for an Individual Development Plan.
- Developing a UCF chapter of the National Post Doc Association.

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Notable Progress: Operational

Creating a Supportive Graduate Environment

- Launched Annual Climate surveys in 2019, reported results to deans.
- Increased the number of Office of Research-funded, higher level fellowships from 92 (AY 2016-2017) to 104 (AY 2017-2018) to 115 for AY 2018-2019.
- Increased salaries of doctoral-level Graduate Teaching and Graduate Research Assistants to be competitive with other Florida and University Innovation Alliance peers.
- Implemented a graduate research grant program for doctoral students, to assist with small research expenses to complete dissertations.

Notable Progress: Operational

Creating a Supportive Graduate Environment

- Began process to educate faculty and all graduate students on expected behaviors, rights and responsibilities.
- Brought guest speakers to Program Directors meetings to talk about various topics such as Emotional Intelligence as a tool to enhance communication with students.
- Began exploring UCF housing options for graduate students.
- Operated Graduate Student Center and oversaw move into new and improved space.

Notable Progress: Student Impact

Creating a Supportive Graduate Environment

- Facilitated the state-level approval of four new PhD programs (Big Data, Anthropological Sciences, Aerospace Engineering, and Strategic Communication)

- Instituted a doctoral student “bridge” funding program to cover stipends of students whose faculty mentors have a brief (less than one year) interruption in grant funding for students.

- Enhanced the Pathways to Success Program, which provides free workshops in Academic Integrity, Grantsmanship, Graduate Teaching, Personal Development, Professional Development, and Research.

- Established required plagiarism training for graduate students.

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Notable Progress: Student Impact

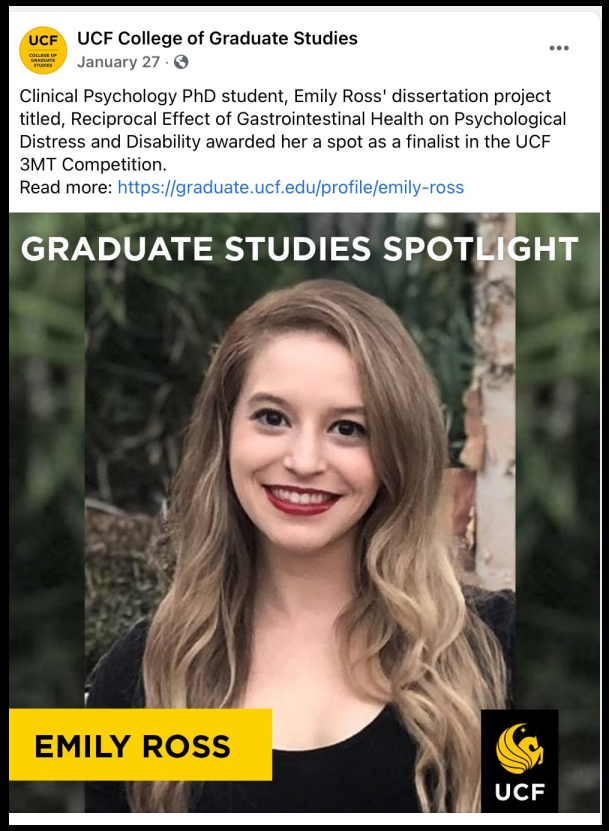
Creating a Supportive Graduate Environment

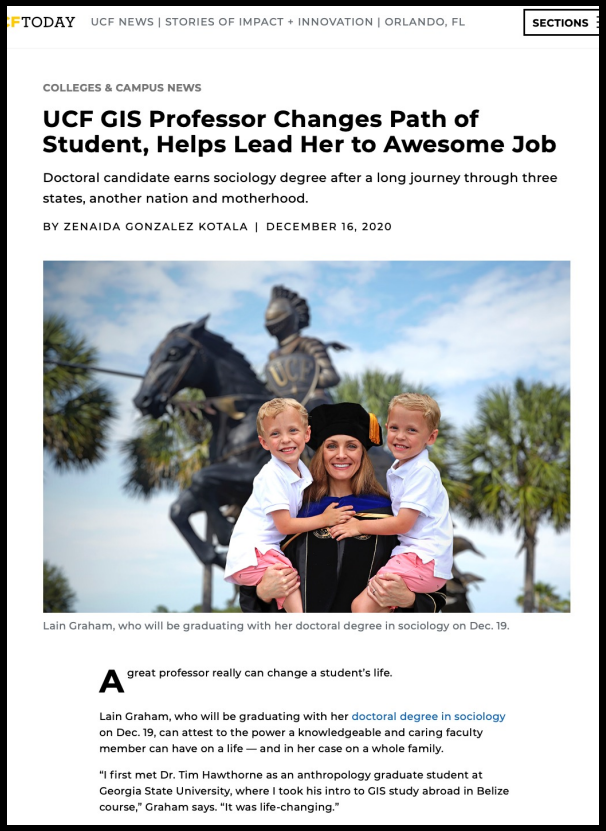
- Held 8 Town Hall Zoom meetings with graduate students and postdocs during COVID pandemic 2020-2021 to provide information and get input directly from students. Received positive response so will continue practice at least once a semester moving forward.

- Supported the Graduate Student Association recognition by Student Government Association, which provides funds to support student activities.

- Created a Best Dissertation Award.

- Regularly promoted the work of our graduate students and faculty internally and externally via websites, social media and media outlets.





Graduate and Post Doc Students

Notable Progress: Student Impact

Creating a Supportive Graduate Environment

- Stronger collaboration with Undergraduate Research for a comprehensive Student Research Week Celebration 2018-2021 – record number participants each year.

- Raised the profile of Student Research Week in 2021
  - President Cartwright kicked off promotions, BOT member to participate in awards.

- Sponsored small travel awards program for graduate students presenting at national conferences (2017-present). During COVID available to pay for virtual conference registration fees.

- Launched 3-Minute Thesis program at UCF in 2019
  - Graduate students present research results for prizes.

Notable Progress: Faculty

- Launched regular Program Director Meetings with the Dean and college leadership and established a team site to share good ideas and experiences.
- Established Graduate Faculty rights and responsibilities.
- Re-evaluating and reworking how academic and other misconduct is handled to emphasize integrity and fairness.
- Improving the guide to help new program directors
- Began process of streamlining business processes to improve efficiency and better monitoring of student progress.
- Converted many paper forms to digital world to make it easier for faculty and students to submit.

Administrative Outlook

There are many opportunities to grow the graduate programs at UCF, but we must be strategic. We can't simply grow to grow. Along the way we need to ensure our policies and processes are meeting needs and can adapt to work with our customers during challenging times such as the COVID-19 pandemic.

As we grow, appropriate staffing and space will be needed.

The university selection of a new Catalog system in 2021 (the second new system in three years) will require alignment with colleges and Handbooks of each of the colleges across the university.

Collaboration and flexibility will remain key ingredients to continued success.

Leadership Roles

- 2017: Cynthia D. Belar Award for Outstanding Contributions to Education and Training in Health Psychology
- 2015-2016: Secretary/President Elect, American Academy of Clinical Health Psychology
- 2015-2017: Board of Educational Affairs, American Psychological Association
- *2013-2017: Training and Education in Professional Psychology Journal Editor*
- 2006-present: National Institutes of Health, National Center for Minority Health Disparities, Special Emphasis Panel, Loan Repayment Program
- 2010-present: HRSA Graduate Psychology Education
- 2012 – present: National Science Foundation Graduate Research Fellowships Program Review Panel

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Challenges

- Funding for graduate students and postdocs
- Funding for faculty to properly mentor and guide graduate students
- Growing, but more importantly a strategy for smart growth which addresses:
  - How much is too much growth?
  - Grow in what areas?
- Changing the culture to see and serve graduate students
- Investing in the infrastructure (mental health, housing, programming) to support a thriving graduate community

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Future Goals

- Continue to grow enrollment in a planned way, while improving quality of our students, programs
- Grow the reputation of UCF as a major metropolitan research institution to attract high caliber graduate students
- Establish an Office of Post Doctoral Scholars
- Establish a fair way to evaluate graduate students especially if the GRE is phased out
- Create a supportive environment of diversity and inclusion among graduate students and faculty
- Provide excellent service to students and programs

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