2014 Student Summer Research Program

The 2014 Student Summer Research Program began May 19 and runs through July 25. There’s more information about the students on page 3 of this issue and also on our [website](#).

![Photo from left to right: Stefhany Duque, Taylor Capasso, Dusty Rose, Kelli Rike, Andy Alvarez, Amanda Francis and Eric Faby.](image)

Announcements

Call for student publications and research presentations
If you are a current DMD student and would like to have your publication and or research presentation cited in our newsletter, please send an email to DN-Office-Of-Research@dental.ufl.edu

Distinguished Scientist Lecture Series
All UFCD faculty, students and staff are eligible to nominate speakers for the Dean’s Research Seminar Series. The speaker should be nationally or internationally recognized for their research achievements. In addition, eligible UF faculty may be nominated to speak. Visit [http://research.dental.ufl.edu/resources/programs/faculty/deans-research-seminar-series/](http://research.dental.ufl.edu/resources/programs/faculty/deans-research-seminar-series/) for more information.

New Sponsored Programs Training Session
RSH270 “Award Management” discusses some of the most important management practices for sponsored projects. These “best practices” are focused on allocating and assigning appropriate costs correctly the first time and reviewing sponsored project transactions in order to identify any costs that might be placed incorrectly or require follow-up.

To enroll for this session, log into myUFL and navigate to: Main Menu > My Self Service > Training and Development > Request Training Enrollment.

Division of Sponsored Programs Reorganizes
The Division of Sponsored Programs (DSP) is implementing many changes in the business of research administration – new systems, new processes, and new people. To best effect these changes, DSP leadership compared the current organizational structure with other options to determine the most effective model for DSP’s service to the university.

Ultimately, this reorganization must provide at least the following outcomes:
- Quality service to faculty – knowing who to contact and building relationships with their support team
- Effective relationships within DSP and throughout campus, faculty and other business offices
- Well-defined roles and responsibilities
- DSP staff career growth opportunities
Christina Graves is a third year Ph.D. student in the Immunology and Microbiology concentration of the Interdisciplinary PhD Program (IDP) in Biomedical Sciences. She is performing her doctoral research in the laboratory of Dr. Shannon Wallet in the Department of Oral Biology. Graves has a multidisciplinary research background spanning prebiotic chemistry and astrobiology, synthetic biology and molecular evolution, as well as the study of human inflammatory diseases within an evolutionary context. She received her bachelor’s in biology at the Georgia Institute of Technology in 2011 before coming to Gainesville.

Graves is fundamentally interested in understanding the dialogue that occurs between a host and its environment; particularly, she is interested in the role that the intestinal epithelium plays in directing systemic immune responses and the rules and conditions under which these sensing mechanisms may go awry. Her current research focuses on the innate immune functions of intestinal epithelial cells and how they might be altered in type 1 diabetes. She has adapted protocols for the culture of adult primary intestinal epithelial cells from mouse models of diabetes, as well as from human organ donors though collaboration with the Network for Pancreatic Organ Donors. She recently submitted a publication detailing these methods. Her research has identified differences in the innate immune function of epithelial cells derived from organ donors with diabetes, and she is currently working on understanding these differences in more detail.

During her graduate studies, she has had the opportunity to present her research at a variety of venues including the annual conferences of Juvenile Diabetes Research Foundation (JDRF) Network for Pancreatic Organ Donors (nPOD) and Society for Leukocyte Biology (SLB) as well as local venues such as the UF College of Dentistry Spring Research Symposium, UF Graduate Student Research Day and the IDP Immunology and Microbiology Concentration Seminar Series. She also recently participated as a finalist in UF’s first annual Three Minute Thesis (3MT) Competition, and was 2nd runner up in the MSI Medical Guild Internal Competition. Graves is currently funded by the oral biology training grant and recently applied for an individual NRSA training award.

**NIH Public Access Policy Compliance**

Beginning April 2013, the NIH began delaying processing non-competing continuation grant awards if publications arising from that award are not in compliance with the Public Access Policy.

The NIH Public Access Policy requires publications resulting from NIH funding be submitted to PubMed Central. Please note that publishing in an open access journal does not fully meet the requirements of the NIH Public Access Policy.

If you need assistance understanding the requirements or with the submission process, an online guide is available here.

For personalized assistance, please contact your liaison librarian, contact info is at the hyperlinks below:

- for the [Health Sciences Center Library](#)
- for the [Jacksonville Borland Library](#)
- for the [Marston Science Library](#)
2014 Summer Research Students

This year’s summer research students have been selected and matched with mentors. The students’ orientation occurred on May 19 and this year’s program runs through July 25, when the students give oral presentations of their abstracts at 1 p.m. in D3-3. A reception follows immediately after in D3-39A.

The students and their mentors are:

Andres Alvarez
Mentor: Dr. Marcelle Nascimento

Taylor Capasso
Mentor: Dr. Shannon Holliday

Eric Faby
Mentor: David Culp

Kelli Rike
Mentor: Jeannine Brady

Dusty Rose
Mentor: Joe Riley

Stefhany Duque Rosas
Mentors: Dr. Shannon Wallet & Dr. Mary Ellen Davey

Amanda Francis
Mentor: Luciana Shaddox
2014 Senior Research Awards

This year’s Senior Award Banquet was held on May 3, 2014. There were many students who received certificates to commemorate their accomplishments throughout the year. The following students were recognized for their research accomplishments:

Danny Kalash, D.M.D.
Quintessence Award
High Research Honors

Ann Decker
The American Association of Oral Biology Award
High Research Honors

Tracy Van Duyne
Pierre Fauchard Academy’s Senior Student Award
High Research Honors

Johnny Williams
High Research Honors

Faculty Spotlight
Luciana Shaddox

Luciana Shaddox, D.D.S., M.S., Ph.D., has been working in Department of Periodontology since 2006. Since her second year of dental school, Shaddox has actively participated in the scientific research development in periodontology, both nationally and internationally.

She joined the college as a research scholar in 2004, developing part of her doctorate thesis project involving the microbiology of smokers with periodontal disease. Following a post-doctoral fellowship in periodontal microbiology, she joined the periodontology department as an assistant professor in 2006. Shaddox has mainly devoted her research time to a study funded by the NIH on aggressive periodontal disease in children and adolescents.

This study aims to tease out immunological, microbiological and genetic factors involved with localized aggressive periodontal disease, a rare type of gum disease that affects young individuals, that usually leads to early tooth loss if left untreated. This disease tends to affect mostly underserved populations, African-Americans, and interestingly, only very specific teeth.

Shaddox was able to gather a group of children from different counties in north Florida diagnosed with this disease, as well as their family members, to better understand the inflammatory mechanisms and possible genetic markers behind the aggressiveness of this disease.

Shaddox and her group found that patients with this disease present a hyper-inflammatory response to bacteria. This hyper-inflammatory response may result in the tissue destruction observed in this disease. In addition, some of the healthy siblings of the diseased patients present with a hyper-inflammatory response as well, which may dictate future initiation of disease. Possible genetic markers may predispose these young patients to this inflammatory response and thus to a higher disease susceptibility.

Shaddox’s recent R01 grant renewal is aimed at expanding this cohort to tease out possible genetic markers and specific
Shaddox continued

inflammatory mechanisms playing a role in this disease. This work will be in collaboration with Dr. Margaret Wallace, from the UF College of Medicine Department of Molecular Genetics and Microbiology, and three dentistry faculty; Dr. Shannon Wallet, who is an immunologist; Dr. Ikramuddin Aukhil and Dr. Peter Harrison, who are both periodontists. They will collaborate with numerous clinical sites including the Tallahassee and Jacksonville health departments, and the college’s pediatric dental centers.

Shaddox also leads a clinical research project that investigates the relationship between periodontal disease and type II Diabetes Mellitus, as part of an industry-sponsored study.

Shaddox is the recipient of several awards, including the prestigious American Academy of Periodontology Teaching Fellowship Award and the University of Florida Assistant Professor Excellence Award. She has authored and co-authored over 30 peer-reviewed publications and has mentored several students with interest in research, many of whom were also awarded for their research endeavors at national and international meetings. Shaddox was promoted to associate professor with tenure in 2012 and continues to further the knowledge of periodontal diseases through her research development and teaching.

Research Residents

We enjoy remarkable mentorship support from our college across all specialties. Our residents present research and compete for national awards with projects from basic science to translational research. These are some of this year’s awards.

American Association of Orthodontics Meeting

Dr. Nancy Huynh
Thomas Graber Award of Special Merit
Orthodontics
Osteoclast-Derived Exosomes: Novel Regulators of Bone Remodeling and Markers of Resorption

Dr. Neha Patel
Charley Schultz Resident Scholar Award
Orthodontics
Effect of aligner Material, Duration, and Force level on tooth movement

Dr. Adam Jones – 1st Place (Poster Category)
Prosthodontics
Comparing Pink and White Esthetic Scores to Layperson Perception

University of Florida 2014 Spring Synergy

Dr. Lindsay Montague – 1st Place (Oral Category)
Oral Maxillofacial Pathology
Positive Direct Immunofluorescence Testing Results in Cases of Premalignant and Malignant Oral Lesions

Dr. Tommy Currie - 2nd Place (Oral Category)
Endodontics
Presence of Metastatic Human Osteosarcoma Cells in the Dental Pulp

Dr. Carl Jones – 1st Place (Poster Category)
Endodontics
Comparison of Cyclic Fatigue Failure of Three Nickel Titanium Rotary Files

Dr. Marc Rasmussen – 2nd Place (Poster Category)
Endodontics
The Influence of Manual agitation during Irrigant Delivery on Debris Removal

American Association of Endodontics Meeting

Dr. Thomas Currie - $1,000 Award (Oral Category)
Endodontics
Presence of Metastatic Human Osteosarcoma Cells in the Dental Pulp

Dr. Kevin Nygard - $1,000 Award (Poster Category)
Endodontics
Quantitative Analysis of the Antimicrobial Efficacy of Two Irrigation Protocols
## Faculty Research Awards

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Project Title</th>
<th>Institute/Grant</th>
<th>Funding</th>
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</thead>
<tbody>
<tr>
<td>Dr. Wellington Rody</td>
<td>Orthodontics</td>
<td>The Search for Soluble Biomarkers of Resorption</td>
<td>AM Association of Ortho FTDN</td>
<td>$25,000</td>
</tr>
<tr>
<td>Dr. Roger Fillingim</td>
<td>Community Dentistry &amp; Behavioral Science</td>
<td>The Role of Endothelin-1 in Sickle Cell Disease</td>
<td>Georgia Regents University; NIH/NIHLB U01HL117684</td>
<td>$26,114</td>
</tr>
<tr>
<td>Dr. Shannon Wallet</td>
<td>Periodontology</td>
<td>Intestinal Epithelial Cell Contributions to Permissiveness of Norovirus Infection of B Cells</td>
<td>UF Division of Sponsored Programs Opportunity Fund</td>
<td>$84,000</td>
</tr>
<tr>
<td>Dr. Jeannine Brady</td>
<td>Oral Biology</td>
<td>UFCD Bridge Funding</td>
<td>UF College of Dentistry</td>
<td>$60,000</td>
</tr>
<tr>
<td>Dr. Sang-Joon Ahn</td>
<td>Oral Biology</td>
<td>Regulation of Streptococcus Mutans Atla on the Cell Surface</td>
<td>NIH/NIDCR R03DE023604</td>
<td>$224,813</td>
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<tr>
<td>Dr. Roberta Pileggi</td>
<td>Endodontics</td>
<td>Canal Cleanliness and Antimicrobial Efficacy of New File System Dentsply</td>
<td></td>
<td>$31,269</td>
</tr>
<tr>
<td>Dr. Gill Diamond</td>
<td>Oral Biology</td>
<td>Vitamin D and Innate Immunity in Respiratory Infections</td>
<td>NIH/NAID Sub-Contract Rutgers Univ. R21AI00379</td>
<td>$31,068</td>
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<tr>
<td>Dr. Marcelle Nascimento</td>
<td>Restorative Dental Sciences</td>
<td>Oral Alkali Production and Caries Prevention in Children</td>
<td>Georgia Regents University; NIH/NIHLB U01HL117684</td>
<td>$26,114</td>
</tr>
<tr>
<td>Dr. Frank Catalanatto</td>
<td>Community Dentistry &amp; Behavioral Science</td>
<td>Testing Pediatric Oral Health Performance Measures: ER Use and General Anesthesia for Caries-Related Reasons</td>
<td>American Dental Association</td>
<td>$8,450</td>
</tr>
<tr>
<td>Dr. Luciana Shaddox</td>
<td>Periodontology</td>
<td>Mechanisms and Treatment Response of Aggressive Periodontitis in Children</td>
<td>NIH/NIDCR R01DE019456</td>
<td>$3,039,590</td>
</tr>
<tr>
<td>Dr. Chiayi Shen</td>
<td>Restorative Dental Sciences</td>
<td>The Efficacy of NeutraSal® Remineralizing Premineralized Bovine Dentition In Vitro</td>
<td>Corporate</td>
<td>$12,100</td>
</tr>
<tr>
<td>Dr. Emily Bartley</td>
<td>Community Dentistry &amp; Behavioral Science</td>
<td>Assessing the Efficacy of a Hope Intervention in Temporomandibular</td>
<td>American Pain Society</td>
<td>$35,000</td>
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<tr>
<td>Dr. Kelly Naugle</td>
<td>Community Dentistry &amp; Behavioral Science</td>
<td>Dysregulated Pain Modulation in Older Adults: Effects of Oxidative Stress and Regular Exercise</td>
<td>UFCD Seed Grant</td>
<td>$2,500</td>
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## NIH - July through August deadlines

<table>
<thead>
<tr>
<th>Activity Codes</th>
<th>Program Description</th>
<th>Application Form</th>
<th>Cycle II Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>R01 renewal, resubmission, revision</td>
<td>Research Grants</td>
<td>SF424 (R&amp;R)</td>
<td>July 5</td>
</tr>
<tr>
<td>U01 renewal, resubmission, revision</td>
<td>Research Grants - Cooperative Agreements</td>
<td>SF424 (R&amp;R)</td>
<td>July 5</td>
</tr>
<tr>
<td>UM1 renewal, resubmission, revision</td>
<td>Research Grants - Multi-Component Cooperative Agreements</td>
<td>PHS 398</td>
<td>July 5</td>
</tr>
<tr>
<td>K series renewal, resubmission, revision</td>
<td>Research Career Development</td>
<td>SF424 (R&amp;R)</td>
<td>July 12</td>
</tr>
<tr>
<td>R03, R21, R33, R21/R33, R34, R36 renewal, resubmission, revision</td>
<td>Other Research Grants</td>
<td>SF424 (R&amp;R)</td>
<td>July 16</td>
</tr>
<tr>
<td>R41, R42, R43, R44, U43, U44 All - new, renewal, resubmission, revision</td>
<td>Small Business Technology Transfer (STTR) Small Business Innovation Research (SBIR)</td>
<td>SF424 (R&amp;R)</td>
<td>August 5</td>
</tr>
<tr>
<td>F Series Fellowships new, renewal, resubmission</td>
<td>Individual National Research Service Awards (Standard) (see NRSA Training Page)</td>
<td>SF424 (R&amp;R)</td>
<td>August 8</td>
</tr>
<tr>
<td>R13, U13 All - new, renewal, resubmission, revision</td>
<td>Conference Grants and Conference Cooperative Agreements</td>
<td>SF424 (R&amp;R)</td>
<td>August 12</td>
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<tr>
<td>F31 Diversity Fellowships new, renewal, resubmission</td>
<td>Individual Predoctoral Fellowships (F31) to Promote Diversity in Health-Related Research (see NRSA Training Page)</td>
<td>SF424 (R&amp;R)</td>
<td>August 13</td>
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</tbody>
</table>
# NIH - September through October deadlines

<table>
<thead>
<tr>
<th>Activity Codes</th>
<th>Program Description</th>
<th>Application Form</th>
<th>Cycle II Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Activity Codes Cited Above new, renewal, resubmission, revision</td>
<td>AIDS and AIDS-Related Applications based on Activity Code</td>
<td>Based on Activity Code</td>
<td>September 7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity Codes</th>
<th>Program Description</th>
<th>Application Form</th>
<th>Cycle III Due Date</th>
</tr>
</thead>
</table>
| P Series All - new, renewal, resubmission, revision | Program Project Grants and Center Grants  
NOTE: Applicants should check with the relevant Institute or Center (IC), since some do not accept P series applications for all three receipt/review/award cycles.  
Transition to SF424 (R&R): On Hold | PHS 398 | September 25 |
| R18/U18 R25 All - new, renewal, resubmission, revision | Research Demonstration Education Projects | SF424 (R&R) | September 25 |
| T Series | Institutional National Research Service Awards Other Training Grants  
NOTE: Check with the relevant Institute or Center (IC), since some do not accept T series applications for all three receipt/review/award cycles. Refer to the IC Table of Contacts for information for each IC’s scientific/research contact for the NRSA T32 program. | SF424 (R&R) | September 25 |
| D Series All - new, renewal, resubmission, revision | Institutional National Research Service Awards Other Training Grants  
NOTE: Check with the relevant Institute or Center (IC), since some do not accept T series applications for all three receipt/review/award cycles. Refer to the IC Table of Contacts for information for each IC’s scientific/research contact for the NRSA T32 program. | SF424 (R&R) | September 25 |
| C06/UC6 All - new, renewal, resubmission, revision | Construction Grants | SF424 (R&R) | September 25 |
| G07, G08, G11, G13, G20, S11, S21, S22, SC1, SC2, SC3 All - new, renewal, resubmission, revision | Other Activity Codes | SF424 (R&R) | September 25 |
| D71/U2R, G12, M01, R10/U10, R24, R24/U24, S06, U19, U45, U54, U56 All - new, renewal, resubmission, revision | Other Activity Codes  
Transition to SF424 (R&R): On Hold | PHS 398 | September 25 |
| R01 new | Research Grants | SF424 (R&R) | October 5 |
| U01 new | Research Grants - Cooperative Agreements | SF424 (R&R) | October 5 |
| UM1 new | Research Grants - Multi-Component Cooperative Agreements | PHS 398 | October 5 |
| K series new | Research Career Development | SF424 (R&R) | October 12 |
| R03, R21, R33, R21/R33, R34, R36 new | Other Research Grants | SF424 (R&R) | October 16 |
| R15 All - new, renewal, resubmission, revision | Academic Research Enhancement Award (AREA) | SF424 (R&R) | October 25 |