# UCONN RESEARCH NEWSLETTER SPRING, 2023

# **Dental Student Research Day**



A list of the awardees from the event was featured in UConn Today:

https://today.uconn.edu/2023/03/students-awarded-atscholar-symposium/ The annual Medical/Dental Student Research Day event was held virtually on March 1, to showcase the 2022 summer research performed by our 2<sup>nd</sup> year dental students. We would like to thank the students and their mentors for their hard work. We would like to thank and acknowledge our judges: Drs. Ajay Dhingra, Eliane Dutra, Aadarsh Gopalakrishna, Arthur Hand, Alan Lurie and Takanori Sobue and also our Research Day planning committee for their work to create another successful event.

The keynote address was given by Felicia L. Tucker-Lively, PhD, MPH, who is the Vice President for Professional Development at the Academy for Advancing Leadership (AAL) in Atlanta.



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## SPRING, 2023

# Congratulations to the Dental Student Research Award Recipients and Mentors

Dean's Award: Eddyson Altidor (Dr. Caroline Dealy) and Julia Clapis (Dr. Frank Nichols)

Associate Dean's Award: Gosia Fryc (Dr. Alan Lurie)

Dentsply-Sirona Student Clinician Award: Dedrian Barrett (Dr. Aditya Tadinada)

<u>Connecticut Holistic Health Association Award</u>: Olivia Dort (Dr. Mary P. Guerrera) and Samira Abdelrehim (Dr. Eric Bernstein)

Gustave Perl Memorial Award: Thomas Nelson (Dr. Aditya Tadinada)

Dental Student Research Society Award: Pablo Prieto (Dr. Liisa Kuhn)

Omicron Kappa Upsilon – Phi Chi Chapter Awards:

Basic Science: Samantha DePalma (Dr. Jean-Denis Beaudoin)

Clinical: Christine Schiller (Dr. Aditya Tadinada)

# AADOCR annual meeting and exhibition list of presenters



Resident Dr. Manali Vora (Drs. Mark Litt and Eric Mortensen)



Dr. Eric Bernstein



Dr. Effie Ioannidou



Dental Student Eddyson Altidor (Dr. Caroline Dealy)



Dr. Anna Dongari-Bagtzoglou



Dental Student Kolbe Laing (Drs. Marja Hurley and Eliane Dutra)

( AADOCR



Dental Student Jay Dalal

(Drs. Alix Deymier and Sree Raghavendra)

# Pen to Paper – Submitted Grant Applications

The Research Office has submitted 95 grant applications for the School of Dental Medicine during the 2022 calendar year (1/1/2022 - 12/31/2022). We would like to acknowledge all those that have submitted applications during that time.

## **NIH F30**

Patricia Hare

#### **NIH K01**

Vanessa Scanlon (transfer)

## NIH K99/R00

Roberto Vazquez-Munoz Roberto Vazquez-Munoz

#### NIH RO1

I-Ping Chen I-Ping Chen I-Ping Chen (subcontract) Alix Deymier lvo Kalajzic Ivo Kalajzic lvo Kalajzic Kshitiz Kshitiz Kshitiz Mark Litt Mark Litt Mark Litt Changchun Liu Peter Maye Mina Mina Frank Nichols Frank Nichols (subcontract) Ernst Reichenberger Tannin Schmidt Tannin Schmidt Tannin Schmidt **Tannin Schmidt** Tannin Schmidt (subcontract) Ali Tamayol Ali Tamayol

#### NIH R01 (continued)

Ali Tamayol (subcontract) Ali Tamayol (subcontract) Julie Wagner Sumit Yadav Sumit Yadav Sumit Yadav Sumit Yadav

#### <u>NIH R03</u>

Dashzeveg Bayarsaihan (subcontract) Po-Jung Chen Caroline Dealy Peter Maye (subcontract) David Rowe Mohamadmahdi Samandari (Ali Tamayol) Vanessa Scanlon

#### **NIH R13**

Mina Mina

<u>NIH R15</u> Xiaonan Xin (subcontract)

## <u>NIH R21</u>

Dashzeveg Bayarsaihan Peter Maye Frank Nichols (subcontract) Julie Wagner (subcontract)

#### NIH Supplement Mark Litt

NIH SBIR Tannin Schmidt (subcontract)

NIH T90/R90 Mina Mina

NIH U2C Vanessa Scanlon (subcontract)

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NIH U54 Peter Maye (subcontract)

David Rowe David Rowe

## NIH UG3/UH3

Effie Ioannidou Flavio Uribe Sumit Yadav Sumit Yadav (subcontract)

American Foundation for Suicide Prevention Robert Aseltine

American Association of Orthodontists Niloufar Azami Sumit Yadav

American Cancer Society Kshitiz

American Diabetes Association Julie Wagner

<u>American Heart Association</u> Yamin Liu (Kshitiz)

Burroughs Wellcome Fund Kshitiz

<u>Colgate</u> Niloufar Azami Shivani Suvarna

Damon Runyon Cancer Research Foundation Kshitiz

## **Department of Defense**

Kshitiz Tannin Schmidt Tannin Schmidt (subcontract) Ali Tamayol Ali Tamayol (subcontract) <u>Greater New York Academy of</u> <u>Prosthodontics</u> Mohaad Amar Faraj (Avinash Bidra)

International Orthodontics Foundation Niloufar Azami

Sumit Yadav

## **National Science Foundation**

Caroline Dealy (subcontract) Kshitiz

Robert E. Leet & Clara Guthrie Patterson Trust Wenqiang Du (Kshitiz)

Wound Healing Foundation Mohamadmahdi Samandari (Ali Tamayol)

## Internal\*

## <u>Clinical Research & Innovation Seed Program</u> (<u>CRISP</u>) Caroline Dealy Martin Freilich Rajesh Lalla

Research Excellence Program Dashzeveg Bayarsaihan Peter Maye

#### SPARK Technology Commercialization Fund

Caroline Dealy Liisa Kuhn Ali Tamayol

\*Since not directly submitted through SDM Research Office, information is based on what was reported to us.

## UConn Health Sciences Library Updates

Did you know that the UConn Health Sciences Library has updated their library catalog to include Article Galaxy Scholar, a new system to get you quicker access to select articles that are not available in our own collections?

Here's how Article Galaxy Scholar works:

Once you've typed into the search bar – title, author or keyword(s), you may only see an option to **Check for Request Options** – Select that button.

Click on **UConn Health Network Logon Users** if you are a student, faculty or staff; otherwise, select the appropriate option, sign on with your credentials, if prompted.

If the item is <u>available</u> through Article Galaxy Scholar, click the **request pdf** option. Your article will typically arrive within the hour to your email.

If the item is not available through Article Galaxy scholar, your next option would be an interlibrary loan (ILL) request, which will take one to three days.

Helpful links:

- Access the library's <u>OneSearch Catalog</u>
- OneSearch Catalog Help
- <u>Article Galaxy Scholar Demo</u>

For more information, contact: Interlibrary Loan Librarian, Annmarie Magurany at magurany@uchc.edu



Connecticut State Dental Association in Collaboration with the University of Connecticut School of Dental Medicine Proudly Presents: The Dental Student & Resident Research Poster Session



Each year dental students and residents at the UConn School of Dental Medicine conduct research projects under the mentorship of UConn Health Center faculty. These projects range from basic science experiments and clinical studies to translational research. The results of this work often lead to projects of greater scope and to publications in peer-reviewed journals. We are proud to invite you to this year's poster session where the students and residents will present the results of their research projects.

# Come Support the Future of Dentistry!

Where and When: CSDA's Annual Charter Oak Dental Meeting at The Mohegan Sun in Uncasville, CT

- Poster Presentations will be displayed in the Exhibit Hall
- Thursday, May 11<sup>th</sup> from 8:30 a.m. 3:00 p.m. (Dental Student Presentations)
  - Friday, May 12<sup>th</sup> from 8:30 a.m. 3:00 p.m. (Resident Presentations)

For more information about the meeting go to : http://www.csdadentalmeeting.com

CT STATE DENTAL ASSOCIATION 156TH ANNUAL CHARTER OAK DENTAL MEETING • MAY 10-12, 2023 DISCOVER. CONNECT. ADVANCE.

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# Faculty and Resident Recognition

# 2023 AJO-DO Watson Award for Biologic or Experimental Research

Congratulations to Dr. Christina Seong, Dr. Po-Jung Chen, Dr. Zana Kalajzic, Dr. Shivam Mehta, Dr. Ambika Sharma, Dr. Ravindra Nanda, Dr. Sumit Yadav and Dr. Eliane Dutra for their research article, "Vitamin E enriched diet increases the rate of orthodontic tooth movement" which was published in the American Journal of Orthodontics and Dentofacial Orthopedics in 2022. This article was selected for this award as the highest-rated biological or experimental research article published in this journal in 2022.

https://pubmed.ncbi.nlm.nih.gov/35012806/



Dr. Dutra

Dr. Seong

# Researchers Unravel a Population of 'Cheating' Cells in Cancers



Congratulations to Dr. Kshitiz and collaborators for their research which was published in Cell Systems and featured in UConn Today:

https://today.uconn.edu/2022/12/r ule-breakers-even-among-the-badguys-researchers-unravel-apopulation-of-cheating-cells-incancers/

# Using AI Algorithms to Streamline Orthodontic Care



Congratulations to Dr. Madhur Upadhyay and collaborators who are developing an artificial intelligence tool to assist with planning next steps for orthodontic care.

https://today.uconn.edu/2023/03/using-aialgorithms-to-streamline-orthodontic-care/

# **HIV Testing Device Developed**



Congratulations to Dr. Changchun Liu for the development of a simple and affordable HIV testing device.

https://today.uconn.edu/2023/03/uconnresearcher-develops-simple-affordablehiv-testing-device/

# Combining Two Bone Healing Remedies Can Inhibit Bone Growth and Regeneration

Congratulations to Drs. Ivo Kalajzic and Sanja Novak for their research evaluating the bone-forming effects of PDGF and BMP2 when used together.

https://today.uconn.edu/2023/02/researchers-combiningtwo-bone-healing-remedies-can-inhibit-bone-growth-andregeneration/



Dr. Kalajzic



Dr. Novak

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Congratulations to Dr. Vanessa Scanlon on a recent video profile which appeared in UConn Today, "Set up for Success: UConn Health Nurtures Research Careers": https://today.uconn.edu/2023/04/uconn-sets-us-up-for-success/



Congratulations to Dr. David Rowe, recipient of the 2022 Outstanding Faculty Research Award which was presented by Drs. Lalla and Lepowsky.



# **Student Recognition**



Congratulations to dental student Jonathan Leonard (mentor Dr. Martin Freilich) who recently published a paper, "Dental implant and bone augmentation treatment in bone-compromised patients Oral health-related quality of life outcomes", which appeared in the Journal of Prosthetic Dentistry.

https://pubmed.ncbi.nlm.nih.gov/3 6804393/



Congratulations to graduate student Ashkan Novin (mentor Dr. Kshitiz) for making it to the finals of the 3 Minute Thesis (3MT) research competition organized by the Northeastem Associate of Graduate Schools (NAGS), a collection of over 100 graduate schools from the Northeastern US and Canada.

Congratulations to 3<sup>rd</sup> Year Dental Student, Jay Dalal (mentors Drs. Alix Deymier and Sree Raghavendra), 1<sup>st</sup> place winner at the recent SCADA competition at the AADOCR meeting and exhibition held in Portand, OR in March, which appeared in UConn Today:

https://today.uconn.edu/2023/04/uconn-dental-student-takes-first-place-at-national-student-research-competition/





Have you received a recent award, accomplishment or have some interesting news to share with the SDM Research Community? Please forward your news to Lisa Ramsdell (<u>ramsdell@uchc.edu</u>) so it may be included in our next newsletter!

# Research Resources

Students, residents, postdoctoral trainees and faculty at the UConn School of Dental Medicine (SDM) have access to a wide range of research resources through the School, UConn Health, and UConn Storrs campus.

# Proposal Development Services

The SDM research community can access scientific editing and other proposal development services through arrangements at the School and University level. For scientific editing support, please contact Laura Didden at <u>ldidden@uchc.edu</u>. For proposal development services and proofreading services offered through the Office of the Vice-President for Research (OVPR), please see <u>https://ovpr.uconn.edu/services/research-development/services/</u>

## Prospecting for funding opportunities

Pivot-RP is a comprehensive search engine and database for grant funding opportunities available through state, federal, corporate, non-profit, and foundation sponsors. All current UConn faculty, trainees and staff have access to this database through an institutional subscription. This enables you to identify potential funding opportunities, including research grants, as well as fellowships and training grants. It can be especially useful to identify funding opportunities from scientific societies, foundations, and other non-profits. You can also receive weekly alerts with relevant opportunities based on your profile. For additional information and to set up your account, please see this link: <a href="https://guides.lib.uconn.edu/grants/Pivot">https://guides.lib.uconn.edu/grants/Pivot</a>

If you would like SDM Research Office staff to help you look for funding opportunities, please contact Laura Didden at Ididden@uchc.edu

## **Grantwriting Training and Resources**

Periodic training on grantwriting for various types of grants is offered by the OVPR. For details, please see: <u>https://ovpr.uconn.edu/services/research-development/grantwriting/</u>

# **Statistical Support**

For statistical support for dental residents in Master's degree programs, please contact Dr. Chia-Ling Kuo at kuo@uchc.edu

For all other statistical support needs for SDM students, residents, and faculty, assistance is available through the UConn Statistical Consulting Services, through one of the following options:

- 1. Free Walk-In (Virtual): For quick questions about statistical issues that can be handled in a 20 minute consulting session. <u>https://statsconsulting.uconn.edu/walk-in-schedule/</u>
- 2. Free Ask Online: Alternatively, you can submit questions online using the submission form at the link below: https://statsconsulting.uconn.edu/ask-online-sdm/
- Fully Supported Project Engagement: If more in-depth assistance is needed, it will be supported by the SDM, if there
  is no funding available for the project. Please complete the form at the link below to request such assistance:
  <a href="https://statsconsulting.uconn.edu/project-engagement-sdm/">https://statsconsulting.uconn.edu/project-engagement-sdm/</a>

For any questions about support through UConn Statistical Consulting Services, please contact Dr. Timothy Moore at <u>timothy.e.moore@uconn.edu</u>

# **Internal Funding Opportunities**

A variety of internal funding opportunities are open to SDM faculty including the Research Excellence Program, Convergence Awards for Research in Interdisciplinary Centers (CARIC) and the SPARK Technology Commercialization Fund. For details and deadlines, please see: <a href="https://ovpr.uchc.edu/services/research-development/funding/">https://ovpr.uchc.edu/services/research-development/funding/</a>

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## **Core Facilities**

To see all the Core Facilities available to the SDM Research community, please visit: <u>https://core.uconn.edu/</u>. This page allows you to choose to see all the Core resources at UConn Health, as well as at the Storrs and Avery Point campuses.

Sample Language describing UCH Core Facilities: <u>https://medicine.uconn.edu/research/core-facilities/</u>

## Health Center Research Advisory Council (HCRAC) programs

- Research Equipment support (includes repair/replacement support and new capital equipment support)
- Emergency Grant Program
- Exploratory Project Transition Award
- Travel Grants for Graduate Students and Postdoctoral Fellows

For information on the above programs, please see the HCRAC website at: <u>https://ovpr.uchc.edu/services/research-development/research-advisory-groups/hcrac/</u>

## <u>Lincus</u>

Looking for collaborators at UConn? Try Lincus, which tells you which faculty at UConn are working on topics of interest to you. Log in with your UConn Net ID at: <a href="https://lincus.uconn.edu/lincus/cas/landing">https://lincus.uconn.edu/lincus/cas/landing</a>

## **Technology Commercialization Services (TCS)**

TCS helps the UConn research community move their research towards practical application. For details, please see <a href="https://innovation.uconn.edu/">https://innovation.uconn.edu/</a>

## Additional Information

For more information and resources, please see the SDM Research Webpage at <u>https://dentalmedicine.uconn.edu/research/</u> and the OVPR Website at <u>https://ovpr.uchc.edu/</u>

# **Clinical Research Support Program**

Program for providing support for pilot or limited-scope clinical research projects in the SDM.

#### Guiding Principle for this program

The SDM aims to encourage and support increased clinical research activity by SDM clinical faculty.

### Program Benefits

Subject to the processes and limitations described in this document, the following institutional resources may be made available for SDM faculty wishing to conduct clinical research:

- 1. Research Assistant support to help with IRB and other administrative processes involved in clinical research, such as subject enrollment or appointment scheduling.
- 2. Staff support to help with using axiUm for clinical research projects
- 3. Statistical consulting services for study design, power calculations, and data analyses (submit separate form at: <a href="https://statsconsulting.uconn.edu/project-submission-sdm/">https://statsconsulting.uconn.edu/project-submission-sdm/</a>)
- 4. When appropriate, mentoring support will also be provided, especially for junior faculty who are encouraged to work with a mentoring committee.

#### Process

SDM faculty requesting support will be asked to submit a research protocol as well as details about resources requested in a fillable form. The submission will be reviewed by a committee consisting of the Associate Dean for Research, Associate Dean for Faculty Affairs, and Director of the Dental Clinical Research Center. The committee may consult with other parties as needed to help with review of the submissions. The results will be communicated in writing to the Principal Investigator. When applicable, the committee will also help to identify appropriate mentors, collaborators, and training opportunities that can help the project succeed.

If resources are awarded, the Principal Investigator is expected to submit an annual report describing progress and outcomes including abstracts, publications, conference presentations, grant applications etc. as well as continued resources requested for the following year, if any.

#### **Limitations**

- 1. This support is intended only for investigator-initiated projects for which there is no funding available yet or limited funding from a professional association or foundation that does not cover the costs of requested services. It is not intended to subsidize industry-initiated projects.
- 2. Staff support is subject to availability of the relevant staff members.

**<u>Clinical Research Support Program</u>** (continued)

- 3. Research Assistant support is restricted to administrative processes and does not include clinical dental assisting or related clinical functions.
- 4. It is the Principal Investigator's responsibility to ensure that all regulatory approvals are in place before any clinical research activity takes place.
- 5. No waiver of clinical care fees will be considered.

Examples of projects that could be eligible for this support

- 1. Project involving electronic chart reviews using axiUm for research purposes.
- 2. Systematic reviews with meta-analyses that need statistical support.
- 3. Investigator-initiated pilot clinical research studies.
- 4. Survey and Qualitative Research.

## Pre-submission Grant Review Program Rationale:

Since extramural grant funding is highly competitive, pre-submission reviews of grant applications can increase chances of success. Many PI's obtain such feedback from their colleagues and contacts both internal and external to UConn. This includes discipline-specific internal programs (such as those run by the UCH Bone group and BME) that provide such feedback to applicants. However, some applicants, especially junior faculty, may not have access to an appropriate reviewer for such pre-submission reviews in a particular area of expertise. This **voluntary** program is intended to help such applicants obtain such pre-submission scientific reviews for extramural grant applications to funding agencies such as NIH, NSF, DoD, etc.

#### Program Description:

- 1. The PI contacts the SDM Research Office approx. 90 days before the submission deadline, with a request to participate in this program, a draft abstract of the grant application, and names of suggested internal or external reviewers, who may be suitable for the planned grant application.
- 2. The SDM Research Office will contact the potential reviewers and identify one who is agreeable to review the grant within the requested time-frame.
- 3. The PI submits the scientific section(s) of the draft grant application to the SDM Research Office approx. 45-60 days before the submission deadline. The SDM Research Office will forward the draft to the identified internal or external reviewer, with a request to provide the review within 15 days.
- 4. After the review is received, the SDM Research Office will send the review to the PI, ideally about 30 days or more before the submission deadline, so there is time to make any changes in response to the review.
- 5. For reviewers that are external to UConn, the SDM Research Office will offer them a stipend to conduct the review.

# **Research Dean's Corner**

Dear Colleagues,

Happy Spring! March was a busy and exciting month in our research calendar with both our Student Research Day and the AADOCR conference held that month. In this issue, we highlight and celebrate our students, residents, postdoctoral fellows and faculty, who presented and represented us at these events and others. A special Congratulations to dental student Jay Dalal and his mentors Drs. Alix Deymier and Sree Raghavendra. Jay's research comparing different active ingredients to treat dental hypersensitivity won him the first-place award in the national-level SCADA student research competition in the clinical science category. This is an excellent example of applying our basic science research strengths to practical clinical problems. Jay's victory comes on the heels of dental student Emma Warren's second-place win in the 2022 SCADA competition in the Basic and



Translational Science category. Her work compared radiation scatter between ceramic and titanium dental implants, under the mentorship of Dr. Aditya Tadinada. Both Emma and Jay were selected and supported to attend and participate in this national-level competition by winning the Associate Dean's award at our local Student Research Day event. It is worth noting that every US dental school is invited to select a student to participate in this competition so the success of our students at the national level speaks to the high caliber of their work and our research environment. I would like to also acknowledge Dr. Aditya Tadinada, the Director of our student research program, and Ms. Lisa Ramsdell, for their many contributions to the continued success of our student research program.

Although the number of students from UConn presenting at the AADOCR conference is usually much lower than larger dental schools, our quality shines through, as demonstrated by these awards and others. The same is true for our overall research program, with our School maintaining its position among the 10 US dental schools with highest overall direct funding from NIH (all institutes together), despite our relatively small size. You can see the list of schools and NIH funding for NIH FY 2022 at this link: <a href="https://brimr.org/

Best wishes,

Rajesh V. Lalla, DDS, PhD Associate Dean for Research



Why did the Oreo go to the dentist?

Because it lost its filling.

# **SDM – Research Office**

263 Farmington Avenue Farmington, CT 06030-3912

Dr. Rajesh Lalla - Associate Dean for Research

Dr. Aditya Tadinada - Associate Dean for Graduate Research, Education and Training

Dr. Effie Ioannidou - Director, Dental Clinical Research Center

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