

**UConn SDM
Responds to the
COVID Pandemic**



Dr. Avinash Bidra's research found a simple oral rise can inactivate the COVID-19 virus:

<https://today.uconn.edu/2020/06/uconn-health-researchers-find-simple-oral-rise-can-inactivate-covid-19-virus/#>



A recent report, co-authored by Dr. Effie Ioannidou, was published by the Journal of the ADA reporting that the COVID-19 rate among Dentists is less than 1%:

<https://today.uconn.edu/2020/10/report-finds-covid-19-rate-among-dentists-less-one-percent/>

Congratulations to Dr. Changchun Liu, recipient of OVPR COVID-19 funding featured in UConn Today:

<https://today.uconn.edu/2020/10/uconn-funds-five-covid-19-research-projects-announces-additional-funding/>



Nature Communications published an article on Dr. Changchun Liu's research developing CRISPR-based diagnostic testing for COVID-19:

<https://today.uconn.edu/2020/09/developing-crispr-based-diagnostic-test-infectious-diseases-uconn-researchers-validate-clinical-feasibility-covid-19-testing-point-care/>

Dental School During a Pandemic: UConn Students Reflect on Challenging Year:

<https://today.uconn.edu/2020/12/dental-school-pandemic-uconn-students-reflect-challenging-year/>



Drs. Sergio Sanchez Velasco and William Garcia use 3-D Printing to Increase the Emergency Dental PPE Supply:

<https://today.uconn.edu/2020/04/uconn-health-faculty-uses-3d-printing-increase-emergency-dental-ppe-supply/>

In this Issue:

2	2020 Student Research Day	13	Pen to Paper: Submitted Grant Applications
5	Letter to Class of 2023	15	New Grant Funding Recognition
6	Faculty Recognition	17	New Proposal Submission Policy / Due Dates
9	Student Recognition	18	UConn Statistical Consulting Services
11	Research Topic Updates	19	Research Resources
12	SDM Extramural Funding	20	Research Dean's Corner

2020 Medical & Dental Student Research Day

Medical and Dental Student Research Day was held on Monday, March 2, 2020, to celebrate and showcase 14 student researchers and to acknowledge their faculty mentors. Oral presentations were given by Kathryn Forth (mentor: Dr. Chen) and Patricia Hare (mentor: Dr. Schmidt). Poster presentations were given by: Lauren Cardarelli (mentor: Dr. Tadinada), Albert Chen (mentor: Dr. Kuhn), Madison Cohen (mentor: Dr. Lurie), Tyler Guido (mentor: Dr. Nichols), Bhavin Gupta (mentor: Dr. Pilbeam), Jay Kim (mentor: Dr. Pam Robey/NIH), Alexandra McKenna (mentor: Dr. Banach), Mikayla Moynahan (mentor: Alix Deymier), Courtney Regan (mentor: Dr. Litt), Rebecca Salustri (mentor: Dr. Ioannidou), Robert Violette (mentor: Dr. Banach), and Matthew Wittstein (mentor: Dr. Degollado).



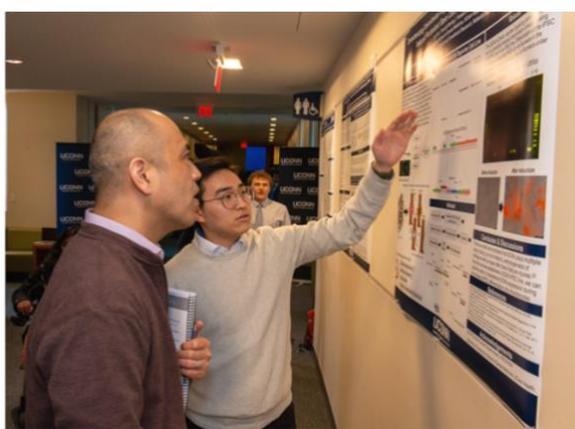
Bottom L-R: Jay Kim, Rebecca Salustri, Madison Cohen, Mikayla Moynahan, Matthew Wittstein, Alexandra McKenna, Robert Violette, Lauren Cardarelli, and Bhavin Gupta (Photo: Tina Encarnacion)



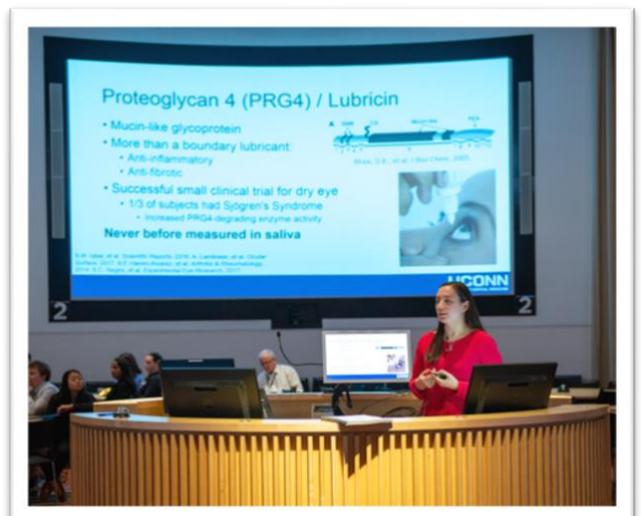
(Photo: Tina Encarnacion)

The Rotunda was filled to capacity for the arrival of the 20th U.S. Surgeon General, Jerome M. Adams, who gave the keynote address this year. Prior to delivering the keynote, he mingled with both faculty and students in the audience. His presentation was entitled, "Combating the Opioid Epidemic: An Update from the Surgeon General" and also touched on various current topics including the Coronavirus (COVID-19) and at the conclusion, fielded questions from the audience. To view the Surgeon General's keynote:

<http://mediasite.uchc.edu/mediasite41/Play/d873a5c1dec04a71b23d65949d0881a81d>



Jay Kim



Patricia Hare



Rebecca Salustri



Matthew Wittstein



Albert Chen



Tyler Guido



Dr. Chen, Kathryn Forth & Dr. Lalla



Jay Kim and Ms. Carol Dingeldey (Executive Director, CSDA)

Congratulations to Dental Student Research Day Award Recipients:



Rebecca Salustri and Dr. Michael Basso
(CT Holistic Health Assn)



Alexandra McKenna and Madison Cohen



Mr. Joel Monteiro (Dentsply-Sirona), Patricia Hare and Dr. Schmidt



Dr. Lepowsky, Lauren Cardarelli and Dr. Tadinada

- Dean's Award: Lauren Cardarelli (mentor: Dr. Tadinada)
- Associate Dean's Award: Kathryn Forth (mentor: Dr. Chen)
- Colgate-Palmolive Student Research Award: Madison Cohen (mentor: Dr. Lurie) and Alexandra McKenna (mentor: Dr. Banach)
- Dentsply-Sirona Student Clinician Award: Patricia Hare (mentor: Dr. Schmidt)
- Connecticut Holistic Health Association Award: Rebecca Salustri (mentor: Dr. Ioannidou)
- Dental Student Research Society Award: Tyler Guido (mentor: Dr. Nichols)
- Gustave Perl Memorial Award: Jay Kim (mentor: Dr. Pam Robey/NIH)
- Omicron Kappa Upsilon-Phi Chi Chapter Award (Basic Science): Matthew Wittstein (mentor: Dr. Degollado)
- Omicron Kappa Upsilon-Phi Chi Chapter Award (Clinical Science): Mikayla Moynahan (mentor: Dr. Deymier)
- Sigma-Xi Membership Award: Kathryn Forth (mentor: Dr. Chen) and Patricia Hare (mentor: Dr. Schmidt)

Student research during the COVID Pandemic: A pivoting tale

A letter to the Class of 2023:

Corona virus marched into our lives in Connecticut around March of 2020 and unfolded the most devastating public health challenge of our times. Our state like many state governments issued the orders of “shelter in place” or “stay at home”. As a response to these lock down orders and recommendations, dentists along with people from many other professions either partially or fully closed their offices/businesses to break the chain of the spreading corona virus. We at UCONN Health and particularly the dental school took control of the situation in a timely manner and shifted the entire didactic curriculum online to ensure the safety of our students, residents, staff, faculty and administrators. The adjustment of student and resident schedules, classes, requirements, rotations, graduations, patient management and several other etc's were a chaotic challenge that required a very proactive and thoughtful leadership that had to think fast and yet have measured and balanced strides. I think our entire dental school pivoted quickly and came together to make it happen very successfully.

Obviously when many of you submitted your student research proposals in March of 2020, none of us had an idea about the events that would unfold in the months after and the effect it would have on all of us. With directives from University administration and our public health group, the health center building had very limited operations that were restricted to emergent care. Research labs, trials and studies came to a tumultuous halt for the most part. Many of you who had planned conducting research during the summer were uncertain about how you would take your projects forward. I remember being in several online meetings and discussions before I reached out to you to either change your project or try to modify your projects where you can perform the majority of the work online. I am very thankful to all of you for your cooperation and to all the mentors who understood and adapted to the situation and pivoted so amazingly well. Thankfully, most of you were able to conduct research albeit not in the originally planned manner. In discussing with my peers around the country, I feel that we collectively as a group came together very well in combatting this crisis compared to many other institutions across the country. For that, the students from your year will have a special place in my heart as the true envoys of research who showed strength and professionalism and made it all work.

A special note to all my students:

Keep the excitement of research ignited and trust me this muscle called resilience that you all are building will help you a lot in life.

Stay safe,

Dr. Tadinada

Director of Student Research

Recognition

Congratulations to Dr. Ivo Kalajzic for his recent article in UConn Today:

<https://today.uconn.edu/2020/03/uconn-researchers-discover-new-stem-cells-can-generate-new-bone/>



American Academy of
Fixed Prosthodontics

Congratulations to Dr. Avinash Bidra, scientific session main podium speaker at the American Academy of Fixed Prosthodontics Meeting held in Chicago.

Congratulations to Dr. Po-Jung Chen (research advisor: Dr. Upadhyay) who received the American Association of Orthodontists Foundation Research Aid award.



American
Association of
Orthodontists



Advancing the Specialty

Congratulations to Dr. Eliane Dutra, who received a K-01 Research Career Development award. Dr. Dutra was in the 2018 cohort of the Pre-K Scholar Career Development Award Program.

<https://health.uconn.edu/connecticut-convergence-institute/2020/03/03/multiple-pre-k-scholars-receive-k-awards/>



Congratulations to Dr. Ali Tamayol, featured in UConn Today highlighting his "Smart" Bandages to heal chronic wounds:

<https://today.uconn.edu/2020/02/uconn-biomedical-engineer-creates-smart-bandages-heal-chronic-wounds/#>



Congratulations to Dr. Frank Nichols, who was recently named a Fellow of the American Association for the Advancement of Science featured in UConn Today:

<https://today.uconn.edu/2020/11/six-uconn-researchers-join-american-association-advancement-science/>



Congratulations to Dr. Anna Dongari-Bagtzoglou on the renewal of her NIH R01 grant renewal to continue to study the pathogenesis of oral thrush which was highlighted in UConn Today:

<https://today.uconn.edu/2020/08/faculty-receives-nih-grant-study-oral-infection-2025-one-longest-running-grant-renewal-school-dental-medicine-history/>



Congratulations to Dr. Mark Litt who was awarded a U01 grant from NIDCR to develop individualized treatments for TMD which was highlighted in UConn Today:

<https://today.uconn.edu/2020/03/developing-individualized-treatments-chronic-jaw-pain/>



Congratulations to Dr. Tannin Schmidt, featured in a Meet the Researcher in UConn Today:

<https://today.uconn.edu/2020/09/meet-researcher-tannin-schmidt-biomedical-engineering/>



Silver diamine fluoride (SDF) is being used in the UConn Health Pediatric Dental Clinic which allows for a painless method of treating children's cavities. The full article is found in the February 6th edition of UConn Today: <https://today.uconn.edu/school-stories/revolutionary-painless-method-treating-childrens-cavities-used-uconn/>



Congratulations to Dr. Changchun Liu who received a grant from NIH to develop a device for early HIV detection which is highlighted in UConn Today:

<https://today.uconn.edu/2020/09/uconn-researcher-developing-blood-answer-method-early-hiv-detection/>

Congratulations to Drs. Aditya Tadinada and Alan Lurie for their article in the Journal of Oral Rehabilitation featured in UConn Today:

<https://today.uconn.edu/2020/10/bot-ox-tmj-disorders-may-not-lead-bone-loss-short-term-research-needed-higher-dose-long-term-use/>



Congratulations to Dr. Liisa Kuhn who was awarded the Connecticut Breast Health Initiative grant to fund a personalized 3-D printed breast forms project as highlighted in UConn Today:

<https://today.uconn.edu/2020/10/3d-printed-prosthetic-breast-grant-awarded-uconn-health/>



Congratulations to Dr. Rajesh Lalla, recipient of the 2020 Evidence-based Dentistry Accomplished Faculty Award from the American Dental Association and the American Association for Dental Research featured in UConn Today:

<https://today.uconn.edu/2020/10/lalla-recognized-excellence-evidence-based-dentistry/>



A hand-held 3-D bioprinter was developed by Dr. Ali Tamayol to treat musculoskeletal injuries. His research was published in the American Chemical Society Journal and was featured in UConn Today:

<https://today.uconn.edu/2020/02/3d-printers-developed-treat-musculoskeletal-injuries/>

Did You Know?



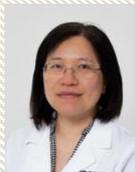
The following is an excerpt from Feb 11, 2020 UConn Today article, "Did you Know UConn Invented That?"

In modern dentistry, using metals for certain dental procedures is a thing of the past. That's thanks in part to two researchers from the School of Dental Medicine at UConn Health. Materials scientist **Jon Goldberg** and orthodontist **Charles Burstone** collaborated in the late 1980s to create the fiber-reinforced material now used by dentists around the world in a number of dental devices. FibreKor® dental devices have the strength of metal with aesthetics that look more like natural tooth enamel. The materials are easier for dentists to use, and manufacturing them requires less processing. With help from technology commercialization experts at UConn, Burstone and Goldberg found an ideal licensing partner in Pentron, a global manufacturer of dental materials that happened to be based in Wallingford, Connecticut. Pentron was the first to exclusively license the invention in 1996 and brought it to the dental market in 1997. <https://today.uconn.edu/2020/02/know-uconn-invented/>



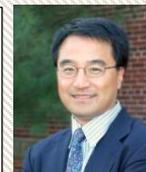
Congratulations to Dr. Sejal Thacker, who received the prestigious Bud and Linda Tarrson Fellowship Award from the American Academy of Periodontology:

<https://today.uconn.edu/2020/10/thacker-receives-high-honor-periodontology/>



UConn Faculty, Dr. I-Ping Chen and Dr. Ki Chon, receive NIH Grant to Develop Smartphone Sensor to Detect Tooth Pain:

<https://today.uconn.edu/2020/06/uconn-faculty-receive-nih-grant-develop-smartphone-sensor-detect-tooth-pain/>



UConn researchers are using multiple health care data sources for a project that could help health care providers better identify when patients are at risk of attempting suicide. The article featured Dr. Robert Aseltine's research in UConn Today:

<https://today.uconn.edu/2020/11/uconn-researchers-leveraging-ct-health-data-develop-suicide-risk-algorithms/>

The IADR General Session scheduled for March 18-21, 2020 was cancelled due to travel restrictions. We would like to acknowledge the speakers and presenters who were selected to participate at this event:

Students:

Lauren Cardarelli
Elena Carrington
Madison Cohen
Ayesha Ejaz
Andrea Geffin

Residents and Fellows:

Dr. Martinna Bertolini
Dr. Po-Jung Chen
Dr. Rebecca Dresner
Dr. Vaibhav Gandhi
Dr. Amirtha Hariharan
Dr. Sungeun Koo
Dr. Shivan Mehta
Dr. Afroditi Pita
Dr. Ninna Shuhaibar-Pinerua

Faculty:

Dr. Effie Ioannidou
Dr. J. Robert Kelly
Dr. Mina Mina
Dr. Ali Tamayol
Dr. Takanori Sobue





Congratulations to the following students and residents who were selected to present their research at the Yankee Dental Congress Meeting held on Saturday, February 1, 2020:



Lauren Cardarelli (3rd year dental student), mentor: Dr. Tadinada



Dr. Kavya Shankar Muttanahally (Oral & Maxillofacial Radiology resident), mentor: Dr. Tadinada



Dr. Anusha Vaddi (Oral & Maxillofacial Radiology resident), mentor: Dr. Tadinada

<https://today.uconn.edu/2020/02/uconn-shines-new-englands-largest-dental-meeting/>

Advancing the **Vision 2020**



Quinnipiac
Frank H. Netter MD
School of Medicine



RARE DISEASE DAY 2020
28 FEBRUARY



Congratulations to Grethel Millington (mentor: Dr. Hurley) who was selected to give an oral presentation at Rare Research Day 2020 at Quinnipiac University on February 28, 2020.



Patricia Hare, a DMD/PhD student, was featured in a recent Meet the Researcher article in UConn Today:

<https://today.uconn.edu/2020/12/meet-researcher-patricia-hare-school-dental-medicine/>

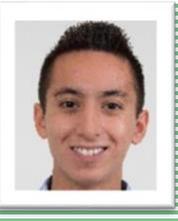


Photo: Ethan Giorgetti/UConn Health Photo





Congratulations to **Kathryn Forth** (mentor: Dr. I-Ping Chen and PIE Program participant) and **Matthew Wittstein** (mentor Dr. Carlos Degollado) who were selected to present their research at the ADEA Session in March, 2020. Due to travel restrictions, the conference was cancelled.






Congratulations to **Dr. David Remiszewski**, Prosthodontics Resident, who received the 2nd place research award at the American Prosthodontics Society Meeting held in Chicago in February, 2020; major advisor: Dr. Bidra.



Congratulations to **Dr. David Remiszewski**, major advisor: Dr. Bidra), receiving the Carol A. Lefebvre Scientific Poster Presentation award at the American Academy of Fixed Prosthodontics 2020 Annual Meeting held February 20-22, in Chicago.





American Academy of Fixed Prosthodontics





Congratulations to Prosthodontics Residents, **Drs. Breanne Dufault, Samuel Lee and Collin Shuen** who presented their research at AAFP. Their major advisor is Dr. Bidra.

Research Topic Updates

Human Subject Research

Do you have trouble determining whether your study involves human subjects or not?

The Office of Extramural Research (OER) has developed a quick decision tool that should assist you with determining if your research involves human subjects, may be considered exempt from Federal regulations, or is not considered human subjects research. This tool should not be used as the sole determination of exemption.

<https://grants.nih.gov/policy/humansubjects/hs-decision.htm>

New NIH Salary Cap

Effective January 3, 2021 the NIH salary cap increased from \$197,300 to **\$199,300**.

Continuous Submission – being discontinued

NIH plans on discontinuing the practice of granting one-year continuous submission status to reviewers with recent substantial review service, which was earned by serving 6 times in an 18-month period. To honor commitments to those that have already served under the prior policy:

- Reviewers who are currently eligible for continuous submission through Recent Substantial Service will remain eligible through the end of their term on September 30, 2020.
- Reviewers who earn eligibility for continuous submission through Recent Substantial Service during the period January 1, 2019, through June 30, 2020, will be eligible from August 1, 2020, through September 30, 2021.
- No reviewers will subsequently earn or be granted continuous submission eligibility due to Recent Substantial Service.

To read the full notice: <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-20-060.html>

Font FAQ's

Recently an application was administratively withdrawn by NIH for not using the correct font size. This did not happen in the SDM, but it did happen at UCH. Though this seems like a minor issue, NIH is becoming very strict with their guidelines.

Adherence to font size, type density, line spacing and text color requirements is necessary to ensure readability and fairness. Although font requirements apply to all attachments, they are most important and most heavily scrutinized in attachments with page limits.

Text in your attachments must follow these minimum requirements:

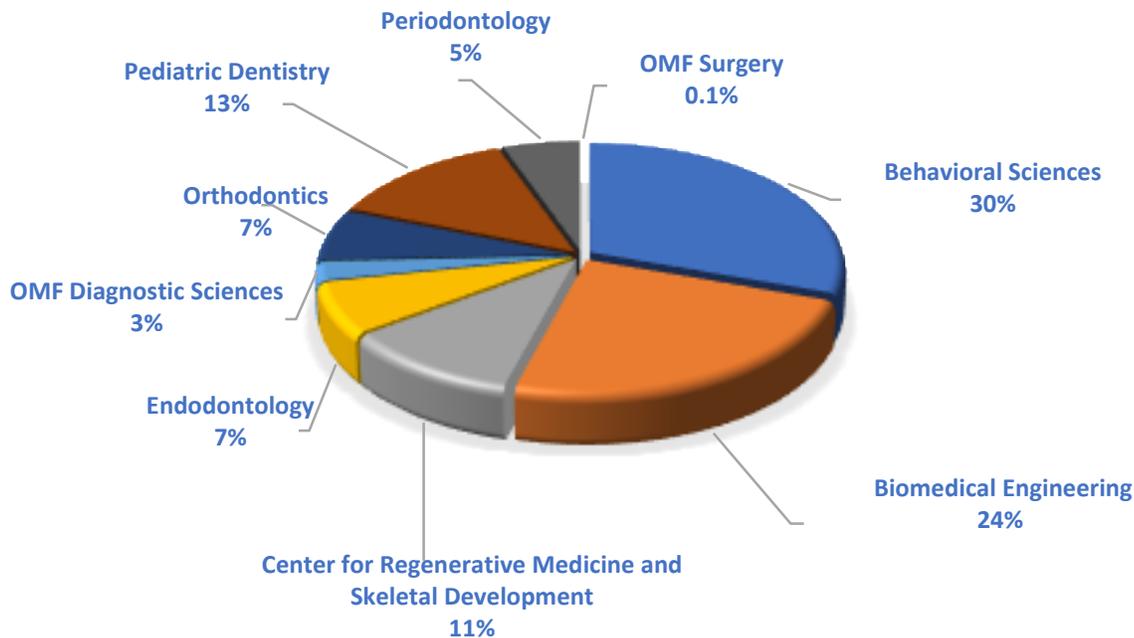
- **Font size:** Must be 11 points or larger. Smaller text in figures, graphs, diagrams and charts is acceptable, as long as it is legible when the page is viewed at 100%.
 - Some PDF conversion software reduces font size. It is important to confirm that the final PDF document complies with the font requirements.
- **Type density:** Must be no more than 15 characters per linear inch (including characters and spaces).
- **Line spacing:** Must be no more than six lines per vertical inch.
- **Text color:** No restriction. Though not required, black or other high-contrast text colors are recommended since they print well and are legible to the largest audience.

We recommended the following fonts, although other fonts (both serif and non-serif) are acceptable if they meet the above requirements.

- Arial
- Georgia
- Helvetica
- Palatino Linotype

Legibility is of paramount importance. Applications that include PDF attachments that do not conform to the minimum requirements listed above may be withdrawn from consideration.

SDM EXTRAMURAL FUNDING 7/1/2019 - 6/30/2020



SDM Division / Unit	Direct Costs Received in FY 20	Indirect Costs Received in FY 20	Total Grant Awards for FY20
Behavioral Sciences	2,199,927	681,414	2,881,341
Biomedical Engineering	1,519,841	747,284	2,267,125
Center for Regenerative Medicine and Skeletal Development	695,913	313,688	1,009,601
Endodontology	445,750	212,750	658,500
OMF Diagnostic Sciences	155,274	80,594	235,868
OMF Surgery	2,000	500	2,500
Orthodontics	617,381	26,750	644,131
Pediatric Dentistry	1,131,505	148,439	1,279,944
Periodontology	315,935	202,182	518,117
TOTALS	7,083,526	2,413,601	9,497,127

Note: The above chart and figures do not include 2 major grants awarded to the SOM, that have large SDM components. These are a HRSA grant with Dr. Lepowsky as a PI and a NIH grant with Dr. Dongari-Bagtzoglou as a PI.

Pen to Paper – Submitted Grant Applications

The Research Office has submitted 95 grant applications for the School of Dental Medicine in calendar year 2020. We would like to acknowledge all those that have submitted applications in 2020.

NIH F Series

Brittany Knight (T90 Trainee)
Emma Wentworth (T90 Trainee)

NIH K99/R00

Po-Jung Chen

NIH R01

Robert Aseltine
Robert Aseltine
I-Ping Chen (subcontract)
Caroline Dealy (subcontract)
Alix Deymier
Alix Deymier
Effie Ioannidou (subcontract)
Ivo Kalajzic
Ivo Kalajzic
Ivo Kalajzic
Ivo Kalajzic
Liisa Kuhn
Changchun Liu
Changchun Liu
Mina Mina
Tannin Schmidt
Tannin Schmidt
Tannin Schmidt (subcontract)
Ali Tamayol
Ali Tamayol
Ali Tamayol
Ali Tamayol(subcontract)
Ali Tamayol(subcontract)
Ali Tamayol(subcontract)
Ali Tamayol(subcontract)
Ali Tamayol(subcontract)
Sumit Yadav (subcontract)

NIH R03

Alix Deymier
Alix Deymier
Tannin Schmidt
Sumit Yadav
Sumit Yadav
Sumit Yadav

DOD

Caroline Dealy
Tannin Schmidt
Ali Tamayol
Ali Tamayol
Ali Tamayol

NIH R21

Dashzeveg Bayarsaihan
Liisa Kuhn (subcontract)
Changchun Liu (subcontract)
Changchun Liu (subcontract)
Sanja Novak
Sumit Yadav

NIH R21/R33

Julie Wagner

NIH R61/R33

Ivo Kalajzic

NIH Supplement

Robert Aseltine
Changchun Liu
Sumit Yadav

NIH STTR

J. Robert Kelly

NIH T90/R90

Mina Mina

NIH U54

David Rowe / Peter Maye

NIH U01

Rajesh Lalla (subcontract)

NIH UG3/UH3

Effie Ioannidou
Effie Ioannidou
Effie Ioannidou
Sumit Yadav
Sumit Yadav

Ford Foundation

Mikayla Moody (Alix Deymier)

ITI Straumann

Namita Khandelwal
Christy Lottinger
Sejal Thacker

JRF Ortho

Caroline Dealy

HRSA

Geraldine Weinstein

NSF

Caroline Dealy
Caroline Dealy (subcontract)
Alix Deymier
Kshitiz Gupta
Mikayla Moody (Alix Deymier)
Ali Tamayol (subcontract)

SAMHSA

Robert Aseltine

American Association for Cancer Research

Kshitiz Gupta

**American Association of Orthodontists
Foundation**

Ke Wang (Sumit Yadav)
Sumit Yadav

American Heart Association

Wenqinag Du (Kshitiz Gupta)
Wenqinag Du (Kshitiz Gupta)

**American Orthopaedic Society for Sports
Medicine**

Caroline Dealy

Chateaubriand Fellowship

Stephanie Wong (Alix Deymier)

Colgate Award for Research Excellence

Alix Deymier

CT Breast Health Initiative

Kshitiz Gupta
Liisa Kuhn

Life Sciences Research Foundation

Wenqiang Du (Kshitiz Gupta)

Melanoma Research Alliance (MRA)

Kshitiz Gupta

MERCK

Robert Aseltine

**National Defense Science and Engineering
Graduate Fellowship**

Mikayla Moody (Alix Deymier)

Patterson Trust

Riddhi Doshi (Robert Aseltine)

The Elsa U. Pardee Foundation

Kshitiz Gupta

**National Institute for Undersea Vehicle
Technology**

Changchun Liu (subcontract)

Internal***Accelerate UConn 2020**

Po-Jung Chen / Shivam Mehta / Madhur
Upadhyay

Covid RSF

Changchun Liu

Research Excellence Program

Sanja Novak

START

Aditya Tadinada

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

Congratulations to the following faculty on obtaining new funding in Calendar Year 2020:

NIH

Dr. Robert Aseltine - Developing Suicide Risk Algorithms for Diverse Clinical Settings Using Data Fusion (R01)

Dr. Robert Aseltine - Improving the Identification and Management of Suicide Risk Among Patients Using Prescription Opioids (Supplement)

Dr. I-Ping Chen, MPI Dr. Ki Chon - Quantitative Assessment of Dental Pain using a smartphone-attachable electro-dermal activity sensor (R21)

Dr. Anna Dongari-Bagtzoglou - Oral Epithelial Cells, Candida and PMN Activation (R01)

Dr. Eliane Dutra - The role of FGFR3 in the effects of PTH in the mandibular condyle (K01)

Dr. Kshitiz Gupta - Investigating the Role of Emergent Oscillations of Hypoxia Inducible Factor-1 alpha Activity in Cancer Growth and Progression (R37)

Dr. Liisa Kuhn - Modulated release of anti-senescence drugs to stimulate aged bone repair (R01)

Dr. Mark Litt - Individualized Assessment and Treatment for TMD: Coping as a Mechanism (U01)

Dr. Changchun Liu – A Reaction-Diffusion-Based Approach for Nucleic Acid Quantification (COVID Supplement)

Dr. Changchun Liu - Self-Powered Sample Concentrating and CRISPR-based Biosensing for Mobile HIV-1 RNA Detection (R61)

Dr. David Rowe, MPI Dr. Peter Maye - High resolution 3D mapping of cellular heterogeneity within multiple types of mineralized tissues (U54)

Dr. Ali Tamayol - Multifunctional dressing for treatment of diabetic wounds (R01)

Dr. Ali Tamayol - Microengineered scaffolds carrying patient-specific cells and growth factors for treatment of volumetric muscle loss (R01)

Dr. Sumit Yadav - Mechanism of BMP2 regulation of Mandibular Condylar Cartilage Growth (Supplement)

NIH Passthrough

Dr. Effie Ioannidou - AADR Mentoring an Inclusive Network for Diverse Workforce of the Future – MIND the Future (UE5)

NSF

Dr. Alix Deymier - CAREER: A New Science of Skeletal and Physiological Systems: using integrated approaches to elucidate mineralized tissue properties and behavior

American Association of Orthodontists

Dr. Po-Jung Chen - Biomechanics of Cantilever Springs for Anchorage Reinforcement: A Three-dimensional Analysis

Dr. Eliane Dutra - FGFR3 signaling in mediating the effects of PTH on TMJ chondrocytes

Dr. Shivam Mehta - Effects of Alendronate Treatment on the Rate of Orthodontic Tooth Movement in Osteogenesis Imperfecta

Dr. Sumit Yadav - Role of Cellular Senescence in Alleviating TMJ Degeneration

CT Breast Health Initiative

Dr. Liisa Kuhn - Personalized 3D Printed Breast Forms

Novartis

Dr. Tannin Schmidt - rhPRG4 Human Ocular Cell Work

Straumann

Dr. Christy Lottinger - Dental Implant Abutments in Clinical Setting - Retrospective Outcomes

Dr. Sejal Thacker - A pilot RCT Study comparing dimensional alteration after socket grating with xenograft versus allograft

Intramural Awards

Dr. Liisa Kuhn – Layer-by-Layer Janus base Nano-Matrix for Growth Plate Regeneration (REP)

Dr. Changchun Liu - Rapid and Ultrasensitive SARS-CoV-2 Detection in Wastewater by Smartphone (COVID RSF)

Dr. Ernst Reichenberger - 3D skin model from hiPSC-derived fibroblasts and keratinocytes with keloid mutations (REP)

Dr. Madhur Upadhyay - Artificial Intelligence Powered Orthodontic Diagnosis (AIPOD) (START)

Dr. Po-Jung Chen, Dr. Shivam Mehta, Dr. Madur Upadhyay – Anchorage Reinforcer (Accelerate UConn)

UConn Wins Record Grants and Contracts Funding in FY 2020

In fiscal year 2020, researchers from UConn and UConn Health secured nearly \$286 million in research and other types of sponsored funding, the most in the University's history, according to a report released by the Office of the Vice President for Research (OVPR).

The full article is found in UConn Today: <https://today.uconn.edu/2020/10/uconn-wins-record-external-research-funding-fy2020/>



Scientific Editing Support for Grants and Manuscripts

The SDM has arranged for the Science Editors Network to provide scientific editing services to our faculty. These services will be available for both grants and manuscripts. This service is available to all faculty with primary appointment in the SDM, including research-focused as well as clinical faculty. There will be no financial cost to the faculty member/Division for this service.

The Science Editors Network is a group of scientific writing experts with PhD degrees in the biomedical sciences and related fields. Their editors are handpicked for their diverse research training and mastery of science communication. They have been highly recommended by multiple sources, including colleagues at UConn who have worked with them. Additional information is at <http://www.scienceeditorsnetwork.com/>

We also continue to have access to the services of Hanover Research, which has provided grant editing services to several SDM faculty over the last year, under a contract with UConn at the university level.

To avail of these scientific editing services, please contact Laura Didden at ldidden@uchc.edu. We will track the usage of this service and faculty feedback to inform us of the need for additional or alternative methods of providing such support, including the potential hiring of a dedicated, in-house resource.

NEW Proposal Submission Policy and Due Dates

OVPR is implementing a new proposal submission policy and due dates. Their timeline is in the box below. The SDM Research Office is working on an internal school deadline to be able to meet the deadlines listed below. More information on that coming soon. Please see the link for information and FAQs regarding the new process.

<https://ovpr.uchc.edu/services/sps/proposals/proposal-preparation/submission-policy-due-dates/>

PROPOSAL SUBMISSION POLICY AND DUE DATES

Full Business Days Before Submission Deadline

> 6 days: PI provides app. components to local grants admin.

5 days: Complete application (plus near final draft narrative) submitted to SPS

2-5 days: SPS reviews and provides feedback, allowing time for corrections

3 days: Final narrative submitted to SPS

1-2 days: Approvals completed, corrections addressed

1 day or more before deadline: Application submitted

UConn | SCHOOL OF DENTAL MEDICINE

Effective **25 JANUARY 2021**, the UConn Statistical Consulting Services (SCS) will provide **FULLY SUPPORTED** statistical assistance to SDM projects as follows:

FREE WALK-IN (Virtual)

For quick questions about statistical issues that can be addressed in a 20 minute consulting session:

[Walk-In Schedule](#) | [Statistical Consulting Services \(uconn.edu\)](#)

FREE ASK ONLINE

Alternatively, you can submit questions online using the submission form at the page below:

[Ask Online](#) | [Statistical Consulting Services \(uconn.edu\)](#)

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 below to request such assistance:

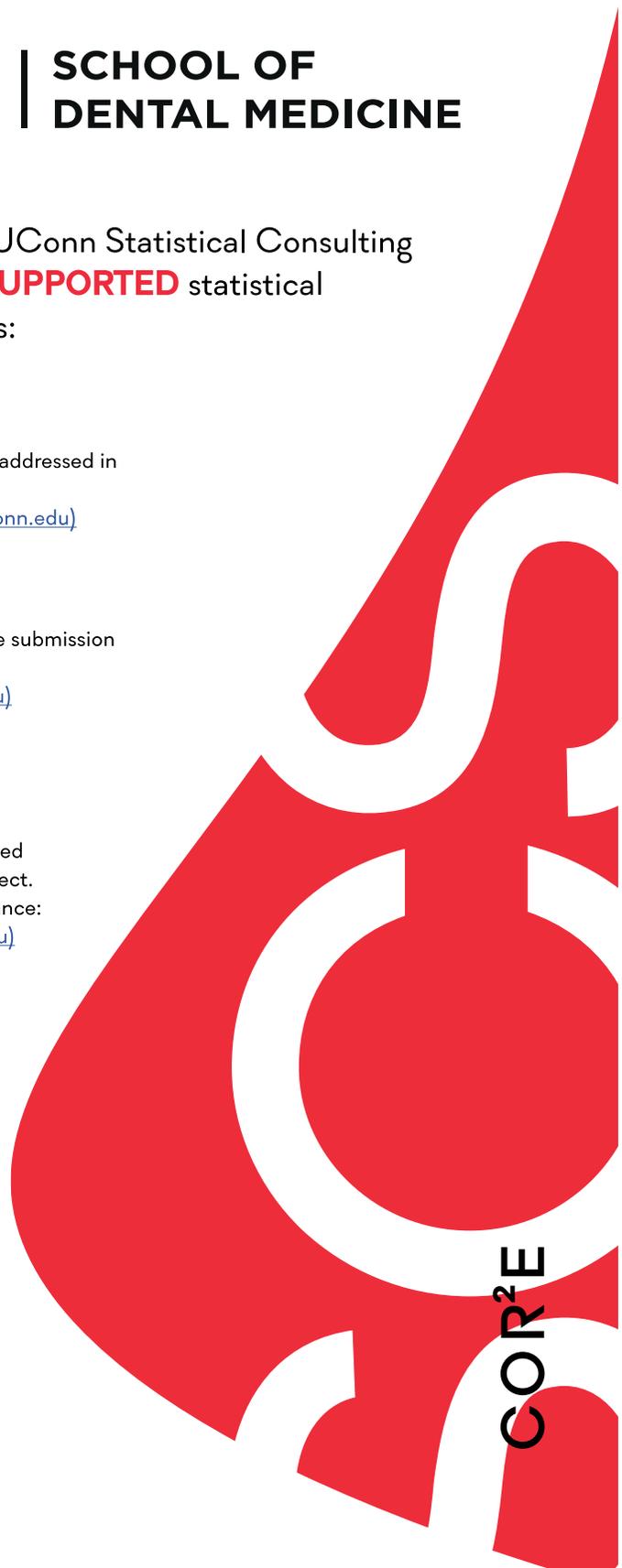
[Full Project](#) | [Statistical Consulting Services \(uconn.edu\)](#)

GENERAL QUESTIONS

Please contact timothy.e.moore@uconn.edu with any questions

This initiative is supported by the School of Dental Medicine.

In addition, the SCS is funded by Office of the Vice President for Research (OVPR), Dean's Offices of CLAS and CAHNR, School of Pharmacy, Office of the Provost & The Department of Statistics, UConn



Research Resources

Lincus Software

The Office of Vice President of Research has developed a software program for UConn faculty, staff and students that allows you to easily search the research topics and publications of our faculty. This requires the use of your Net ID and password to enter the system. Please try it out since it could be invaluable for helping you to locate existing equipment and expertise here at UConn that might further your own research. It's kind of fun because you get a map of who you have published with and a list of keywords associated with your research. To access the program: <http://lincus.uconn.edu>

Center For Open Research Resources & Equipment (COR²E)

Looking for a piece of equipment or a Core service? Check out core.uconn.edu for a listing of Core services and shared equipment available across our University.

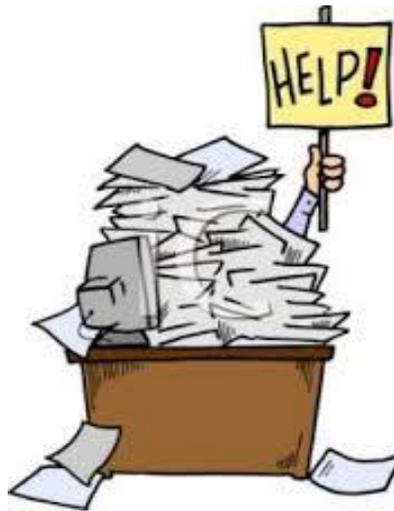
Statistical Support for Dental Residents in Masters Programs

Chia-Ling Kuo, PhD

Assistant Professor

Senior Biostatistician,
Connecticut Convergence
Institute for Translation in
Regenerative Engineering

kuo@uchc.edu



Pre-submission Reviews of Grant Proposals

UConn has a contract with a research consulting firm called Hanover Research. They provide a range of services including pre-submission reviews of grant proposals and helping faculty incorporate feedback for resubmission. They work on one project at a time for the University so requests are prioritized based on strategic needs and deadlines. SDM faculty are encouraged to consider applying to utilize their services.

If interested, please email Laura Didden (ldidden@uchc.edu), well in advance of your submission deadline.

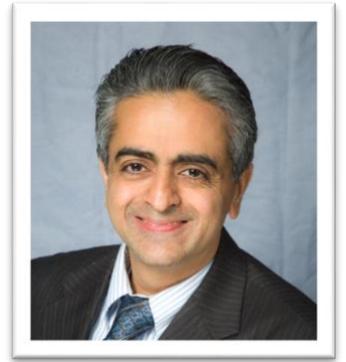


Have you received a recent award, accomplishment or have some interesting news to share with the SDM Research Community? Please forward your news to Lisa Ramsdell (ramsdell@uchc.edu) so it may be included in our next newsletter!

Research Dean's Corner

Dear Colleagues,

I recently re-read a book called "The Plague" by the French-Algerian philosopher Albert Camus, who won the Nobel prize for literature in 1957. This book was first published in French as "La Peste" in 1948. Although this is a work of fiction, it is striking to me how many of the themes we encountered in 2020 are described in this book. These themes include a pathogen that jumps from animals to humans, fear born out of ignorance about the disease, lack of an effective cure, locking down a whole city, quarantining the sick and their contacts, flattening the curve, and the heroism of healthcare workers and volunteers. The central character, a physician named Dr. Rieux, goes to great lengths to alleviate human suffering, at high personal risk. "The only means of fighting a plague is decency" he states. When asked what decency means he says "In general, I can't say, but in my case I know it consists in doing my job". Just like Dr. Rieux, the UConn Health community stepped up to do their duty and so much more, despite the risk. Thank you to all of you for your unwavering commitment to our research, educational, and patient care missions.



On the research front, despite a very challenging environment in 2020, the SDM continues to do well. The number of grant submissions from the SDM has grown steadily with 96 grants submitted in FY20, as compared to 85 in FY19 and 61 in FY18. In the first 3 months of FY21 alone (July-Sept 2020), the SDM received an impressive \$8.7M in new grants (total of all years of the grant), in comparison to \$3.5M as the highest first-quarter amount in the previous 5 years. While some of this is related to the timing of when grants are awarded, there is no question that we are on a strong upward trajectory. Our productivity is up too. In FY20, SDM faculty published at least 120 discrete publications indexed in PubMed, significantly up from 96 in FY19 (publications involving multiple faculty were counted only once).

We have recently announced important additional support for our SDM community in the areas of scientific editing of grants and manuscripts, as well as statistical support. I encourage you to take advantage of these resources to advance your research and scholarly efforts.

I would like to thank all the staff of the SDM Research Office for their continued commitment to supporting our students, staff, and faculty in their research endeavors. During FY2020, we completed the centralization of post-award grant support in the SDM Research Office, with very favorable subsequent faculty feedback. Please join me in thanking our staff colleagues for their part in keeping our research enterprise running through these challenging times.

Sincerely,

Rajesh V. Lalla, DDS, PhD

Associate Dean for Research

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 & Training

Dr. Effie Ioannidou - Director, Dental Clinical Research Center

Office Staff:

Laura Didden – Manager, SDM Research Office

Annmarie Martin, Brandon Mulcunry, Lisa Ramsdell,

Kamal Sahoobah, Robin Tiso and Caibin Zhang