

Skeletal, Craniofacial & Oral Biology Training Program

Research Symposium

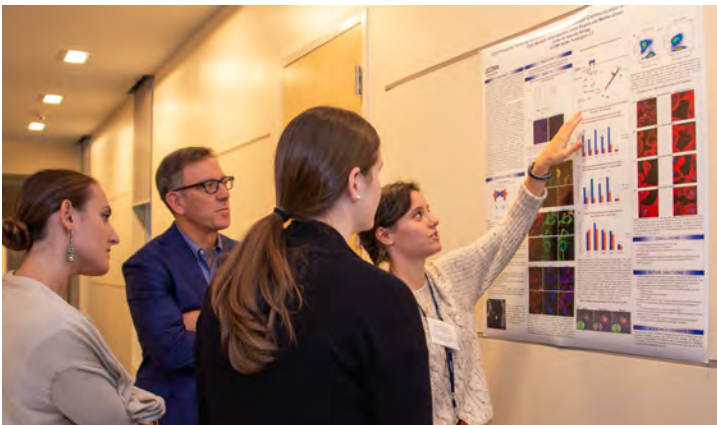
The Skeletal, Craniofacial & Oral Biology Training program had a successful review of its program and sponsored their annual student research symposium on September 24 and 25. Committee members and trainees of the Skeletal, Craniofacial & Oral Biology program met with external reviewers, Dr. Paul H. Krebsbach, (Dean, UCLA School of Dentistry) and Dr. Mark C. Herzberg (Professor, Director of the University of Minnesota Craniofacial Research Training Program) to review the T90/R90 training program. We would like to acknowledge the faculty members who participated in the review, namely, Drs. Mina Mina, Jon Goldberg, Peter Maye, Archana Sanjay, Anne Delany, Ivo Kalajzic, Linda Shapiro, Jeff Hoch, Steven Lepowsky, Rajesh Lalla, Donna Paolella and Dean Sharon Gordon.



From left: Dr. Paul Krebsbach, Dr. Jon Goldberg, Dr. Mark Herzberg, Dr. Sharon Gordon and Dr. Mina Mina (Photo: Tina Encarnacion)

The Research Symposium concluded the two-day event which highlighted the research activities of both predoctoral and postdoctoral trainees of the T90/R90 training grant and students of the Skeletal Biology & Regeneration Graduate Program. The keynote address, *“The human microbiome: from metagenomes to therapeutics”*, was given by Dr. Julia Oh, Assistant Professor in the Dept of Genetics & Genomic Medicine and The Jackson Laboratory for Genomic Medicine.

Please see the full article in UConn Today: <https://today.uconn.edu/?p=142015>



Emily Meredith presents her research to Dr. Paul Krebsbach, Emma Wentworth and Laura Doherty. (Photo: Tina Encarnacion)

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Michelle Spoto, DMD/PhD candidate, recipient of the first “William B. Upholt Achievement Award”

The first “William B. Upholt Achievement Award” was presented to Michelle Spoto, DMD/PhD candidate, at the annual Skeletal, Craniofacial and Oral Biology Symposium held at UConn Health on September 25, 2018. Michelle is a fifth-year DMD/PhD candidate studying the role of the microbiome in health and disease with research mentor Julia Oh, PhD, Assistant Professor at Jackson Laboratories for Genomic Medicine. Michelle is developing a faster and more efficient way to study gene function in *S. epidermidis*, the most common cause of hospital-acquired bloodstream infections and a significant contributor to hospital patient morbidity. Michelle’s research is supported by an NIDCR-funded F30 training grant in Skeletal, Craniofacial and Oral Biology that is housed in the School of Dental Medicine.

Michelle’s award was established in honor of SDM faculty member William B. Upholt, who passed away July 30, 2016. Dr. Upholt’s legacy includes his 30-year research program in cartilage biology that elucidated the genetic regulatory elements controlling collagen gene expression. He is also noted for his leadership in education and administration, and was the co-director of the Skeletal, Craniofacial and Oral Biology training grant for 25 years, director of two PhD graduate programs, and former Chair of the SDM Department of Biostructure and Function. Outside of UConn, Dr. Upholt was known as a tireless humanitarian and was deeply committed to social justice and conservation.



From left: Dr. Mina Mina, Dr. Julia Oh, Michelle Spoto, Mary Lee Morrissey, Dr. Caroline Dealy and Dr. Jon Goldberg. (Photo: Tina Encarnacion)

Michelle was chosen for the William B. Upholt Achievement Award not only for her research achievements, but also for her activities outside of the laboratory. She has served as Vice President of the Medical and Dental student government, is currently a member of the Donaghue Foundation Policy Advisory Committee, and is involved in the Women in Science and Engineering group at the Jackson Laboratory. She also volunteers regularly at the American School for the Deaf, working with the students on healthy life style management.



Dr. William B. Upholt

The “William B. Upholt Achievement Award” is made possible by the generosity of alumni and faculty of the School of Dental Medicine and the Skeletal, Craniofacial and Oral Biology PhD program (now known as the Skeletal Biology and Regeneration PhD program).

New state-wide summer research program “Partnership for Innovation and Education” engages students and mentors at UConn Health and beyond

A new state-wide research program was launched this summer called the “Partnership for Innovation and Education” or “PIE”: a 9-member consortium of colleges, universities, and allied partners in the central Connecticut area. UConn/UConn Health is the lead organization along with partners Trinity College, University of Hartford, University of St. Joseph, Central and Southern Connecticut State Universities, Tunxis Community College, Jackson Laboratories and Connecticut Children’s Medical Center. The PIE Partnership, which is the brainchild



of SDM faculty member Caroline Dealy, is funded by a three-year grant from Connecticut Innovations/CTNext as part of the state’s Higher Education Initiative, whose goals include promoting retention of Connecticut’s bio-health talent; and stimulating economic growth through technology innovation.

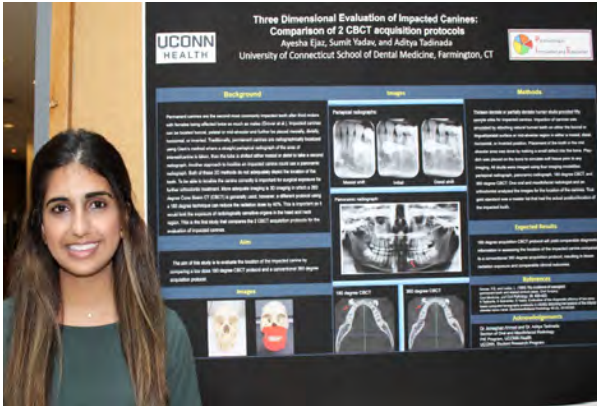
The PIE program paired 79 undergraduate, graduate, or dental/medical students from UConn or partner institutions with faculty mentors at UConn Health or other partner hosts. 24 of the students were paired with mentors in startup companies in UConn’s Technology Incubator. All of the students carried out 10-weeks of full-time research in bioscience, bioengineering and health. In addition, they participated in a series of weekly seminars, workshops and events that covered topics in biotechnology, entrepreneurship, and career development. The summer program finale, “Innovation Research Day” was held at UConn Health on August 1, and featured short talks and posters from every participant, networking sessions, and a keynote address. Many of the students are continuing their research projects over the academic year as independent study or honors research.

For more information on the Partnership for Innovation and Education, see the PIE website at [https://innovation.uconn.edu/resource/99/Partnership-in-Innovation-and-Education-\(PIE\)-Fellowships](https://innovation.uconn.edu/resource/99/Partnership-in-Innovation-and-Education-(PIE)-Fellowships) or

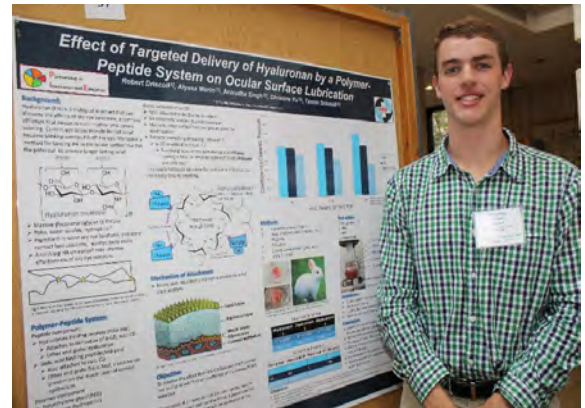
contact Caroline Dealy, program director dealy@uchc.edu. The application portal for students and faculty mentors interested in participating in the summer 2019 program will open January 15.



2nd-year dental student Ashley Arthur presents the PIE summer research she did with Oral Fluid Dynamics, a startup company co-founded by SDM faculty members Drs. J. Robert Kelly and Martin Freilich.



Ayesha Ejaz, 2nd-year dental student, presents her PIE summer research with SDM mentor Dr. Aditya Tadinada.



UConn Biomedical Engineering undergraduate student Rob Driscoll presents PIE summer research he did with SDM Mentor, Dr. Tannin Schmidt.



We would like to acknowledge Dr. Kshitiz Gupta, our first SDM Research Seminar speaker for the 2018-19 academic year. His presentation on Monday, October 15 was entitled: "Probing Cells in Their Society: Novel tools to Investigate Intercellular Communication".

SDM Research Seminar Series

"Precision Behavioral Medicine: Applications to Pain and Substance Abuse"

Dr. Mark Litt

Monday, Nov. 26, 2018

Time: 12:00 – 1:00

Patterson Lecture Hall (AG-042A)



"The Effects of Intermittent Administration of PTH in the Mandibular Condyle"

Dr. Eliane Dutra

Monday, Dec 10, 2018

Time: 12:00 – 1:00

Patterson Lecture Hall (AG-042A)



Medical / Dental Student Research Day will be held on Monday, February 25, 2019 in the Academic Rotunda. Please plan to attend and support the hard work of our students and their mentors! Look for additional information to be announced.

Student/Trainee Recognition



CORRECTION: Presenting at CSDA in May were Dr. Tadinada, Anjali Dinesh, Callan Donovan, Ross Camiel, Abraham Kwok and Danielle Brainard. (Our apologies for the error in the summer newsletter!)

HINMAN STUDENT RESEARCH SYMPOSIUM



Congratulations to 3rd year dental students (from left: Anjali Dinesh, Lily Etemad and Henry Chen), who represented UConn Health at the Hinman Student Research Symposium held November 2-4, 2018 in Memphis, TN. Dean Sharon Gordon was also in attendance.



The following 3rd year dental students will be presenting their research at the upcoming Greater New York Dental Meeting on November 25, 2018:

Erin Bibber, Danielle Brainard, Ross Camiel, Anjali Dinesh, Callan Donovan, Lily Etemad, Abraham Kwok, Robert Morrin, Ashley Pacelli, Nicholas Pray and Samuel Roh.



We would like to acknowledge the following students/fellows who recently presented at the American Society for Bone and Mineral Research annual meeting: Laura Doherty (mentor: Drs. Sanjay & Kalajzic), Henry Hrdlicka (mentor: Dr. Delany), and Drs. Sanja Novak (mentor: Dr. Kalajzic), Laura Shum (mentor: Dr. Kalajzic), Ben Sinder (mentor: Dr. Kalajzic), Natalie Wee (mentor: Dr. Kalajzic), and Xi Wang (mentor: Dr. Kalajzic)



Congratulations to Dr. Natalie Wee, recipient of the Endocrine Fellows Foundation scholarship to attend the Twelfth Fellows Forum on Metabolic Bone Diseases on September 26-27 (Dr. Ivo Kalajzic, mentor).

Recent Grant Funding

Congratulations to the following faculty on obtaining new funding:

NIH – R21

Dr. Mina Mina - "Investigating the roles of Hh signaling and Gli1+ cells in primary and reparative dentinogenesis in mouse molars"

NIH – R34

Dr. Effie Ioannidou - "Treat-to-target and personalized approach to periodontal therapy"

NIH – Equipment Supplement

Dr. Reinhard Laubenbacher/ Dr. Anna Dongari-Bagtzoglou / Dr. Pedro Mendes - "Control of heterogeneous microbial communities using model-based multi-objective optimization"

Oral Fluid Dynamics, LLC/NIH – STTR

Dr. J. Robert Kelly - "Artificial Salivary Gland Development"

Greater New York Academy of Prosthodontics

Dr. Robert Slauch (Resident) / Dr. Avinash Bidra (Mentor) - "Relationship Between Radiographic Misfit and Clinical Outcomes in immediately Loaded Fixed Complete Dentures in Edentulous Patients"

Brain and Behavior Research Foundation

Dr. Riddhi Doshi (Postdoc) / Dr. Robert Aseltine (Mentor) - "Video Directly Observed Therapy (VDOT) to Improve Medication Adherence Among Depression Patients"

Oragenics, Inc.

Dr. Rajesh Lalla - "A Phase 2, multi-center, randomized, double-blind, placebo-controlled study to assess the safety and efficacy of topically-applied AG013 for the attenuation of oral mucositis in subjects with cancers of the head and neck receiving concomitant chemoradiation therapy"

Pen to Paper – Submitted Grant Applications

Since January 1st of this year, the Research Office has submitted 59 grant applications for the School of Dental Medicine. We would like to acknowledge all those that have submitted applications since the beginning of 2018.

NIH F Series

Meagan Cauble (Alix Deymier)
Henry Hrdlicka (Anne Delany)

NIH K76

Sumit Yadav

NIH R01

Robert Aseltine (subcontract)
Patricia Diaz
Anna Dongari-Bagtzoglou
Ivo Kalajzic
Liisa Kuhn
Rajesh Lalla (subcontract)
Mark Litt
Peter Maye
Frank Nichols (subcontract)
Frank Nichols
Frank Nichols (subcontract)
Frank Nichols
David Rowe
David Rowe
David Rowe (subcontract)
Tannin Schmidt (subcontract)
Flavio Uribe (subcontract)
Sumit Yadav
Sumit Yadav
Sumit Yadav
Sumit Yadav

NIH R03

Kshitiz
Frank Nichols (subcontract)
Sumit Yadav

NIH R15

Ivo Kalajzic (subcontract)
Frank Nichols (subcontract)

NIH R21

Robert Aseltine
I-Ping Chen
Alix Deymier
Patricia Diaz (subcontract)
Kshitiz Gupta
Mina Mina
Frank Nichols
David Rowe (subcontract)
Tannin Schmidt
Sumit Yadav

NIH S10

Anna Dongari-Bagtzoglou / Laubenbacher

NIH STTR

J. Robert Kelly (subcontract)
Caroline Dealy (subcontract)

NIH U19

Anna Dongari-Bagtzoglou (subcontract)

DOD

Caroline Dealy
Caroline Dealy
Alix Deymier
Liisa Kuhn

Continued on next page

American Association of Orthodontics Foundation

Michael Stangler (J. Robert Kelly)

American Society of Bone & Mineral Research

Natalie Wee (Ivo Kalajzic)

Sumit Yadav

Brain and Behavior Research Foundation

Riddhi Doshi (Robert Aseltine)

Dental Trade Alliance Foundation

Rajesh Lalla

Greater New York Academy of Prosthodontics

Robert Slauch (Avinash Bidra)

Oral & Maxillofacial Surgery Foundation

Sumit Yadav / Christy Lottinger

Oragenics, Inc.

Rajesh Lalla

Osteoscience Foundation

Liisa Kuhn

Sjogren's Syndrome Foundation

J. Robert Kelly

United Kingdom Regenerative Medicine Platform

Liisa Kuhn (subcontract)

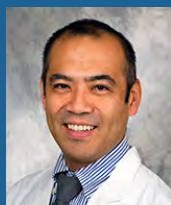
INTERNAL FUNDING**Connecticut Institute for Clinical & Translational Science (CICATS)**

Eliane Dutra



AADR Connecticut Chapter

Congratulations to the new AADR CT Chapter officers whose term began on September 1, 2018:



Dr. Takanori Sobue
President



Dr. Eliane Dutra
Vice President



Dr. I-Ping Chen
Treasurer



Dr. Aniuska Tobin
Secretary

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>



Statistical Support for Dental Residents in Masters Programs

Chia-Ling Kuo, PhD

Assistant Professor

Biostatistics Center, CICATS

kuo@uchc.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.

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 Dr. Lalla at Lalla@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 so it may be included in our next newsletter!

Research Dean's Corner

Dear Colleagues,

In this issue of the SDM Research Newsletter, we highlight some of our research training efforts. This includes coverage of the Skeletal Craniofacial and Oral Biology training grant symposium as well as a new summer research program called Partnership for Innovation and Education (PIE). Indeed our School has a long-standing reputation as a training ground for researchers, due to the rich research environment and strong training opportunities available here.



In this issue, we also recognize our faculty and trainees that have received recent grant funding, as well as all those who have submitted grant applications this year. As we all know, receiving NIH funding is extremely competitive. So it is important to not only recognize those who succeed but also encourage all those who try.

That said, our School has a funding record that we can be proud of, while continuously working to improve it. For FY2017, we ranked 9th out of 48 US dental schools that received any funding from the NIH, based on rankings from the Blue Ridge Institute. Looking at funding from the NIDCR only, we ranked 16th out of 47 dental institutions that received any funding from NIDCR. This reflects the fact that a significant part of our NIH funding is from NIH institutes other than NIDCR. Considering that there are a total of 66 US dental schools, we are very well-placed to achieve further advancement and increased recognition as a top-notch research school.

Best wishes,

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. Effie Ioannidou - Director, Dental Clinical Research Center

Dr. Aditya Tadinada - Director of Student Research

Office Staff:

Laura Didden - Manager, SDM Research Office

Annamarie Martin, Lisa Ramsdell and Robin Tiso