

# RESEARCH NEWSLETTER

Fall, 2019

# Skeletal, Craniofacial & Oral Biology Research Symposium



The annual research symposium was held on October 31 to showcase the research of the T90/R90 trainees together with the Skeletal Biology & Regeneration graduate program students and mentors from both programs. Opening remarks were given by Dr. Mina and Dean Gordon. The keynote address was given by Dr. Floyd Dewhirst from Harvard School of Dental Medicine entitled, "Microbial Dark Matter and the Human Oral Microbiome". Dr. A. Jon Goldberg was recognized for his leadership, mentorship and dedication to the T90/R90 training grant as he recently retired from his position as Co-Director of the NIH training grant.

The 2<sup>nd</sup> annual William B. Upholt Student Achievement Award was presented to Henry Hrdlicka by Dr. Upholt's wife, Mary Lee Morrison.

Keynote address given by Dr. Dewhirst



Stephanie Wong presents her research to Dr. Mina



(from Left to Right:) Dr. Mina, Dr. Dealy, Mary Lee Morrison, Dr. Delany, and Hank Hrdlicka

The trainees, students and their mentors who participated in the event are (post-doctoral trainees) Drs. Jason Cory Brunson (mentor: R. Laubenbacher), Ninna Shuhaibar-Pinerua (mentor: M. Terasaki), Anushree Vijaykumar (M. Mina) and (predoctoral trainees and graduate students) Bandita Adhikari (R. Laubenbacher), Laura Doherty (A. Sanjay), John Garcia (A. Delany), Henry Hrdlicka (A. Delany), Kenneth Li (M. Mina), David Manz (S. Torti), Patrick McMullan (P. Maye), Emily Meredith (L. Shapiro), Erick Orozco (L. Nair), Anna Peterson (A. Deymier), Elise Pitmon (K. Wang), Michelle Spoto (J. Oh), Emma Wentworth (J. Cotney), Stephanie Wong (A. Deymier) and Matthew Zambrello (J. Hoch).

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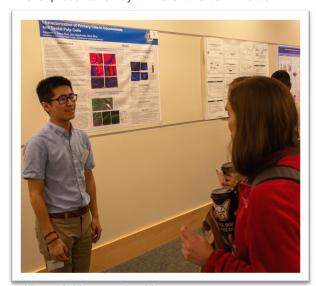




David Manz discusses his poster with Dr. Dewhirst



Oral presentation by Ninna Shuhaibar-Pinerua



Kenneth Li presenting his poster



Oral presentation by Henry Hrdlicka



Poster session in progress

# PIE Program Engages Dental Students and Faculty

For the second summer, five dental students in the School of Dental Medicine's Summer Research Program had the opportunity to enrich their research experience through co-enrollment in a program offered by the Connecticut Partnership

for Innovation and Education ("PIE"). The PIE Partnership is a consortium of 8 Connecticut universities and colleges that share common goals to foster innovation in biomedical research, and to promote career development and talent retention in the State's bioscience and healthcare sectors. The Partnership is the brainchild of SDM faculty member Caroline Dealy, who received a grant from the CT Innovations/CTNext Higher Education Initiative to fund the program. The SDM Summer Research Program is directed by Aditya Tadinada.





Dental student Madison Cohen explains the summer research project she carried out with mentor, Alan Lurie.

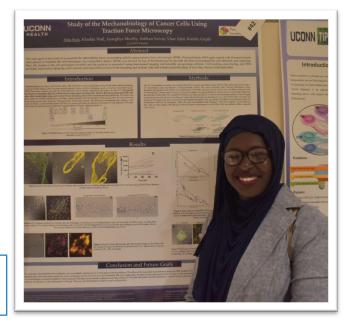
Dental student Kathryn Forth, who carried out summer research with mentor I-Ping Chen, shares a smile with State Senator Tony Hwang of the Governor's Workforce Council.

The five Summer Dental PIE fellows were Lauren Cardarelli (mentor: Aditya Tadinada); Albert Chen (mentor: Liisa Kuhn); Madison Cohen (mentor: Alan Lurie); Kathryn Forth (mentor: I-Ping Chen) and Tyler Guido (mentor: Frank Nichols). They joined a cohort of 88 total students who hailed from each of the different Partnership universities and colleges. The cohort included undergraduates, masters, medical, dental, engineering, business, nursing

and pharmacy students, who carried out summer biomedical research projects with faculty mentors, mostly at UConn

Health. The following SDM faculty hosted undergraduate and masters' students for summer research through the PIE program: Alix Deymier hosted Ron Abraham (UConn bachelor's student); Caroline Dealy hosted Shantal Birungi (Capital Community College Associates' student) and Elizabeth Mendes (Central Connecticut State University masters' student); Kshitiz Gupta hosted Khadija Wali (Central Connecticut State University bachelor's student) and Atta Seck (University of Hartford bachelor's student); Changchun Liu hosted Katrina Cirilli (UConn bachelor's student); Tannin Schmidt hosted Bryanna Samolyk (UConn bachelor's student) and Nathan Arthur (University of St. Joseph bachelor's student). The UConn undergraduates participated through UConn's Health Research Program, which is offered through the UConn Office of Undergraduate Research.

Atta Seck, University of Hartford student with her research day poster describing her research with mentor Kshitiz Gupta. Atta was runner-up for Best Undergraduate Poster.



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Nathan Arthur (left), junior Biology student at University of St. Joseph, and Tyler Guido, dental student (center) were tied for Best Poster for their summer research with their mentors Tannin Schmidt and Frank Nichols (respectively). At right is Katrina Cirulli, UConn Biomedical Engineering junior, who won runner-up Best Poster for her research with mentor Changchun Liu.

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Students participated in weekly seminars and workshops on topics like patenting, entrepreneurship, and venture development; as well as

career skills training in networking, communication and professionalism. At the end of the summer, all 88 students presented their research as a poster or short talk at Innovation Research Day, held at UConn Health. SDM Associate Dean for Research Raj Lalla addressed the crowd of nearly 200 students and faculty, commenting on the spirit of collaboration among the partnering institutions that drives the success of the program. Other healthcare discipline leadership attending the event were SOM Associate Dean for Research Tony Vella; School of Nursing's Director of Healthcare Innovation Tiffany Kelly, and School of Pharmacy Dean Philip Hritcko, who stated "Programs like this connect us as a large university, and help to develop a collegial environment among all the partnering Connecticut schools."



## Recognition



Dr. Avinash Bidra was recently awarded a patent for his invention, the Bidra Conversion Smart Polishing Cap. To read more about Dr. Bidra's new patent:

https://today.uconn.edu/school-stories/newly-patented-uconn-technology-alleviates-issues-dental-implant bridges/

Four Prosthodontics residents (mentored by Dr. Bidra), recently presented scientific posters at the annual American College of Prosthodontics annual Meeting:







Dr. Samuel Lee



Dr. David Remiszewski



Dr. Collin Shuen



Congratulations to Dr. Bidra who was awarded the 2019 Distinguished Clinician Award and provided the keynote address at the American College of Prosthodontists and American Academy of Maxillofacial Prosthetics. He presented cutting-edge clinical research on clinical use of zirconia for edentulous patients and pterygoid implants respectively.





Congratulations to Dr. Robert Slauch, a recent graduate, selected as a finalist in the Sharry Research Competition.

Congratulations to Dr. Agar, recipient of the ACP 2019 Major General (Retired) Bill B. Lefler Federal Services award. November is a month set aside to honor our service members - Thank you for your service, Dr. Agar!

Congratulations to Ethan Cope, (mentor: Dr. Banach), who represented UConn Health SDM at the Hinman Research Symposium in Memphis, TN in November. Ethan was the recipient of the 2019 Student Research Day Dean's award.



Congratulations to Laura Doherty (mentors: Drs. Kalajzic/Sanjay), recipient of the American Society for Bone and Mineral Research Young Investigator award at its annual meeting held in Orlando, FL in September.





# Recognition



UConn Today recently featured a supplement to the Journal of Dental Research titled "IADR's Women Pioneers: Celebrating a Century of Achievement". Dr. Effie Ioannidou was one of the guest editors of this supplement and Dr. Mina Mina co-authored a paper on female recipients of IADR's Distinguished Scientist Award. <a href="https://today.uconn.edu/school-stories/uconn-faculty-promote-gender-equity-advances-dental-research/#">https://today.uconn.edu/school-stories/uconn-faculty-promote-gender-equity-advances-dental-research/#</a>





"Meet the Researcher: Alix Deymier, Dental Medicine and Engineering" article was featured in UConn Today recently:

https://today.uconn.edu/2019/10/meet-researcher-alix-deymier-dental-medicine-engineering/



UConn Today featured an article co-authored by Dr. Kshitiz Gupta, "UConn and Yale Researchers Draw an Evolutionary Connection Between Pregnancy and Cancer Metastasis": https://today.uconn.edu/2019/12/uconn.edu/

https://today.uconn.edu/2019/12/uconn-yale-researchers-draw-connection-pregnancy-cancer-metastasis/

### Research Office News



Laura Didden, Business Services Manager of the Research Office, was recently nominated by the SDM for the Dr. Peter Deckers Employee Appreciation Award. This award recognizes one outstanding employee who consistently demonstrates commitment and passion, strong leadership, exemplary professional skills and commendable personal attributes all in support of the UConn Health mission. Congratulations Laura!

### 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: <a href="https://lincus.uconn.edu">https://lincus.uconn.edu</a>

# Center For Open Research Resources & Equipment (COR<sup>2</sup>E)

Looking for a piece of equipment or a Core service? Check out <a href="https://core.uconn.edu">https://core.uconn.edu</a> 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** 

Biostatistics Center, CICATS

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 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 (ramsdell@uchc.edu) so it may be included in our next newsletter!



### Research Resources

# **UCONN HEALTH SCIENCES LIBRARY**

## lib.uconn.edu/health



#### Services

- · Research Support
- Literature Searching
- · Instruction and Training
- · Citation Management
- · Systematic Review Support
- · Interlibrary Loan
- · Loaner Laptops

#### **Databases & Research Resources**

- 75 Databases
  - PubMed
  - Scopus
- 31,235 Electronic Journals
- 11,476 Electronic Books
- · 29 Subject Guides
- · RefWorks and Mendeley

#### **Clinical Mobile Apps**



- UptoDate VisualDX
- · DynaMed
- Lexicomp
- Micromedex
- · Access Medicine

#### Leisure



- · Graphic Novels
- Fiction/Non-fiction
- Doggo Days
- Puzzles

#### **Contact the Library**



Phone: 860-679-3808 Email: library@uchc.edu

Academic Year Hours:

- M-Th: 7:00a-11:00p
- Fri: 7:00a-7:00p
- Sat: 9:00a-5:00p
- Sun: 12:00p-10:00p

#### Location



UConn Health 263 Farmington Avenue Farmington, CT 06030-4003

\*Off-campus use of licensed databases, access to clinical mobile apps, and some services are restricted to UConn Health affiliates.



Please mark your calendars and join us at the Medical/Dental Student Research Day which will be held on Monday, March 2, 2020 in the Rotunda.

Please stay tuned for additional information!

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# **Grant Application Routing**

Please note that SPS has changed their internal routing deadline to 5 days prior to submission.

This is a change from the 3 days prior. Please provide the Research Office your materials in time to meet the internal deadlines for processing and submission to SPS.

### **SPS Routing Deadlines**

#### STREAMLINED ROUTING:

\*\* Due 5 days prior to Sponsor's deadline \*\*

- Permitted when SPS is submitting the final application. (NEW/RENEWAL applications only).
- Include IPR form (routing), budget, budget justification, abstract/SOW, consortium documents and pages requiring institutional signature

#### **FINAL APPLICATIONS:**

Due NOON the day prior to Sponsor's deadline

### **eRA Commons Delegation**

If you have not already delegated Laura Didden to administrative rights in the commons please do so. It would be helpful if you delegate Laura and the administrator currently managing your funds. If you need help submitting the delegation, please contact Laura at x3891 or <a href="mailto:ldidden@uchc.edu">ldidden@uchc.edu</a> and she can assist you.

### Do you have your ORCID ID?

The ORCID ID is an important identifier to enable transparent and trustworthy connections between individuals engaged in research, scholarship, and innovation activities and is tied to an individual researcher's or contributor's name. More than six million ORCID IDs have been established worldwide to connect individuals to their professional information (such as publications, awards, affiliations, etc.) for references and citations. You are encouraged to complete your ORCID profile and connect the resulting ID to your Commons account.

For more information regarding ORCID IDs please visit: <a href="https://orcid.org">https://orcid.org</a>

Beginning January 20, 2020 all individuals applying for a NIH fellowship or career development award MUST have an ORCID ID to apply.

Here is additional information: <a href="https://nexus.od.nih.gov/all/2019/08/05/linking-orcid-identifiers-to-era-profiles-to-streamline-application-processes-and-to-enhance-tracking-of-career-outcomes/">https://nexus.od.nih.gov/all/2019/08/05/linking-orcid-identifiers-to-era-profiles-to-streamline-application-processes-and-to-enhance-tracking-of-career-outcomes/</a>

# Congratulations to faculty & students on obtaining new funding

#### **NIH - F30**

Laura Doherty (DMD/PhD student) - "Regenerative potential of novel skeletal progenitors"

#### **NIH Subcontracts**

Dr. Patricia Diaz (R21) - "HBD-3: A Novel factor orchestrating microbial persistence in oral cancer" Dr. Frank Nichols (R03) - "Ceramide-mediated pathology in periodontitis"

#### **Northeastern Society of Orthodontist (NESO)**

Dr. Shivam Mehta (resident) / Sumit Yadav (mentor) - "Effects of Alendronate Treatment on the Rate of Orthodontic Tooth Movement in Osteogenesis Imperfecta"

#### **Intramural Awards**

InChip Award

Dr. Robert Aseltine - "Developing an Algorithm to Predict Health Services Needs of Pediatric Patients"

# Pen to Paper – Submitted Grant Applications

Since January 1<sup>st</sup> of this year, the Research Office has submitted 70 grants applications for the School of Dental Medicine. We would like to acknowledge all those that have submitted applications since the beginning of 2019.

#### **NIH F Series**

Laura Doherty (Ivo Kalajzic)

#### **NIH K01**

Eliane Dutra

#### **NIH R01**

Patricia Diaz (subcontract) Patricia Diaz (subcontract)

Patricia Diaz

Anna Dongari-Bagtzoglou

Anna Dongari-Bagtzoglou

Anna Dongari-Bagtzoglou / Patricia Diaz

Anna Dongari-Bagtzoglou (subcontract)

Kshitiz Gupta

Kshitiz Gupta

Ivo Kalajzic

Liisa Kuhn

Mark Litt

Mark Litt

Changchun Liu (subcontract)

Changchun Liu

Changchun Liu

Peter Maye / David Rowe

Frank Nichols (subcontract)

Ernst Reichenberger

Tannin Schmidt

Tannin Schmidt

Ali Tamavol

Sumit Yadav

#### **NIH R03**

Frank Nichols (subcontract)

#### **NIH R21**

Dashzeveg Bayarsaihn

I-Ping Chen

I-Ping Chen / Ki Chon

Kshitiz Gupta

Kshitiz Gupta

Changchun Liu (subcontract)

Sumit Yadav / Liisa Kuhn

Sumit Yadav / Liisa Kuhn

Sumit Yadav

Sumit Yadav

#### **NIH Supplement**

David Rowe / Peter Maye

#### **NIH STTR**

J. Robert Kelly (subcontract)

#### **NIH UE5**

Efthimia Ioannidou (subcontract)

#### NIH UG3/UH3

Sumit Yadav

#### **NIH X02**

Ivo Kalajzic

#### **NIH Special Interest**

David Rowe / Peter Maye

### **American Association for Dental Research**

Laura Doherty (Ivo Kalajzic)

# ACP Education/American College of Prosthodontists

David Remiszewski (Avinash Bidra)

### **American Association of Orthodontists**

Eliane Dutra

Po-Jung Chen (Madhur Upadhyay) Shivam Mehta (Sumit Yadav) Madhur Upadhyay

Flavio Uribe Sumit Yadav

#### **American Cancer Society**

Kshitiz Gupta

#### **American Dental Association**

Sarita Arteaga

### **American Federation for Aging Research**

Laura Doherty (Ivo Kalajzic)

#### **American Heart Association**

Kshitiz Gupta

# American Orthopaedic Society for Sports Medicine

Caroline Dealy

#### Colgate

Alix Deymier

Namita Khandelwal

#### **Greater New York Academy of Prosthodontics**

David Remiszewski (Avinash Bidra)

#### **Impact Assets**

Caroline Dealy

#### **Johnson & Johnson**

Alix Deymier

#### **Melanoma Research Alliance**

Kshitiz Gupta

#### **Musculoskeletal Transplant Foundation**

Liisa Kuhn

#### Northeastern Society of Orthodontists

Amirtha Hariharan (Sumit Yadav) Jia Liu (Sumit Yadav) Shivam Mehta (Sumit Yadav)

#### **NSF** Fellowship

Stephanie Wong (Alix Deymier)

### **Special Olympics Health**

Sharon Gordon

#### INTERNAL FUNDING

#### **InChip**

Robert Aseltine

#### **Institute for Systems Genomics**

Xiaonan Xin

#### **START**

Liisa Kuhn

Madhur Upadhyay



### Research Dean's Corner

Dear Colleagues,

Yes, it looks like winter outside but it is still technically fall (till 21st December), so welcome to the Fall issue of the School of Dental Medicine Research Newsletter. In this issue, we highlight two recent research-related events at UCH: the Skeletal, Craniofacial & Oral Biology Research Symposium, and the Innovation Research Day of the Partnership for Innovation and Education (PIE). Both events had strong and active participation by SDM students, trainees, faculty and staff. Such events contribute to strengthening the scientific environment in the School and University in a variety of ways. My sincere thanks to all



those involved in making these events a success, including Lisa Ramsdell from the SDM Research Office.

On pages 10 and 11, we recognize all those who have submitted grant applications this year and congratulate those that have secured new funding since our summer newsletter was released. As mentioned in a previous newsletter, grant submissions from the SDM have increased significantly over the past few years, with a 39% increase from FY18 to FY19. Our extramural research funding has also grown, exceeding \$10M for the first time in FY19. The SDM Research Office has been significantly reorganized to support this growing research enterprise. In addition to continuing to provide pre-award grant support, the Research Office is now also providing post-award grants management support, which is a major new responsibility. We are currently in the final phases of the transition plan to offer post-award support across the School, working with administrative staff, division chairs, and principal investigators to make the transition a smooth one.

Laura Didden, the Manager of the SDM Research Office, deserves our thanks and recognition for successfully implementing these major changes. She has built a team that is strongly service-oriented and has a positive outlook. Laura has done a great job managing the research office staff through the recent changes. To recognize her efforts, the SDM recently nominated Laura for the Dr. Peter Deckers Employee Appreciation Award (see page 6). Please join me in thanking Laura for her contributions.

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. Effie Ioannidou - Director, Dental Clinical Research Center

Dr. Aditya Tadinada - Director of Student Research

Office Staff:

Laura Didden – Manager, SDM Research Office

Annmarie Martin, Brandon Mulcunry, Lisa Ramsdell,

Kamal Sahoobah, Robin Tiso, and Caibin Zhang