

LSU PERIODONTICS

LSU SCHOOL OF DENTISTRY DEPARTMENT OF PERIODONTICS

July 2022

Periodontics Department Continues Tradition of Academic Excellence

LSU Perio Welcomes Vinayak Joshi, BDS, PhD

LSU Perio is proud to announce that Vinayak Joshi, BDS, PhD will be joining our fulltime faculty team in September 2022. Dr. Joshi, who likes to be called Vinny by friends, comes to us from The Ohio State University School of Periodontics, where he completed a three-year research fellowship followed by a three-year residency in



periodontics.

Dr. Joshi considers himself to be hybrid academician/researcher/clinician scientist. (story continued on page 6).

Third Year Perio Residents win the first & third place awards on Research Day: AGAIN for second year in a row.

Eugene Rowel III, DMD won first place for his paper, "Vitamin D Effects on Gingival Fibroblast Gene Expression." The full abstract is on page 4.

Brian Goldfarb, DDS won third place for his paper, "Comparison of Zinc Based Mouth Rinses to Chlorhexidine and Essential Oil Mouth Rinses." The full abstract is on page 4.

In This Issue

- Academic Excellence Continues
- Farewell Class of 2022
- Resident Research Abstracts & Faculty Publications
- Welcome New Residents
- Spotlight: Perio Department RDH Faculty
- Photos from Graduation and Luncheon



Dr. Panagiotis Dragonas of LSU Perio wins prestigious Nevins Teaching and Clinical Research Fellowship.

The Nevins Teaching and Clinical Research Fellowship is awarded annually to an outstanding full-time periodontal educator who has been teaching at least one, but not more than five, full-time academic years at U.S. perio residency programs. Competition for this award is always fierce as the fellowship award includes a \$20,000 stipend, which is paid over two years.

Dr. Dragonas stated, "I am really grateful to be selected by my peers within the AAP for this prestigious award. It represents the culmination of great efforts in research and clinical periodontics and I would not be able to do it without the support of my department. I am very fortunate to be part of LSU Periodontics and I will try to give back as much as I can." We are fortunate to have him on our faculty team. Congratulations to Dr. Dragonas! The award was announced at the 2021 AAP annual meeting.

Spotlight: Perio Department RDH Faculty

It is time to shine a spotlight on three exceptional faculty members of the LSU Health Department Periodontics who play a huge role in the proper functioning of educating dental students and residents as well as assisting in research and administrative functions.

Genevieve Benoit RDH, Liz Mayer RDH, and Jeanne St. Germain RDH have amassed over 60 years of combined full and part time service in various positions within the LSU School of Dentistry, with the lion share of their service to LSU Perio. "Important" doesn't come close to describing how they fit into the mission of our department. Expressions like "the glue that hold everything together," or "the oil that keeps the engine running" come to mind in framing their collective contribution. All three exhibit very high work ethics and come to work with can-do attitudes.



From left: Gen Benoit, Liz Mayer and Jeanne St. Germain

Dr. Gerald Evans, Head of the Department of Periodontics stated, "Liz, Jeanne, and Gen, have all been invaluable assets to our department. I believe having them in the pre-doc student clinic has significantly improved the hands-on teaching experience that the students receive. Pairing a dental hygienist with a periodontist is a very efficient use of our available faculty. They have all willingly taken on extra responsibilities in addition to their clinical teaching responsibilities due to staff shortages. Liz has assumed the role of our residents' Patient Care Coordinator and handles both in-house and outside patient referrals. She also serves as Co-Course Director of the Senior Intermediate Periodontics course, tracking all student grades and patient experiences. Jeanne has recently assumed the role of Co-Course Director of the D-3106 course, tracking patient experiences of the Junior dental students. She also serves as our Clinical Research Coordinator, assisting the Periodontics faculty in patient recruitment and scheduling of clinical trials within the Periodontics Department. Gen has recently assumed the role of Clinic Director for the Sophomore Periodontics course, organizing and coordinating the D-2 clinic which runs from December to late April each year. She has many years of teaching experience as a faculty member of the Dental Hygiene Department before transferring to us in January 2020. They have all done whatever is needed to keep the department functioning at a high level, regardless of whatever I have asked them to do."

Ms. Benoit is a Professor of Clinical Periodontics. She joined the Periodontics Department in 2020. Prior to joining the Periodontics Department, she was supervisor of the LSU School of Dentistry Lafayette Dental Hygiene Program for twenty years. Her responsibilities include:

- Clinical Instructor for DENT 2106 Introduction to Periodontics(D2), DENT 3106 Intermediate Periodontics(D3), DENT 4102 SR Intermediate Periodontics(D4), Clinical Director- D2, Co-lecture (Mayer, St. Germain) International Program, and she is an examiner for the Council on Interstate Testing Agency

She reports enjoying that she gets to work with students and collaborating with faculty in the periodontal department.

Ms. Mayer is an Associate Professor of Clinical Periodontics. She began at LSU Perio on a part time basis from 1979 to 1985, then returned to us full time in 1994 to present. She wears many hats:

- Clinical and Classroom Instructor for DENT 2106 Introduction to Periodontics (D2), DENT 3106 Intermediate Periodontics (D3), DENT 4102 SR Intermediate Periodontics (D4), Co-Course Director- DENT 4102 , Co-lecture (St. Germain, Benoit) International Program, Post-grad patient referral coordinator (from in-house and outside dentists), Scheduling Coordinator for Pre-doc and Post grad clinic coverage and other miscellaneous administrative duties, such as planning alumni events at AAP meetings.

Liz comments that she particularly enjoys the diversity of working with faculty and residents from all over the world because she constantly learns a lot about them and their cultures.

Ms. St. Germain joined LSU Dept of Periodontics as instructor / study coordinator August 2017. She previously served in a similar part-time instructor position in the department from 1997-2005. Due to the impact of Hurricane Katrina in 2005 with the school relocating to Baton Rouge, she returned to practicing dental hygiene in the private practice setting until her rehire in 2017. Her responsibilities include:

- Clinical instructor for DENT 2106 Introduction to Periodontics (D2), DENT 3106 Intermediate Periodontics (D3), DENT 4102 SR Intermediate Periodontics (D4), Co-Course Director- DENT 3106, Co-lecture (Mayer, Benoit) for the International Dental Student Program, and Study Coordinator for the Department of Periodontics.

The three members also participate in the Advanced Periodontal Concepts (APC) course, where they provide a valuable service in teaching the fundamentals of scaling and root planing to our first-year resident class.

In communicating with our three Perio Hygiene Faculty members to prepare this article, a consistent theme was repeated over and over. Each of them love their work and they are dedicated to their mission of educating dental students and residents. **We are lucky to have them on our perio team.** When you see them in clinic or at a dental meeting, be sure to let them know that you heard they are doing an awesome job for the perio department!



From left: Dr. Eugene Rowel III, Dr. Jerry Evans, Head of Dept., Dr. Pooja Maney, Program Director (via Zoom) and Dr. Brian Goldfarb

Farewell to the Class of 2022

Dr. Brian Goldfarb— will be moving to Phoenix Arizona and will be joining the practice of Dr. Peter Mellas, 4910 E Greenway Rd #2, Scottsdale, AZ 85254 as an associate 3 days per week. He will also provide services for the corporate dental firm, Gentle Dental, 2 days per week. Prior to leaving, Dr. Goldfarb stated that he very much appreciated the exposure to many different surgical instruments, techniques and approaches to treatment planning that LSU Perio provided. He also said he will miss the food, drinks, and hurricane entertainment (Ida and Zeta) that the city provided.

Dr. Eugene Rowell III- will be joining South Georgia Periodontics, 2711 Windemere Dr., Valdosta, GA 31602. The practice is owned by Dr. Brent Depta and who is also a graduate of LSU Perio. As he was getting set to depart, he said he appreciated how the residents were treated at LSU Perio: always with respect and that Staff and residents in the department got along like family. He said he appreciated not having to wear a Florida Gator hat while here and that it was nice to cheer for a winning team for a change. We sympathized with him

Academic Year 2021-2022 Publications from LSUSD Periodontics

Our department has been hard at work in the research arena and has published the articles listed below during the 2021-2022 academic year. Authors highlighted in black bold are LSU Health School of Dentistry faculty. Authors highlighted in purple are or were residents at LSU Perio.

Published Articles and Papers Accepted for Publication:

Dragonas P, Prasad H, Yu Q, **Mayer E**, **Fidel, P**. Bone regeneration in maxillary sinus augmentation using Advanced-platelet rich fibrin (A-PRF™) and plasma rich in growth factors (PRGF®): A pilot randomized controlled trial (Accepted for publication in the International Journal of Periodontics and Restorative Dentistry).

Ganesan, S.M., Maki, K.A., **Kandaswamy, E**. (2021). Oral Health and Microbiome: Implications for Taste: State-of-the-Science on the Role of Oral Health and Emerging Science of the Microbiota and its Implications for Taste. In: Joseph, P.V., Duffy, V.B. (eds) Sensory Science and Chronic Diseases. Springer, Cham.

Kandaswamy E, Sakulpapong W, Guo X, Ni A, Powell HM, Tatakis DN, Leblebicioglu B. Titanium as a Possible Modifier of Inflammation Around Dental Implants. Int J Oral Maxillofac Implants. 2022 Mar-Apr;37(2):381-390.

Altabtbaei K, **Maney P**, Murthy Ganesan SM, Dabdoub SM, Nagaraja HN, Kumar PS. The Anna Karenina principle and the subgingival microbiome in periodontitis. Microbiome. 2021 Apr 30;9(1):97.

Arghami A, **Simmons D**, **St. Germain J**, **Maney P**. Immediate and Early Loading of Hydrothermally Treated, Hydroxyapatite-Coated Dental Implants: A 7-Year Prospective Randomized Clinical Study. Submitted to International Journal of Implant Dentistry. Int J Implant Dent. 2021 Mar 10;7(1):21.

Carmona H, **Mayer E**, **Maney P**, **St. Germain J**, Carmona K and **Lallier T**. Outcomes of Osseodensification for Implant Placement in a Residency Program. J West Soc Periodontol Periodontal Abstracts.

Comparison of Zinc Based Mouth Rinses to Chlorhexidine and Essential Oil Mouth Rinses

Brian S Goldfarb, DMD, Pooja Maney, BDS, MPH, Thomas E. Lallier, Ph.D.

Background: There are a variety of mouth rinses for consumers to choose from on the market. In particular, zinc-based mouth rinses use a zinc ion solution. One zinc-based mouth rinse, Zinc-C[§], claims to be a substitute for the prescription mouth wash, Chlorhexidine (CHX). Chlorhexidine has been known to cause negative side effects, including tooth staining and taste alteration. Zinc-C[§] claims it does not have such effects. The purpose of this study is to determine the anti-inflammatory effects of Zinc-C by evaluating the change in cytokine expression of gingival fibroblasts when patients are exposed to different types of mouth rinses.

Methods: Gingival fibroblasts were exposed to 5% of each mouth EO*, CHX^{||}, Zinc-based mouth rinses, Zinc-A[†], Zinc-B[‡], and Zinc-C[§] for exposure times of 3 mins. Cell survival was assayed using calcein-acetoxymethyl ester for 1 hour, rinsed, and read using a microplate reader. Gingival fibroblasts were then exposed to LPS for 24 hours followed by a 3-minute exposure to mouth rinses and analyzed for expression of inflammatory cytokine, Interleukins, and growth factors via RT-PCR. Cell Motility was then analyzed every 24 hours for 3 days after 3 minutes exposure times.

Results: Zinc-A and Zinc-B were no more toxic than essential oil mouth rinses, whereas Zinc-C was more cytotoxic than CHX. Zinc-C selectively increased BMP-2, GDF-2, and CTGF. By the third day, Zinc-C significantly decreased cell motility with only 62% wound closure.

Conclusion: Zinc mouth rinses displayed similar anti-inflammatory effects to essential oil and chlorhexidine. In addition, Zinc-C was more cytotoxic and inhibited cell motility to a greater extent than any of the other mouth rinse. Therefore, Zinc-C as an alternative to CHX may not be recommended after oral surgery

Vitamin D Effects on Gingival Fibroblast Gene Expression

Eugene I Rowell III, DMD, Pooja Maney BDS, MPH, Ph.D., Thomas E. Lallier Ph.D.

Introduction: Periodontal disease is an inflammatory process associated with many genetic and environmental factors, including vitamin D deficiency. Vitamin D₃'s active form, 1,25-dihydroxyvitamin D₃ (1,25D₃), exhibits potent anti-inflammatory activity. We hypothesize that 1,25D₃ can inhibit the pro-inflammatory response to lipopolysaccharide stimulation in gingival fibroblasts.

Methods: Human gingival fibroblasts were stimulated with either E. coli (10 µg/ml) or P. gingivalis (1 µg/ml) lipopolysaccharide for a period of 24 hours. Cells were simultaneously treated with 1,25-dihydroxyvitamin D₃ (100 nM) also for a 24-hour period. RNA was extracted from the cells, and gene expression was quantified and qualified using RT-QPCR.

Results: After 24-hour exposures to LPS and vitamin D, the fibroblasts were observed to have a survival rate of 100%. Vitamin D exposure for 24 hours resulted in an increase of collagen-3, collagen-5, collagen-6, and collagen-10 expression. Vitamin D also yielded an increase in periostin, osteomodulin, and alkaline phosphatase expression. G-CSF, TNFα, and IL-10 expression were all observed to increase when cells were exposed to vitamin D. Only GM-CSF was noted to exhibit a decrease in expression after vitamin D exposure.

Conclusion: Vitamin D was not observed to be cytotoxic at any concentration utilized in this study. Vitamin D exposure displayed beneficial effects on fibroblast transcript expression involved with bone and collagen formation, and mixed effects on pro- and anti-inflammatory cytokines.

Near 100 % Success Rate of LSU Residents on ABP Exam since 2004.

The LSU postgraduate program in periodontics has a very good track record in candidates passing the ABP board exam on their first try! 46 out of 47 graduating residents since 2004 have become diplomates of The ABP. We are very proud of this academic success !!



Congratulations to 2021 grads, Drs. Thao Nguyen and Maggie Weber for passing their board exams on their first attempt

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Visit www.Geaux-Perio.com. Our website was developed with the needs of the busy periodontist in mind. Our **Journal Club** features abstracts from current articles of interest pertaining to our specialty and are presented and uploaded on a regular basis. Check it out. Full access is available to alumni donors.

LSU PERIODONTICS NEWSLETTER

is published by Steven Spindler, DDS and the LSU School of Dentistry Department of Periodontics.. Contact sspin1@lsuhsc.edu

Join Us In Welcoming Our New: First Year Perio Residents



Dr. Amber Kreko



Dr. Tam Vu

Dr. Amber Kreko is from Walker, LA. She earned her BS in Biology from Southeastern Louisiana University in Hammond, LA. She began her dental studies here at LSU Health School of Dentistry in New Orleans and earned a BS in dental hygiene. She advanced her education further by earning her DDS here at LSUSD. Amber can't get enough of LSU! She was accepted into our perio program and will be here for another three years. She loves animals and has two dogs: a Catahoula and a Scottish Terrier. She enjoys reading, completing complex puzzles and taking trips to Disney World. After residency, she hopes to remain and practice in Southeast Louisiana.

Dr. Tam Vu is from Atlanta Georgia. He earned a BS in Biology from Georgia State University and earned a DMD degree from LECOM School of Dental Medicine in Bradenton, Florida. When he is not studying, you may find him practicing Brazilian Jiu-Jitsu or playing beach volleyball. After residency, he would like to either return to the Atlanta area or somewhere in Florida. There may be some complications, however. Before accepting, him we made him swear an oath of allegiance to The Saints and The LSU Tigers. Additionally, once he tastes our local cuisine that will seal the deal. He will likely stay here.....we'll work on him!

We are very glad these two exceptional students will be with us for the next three years. Please join in to welcome them to LSU Perio!

We Greatly Appreciate Your Support

Through the years, numerous alumni of our residency program have contributed to our department on a regular basis and at a high level. The LSU School of Dentistry deeply appreciates the steadfast support of our donors. Numerous individuals have stepped up with generous contributions.

Contributions to our LSU Health Foundation Perio Research and Education Fund go directly toward activities supporting our residents' education, such as attending The AAP and The Southwest Society of Periodontists Annual Meeting for third year students and funding their research. Contributions to The Perio Support Fund are unrestricted and help the Department Chairman take care of immediate needs for the whole department. We greatly appreciate all of our donors.

At the present time, we are aiming for a level in our Research and Education Fund where the State of Louisiana will provide a match, such that our fund becomes an endowed fund. At that time it will spin off regular proceeds to support resident education. We are still a little short of the match level, but closing in due to your prior generous contributions. Please keep this goal in mind. As always, we deeply appreciate and need your continued support! To contribute, [click here](#).

We also wish to thank our **corporate sponsors** for their generous support of our Advanced Education in Periodontics program. Their contributions, whether it be materials and equipment, financial, or advanced clinical training, have enabled us to provide the highest level of education possible. Their commitment to our residents is greatly appreciated!



LOUISIANA SOCIETY OF PERIODONTISTS

LSU Perio Graduation Luncheon, June 24, 2022



Drs Nicolas Lobo and David Simmons



Dr Brian Goldfarb, assistants Vernisha Scotts and Mery Orellana and Dr Eugene Rowell



Dr Evans presented Dr. Spindler with 2022 AAP Educator Award after 7 years of participating in resident education.



Residents Drs Erin Scwhoegl, Brrook Thibodeaux Toland, Lauren Langlois with faculty member, Dr. Marhufa Islam



Dr Rowell graciously receives the classic Dr. Evans roast complete with goodbye gifts.



Dr Goldfarb with his fiancé Katelym

Continued from page 1. **LSU Perio Welcomes Vinayak Joshi, BDS, PhD**

Dr. Joshi enjoys research because it keeps him in touch with latest changes and developments happening in periodontal science. He enjoys his time in clinics and the interactions he has with his patients. As a mentor, he seeks to be involved with helping to develop the young minds and to guide their progress.

Dr. Joshi grew up in The Karnataka state of India, which is in the Southwest region. He became interested in dentistry as a young buy while getting braces. That interest led him to earn a Bachelor of Dental Surgery in December 1997 from the KLE Institute of Dental Sciences, Karnataka University. He became interested in Perio-dontics which led him to earn a Master of Dental Surgery in Periodontology September 2002, from The College of Dental Sciences, Davangere, Rajiv Gandhi University of Health Sciences. Later he earned a Masters in Oral Biology (Basic Health Sciences) in June 2007, from Stony Brook University and a PhD in April 2017 Rajiv Gandhi University of Health Sciences.

Dr. Joshi worked his way up from an Assistant Professor of Periodontology all the way up to become a Full Professor at Maratha Mandal's N.G.H. Institute of Dental Sciences & Research Centre, India.

Wanting to take his research skills to the highest level he entered the post-doctoral research fellowship at The Ohio State University Department of Periodontics and the residency in Periodontics which enables him to teach in the USA. He has won numerous accolades along the way and has been listed as an author in 20 scientific papers, of which he is the lead author on 6 of them. He has always believed in the importance of the teamwork mindset for a department to operate at it's best and plans to be a valuable member of ours.

He very much enjoys listening to many types of music ranging from 70'-90's rock to Indian classical music. He likes to cook and to experiment with different cuisines. Finally, his favorite hobby has been reading books which he hopes to get back into soon. **Please join me in welcoming Dr. Joshi to LSU Perio!**