

Endodontics News 2018



André Mickel, DDS, MSD, '91, '94

From the Chairman **André Mickel, DDS, MSD, '91, '94**

The endodontics program at Case Western Reserve University School of Dental Medicine has strived to establish an atmosphere displaying love for family and teamwork. We have created an

emphasis on the #10 which is utilized within our group and arbitrarily means I love you.

We want to continue to create an environment that provides a substantial amount of balance and support to our residents, fellows, staff, faculty, and patients. We have a great relationship among our residents and fellows and are confident of their ability to demonstrate immense care within our industry.

Each year our residents participate in the AAE Poster Presentation. The meeting allows us to encounter and meet other endodontic residents all over the world. It allows our residents to come together and present in the latest research, trends, and techniques. Last year all eight of our residents, both first and second year, participated and were honored to win two awards, one in the oral category, and the other in poster presentation. This year, residents Qian Wang won 1st place and Karishma Patil won 8th place out of 10 poster research awards at AAE Poster Research Competition! The AAE meeting is the largest endodontics meeting in the world and we continue to win, often, at least two awards every year!!

Along with the AAE presentation, we also engage and present in the Case Western Reserve University Research Showcase. We strive to maximize the capacity of research and collaboration within the endodontics department. We have been fortunate to utilize the given platforms to inform, learn, excel and expand our learning and contribute

continued on back cover



From the Dean **Kenneth Chance, DDS '79**

I extend greetings to the Department of Endodontics. First, I would like to report on the progress of our move to the Health Education Campus (HEC). We are still preparing the logistics, financial support and fine-tuning of the overall operation. Presently, we are on schedule for the opening of the dental clinic and ahead of schedule for the HEC. Both facilities will be completed by May of 2019. As important, the project is under budget as well. We have a great team behind us and we look forward to an exceptional result.

The CWRU School of Dental Medicine thanks you for your outstanding dedication and service in the activities at our school including Professionals Day, where you provide significant research presentations by your residents and students and the Give Kids a Smile Day Program, where you serve the children of our community. Please continue these efforts because they encourage all of our departments to follow suit. Thank you.

dean-sodm@case.edu



SCHOOL OF DENTAL MEDICINE
CASE WESTERN RESERVE
UNIVERSITY

Welcome New Residents



Jennifer Barrord, DMD

Dr. Jennifer Barrord currently has a Bachelor of Arts in Chemistry from the College of Wooster, class of 2015. She was enrolled in Case Western Reserve University dual degree program and was able to successfully graduate from Wooster's program after her first year of dental school. Her greatest accomplishment in endodontics so far is giving an exceptional oral presentation on her research in endodontic research at the AADR conference in Los Angeles, CA. In her spare time she enjoys running, cooking, and oil painting.



Kerolos Elsayed, BDS, DMD

Dr. Elsayed received his Bachelor of Dental Surgery from Cairo University in Cairo, Egypt, and graduated from the advanced standing program DMD from Boston University in Boston, MA. He is currently working as an associate dentist in Illinois. His greatest accomplishment has been graduating with high honors from both of his degree programs and in addition being the sole recipient of the American Associate of Endodontists "Student Achievement Award in Endodontics" from the graduating DMD class of 2017. His enjoyments are hiking, traveling, and he is extremely passionate about seeing new places. He is excited to join CWRU as an endo resident, being admitted to an endodontic residency in a great program like Case Western Reserve University and a world renowned program director like Dr. Mickel is fulfillment to a dream he has had since graduating from his first dental degree program in 2010.



Jenna Gaw, DDS

Dr. Jenna Gaw earned her undergraduate degree in Microbiology after graduating early with High Honors from the University of California, San Diego. Afterwards she received her Doctor of Dental Surgery Degree from the Arthur A. Dugoni University of the Pacific School of Dentistry in San Francisco. She has received accolades and awards for clinical excellence, academic scholarship, and community service, including receiving the Thomas R. Bales Good Samaritan Award in 2012 and the Hinman Symposium Award in 2013.

She advanced her education by attending two years of General Practice Residency in Penobscot Community Health Care in Bangor, Maine, and the level 1 trauma center at Albert Einstein Medical Center in Philadelphia, Pennsylvania. There she learned how to treat very medically complex patients as well as advanced techniques in dentistry including surgical placement of dental implants, titanium reinforced membrane and grafting techniques, and implant hybrid restoration.

After residency, Dr. Gaw worked in private practice and taught as an Assistant Clinical Professor at the University of California, San Francisco. She is a member of the California Dental Association, Contra Costa Dental Society, and the Academy of General Dentistry. She is also active in volunteering locally and internationally to provide dental care to those in need. This past autumn, she and her students volunteered at a dental clinic in Antigua, Guatemala to provide free comprehensive dentistry. She is super excited to attend Case Western Reserve University to advance her education in endodontics, a passion she has had since her time in dental school.

In her spare time, Dr. Gaw enjoys reading reddit, cooking, hiking, video games, and playing the piano and ukulele.



Alexis Herring, DDS

Dr. Alexis Herring graduated from George Mason University in Fairfax, Virginia and will receive her DDS from Howard University College of Dentistry in May. As an existing dental student Alexis has not been fully exposed to the field of dentistry, but has maintained a high GPA as one of her greatest accomplishments advancing through dental school. She is excited for the opportunity to further hone her skill set and perfect her craft. In conjunction with the clinical experience she hopes to gain, she also looks forward to being exposed to the wide range of knowledge and techniques presented via evidence based research. In her spare time she enjoys working out, reading, cooking, eating healthy foods, attending church and do-it-yourself projects. She has taken an interest in how the mind, body, and spiritual wellness work hand in hand. It has been a very enlightening journey.

Poster Presentations

by CWRU Endodontic Residents

Dr. Karishma Patil

The Effect of Lunasin on RANKL-Mediated Osteoclast Formation: An In-vitro Analysis of Raw 264.7 Cells

The purpose of this study is to assess the effect of Lunasin on osteoclast formation using RAW 264.7 cells. Apical periodontitis (AP) is the destruction of apical periodontium which is mediated by host inflammatory responses. Interleukin-1 (IL-1) and tumor necrosis factor (TNF- α) are the primary stimulators of bone resorption in AP. Lunasin, a 43-amino acid soybean peptide, has been reported to reduce the levels of these inflammatory cytokines through inhibition of NF- κ B pathway. No study has investigated the anti-resorptive properties of Lunasin.

Dr. Alvaro Rodriguez

The Effect of Lunasin on VEGF Release from Activated Macrophages

The purpose of this study is to investigate how Lunasin helps in the pulpal regeneration process.

Dr. Ghaeth Yassen

A Novel Intra canal Medicament with Nanoparticles for Regenerative Endodontics

The purpose of this table clinic is to introduce a novel antibiotic medicament containing hydroxyapatite nano-particles that might improve the regenerative endodontic procedure.

Dr. Jeannie Wang

Single Visit Versus Multiple Visit Non-Surgical Retreatment: A Long-term Retrospective Cohort Outcome Study

The purpose of this study was to evaluate the effect of single versus multiple-visit on the healing outcome

of RETX. Various studies have compared the effect of single visit versus multiple visits on the healing outcome of primary apical periodontitis (AP). Non-surgical-endodontic-retreatment (RETX) is often the primary option for the management of persistent apical periodontitis (AP). The microbial biofilm of post-treatment AP has been established to be different from primary AP which might affect the outcome of RETX performed in single versus multiple visits. However, the effect of number of visits on the outcome of RETX has never been well investigated.

Dr. Navid Khalighinejad

The Effect of Endodontic Treatment on the Medical Status of Patients with End-Stage Renal Disease: A Retrospective Cohort Study

The purpose of this study is to investigate the effect of non-surgical root canal treatment (NSRCT) on the BUN level of ESRD patients. Apical periodontitis (AP) has been associated with systemic increase in the level of inflammatory cytokines. Also, AP has been linked with the inflammatory-based systemic conditions such as end-stage-renal-disease (ESRD). Hypercytokinemia, as a result of untreated AP, could influence the medical status of ESRD patients such as blood-urea-nitrogen (BUN) level. However, no study has assessed the effects of endodontic treatment on the BUN level of ESRD patients.

Dr. Waleed Almutairi

Lunasin Increased the Release of Fibroblast Growth Factor from Activated Macrophages

The purpose study is aimed to investigate the effect of lunasin on FGF-2 release from activated macrophages. Lunasin, a 43-amino acid peptide has been reported to reduce the production of inflammatory mediators through suppression of NF- κ B pathway. The previous studies have found that the fibroblast growth factor-2 (FGF-2) is directly or indirectly upregulated by NF- κ B activation. No study to date has investigated the effect of lunasin on the release of FGF-2.



CWRU Endodontic Residents

Dr. Qian Wang

Regulation of FOXO1 in Epithelial Responses to Polymicrobial Infections

The purpose of this study is to examine FOXO responses in epithelial cell dependent on the nature of polymicrobial infection. The findings position FOXO1 as an important transcription factor involved in the dynamic interaction between oral polymicrobial infection and host cells.

Dr. Yu-Chen (Michael) Ling

The Dental Operating Microscope in Endodontics

The purpose of this study is to present the application of dental operating microscope in nonsurgical and surgical endodontic treatment.

Dr. Magdy Beshay

The Diagnostic Ability of Ultrasound as a Real-time Non-ionizing Tool in Detecting the Second Mesio Buccal Canals

The purpose of this study is to investigate the diagnostic ability of ultrasound in detecting MB2.

Missed canals, particularly in teeth with complex anatomy, have been reported to be the leading cause of endodontic failure. The application of cone-beam-computed-tomography (CBCT) in locating the second mesio buccal-canal (MB2) has been well-studied. However, a recent study has questioned the value of pre-operative CBCT in detecting MB2 compared to direct accessing the tooth. Ultrasound is a non-invasive real-time diagnostic tool and its use has been investigated in the dentistry. However, no study has assessed the ability of ultrasound in detecting MB2.

JOIN THE MOLAR CLUB!

Make a one-time donation each year by simply donating the cost of one root canal, and that's it! You are in the club!

Please join these Molar Club members by giving back one molar root canal treatment annually.

(Donations made January 1, 2015 through December 31, 2017)

Acteon Group
Tasneem Ahmad, BDS, MSD
American Association of Endodontists
American Assn. of Endodontists Fdn.
(Dr. Mickel)
BIOLASE, Inc.
Candace DeVeaux, DMD, MSD
Dania Kafri, DDS, MSD
John W. King, DDS, MSD
Sarah Kwang, DDS, MSD
Kimberly Lindquist, DDS, MSD
Michael J. Mindiola, DDS, MSD
Progressive Dental
Anand W. Suresh, DMD, MSD
J. Michael Uhrich, DDS, MS
Vinson Vig, DDS, MSD
Clifford T. Wong, DDS, MSD

Thank you for joining this important group of alumni and friends who have decided that ensuring the excellence of both the Endodontics program and the School of Dental Medicine is worthy of their support.

By becoming a member of the CWRU Endodontics Molar Club and donating to the department, you not only are giving back to the internationally recognized program that enhanced your career, but you are giving to the future generations of endodontists who will eventually be your colleagues.

TO JOIN THE MOLAR CLUB, please go to giving.case.edu/dental. You can join the Molar Club simply by making a donation to the **Endodontic Molar Club**.

FOR MORE INFORMATION ON DONATING, please contact the Office of Development and Alumni Relations at 216-368-3480 or dentalalumni@case.edu.

Alumni Spotlight

Nivine Y. El-Refai, BDS, DDS, MSD

Private Endodontics Practice

Diplomate of the American Board of Endodontics

Volunteer Assistant Clinical Professor Department of Endodontics



Dr. Nivine Y. El-Refai received her dental degree in 1992 from Cairo University in Egypt. After graduation, she was appointed as a faculty member of the Department of Crowns and Bridges until 1995, when she moved to the U.S. She was accepted to the advanced standing

program at CWRU School of Dental Medicine in 1996 and graduated with her DDS in 1998. During her senior year, Dr. El-Refai worked with her professors, Dr. Tim Hottel and Dr. Jefferson Jones, researching various chelating agents, which was published in the JOE. Dr. El-Refai has always enjoyed the field of endodontics and was tremendously excited when she applied and got accepted to the program. Under the guidance and teaching of Dr. André Mickel & Dr. Jefferson Jones, she completed her endodontics training and received her MSD in endodontics in 2000.

Due to Dr. Mickel's perseverance, constant encouragement, and support, Dr. Nivine Y. El-Refai successfully completed her three-part board certification and received her Diplomate status in 2014. She has enjoyed working with the residents over the past 17 years since she graduated from the program. When she began the advanced standing program, she was pregnant with her daughter, who will be graduating from Columbia University's School of Engineering in May. A few of Dr. El-Refai's greatest memories during her time in the school were the flexibility and privileges she was given while pregnant; she never had to wait in line for a preceptor check and was able to take her daughter to each of her dental meetings!

Dr. El-Refai expresses that Dr. Mickel has always made his students feel like family. He successfully created a balance in his department between ethics, work and family.

"Dr. Mickel leads by example—he is always in the clinic working hand-in-hand with his residents and answering all of their questions. I don't know how he's able to keep track of all his students and their families over the years, but he never fails to make everyone around him feel as though they're the center of attention."

The welcoming atmosphere created by Dr. Mickel in the endodontics department is one of the main reasons she continues to drive 50 minutes (one way) to work with his residents since she graduated. Dr. El-Refai is truly delighted to see the residents' growth from the first days of their program until graduation; she's especially thrilled when they even begin volunteering to teach future residents, themselves. Dr. Mickel has created a true bond and long-term legacy in his department.

Presently, Dr. El-Refai has a private endodontic practice in Medina, OH, where she is also the President of the dental society. Additionally, she serves on the scientific advisory board for the JOE (reviewing articles for publication). As president of the Medina County Dental Society, she works on organizing events for the members and increasing dentist participation in organized dentistry. As a Volunteer Assistant Clinical Professor at the Endodontics Department at CWRU School of Dental Medicine she focuses on working hands-on with the residents and sharing her years of clinical experience and practice management. Her greatest accomplishments have been raising her daughter, who will soon graduate as a chemical engineer, and completing her board certification exams 10 years after passing the written part, to whom she thanks Dr. Mickel for his support and encouragement.



SCHOOL OF DENTAL MEDICINE

CASE WESTERN RESERVE
UNIVERSITY

Department of Endodontics
10900 Euclid Avenue
Cleveland, Ohio 44106-4905

From the Chairman continued

to the profession in award winning publications and experience.

As we prepare to transition into a more technologically savvy environment in our 2019 move, we anticipate the Endodontic Microscopes Fundraising Initiative which is underway to raise \$350,000 to purchase thirteen state of the art microscopes for the endodontics operatories at the new dental clinic. While the microscopes are preferred, we are flexible to comparable technologies. The state of the art microscopes will allow us to elevate and differentiate our

practice from other dental schools. The new technology provides breakthrough visualization and more efficient treatment for our patient that also enhances working comfort for our students. The purchase of new microscopes is not only exciting but allows us to catapult advancement within the endodontics program. As we prepare for new changes, we also expect to increase the dynamics of our support, continued education, research and over all service.

andre.mickel@case.edu