PROActive News
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The Division of Prosthodontics Newsletter

Faculty Spotlight

A.E. "Buddy Clark, D.D.S., PhD

is a tenured full professor in the Department of Restorative Dental Sciences, Division of Prosthodontics. Buddy – as he prefers to be called – enrolled in the University of Florida in 1966 where he received his Bachelors, Masters and Doctorate in Materials Science and Engineering. He joined the college of Dentistry in the Department of Dental Biomaterials in 1975. In 1980, Buddy resigned to enroll as a student in the College of Dentistry. Upon graduation in 1984 with his DMD, he rejoined the Dental College as a faculty. He has been in the college since that time.

Buddy has served in numerous positions in the college. These include Executive Associate Dean, Chair of the Department of Prosthodontics on two different occasions, teaching in the student program and maintaining an active role in research efforts. Over his career Buddy has been inducted into the American College of Dentists, the International College of Dentists, and the National Dental Honorary Society for materials science and engineering (Alpha Sigma Mu). On two occasions Buddy was selected as an outstanding clinician by the senior class and invited to participate in their hooding ceremony. Throughout his career Buddy has maintained an active participation in NIH funded research grants. He has over 100 refereed publications and abstracts.

Buddy is proud of his role in the development of Bioglass at UF. As a graduate student under the direction of Dr. Larry Hench, Buddy conducted studies describing the mechanisms involved in the interaction of synthetic bioactive materials and living tissues. After receiving his DMD, he was active in in-vivo studies using Bioglass materials. As a result, patents were issued and Bioglass products were marketed in the private sector producing royalties to the University of Florida and the development team on which Dr. Clark was one of the inventors. "I have been fortunate to be part of a team that has brought an idea from basic science studies to in-vitro studies to clinical trials and finally to a product helping to treat patients."

Buddy has mentored and collaborated with several doctorate students and faculty from different colleges. He is currently serving as a mentor to Dr. Josephine Esquivel-Upshaw and is collaborating with Dr. Ken Anusavice and Dr. Fan Ren, a distinguished professor from chemical engineering. This mentorship and collaboration has resulted in the filing of two patents to improve the behavior of fixed and removable dental prostheses as well as an NIH-NIDCR pending grant application.

Buddy is not the only member of the Clark family that has ties to the University of Florida. His wife Anne received her Bachelors and Masters degrees as a Pediatric Nurse Practitioner from the College of Nursing. Following a career working in health care, Anne went back to school and obtained a Masters Degree as a Media Specialist from the University of Florida. Buddy and Anne have two sons. Drew, the older son, received his bachelor's degree at UF and then went to Dental School and received a Masters degree in Orthodontics at UFCD. Currently, he owns an Orthodontic practice in Tallahassee. Matt, the younger son received both his bachelors and medical degree from the University of Florida. He has broken the Clark trend of training at UF and is currently a resident in Dermatology at the University of Michigan Medical School in Ann Arbor. "We have forgiven him for leaving us", Buddy said.

Congratulations!!

to our residents... we wish you all the best in your future career as prosthodontists and are looking forward to call you our alumni, colleagues and friends...

Dr. Abdullah N. Al-Naser was born in Monterey Park, California in November 1983. He completed his dental degree in West Virginia University in 2009. His research project in the masters of science program at UFCD was entitled "Influence of different in-vitro chewing loads on occlusal wear rate of polymethyl methacrylate double cross-linked denture teeth". His future plans include going back to Kuwait and working as a prosthodontist in private practice, becoming a part-time member at Kuwait University College of Dentistry and Dental Board Program. He loves freelance photography and have had a great experience at UFCD.

"I was born in Miami, Florida and I have been a loyal Gator fan for as long as I can remember. I was ecstatic when I received my acceptance to University of Florida. Although I always had intentions to go to dental school, I got my bachelors degree in Psychology because the subject has always fascinated me. After graduation, I attended Columbia University in New York City where I received my DDS. After four winters, I gleefully returned to the Sunshine State to specialize in prosthodontics at UFCD. My research project was titled: "Damage to the Titanium Internal Connection Caused by a Zirconia Abutment After Cyclic Loading: A Pilot Study." After graduation, I will be working in private practice in West Palm Beach. Go Gators!"

Dr. Caryn Kleiman

Dr. Lydia Legg graduated in 2007 from West Virginia University, School of Dentistry. She is a West Virginia native, and practiced general dentistry with her father for four years before relocating to New York, New York where she practiced for two years. Dr. Legg is also a Captain in the US Army Dental Corps, for which she has served for the past 5 years. Dr. Legg has attended various continuing education continuums such as Spear Education, Pankey Institute, Eubank Teaching Institute, and Charlotte Center for Cosmetic Dentistry. She maintained hospital privileges with Summersville Memorial Hospital until 2011, where she performed comprehensive care to an underserved area in West Virginia. Dr. Legg is a member of the American College of Prosthodontics, International Team of Implantology, American Equilibration Society, Academy of Osseointegration, and the Florida Dental Association. Dr. Legg has a passion for photography/videography and athletics. She was recently awarded a position in the Center for Implant Dentistry Continuing Education Fellowship Program, which will commence July 2016. Dr. Legg is looking forward to another year as a Gator!

Case of the month

In 2007, a 28yo male presented to the Center for Implant Dentistry for treatment of missing teeth 8-10, which were lost 4-months prior in a bicycle accident. At the time of the accident, the teeth were avulsed and could not be found. A local periodontist performed a ridge preservation procedure with plans for future implant placement. He moved to Gainesville to continue his care.

We initiated treatment by fabricating a radiographic template which was worn for a CBCT evaluation of the edentulous space for implant planning. The evaluation of the CBCT revealed retained root tips #8 & 9, which needed to be removed (in addition to the grafting material) prior to implant placement. It was determined that enough native bone was available to place the dental implants and perform simultaneous GTR (guided tissue regeneration) procedures. The treatment plan was to place regular connection bone level implants in sites 8 & 9 and restore them with an individual restoration #8 and a cantilevered restoration #9-10. This approach would assist in maintaining visual symmetry with the adjacent implants, while utilizing the nasopalatine tissue to simulate a papilla between the implants. The cantilevered restoration will be utilized to create an ovate pontic site in #10.

Utilizing a surgical template, implants were placed in sites 8 & 9, a xenograft was utilized in the defect areas combined with a connective tissue graft to improve soft-tissue support and contours. After 12-weeks, the implants were loaded with a screw-retained provisional restoration to initiate tissue shaping in the transition zone (the area of tissue from the implant head to the mucosal margin). After 4-weeks, a final impression (PVS) was made utilizing customized impression copings.

In the laboratory, CAD/CAM zirconia abutments were fabricated in addition to e.max (lithium disilicate) restorations that would be cemented to the abutments while preserving screw access holes to allow for screw-retention of the restorations.

In the clinic, the restorations were delivered, confirming fit, contours and shade to the patient's satisfaction. The restorations were tightened to 35 Ncm, Teflon (PTFE) was placed to protect the screw heads and the screw access was sealed with composite resin. The patient was followed up for 1-year prior to moving to another state.

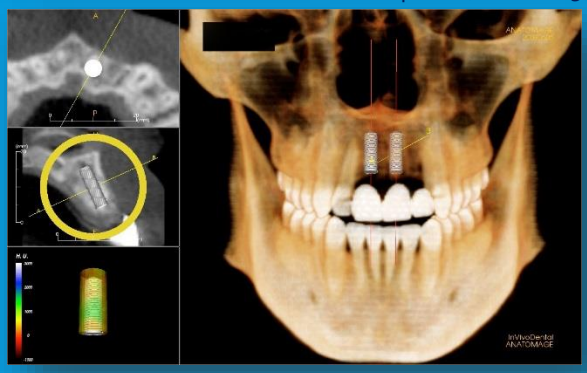
Restorative – Will Martin, DMD, MS, FACP
Surgery – Emma Lewis, BDS, MS
Please do not hesitate to contact **Dr. Will Martin** with any questions regarding the approach or techniques utilized in this treatment –
wmartin@dental.ufl.edu


Pre-treatment smile


Pre-treatment retracted view


Radiographic CBCT template with radio-opaque teeth


Occlusal view of the implants in place (sites 8 & 9)


CBCT imaging that highlights the radio-opaque teeth for crown-down implant planning


Post-surgical - implant placement and GTR procedures.


12-weeks post-implant placement


Provisional screw-retained crowns 4-wk post-loading


Transition zone after shaping w/ the provisional restoration


Customized impression copings


1-year follow-up

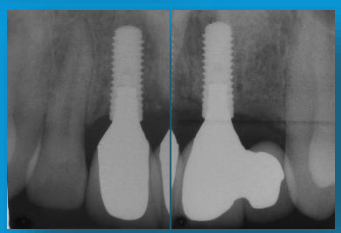
Case of the month

Will Martin, DMD, MS, FACP
Associate Professor,
Director, Center for Implant Dentistry
Department of Oral and Maxillofacial Surgery
University of Florida College of Dentistry
wmartin@dental.ufl.edu

Will Martin, D.M.D., M.S., FACP, is an Associate Professor in the Department of Oral and Maxillofacial Surgery at the University of Florida's College of Dentistry. He received his DMD from the University of Florida and completed his MS and Certificate in Prosthodontics from Baylor College of Dentistry. Dr. Martin joined the faculty at the University of Florida in 1999 and currently serves as the Director of the Center for Implant Dentistry. He is a Diplomate of the American Board of Prosthodontics and a fellow of the American College of Prosthodontists, International College of Dentists, and International Team for Implantology (ITI). He is a member of numerous professional organizations including the Academy of Osseointegration, and ADA. Dr. Martin has authored numerous peer-reviewed scientific articles and abstracts. He has co-authored several textbooks on implant dentistry, specifically the ITI Treatment Guide Vol.1 and the S.A.C. Classification in Implant Dentistry. He is the Education Delegate of the Section USA of the ITI and maintains a part-time practice limited to Prosthodontics within the Center for Implant Dentistry. He lectures both nationally and internationally on esthetic and implant dentistry.

Smile at 1-year follow-up

Final restorations; CAD/CAM zirconia abutments with cemented e.max crowns.
Palatal access available to screw-retention of the restorations.



Peri-apical radiographs at 1-year follow-up

I would like to thank Dr. Martin for his contributions to this volume of the Pros Active News by sharing one of his cases with us.
Sincerely, ***Luisa F. Echeto.***

Director's message

This month we will be completing another school year. 78 seniors will graduate, 3 Graduate Prosthodontics residents will receive their master's degree and we will welcome a new class at the end of the Summer. It has certainly been a busy and rewarding year.

The Division of Prosthodontics has taught the rising juniors all the principles of fixed restorations and removable complete dentures. They are now ready to begin learning the most challenging topic in prosthodontics: "Removable Partial Dentures (RPD)" which combines the principles of fixed and removable prosthesis. They will be taught using the Team-Based Learning (TBL) methodology which will prepare them to critically think as they get ready to start clinical patient care.

The Class of 2016 has completed their prosthodontics education as they finished the "Advanced Topics in Prosthodontics" course and complete their assigned cases in the clinics. We are very proud of all of them and are ready to present ***11 different prosthodontics awards*** at the senior banquet next month.

We will welcome the rising sophomores to prosthodontics with the "Fundamentals of Occlusion" course. They will be taught how to put the dental anatomy into function, how to make diagnostic alginate impressions and how to transfer the occlusal relationships into the semi-adjustable articulator.

Last but not least, our rising seniors are now ready to begin their last clinical year. They are not the "little" anymore, but the "big" ones of the group who will be held to higher expectations as they are getting prepared to be a future dentist.

Congratulations

to all of you! I am proud of all your accomplishments and wish you all future success!

Sincerely, ***Luisa F. Echeto***

ACP AMERICAN COLLEGE OF PROSTHODONTISTS
Your smile. Our specialty.®

What Patients Should Know About Dental Materials ** POSITION STATEMENT **

The American College of Prosthodontists describes their position related to the minor controversies regarding certain well-known materials; amalgam, plastic-based materials and dental porcelain.

Dentistry uses more materials than almost any other industry. Dentists use metals, plastics, ceramics, and gypsum products. In fact, materials science is one of the key academic disciplines in schools of dental medicine, and many significant improvements in dental practice have come from the development of new materials.

Key requirements of materials for dentistry, especially those used in the mouth, include their being non-toxic, biocompatible, water resistant, and durable. In addition, many also need to be esthetic and wear-resistant. Materials delivered directly into the mouth (e.g., fillings, sealants, cements) need to set or harden within a reasonable period of time at mouth temperatures. For restorations and prostheses formed in dental laboratories or using computer-aided machines in the dental office, materials need to be either heat-processed (e.g., firing of ceramics) or machined to very high dimensional tolerances.

No material yet available for dentistry completely duplicates teeth or their natural components, enamel and dentin; however, all must be safe and effective based on animal and clinical studies. Most all materials used are approved by the U.S. Food and Drug Administration (FDA) and the American Dental Association's (ADA) Council on Scientific Affairs – often based on complying with international dental standards. For more information please visit:

https://www.prosthodontics.org/assets/1/7/What_Patients_Should_Know_About_Dental_Materials.pdf