

Autumn
2018

PITT DENTAL MEDICINE

DEFINING THE FUTURE
OF DIGITAL DENTISTRY



PITT DENTAL MEDICINE IN THE TOP FIVE FOR NIDCR FUNDING

Pitt Dental Medicine is ranked **number four** for National Institute of Dental and Craniofacial Research (NIDCR).

The profound research performed at Pitt Dental Medicine is responsible for the steady improvement in rank over nearly two decades—validation of our commitment to exploration, investigation and analysis, and to the quality of the innovation being created here.

“This ranking is reflective of our alignment with the goals for research set forth by the NIH. Pitt Dental Medicine has been ranked in the top 10 for almost a decade, but this move into the top 5, at number 4, is significant. It reflects a long-term approach to becoming one of the premiere dental research institutions in the country—in the world. It is a powerful statement of our staying power and the decades of hard work toward international acclaim.”

Bernard J. **Costello** DMD MD Dean

“Pitt Dental Medicine has been engaged in top-notch, world-class research for many years. Being in the top 5 of NIDCR funding is particularly rewarding, though, because it is the major metric of U.S. Dental School research strength. Pitt is now shoulder-to-shoulder with other particularly strong research dental schools. Our research is at the cutting edge and applies state-of-the-art approaches to establish major research programs that, as evidenced by the success in getting grants, are widely recognized by other researchers outside of Pitt. Contributing to our research strength are the many productive collaborations with faculty investigators at Pitt, across the country and worldwide.”

Mary **Marazita** PhD Director of the Center for Craniofacial and Dental Genetics

“This ranking is important to the dental field, our school, and our basic and clinical faculty, as the new knowledge generated will improve patient care and the health of the whole population. Our cutting-edge research is important to patient therapy—the knowledge that they will receive the most advanced care. Our students and alumni should feel a sense of pride in their Pitt Dental Medicine home.”

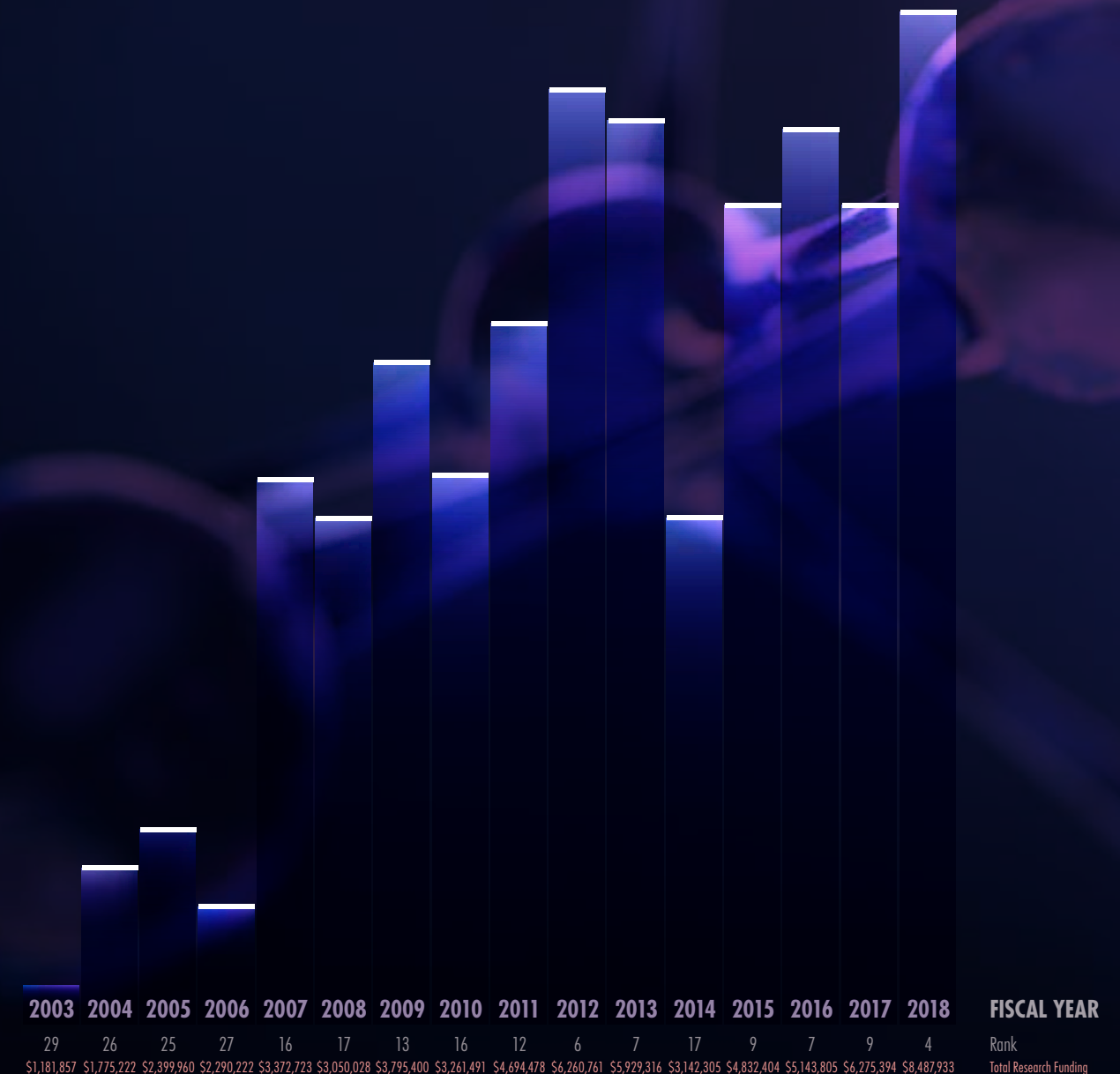
Charles **Sfeir** DDS PhD Associate Dean for Research

“The rankings validate the effort and talent of our faculty and staff and also demonstrate that we, as an institution, are “all in’ with our support of the research missions of the dental profession and the University of Pittsburgh. Unquestionably, the new knowledge that our research generates will be important to improving patient care and population health. The “top 5” ranking, while arbitrary, is certainly something that brings attention to our school and will support our efforts to establish a sustainable research infrastructure. Maintaining that status is a worthy goal and one that, ideally, will continue to motivate us to continue achieving at the highest level.”

Robert **Weyant** MS DMD DrPH Associate Dean for Dental Public Health and Community Outreach

“The School of Dental Medicine’s ranking is an indication of its prominence in both dental research and in the training of new dental professionals. The school’s success reflects our campus-wide commitment to excellence at the University of Pittsburgh. I congratulate Dean B.J. Costello and all of the school’s leadership, faculty, staff and students on this achievement.”

Arthur S. **Levine** MD Senior Vice Chancellor for the Health Sciences and John and Gertrude Petersen Dean, School of Medicine



Dear friends and colleagues,

I am excited to provide this introduction in what is my first issue of our regular print publication. As the new dean of Pitt Dental Medicine, I could not feel more honored to serve our School. Many of you have expressed excitement about our future and, together, we already are hard at work on many initiatives including a comprehensive digital dentistry platform, a major curriculum re-alignment, new communication platforms, a strategic visioning process, new collaborations with the University, and a host of new faculty acquisitions with more to come. You may have noticed our increased presence on social media platforms and if you have not visited them yet, I encourage you to follow us on Facebook, Twitter, and Instagram. On those feeds and posts, you will find additional content and timely updates.

I am fortunate to be carrying on the rich history that began in the late 1800s the eighth dean of Pitt Dental Medicine, and I look forward to the opportunity that we now have to move forward. At Pitt Dental Medicine, we enjoy telling the stories of success that we have collected together over the years. Recalling those achievements reminds us of our potential. I believe that we have a shared responsibility for our success, and this issue outlines a few of our initial steps to move us to preeminence.

It Is a Unique Time for Pitt

During the selection process for dean, it became clear to me that the University is committed to helping us build for the future. Innovation, discovery, intellectual property, patenting, industry relationships and entrepreneurial mindset are images that are included in many conversations around Pitt today. The University as a whole is on the rise and setting records—and so is Pitt Dental Medicine. Given the platform that the University provides, as well as the intellectual capital that exists at our School, we have an opportunity to make a substantial impact for dentistry and oral health in entirely new ways. We are built for discovery and hope to provide transformative

cures, technologies and solutions to our toughest problems.

One of the most exciting additions to our School is our large investment in digital dentistry and 3-D printing technologies. In this issue you will read about some of the new additions to our digital dentistry platform and how computer-assisted care is enhancing our learning process, patient experience, quality of care, data repositories, discovery, manufacturing and rapid prototyping. Across our School we have integrated new technologies and protocols to not only ensure that the latest innovations will be a part of our educational process, but also to have our experts develop even better new technologies, improve care and create new workflows. A number of our faculty members are poised to be the thought-leaders that will develop the next generation of technologies to take dentistry into a distinctive and completely new era.

Also highlighted in this issue is our successful Research Symposium, at which we celebrated our new ranking of 4th on the NIDCR funding list for funding to dental schools in the United States. The program featured cutting-edge discoveries from our faculty and students. We also are able to showcase some of the work done by students in our Summer Research Scholar Program, supported by the Dean's Office.

Celebrating Your Healthiest Self

This past year gave those of us at Pitt an opportunity to focus on our own health and wellness through programming designed to support the University's *Year of the Healthy U*. These programs helped bring together not only our own staff, students and faculty, but also those from other schools; most notably the close collaboration that we have with the School of Pharmacy. Next year, we will focus on increasing our global presence and making a global impact with the University through the *Year of Pitt Global*. This allows us also to reach out in new ways

to our local, national and international friends, colleagues and alumni. You will see a number of alumni featured in this issue and news about all that they do to make Pitt proud. If you know of a unique story featuring one of our alumni, please let our Office of Alumni Affairs know. We are proud to tell the stories of our graduates.

We aspire to be the destination for students, faculty and staff who want to be part of a premiere, elite school of dental medicine—one that is driven by innovation and blends clinical expertise with superior research and scholarly activity. We also should be a University-based oral healthcare delivery enterprise that patients choose because our experience represents the high quality and efficiency expected from a premiere University coupled to a world-class health system. It is important that we succeed at these goals so we can be the best resource possible for our community and beyond. I believe that we will succeed most effectively by rewarding and cultivating a culture of interdisciplinary collaboration, diversity, equity and cooperative interdependence. Together, we can work to build that vision into a reality as we develop the future here at Pitt.

You can help us craft a new vision. Contribute your ideas, talents and support to assist us in seizing this opportunity.

Hail to Pitt!

Yours in service,



Bernard J. Costello DMD, MD

Dean and Professor
University of Pittsburgh
School of Dental Medicine



Dr. Bernard J. Costello carries on a legacy begun more than a century ago. Pitt Dental Medicine has been guided by 7 deans over the past 114 years.

H. E. Friesell, BS, ScD, LLD, FACD
1904-1946

Founder of the American College of Dentists

Lawrence E. Van Kirk, DDS, MS
1947-1953

William F. Swanson, DDS, MS
1953-1961

Edward J. Forrest, DMD, MS, PhD
1961-1983

James E. Smudski, DMD, PhD
1983-1988

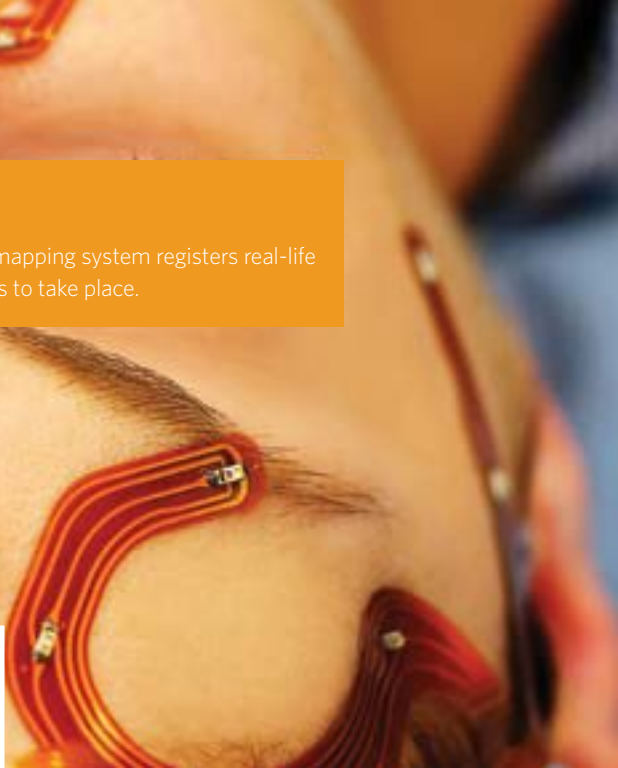
Jon B. Suzuki, DDS, PhD, MBA
1989-1999

Thomas W. Braun, DMD, MS, PhD
2000-2018

Dr. Thomas Braun (DMD '73, PhD '77) spent his entire education and career at the University of Pittsburgh. Learn more about him and celebrate his many milestones and notable achievements by visiting our website.

8 ON THE COVER

Shown on the cover is a patient prepared for surgery using a cranial mapping system. The mapping system registers real-life patient anatomy with existing CT or MRI scans, enabling highly-precise surgical procedures to take place.



PITT DENTAL MEDICINE

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LETTER FROM THE DENTAL ALUMNI ASSOCIATION PRESIDENT

Pitt Dental Medicine Alums,

I hope your summer got off to a great start! At the school, our summer began with the successful matriculation and beautiful graduation ceremony honoring the Pitt Dental Class of 2018. And no one can forget about the excitement of welcoming a new incoming class at the White Coat Ceremony each August.

As always, Pitt Dental Medicine continues to attract the best and brightest students from across the country with a competitive curriculum and a commitment to evidenced-based technological advances in dental medicine. In this issue, you'll find information pertaining to the numerous collaborative projects happening throughout the school. Faculty from the School of Dental Medicine are working closely with advanced research programs in the School of Medicine as well as the Swanson School of Engineering to explore how digital technology, 3D printing, and tissue engineering can advance the field of dentistry. Developments in these areas ultimately will improve not only outcomes for patients, but will help reduce costs and enhance the overall patient experience in all of our offices.

Personally, the advances in 3D scanning technology have greatly improved the patient experience in my office. Not only are the 3D scans completed more quickly than the alternative PVS impressions, but the scanning procedure is more comfortable for the patient, shortens the turn-around time for appliance delivery and results in a better fitting appliance by reducing the number of steps involved in appliance fabrication.

Technology will continue to rapidly improve and Pitt Dental Medicine will strive to stay at the forefront of dental advances. I hope you find the information in this magazine useful and are encouraged to continue to incorporate evidenced-based technology into your personal practices.

Thanks and Hail to Pitt,
Lisa M. Babb, DMD, MSD
Class of 2011

30 18TH ANNUAL DEAN'S SCHOLARSHIP BALL

Honoring the Lifelong Commitment of Dr. Thomas W. Braun and new Dean's Scholars.

42 GRADUATION CELEBRATION

An annual luncheon and award ceremony recognize forth-year students on the eve of graduation.

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PITT DENTAL MEDICINE

By Keightley Amen, BA, BELS

Digital technology is changing the world entirely—from telephones to cars to the ways that all businesses produce, market, and deliver their products and services. Dentistry, of course, is among the professions being transformed by rapidly changing digital technologies, such as intraoral scanners, cone-beam computed tomography (CBCT), computer-assisted design/computer-assisted manufacturing (CAD/CAM), fabrication via 3D printing, and computer-assisted surgical navigation.

DEFINING THE FUTURE OF DIGITAL DENTISTRY



The digital revolution presents both challenges and opportunities to the University of Pittsburgh School of Dental Medicine. As faculty and students in the school's subspecialties continue to establish innovative ways to incorporate technology, Dean **Bernard J. Costello, DMD, MD**, encourages them to think beyond individual technological toys and instead consider progressive ways that these technologies can positively influence the enterprise-wide delivery of patient care as well as beneficially alter the entire workflow within the school.

“Very few dental schools have what we have—a dental school that’s both contiguous with the health sciences but also contiguous with a dynamic university that has all of those other components. It’s very rare. You literally can walk down the street and say, ‘I have a new idea about how to use this technology’ then take it to the next level without leaving the University.”

—Dean Bernard J. Costello, DMD, MD

“People usually think of the tool or the toy first—before they think about the problems they want to solve. From my standpoint, that’s the classic mistake people make when they think about investing in a technology,” Dr. Costello says. “It’s relatively easy for any school to purchase this equipment. And if they’re smart about it, they can probably accomplish what they want to accomplish—which is teach students how to use an optical scanner, for example, and perhaps

teach them how to use a 3D printer to their advantage.” But the dean wants digital dentistry in Pittsburgh to truly evolve the entire care continuum: making diagnoses; planning treatment; educating patients about their own cases; manufacturing implants and prostheses; capturing, storing, and analyzing data; and planning and performing procedures and surgeries. And he says that faculty and staff at Pitt Dental Medicine have a unique advantage, thanks to the close proximity to and collaborative relationships with the medical school, the UPMC network, the Swanson School of Engineering, the School of Computing and Information, and experts in regenerative medicine and other fields.

“The power of a place like the University of Pittsburgh is that there are so many different platforms and disciplines that we should really be creating new workflows and technologies, or new ways to adapt new technologies that teach students and residents how to take it to the next level so they’re on the cutting edge—so that they are creating the pace, not just keeping pace with what’s out there,” he says. “Very few dental schools have what we have—a dental school that’s both contiguous with the health sciences but also contiguous with a dynamic university that has all of those other components. It’s very rare. You can literally walk down the street and say, ‘I have a new idea about how to use this technology’ then take it to the next level without leaving the University.”

And many faculty are doing just that.



Images courtesy of Dr. Timothy Erdle, Pitt Dental Medicine

Implant guides may be digitally planned and designed based on a patient’s CT or MRI scan and then 3D printed.

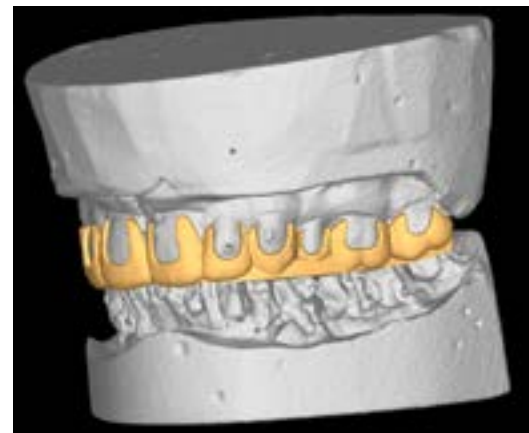


Image courtesy of Dr. Richard Bauer, Pitt Dental Medicine

A tray-type splint may be virtually designed and 3D printed, such as this positioning splint for a patient having combined surgical and orthodontic correction of a skeletal and dental malocclusion.

3D Printing a Denture Framework

One such interdisciplinary collaboration is a project with Swanson School of Engineering that uses additive manufacturing ([AM] a 3D printing method) and generative design (the use of computer software and artificial intelligence [AI]) to create and test denture frameworks tailored to individual patients.

John Ference, DMD, MPH, a prosthodontist at Pitt Dental Medicine, and **Markus Chmielus, PhD**, an assistant professor in the Department of Mechanical Engineering and Materials Science, aim to make stronger products with more accurate fit at lower cost with a method that is radically different from traditional subtractive dental techniques.

“I think this has the potential to shake up the dental profession,”

—Dr. John Ference

“Dentists fabricate dentures in the same way we’ve been doing it for 20 years, or more,” Dr. Ference says. “Traditional methods of fabrication require numerous steps that include making impressions, fabricating models, transporting models back and forth to the dental laboratory, casting metal, adding porcelain, finishing, polishing, and storing casts.”

Dr. Chmielus says the established method leaves much potential for error. “A metal partial dental framework normally gets cast from an imprint made with a gummy material in your mouth. Then another shape is made and out of that shape the metal framework is produced,” he says. “It is a long, fairly complex method and not extremely accurate. The gummy material gets wiggled around so it can be removed from the patient’s mouth, then they cast another shape and then another. There are a lot of steps involved where errors can be introduced.”

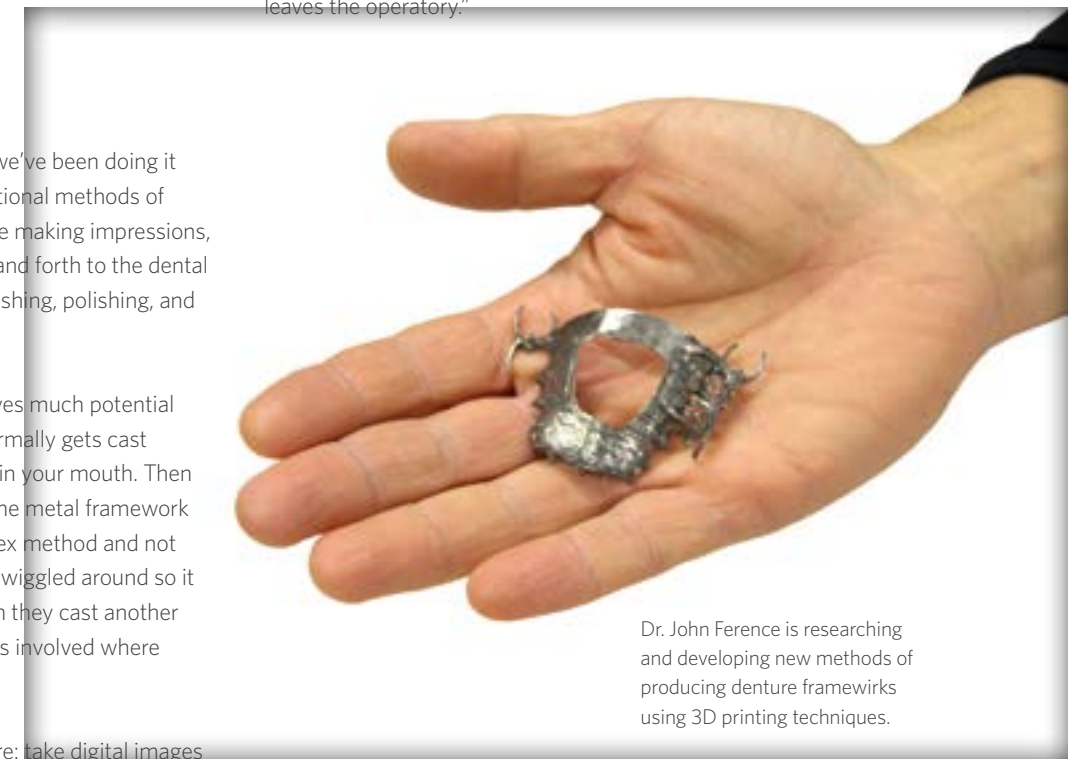
The research partners propose a new procedure: take digital images of a patient’s mouth; use AI algorithms and computer programming to design a denture framework; then 3D print the product.

They did exactly that for an in vivo proof-of-concept study recently published in the journal *Additive Manufacturing*. The team compared the mechanical and physical properties of their 3D-printed framework with traditionally manufactured frameworks. They found that the physical and mechanical properties of their denture were very similar to traditional dentures.

Dr. Ference’s work has been recognized by the American Dental Education Association (ADEA), which awarded Pitt Dental Medicine the 2016 Gies Award for Outstanding Innovation by an Academic

Dental Institution. The findings have been presented to an engineering audience at the Materials Science and Technology 2017 conference, and Dr. Ference is preparing to submit the work to the American College of Prosthodontics and the *Journal of Prosthetic Dentistry*. Ultimately, Drs. Ference and Chmielus aim to create a denture framework out of a biocompatible metal, retest the mechanical and dimensional properties, then print and place the dentures in patients. They are working toward a pilot study that will take place in the School of Dental Medicine.

“I think this has the potential to shake up the dental profession,” Dr. Ference says. “Future dental professionals will be able to take a hand-held scan or CBCT scan of a patient requiring a prosthesis, modify and design the prosthesis based upon that scan on a computer, 3D print the prosthesis, and deliver and adjust it before the patient even leaves the operator.”



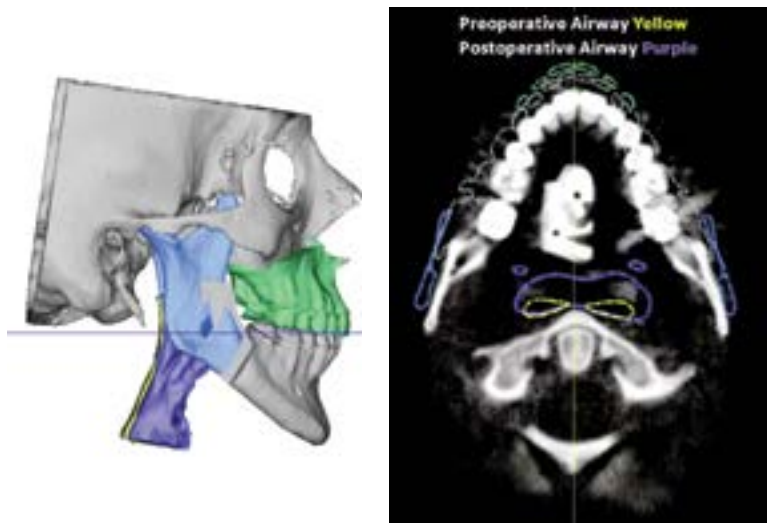
Dr. John Ference is researching and developing new methods of producing denture frameworks using 3D printing techniques.

Computer-Assisted Surgery

Another facet of digital dentistry is computer-assisted treatment planning and computer-assisted surgery. **Richard Bauer, DMD, MD**, assistant professor and residency program director for the Department of Oral and Maxillofacial Surgery, together with colleagues and oral surgery residents, use software every day for patient evaluation, diagnosis, treatment planning and surgery. For example, the school’s faculty use CBCT to collect digital images of patients who are missing teeth and need dental implant therapy, or those who have a craniofacial abnormality or dysmorphic jaw and

therefore need overall skeletal evaluation. With the digital scans in hand, “we can actually manipulate the patient’s skeletal image data to represent movement of their jaw in a certain, idealized direction, then generate splints from that idealized position, which we can take to the operating room and actually execute the surgery and replicate what our virtual plan is for that patient,” he says.

To treat a patient with a tumor, for example, Dr. Bauer is able to digitally plan and then create a surgical resection guide so the surgery doesn’t remove more anatomy than necessary, while simultaneously planning for the patient’s immediate reconstruction with a fibula flap or composite of bone and soft tissue, complete with custom-fabricated plates and screws so all of the components perfectly fit the specific anatomy of the patient. Dr. Bauer also uses real-time surgical navigation, whereby surgical instruments are represented on a screen. Such procedures have a strong presence in the neurosurgical setting but have been adapted for many types of operations, including dental and craniofacial surgeries, Dr. Bauer says, and the digital approach has applications for all intra-oral procedures.



A

B

A: This virtual surgical plan was developed for a patient that has severe sleep apnea. Surgical correction of this patient’s sleep disorder includes maxillary and mandibular advancements.

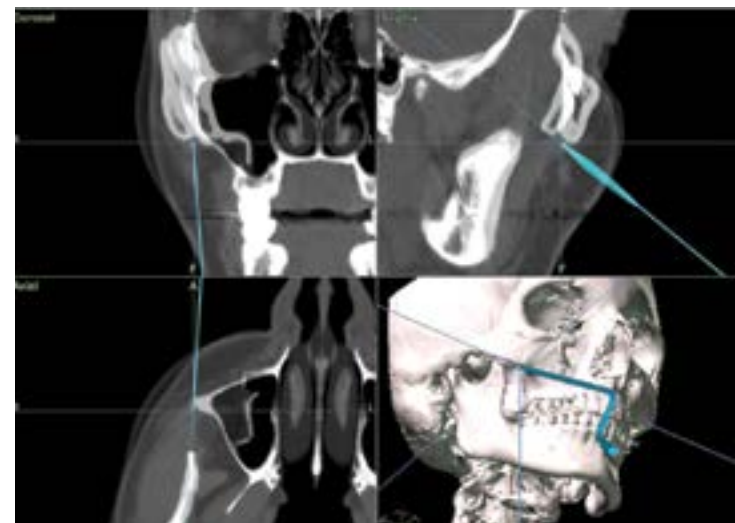
B: Preoperative and postoperative CBCT scans of the same patient are compared here by overlaying them to evaluate the change in jaw position and change in the airway. Yellow outlines denote the pharyngeal airway in its preoperative state. Notice the extreme narrowing of the airway. Purple outlines denote the pharyngeal airway in the postoperative state. Note the significant change and increase in overall airway volume. This surgery successfully eliminated the patient’s sleep apnea.

Intra-Oral Scanning

Dr. Bauer also is conducting projects involving intra-oral scanning. He just received grant funding to expand a study that uses intra-oral scanning and CBCT to follow patients for one year and evaluate the long-term results of soft-tissue therapies by examining bone anatomy and soft tissue.

He also is working with the Department of Athletic Training in Pitt’s School of Health and Rehabilitation Sciences in a community outreach program that visits underserved city high schools, builds awareness of facial trauma and concussion, and uses intra-oral scanning to create custom mouth guards.

Dr. Bauer’s team is exploring using the same technology to make custom fluoride trays for patients at UPMC Hillman Cancer Center. Oncology patients often have reduced saliva and painful mucositis, which lead to tooth decay. The program, set to begin in 2019, will eliminate the pain these patients experience with traditional tray fabrication, helping them get the treatment they need for oral health.



C

Images courtesy of Dr. Richard Bauer, Pitt Dental Medicine

C: This image was captured during a surgical repair to a fractured zygoma and orbital floor, where an intraoperative navigation system was used to ensure the appropriate repositioning of fractured bones. The blue pointer (C) represents a surgical instrument shown in real-time after the bone had been repositioned for appropriate facial projection. The cover image on this magazine is a photo of a registration mask used for this patient. Intra-operative navigation software automatically detects LED positions in the patient’s registration mask as high-density points on the intra-operative scan and permits registration using software to match the LEDs affixed to the patient, with the patient’s CT or MRI. This allows for real-time, on-screen surgical navigation.



Intraoral scanners, such as this one from Dentsply Sirona, provide higher quality impressions than traditional methods.

Mining Digital Data

“Digital dentistry is not just limited to patient images, scans, and devices that are printed and manufactured,” Dr. Costello says. “Some of the intrinsic power of our new technology lies in the ability to analyze, manipulate, and understand very, very, very large data sets and their interactions.”

This spring, the University of Pittsburgh’s new School for Computing and Information launched the Modeling and Managing Complicated Systems Institute, which will use computer modeling and AI to mine vast amounts of data and information to uncover new solutions to complicated issues, including the opioid epidemic, national security, cancer, and much more. The institute will pair AI and machine-learning researchers with individuals from academia, industry, nonprofits, and the government to develop algorithms designed to address their specific problems and to use modeling experiments to provide concrete solutions.

One of these projects will involve Pitt Dental Medicine’s Department of Dental Public Health. Collaborators will examine utilization of dental care across large populations. “We have the ability to understand urban and rural dental care utilization and trends based on new ways that we can look at modeling these complex care networks, and the effects that interventions may have over large groups of people,” Dr. Costello says. “Our scientists and clinicians in the Department of Dental Public Health are exploring these new exciting avenues of research.”

Major Changes Lie Ahead

Timothy Erdle, DMD, a clinical assistant professor at Pitt Dental Medicine, has been testing the capabilities of 3D printing since its earliest iterations. He sees practically limitless potential use cases for digital dentistry and 3D printing in the future.

“It provides training and set-up for the surgery, and decreases the overall amount of time the surgery takes, so surgery is easier and more predictable for the resident and the patient,”

—Dr. Tim Erdle

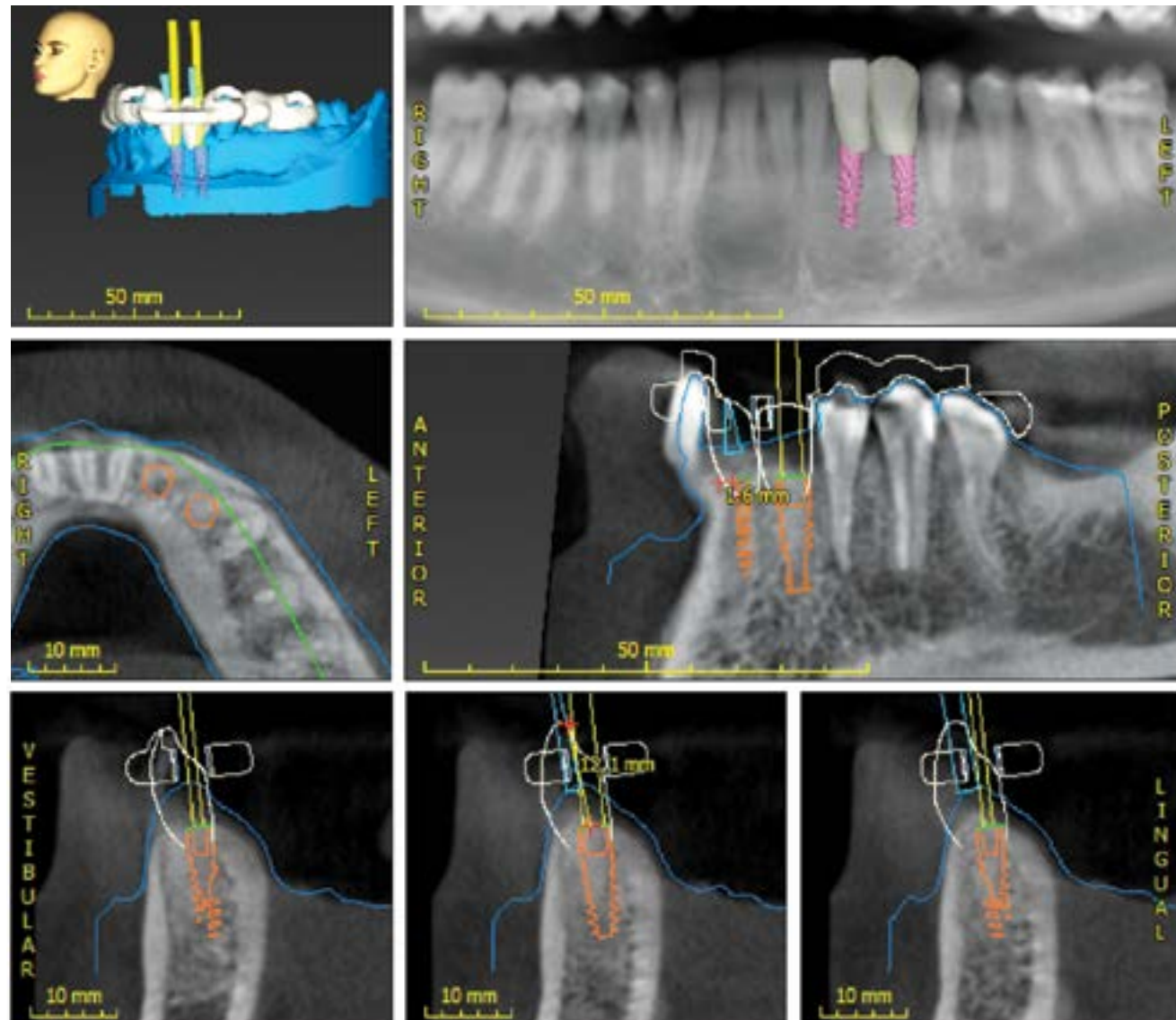
He sees in the future of Pitt Dental Medicine obtaining a cone-beam/3D image of the patient; converting the data into a model using software; digitally augmenting the bone via a surgical guide; printing a mandible or part of a maxilla, for example; performing a trial surgery; and finally, placing the implant in the patient and

training students to do the same. “It provides training and set-up for the surgery, and decreases the overall amount of time the surgery takes, so surgery is easier and more predictable for the resident and the patient,” he says. The school’s residents and faculty already are taking many of those steps, he says, but he hopes all of it will be moved in-house in the future, including creating surgical guides and printing dental products.

To that end, the school had appointed a small group charged with the consideration and planning of a set of institutional goals regarding digital dentistry, including clinical applications, research, equipment needs, use of existing equipment, training needs, and curriculum changes.

Anitha Potluri, BDS, DMD, MDcs, chair of the Department of Diagnostic Sciences and a member of this specialized group, says that one of their goals is to move toward eliminating traditional plaster dental models at the school by using intra-oral scanners. Some scanners already are in use at the school, and the group is recommending additional acquisitions. With intra-oral scans, dental faculty and students can create whole models, then, for example, use 3D imaging software to print guides for implant and crown placement. “This technology already is being used in medical offices,” Dr. Potluri says. “It is becoming a lot more popular than it was. Digital scanning has become a standard of care.” Dr. Potluri feels strongly that going completely digital will help the school improve the patient workflow, create and print products in-house, recruit patients, save time, and reduce costs.

Shown at right is the digital workflow plan for a patient that underwent dental implant therapy to treat two teeth that were lost during a hockey injury. The patient's CBCT data was obtained and uploaded into surgical planning software. Customized implants were planned in ideal positions for this patient and a surgical placement guide as well as provisional restorations were fabricated.



Images courtesy of Dr. Richard Bauer, Pitt Dental Medicine

Shown here, is the surgical placement of the dental implants that were digitally planned on the previous page.

B: The virtually designed and 3D-printed guide is displayed on the stone model. This guide is used for fully guided implant placement.

When the implants have been placed using the 3D printed guide, the soft tissue is augmented with a connective tissue matrix and healing abutments are placed.

In addition to considering how to fully incorporating scanning into the school's day-to-day clinical processes, the group is exploring how to continue to introduce changing technology into the curriculum, whether that involves creating new courses such as electives, tweaking existing curriculum, or taking a hybrid approach, as well as how to keep the curriculum continuously current. Strategies being explored include case-based applications, external speakers and experiences for students, literature reviews, journal clubs, simulation labs, and virtual educational experiences.

Perhaps the most impactful part of the group's proposal is a central digital dentistry center—a place where all subspecialties at Pitt Dental Medicine can come together under one roof to work collaboratively with advanced equipment, including intra-oral scanners, CBCT, robust computing capabilities, software to plan implants and surgeries, and patient chairs. Within this

center, all digital data would be launched, stored, reported, and retrieved through a single, school-wide picture archiving and communication system (PACS), wherein every patient's record would be integrated.

Dr. Potluri sees potential opportunities for a digital dentistry center to boost the school's research grants and projects. Ultimately, she sees the center as a hub for patient-centered longitudinal and comparative effectiveness research projects that explore the best materials for dental products, applications for regenerative medicine, and further uses for 3D printing and machine learning.

Dr. Potluri says the school has kept up with many changes in technology, and that continued evolution will positively push the boundaries of dental medicine. "It goes without saying that if we are stagnant, then we are not going to be part of the future of dental medicine.

Juan Taboas, PhD, assistant professor, also is part of the group researching and recommending strategies to fully implement digital dentistry at the school. His research involves developing hydrogel scaffolds to study intracellular signaling, cell-cell communication, and tissue growth. He is exploring regeneration strategies for craniofacial and skeletal tissues, funded by the Department of Defense; ways to repair the growth plate in children; and pulp regeneration to heal a tooth after root canal so it's alive instead of dead.

Dr. Taboas says that he aims to someday use 3D printing to create the hydrogel scaffolds he studies. "It's going to get there. It's just not there yet. That's why we have to teach this to the students now." So, in the classroom, he covers digital image manipulation, surgical guide planning, and how to turn digital images into 3D materials.

Although he is excited about the potential for digital and 3D technology in many facets of dentistry, he cautions his students and the entire industry to make sure that any advancements are evidence based. "There's nothing you really can't do with 3D printing that you can't do another way," he says. "But is it something that dentistry needs or not? Is it something that benefits patients?" He stressed the importance of evidence-based practice and comparative effectiveness research whenever dentistry implements technology, as well as the importance of educating students along the way.

"Some of the students have played with 3D printers in their garages. It's not a difficult technology to comprehend," he says. "But there is more to it than it initially appears. We have to revamp our materials courses so students understand the limitations of the dental materials used in 3D printing—how they shrink as items are built

layer by layer, how they shrink more between layers than within layers, etc. Students need to understand why this happens and what to look for to choose the best materials for specific jobs. And they need to understand digital design. At this time, students have one cursory exposure. They need to develop experience with the software—how to draw on a computer.”

Dr. Bauer agrees that students, faculty, and practicing dentists must have a full understanding of the process to be successful. “If you’re not really well versed in the technology that we’re using, then you may not be aware of potential pitfalls. ... The residents and students have to think a little bit differently, they have to think about how the technology can alter the ways a procedure can turn out,” he says. “Before, the responsibility rested upon you and only you. Now, you may be relying on a lab or a third party to fabricate something. And you need to be involved in the actual design of that. Because as the clinician/surgeon, you’re the one ultimately taking on the liability and executing. So there’s a whole new conversation that we have to have. While these technologies may make your life easier, you’re also assuming a little bit more liability because others share in the responsibility to fabricate something that suits the patient. Being cognizant of how all of the processes happen behind the scenes is really important. It’s not good enough just to say, ‘I’m going to hit this easy button, and someone will send me something and I will just use it.’ You have to have a thorough understanding of the process.”

Additional Challenges of Implementation

Clearly, the future is promising, but challenges and hard work lie ahead.

“Dentistry is never going to be entirely digital because it is something you do with your hands. We don’t want to be entirely digital,” Dr. Erdle adds. “But digital dentistry is a great tool to have available.” He hopes the school and its faculty can be “cautiously creative—giving students and residents time to play a little bit to see how they can use the technology in a new and innovative way, then run with it responsibly.”

Dr. Potluri and the small group charged with making institutional recommendations note some specific challenges to its implementation, including integrating current technology, new technology, the PACS, and the electronic health record so that all equipment, software, and data are available to all practitioners. Doing so can be very difficult because each technology is provided by a different vendor. The group is also weighing compliance with the Health Insurance Portability and Accountability Act (HIPAA), how many licenses to buy, portability and accessibility to all sites,

and technological support needs. In addition, she says, the faculty must “buy in” and be calibrated to be ready for all of the associated changes to the curriculum, clinical care workflows, and research possibilities.

The future is promising, but challenges and work lie ahead. Dr. Ference said the biggest hurdle is that academics in general tends to be cautious about how and when they embrace innovation. “I think dentists have always been at the forefront of adopting new technology,” he said. “Really, the only hurdle that both academic and practicing dentists face is that the field of digital dentistry is developing very rapidly. That can make it difficult to know exactly what you should invest in and when.”

The faculty and administration are well aware of the costs of that investment, as well as the speed with which technology changes. “It’s hard to keep up. The machines, the software, the capabilities of those machines and their speed. And it’s expensive,” Dr. Costello says. “We want to give the best capabilities possible but have longevity. It’s a challenge but one we’re ready for and one we’ve planned for. The faculty have a high level of expertise, as well as other experts at the University. We have a group who are highly interested and experienced, and now we have the opportunity to organize their interdisciplinary work, not just by buying the equipment, but by combining the infrastructure.”

“Education has a really interesting dilemma. You want to push the boundaries of innovation and you want to be known for being on the cutting edge of delivering care, but you have to go back and teach students really sound clinical judgment and execution—and sometimes those two things compete a little bit.”

—Dr. Richard Bauer

Creating the Curriculum for the Future of Dental Education

“Changes in the curriculum have been happening, and there’s an understanding of the need for further change in the curriculum,” Dr. Ference says. “Administrators are open to those ideas. They know it’s necessary if they want to be competitive.”

However, Dr. Bauer summarizes the conundrum faced by academic institutions. “Education has a really interesting dilemma. You want to push the boundaries of innovation and you want to be known for

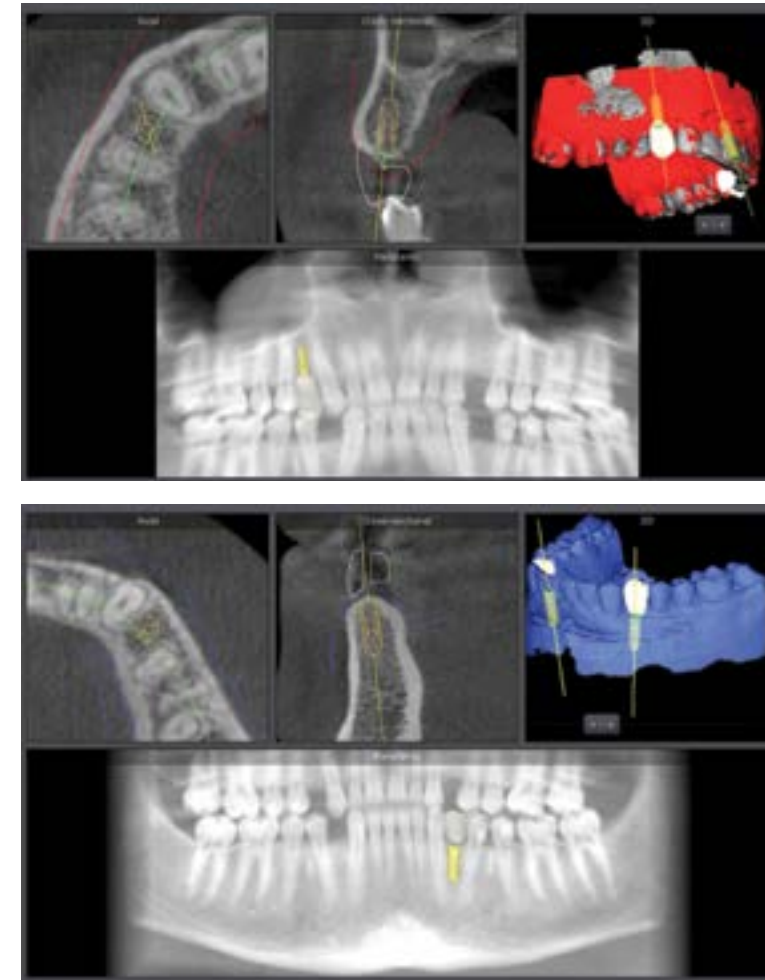
being on the cutting edge of delivering care, but you have to go back and teach students really sound clinical judgment and execution—and sometimes those two things compete a little bit.”

Jean O’Donnell, BSN, MSN, DMD, associate dean for academic affairs, says the school plans to find balance by updating the curriculum, making room for new technologies, and removing outdated procedures. The focus will be on implementing more hands-on experiences with digital techniques through simulation and direct patient care. In the very near future, O’Donnell says, students will have more patient experiences using CAD/CAM, CEREC crowns, and even 3D printing.

Thomas Kunkel, BS, DMD, assistant professor and interim chair of prosthodontics, says that current digital-related training starts as students near the end of their second year and continues throughout the remainder of their education. Students receive didactic coursework, then work in the lab. Their hands-on experience involves taking digital imaging with Omnicam intra-oral devices, then using CEREC MC XL milling machines to create all-ceramic crowns and fixed bridges, then making adjustments as needed. Students also place a dental implant in simulated bone.

Although such experiences are not yet required for graduation (by the school or by the Commission on Dental Accreditation [CODA]), “It’s not going anywhere; it’s prevalent. The students love it and they want to be exposed to it,” Dr. Kunkel says. “I believe this eventually will be a CODA requirement. I feel like Pitt is going to be ahead of the curve.”

Expansions for the curriculum may include expanding the didactic portion of the digital applications, taking intra-oral impressions, capturing CBCT images, and merging the two to create a surgical



Images courtesy of Dr. Richard Bauer, Pitt Dental Medicine

Digital workflow for an implant case complicated by minimal space availability.



Building the Digital Dentistry Core

Pitt Dental Medicine is excited to welcome **Dr. Suvendra Vijayan** to the Department of Diagnostic Science where his expertise in oral and maxillofacial radiology coupled with his interest in computer science, information systems, and artificial intelligence (AI) will help expand our capabilities in computer assisted dentistry, imaging and 3D manufacturing as we enhance and grow new partnerships at Pitt, UPMC and CMU. He will be joining a very talented group of faculty—as noted in our feature story—to create the foundation of the digital dentistry expansion here at Pitt Dental Medicine. He recently was recognized by the ADA with the Ahlstrom Award for his dedication to 3D printing.

To learn more about Dr. Vijayan, please see page 35.

guide, Dr. Kunkel says. In addition, this fall the school will implement PrepCheck educational software to help students digitally self-assess their crown preparation “on top” of the ideal preparation.

Innovation and Motivation

As the School of Dental Medicine finds its way through the constantly changing landscape of digital dentistry, Dr. Costello is excited about the infinite opportunities for innovation. “Pitt is very well positioned to be not just the top research institute, but to be one that’s really focused on intellectual property and changing the field. That’s what I’m interested in most, and that’s what we do best at the University,” he says. “That potential for transforming the field and changing those workflows, that’s where we’ll make our impact, that’s what our faculty will be remembered for, that’s really where you change patient care for the better.”

For those who hope to do just that, Dr. Bauer offers this insight: “If you have a passion or desire to improve something or find an easier

or better way of doing something that might increase your efficiency or effectiveness, then you naturally find an application,” he says. “Just putting technology in the hands of someone who is innovative, you improve on things that are already there. You say to yourself, ‘I wish I had a way to do this,’ and then create it. It’s a natural progression. If you’re already doing the things you love to do, then implementing technological advances into it is pretty darn easy.”

The Story Continues Online

Learn more about Pitt Dental Medicine’s growth in digital dentistry by visiting our web site to continue the conversation about digital dentistry through videos and additional photos to help you better understand these technologies and capabilities.

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HELPING TO BRING LIFELONG LEARNING TO ALL OF PENNSYLVANIA

The University of Pittsburgh School of Dental Medicine Edward J. Forrest Continuing Dental Education Center provides quality, timely and innovative continuing dental education programs to dental professionals in the tri-state area.

In addition to the CE Center on-campus, the Center for Continuing Dental Education provides programming at 12 off-campus sites throughout the state of Pennsylvania (including one site conveniently located in Ohio). This

is consistent with the Center’s commitment to providing community-based continuing education programs in communities where there may be limited options for high quality continuing education programming.

At each of the 12 off-campus sites, the Center is aided by local dentists who serve as off-campus coordinators, program advisors, liaisons to the community and hosts for CE programs.

Continuing Dental Education Coordinators

Altoona, Pa

Dr. Jonathan Thaler
814-942-7216
jmthal71@outlook.com

Bradford, Pa

Dr. Kurt Laemmer
814-368-4492
kurtlaemmerdmd@gmail.com

“One of the things that I quickly learned after graduating dental school was the value of continuing education. Not just for the value of the information presented at a given course, but for the camaraderie of my colleagues. I feel privileged for the opportunity to be the coordinator for the Bradford CDE area as it allows me to stay in touch with the School of Dental Medicine and have positive input to the programs delivered.” — Dr. Joseph Laemmer

Butler, Pa

Dr. Rick Bonnett
724-287-4468
bonnettmurphy@zoominternet.net

Erie, Pa

Dr. Angela Trice Borgia
814-455-5116
dramtb@gmail.com

Greensburg, Pa

Dr. William Tylavsky
724-327-2868
tylavskyw@aol.com

Johnstown, Pa

Dr. Ernest Mantini
814-479-4525 (M, TH, F)
814-479-2615 (F)
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Reading, Pa

Dr. Mark Dougherty
610-374-7657
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Scranton, Pa

Dr. Matt Zale
570-383-5300
mattzale1@gmail.com

Dr. Joe Kelly
570-587-4787
drkellyjr@gmail.com

Steubenville, Ohio

Dr. Ryan Starkey
740-264-5363
rncstarkey@sbcglobal.net

Dr. Ted Starkey
740-264-1913
tgstarkey@sbcglobal.net

Titusville, Pa

Dr. Joseph Kobylinski
814-589-5238
jakoby@zoominternet.net

“I am retired from actively practicing dentistry. However, as the Titusville Campus CDE coordinator, I still may contribute to the effort of providing quality and pertinent material updates concerning current treatment techniques for our area Dental Health Care Professional Teams resulting in the highest level of care that we can provide for our patients.” — Dr. Joseph Kobylinski

Veterans Affairs Medical Center

Dr. David Sullivan
412-977-9149
dave.sullivan@va.gov

Williamsport, Pa

Dr. Ernest Steinhart
570-648-4321
plegdestore@hotmail.com

AS PROFESSIONALS, WE ARE OBLIGATED TO PRACTICE THE CONCEPT OF LIFELONG LEARNING – THE SOCIETY WE SERVE DEMANDS NOTHING LESS OF US.



Annually, the off-campus coordinators come together for a weekend in May to debrief the year and plan for next year. This year, coordinators and their guests were joined by dean, Dr. Bernard J. Costello. Coordinators enjoyed a reception at the Grand Concourse on Friday night before Saturday’s working meeting, which included opportunities for them to review the past year’s events, evaluate speakers, discuss logistic and administrative issues, and begin planning the following year’s courses.

The University of Pittsburgh is an American Dental Association Continuing Education Recognition Program (ADA CERP) recognized provider. ADA CERP is a service of the American Dental Association to assist dental professionals in identifying quality providers of continuing dental education. ADA CERP does not approve or endorse individual courses or instructors, nor does it imply acceptance of credit hours by boards of dentistry.

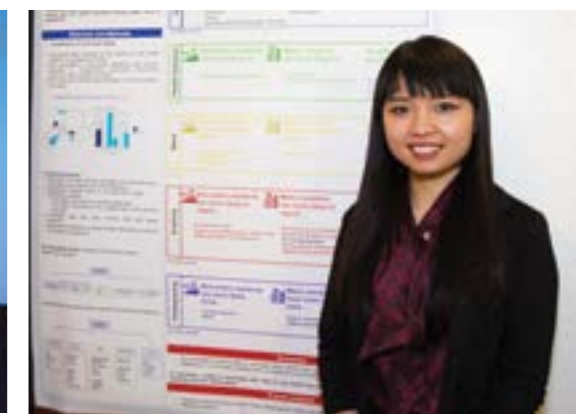
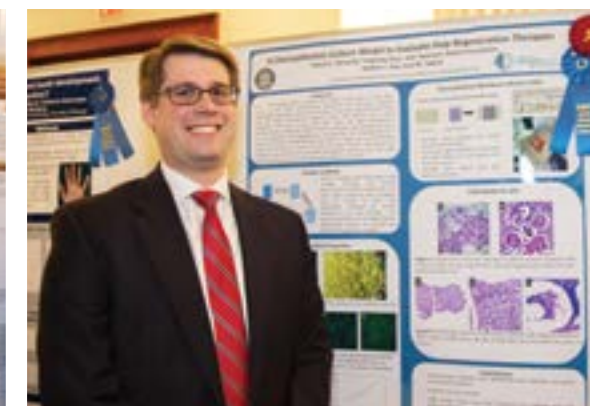
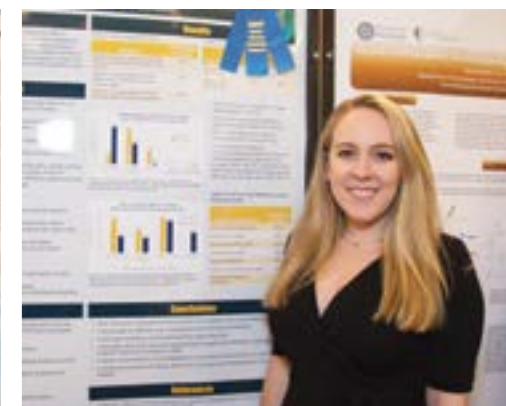
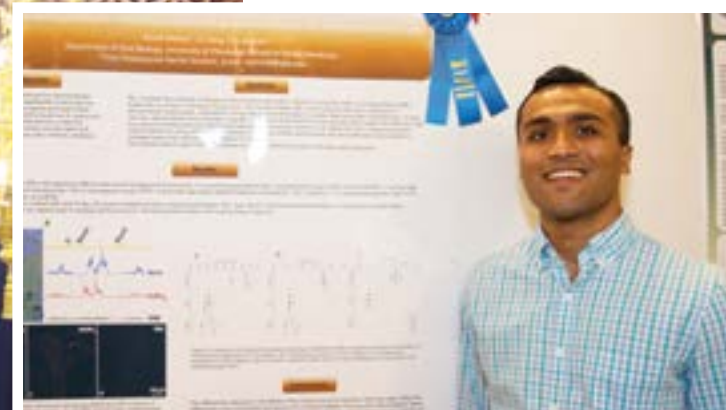
PITT DENTAL MEDICINE RESEARCH SYMPOSIUM 2018

PITT DENTAL MEDICINE IS RANKED FOURTH IN FUNDING FROM THE NATIONAL INSTITUTE OF DENTAL AND CRANIOFACIAL RESEARCH (NIDCR).

The profound research performed at Pitt Dental Medicine is responsible for the steady improvement in rank over nearly two decades—validation of our commitment to exploration, investigation and analysis, and to the quality of the innovation being created here.

Pitt Dental Medicine held its eighteenth annual Research Symposium in May. Research accomplishments and endeavors developed here at Pitt Dental Medicine were on display this year. These accomplishments are testaments to the dedication of our researchers and the vision that Pitt Dental Medicine has for the future. Though their research ranges from core basic science, translational research, and genetic studies to public health initiatives, it all shares an innovative spirit that sets it apart. The annual Research Symposium allows us to gather together to see and support the progress of our researchers and their profound impact on clinical treatments, and through this, recognize the potential at Pitt Dental Medicine for even greater achievements in the future.

Find out more about the 2018 Pitt Dental Medicine Research Symposium online. Visit dental.pitt.edu/research to download the Research Symposium book for details that include presentations, research interests and publications from Pitt Dental Medicine faculty and students.



Dr. Tim Erdle presents Digital Dentistry at the School of Dental Medicine during the Research Symposium Luncheon.

Dr. Anitha Potluri and **Dr. Juan Taboas** presented with Dr. Erdle.

For more information about digital dentistry, please see the cover story on page 8.

DEAN'S SUMMER SCHOLAR PROGRAM

STRENGTHENS STUDENT DISCOVERY

Casey White, Class of 2021



The Dean's Summer Scholar Program provides a unique opportunity for incoming dental students to participate in research prior to starting their first-year curriculum. Thirteen students from the Class of 2021 participated, and their projects were funded and supported by both Dean **Thomas W. Braun** and research mentors across a variety of disciplines including academic, clinical and of course, the basic sciences. This program encourages students and their mentors to continue their research throughout the four-year dental program to build relationships and develop skills.

For **Patrick Donnelly, PhD**, under the mentorship of **Dr. Juan Taboas**, being a summer scholar meant building on his PhD in chemistry and applying his well-honed skills to the field of dentistry. Patrick describes his duties: "I spent the summer developing and testing gelatin sponges that were to be used as part of a device for dental pulp regeneration following root canal therapy. The sponges were used in a chorioallantoic membrane model at the end of the summer to simulate cell infiltration as would occur in vivo." This research resulted in his project, A Chorioallantoic Membrane Model for Dental Pulp Regeneration, which is a clinical application focused in basic science research. "The research helped me to get acquainted with the current research problems in dentistry and the approaches people are taking to solve them," explained Patrick. Like many of his colleagues, Patrick uses online media, such as LinkedIn and Google Scholar to convey his research findings.

Outside of the basic science wet lab, **Andrew Bertot**, mentored by **Dr. Seth Weinberg**, is investigating prenatal androgen exposure and tooth development. As an integral part of the COHRA studies undertaken at the University of Pittsburgh and West Virginia University, Andrew analyzed the distance between the flexion creases on digits two through five. "The digit ratio is an indication of prenatal androgen levels and may give clinicians a quick insight into the best treatment plan for a patient, simply by looking at their hands," Andrew pointed out. Utilizing current technology, Andrew was able to track patient's development over many years, through electronic analysis of hundreds of digit ratio scans.

In the clinics, students addressed current protocols used at the University of Pittsburgh School of Dental Medicine, as they relate to clinical knowledge and patients' rights. **Renee Stevens**, under

the mentorship of **Dr. Sarah Essek Grafton** and **Dr. Katie Ryan**, investigated dental treatment planning considerations for patients using cannabis. "The prevalence of marijuana use has been on the rise in recent years, and it is important for dentists to consider the effects of marijuana use on dental treatment and develop protocols for treating these patients. The purpose of this project is to explore those possibilities," explained Renee. Her project has the opportunity to change clinical protocol regarding patient consent within the dental school clinics.

Similarly, **Andrew Herr**, mentored by **Dr. Anitha Potluri** and **Dr. Elizabeth Bilodeau**, examined the use of evidence-based dentistry in the dental clinics as it relates to radiograph selection criteria. Andrew explained, "The objective of this study was to assess whether the dental faculty and students were aware of the FDA guidelines, their adherence to these guidelines, and their understanding of the principles of evidence-based dentistry (EBD)." To collect data from students, and dental faculty, Andrew relied on Qualtrics, "...a fantastic survey software which is free for University of Pittsburgh faculty and students." Qualtrics allowed Andrew to collect data quickly, from many people throughout the dental school, by utilizing this easily accessible and free technology provided by the university.

The Dean's Summer Scholars explored a wide range of research topics. The group's diverse interests and previous research experiences resulted in exposure to new opportunities within the field of dentistry. For **Cara Maloney**, under the mentorship of **Dr. Christine Wankiiri-Hale** and **Dr. Zsuzsa Horvath**, her summer project meant considering new career possibilities. "[My project] gave me a lot of insight into how the school works before I even started and also introduced me to academic dentistry as an option in my future career," stated Cara. **Arianna Kelly** shares Cara's experience of discovery due to her involvement in a research project coordinated with **Dr. Alexandre Vieira**. She explained, "I have gained more knowledge on the topic of caries, namely prevalence, how they are measured, and novel ways to detect and treat them." This new knowledge has given the scholars a novel perspective in courses throughout their first year curriculum, such as Professionalism and Cariology.

The lasting impact of the Dean's Summer Scholar Program is evident through the recent reestablishment of the AADR Student Research Group (SRG) within the dental school. This group, which has been rather inactive in recent years, serves to enrich participant's dental education through research. "Through my work in **Dr. Heather Szabo-Roger's** lab, I recognized the important interplay between research and dental education. To me, the SRG is a way to share my summer experience with my peers and ignite a continued interest

in research throughout the dental school," explained SRG President, **Casey White**, a class of 2021 Dean's Summer Scholar. The newly established SRG has over 40 student members, including pre-doctoral and biology graduate students. Club sponsored events feature a welcome event for the newest Dean's Summer Scholars, as well as a "How to Get Involved in Research" workshop for dental students.

Kailtyn Frey, mentored by **Dr. Fatima Syed-Picard**, offered a piece of advice to the newest class of Dean's Summer Scholars, "Enjoy the summer and take the time to get the most out of your research experience. The program is a great introduction to both Pitt and all that dentistry has to offer. Embrace the opportunity to learn for fun and explore different aspects of dentistry before classes begin." Whether in academic classrooms, the clinics, or the basic science wet lab, the Dean's Summer Scholars continue to provide meaningful contributions, while exploring and expanding the current state of knowledge within the dental research community.

CUTTING EDGE IMAGING

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2017 STUDENT RESEARCH AWARDS

LANGKAMP-ALLISON AWARD

M. Hira Akbar and Ms. Andrea Montoya

The Langkamp-Allison Award recognizes a third-year dental student interested in pursuing a career in dental education.

SCADA AWARD AND DENTSPLY SIRONA STUDENT CLINICIAN PROGRAM AWARD

Dr. Patrick Donnelly

This award recognizes outstanding clinical or basic science research by a first-, second-, or third-year dental student. The recipient receives a bronze plaque and a trip to the AADR meeting to compete nationally.

HINMAN STUDENT RESEARCH SYMPOSIUM COMPETITION

Meer Ahmed

Competitive national research symposium at the University of Tennessee in Memphis for students involved in clinical and basic science dental research.

AA DR – LOCAL PITTSBURGH CHAPTER AWARD

Vera Liu

This award recognizes outstanding clinical or basic science research by a predoctoral, dental hygiene, or graduate student. The recipient's name will be engraved on a bronze plaque in the Pitt Dental Medicine Learning Resource Center.

SCHOOL OF DENTAL MEDICINE AWARDS

(A.K.A. Dr. O. Jack Penhall Award)

First place – **Ariana Kelly**

Second place – **Erin Schwoegl**

Third place – **Cara Maloney**

This award recognizes outstanding clinical science research by a dental student, and was initiated by **Dr. O. Jack Penhall (DMD '73)**, a Pitt Dental Medicine alumnus who is in private practice in Greensburg, Pa., and is a National ADA Student Research Judge.

ASDA AWARD

First place – **Kaitlyn Frey**

Second place – **Timothy Chae**

Third place – **Patrick Donnelly**

This award recognizes outstanding clinical or basic science research by a dental student.

DR. GERALD ORNER AWARD

Tamara Latif

This award recognizes an outstanding fourth-year student researcher who is likely to succeed in postgraduate academic dentistry, and honors Dr. Gerald Orner (DDS '63). It is provided by a Pitt Dental Medicine Alumni.

QUINTESSENCE AWARD FOR RESEARCH ACHIEVEMENT

Sara Barna

This award recognizes an outstanding fourth-year student researcher for their research achievements. The award is provided by the Quintessence Publishing Co., Inc.

AA DR STUDENT RESEARCH DAY AWARD

Award recipient will be named at the event

Last year's award: Jennifer Zhou
This award provides support to participate in the 2018 AADR meeting in Vancouver, British Columbia, Canada (meeting registration cost and help with travel expenses).



Dr. Sara Barna (DMD '18), represented Pitt Dental Medicine this year at the prestigious American Association for Dental Research Student Competition for Advancing Dental Research and its Application (AADR SCADA). Pitt was well represented among most United States dental schools and international partners. Dr. Barna was the recipient of the SCADA award during last year's Research Symposium.

Pictured at the AADR SCADA meeting are Dr. Sara Barna and **Dr. Alexandre Vieira**, Director of Student Research at Pitt Dental Medicine.



"I am happy to share great news that one of our third-year dental students, **ByongSoo (Tim) Chae**, received the AADR Student Research Fellowship. Tim has been involved in research under my mentorship since last summer. He works on understanding the role of tissue-nonspecific alkaline phosphatase in phosphate signaling. I am very proud of him."

-Dobrawa Napierala, PhD
Associate Professor
Center for Craniofacial Regeneration/Department of Oral Biology



The Student Research Group (SRG) has completed an extensive redesign of their website. The site now includes information for students as well as those interested in becoming mentors. To learn more about this very active student group, please visit dental.pitt.edu/srg.



PITT DENTAL MEDICINE STANDS UP TO BULLYING

The Pitt Dental Medicine chapter of the **Delta Sigma Delta Fraternity** partnered with the **Shadyside Boys & Girls Club** for the annual **'Stand Up to Bullying'** awareness event on Saturday, May 19, at Mellon Park. The event was filled with fun outdoor activities that allowed the children and students to relax and enjoy the day. The event ensures a safe environment that promotes teamwork, cooperation, and good sportsmanship, and gives kids and dental students a chance to teach and learn about the negative effects of bullying.



AMERICAN BOARD OF PEDIATRIC DENTISTRY NEW DIPLOMATES

CONGRATULATIONS AND CONTINUED SUCCESS WITH YOUR PEDIATRIC DENTAL CAREERS!

Four University of Pittsburgh School of Dental Medicine alumni and one full-time faculty member are new diplomates of the American Board of Pediatric Dentistry (AAPD). They received their pins at a ceremony held during the **71st annual session of the American Academy of Pediatric Dentistry** at the Hilton Hawaiian Village in Honolulu, Hawaii, on May 24, 2018.

Dr. Thomas Baker (DMD '14); Dr. Nicholas Bushey (DMD '09); Dr. Angie Y. K. Kim (PEDO '16); Dr. Elizabeth Smith (PEDO '16); and **Dr. Jacqueline Burgette**, assistant professor.

Pitt Dental Medicine is very proud of Oral Biology PhD candidate, **Rasha Nesha Alotaibi**, the recipient of the 2018 International Association for Dental Research (IADR) Cariology Research Group Science Award.

She presented her research, **Genome-Wide Association Study of Dental Caries in Diverse Caucasian Populations**, at the Cariology Research-Clinical & Epidemiological Studies II session of the 96th General Session and Exhibition of the IADR in London in July. Her award was presented during the General Session business meeting. Her mentors are Dr. Mary Marazita, Director, and Dr. Kathy Neiswanger in the Center for Craniofacial and Dental Genetics (CCDG).



MEET STAFF COUNCIL MEMBER MICHAEL WHAL

Michael Wahl is the Evaluation Specialist at the School of Dental Medicine. He oversees six courses each term that encompass all dental students through their entire four years in the program. Michael is responsible for ensuring that these students graduate with the requirements for professional and ethical behaviors, productivity, clinical experiences and procedural skills to be successful entry-level dentists. He also runs reporting and data analysis to help identify trends to influence policy and decision-making. Michael has worked for Pitt for almost six years.

His involvement with Staff Council Michael is currently a member of the Operations Committee. Michael has also served in the following capacities: one time vice-chair of the Operations Committee, chair of the Book Fund Committee for a few years, former assistant Staff Liaison, representative to the Senate Benefits and Welfare Committee, representative to the Board of Trustees Property and Facilities Committee, and member of the recent Staff Council Organizational Review. Michael has been a member of Staff Council for five years.

Why did he join Staff Council? Michael says, "I wanted to gain a better perspective of staff life at the University. (In addition), potentially have an impact on future staff members' quality of life in the work environment by learning about and addressing the major issues staff face. I really enjoy and appreciate the collaborative efforts members make with participation in the aspects of the Staff Council that interest them the most."

What is Michael's vision on how Staff Council can impact the University of Pittsburgh? He says, "I'd like to see an increase in the breadth of covered medical benefits for staff, as well as opportunities for the University to make a more concerted effort to invest in the retention and competitive promotion of proven employees. I'd like to see a stronger focus on hiring and compensating competitively from within over external candidates when possible."

Fun Facts about Michael He says, "I studied abroad in Japan and am looking for opportunities to go back. I have a Master of Philosophy in Social Anthropology from the University of Oxford as well as an MBA. I once won the top prize on a lottery scratch-off. I once interviewed for a position with the CIA, but didn't get the job because I couldn't keep it a secret."

Story reprinted by permission of the Pitt Staff Council Newsletter.

ALUMNI UPDATES



Dr. Daniel Lavin (DMD '84), who served for 30 years, active duty, in the Army Dental Corps, has retired as Colonel. Currently, he is the President of the American Board of General Dentistry, and a clinical assistant professor at the University of Texas School of Dentistry at San Antonio.



Dr. Robert Kramer (DMD '91) of Glendale, Az., recently was named associate professor and was appointed Director of Preclinical Faculty at Midwestern University College of Dental Medicine Arizona. He has been teaching there since 2009. Also, Dr. Kramer graduated as a fellow from the 2018 ADEA Leadership Institute. Congratulations Dr. Kramer.

There was a lot of encouragement and lots of stories shared by the 13 alumnae and 26 students in attendance. Students asked many questions of the alums and really seemed to value the knowledge these women gained thru experience. Joy and Barb initiated a coffee time for alums and students to continue to meet after they received many positive comments about the event. Overall, it was a positive bonding experience that included alums spanning several generations—those in their 30s to 60s—giving students vast, experienced perspectives.



Alumni Support Pitt Dental Medicine

Joining **Dr. Bernard Costello**, right, are **Dr. Robert Hudock (DMD '95)**, left, and **Dr. Monica Dargan (DMD '01)**, center, who presented a donation on behalf of Chestnut Hills Dental to the Pitt Dental Medicine endowed fund of the same name. The Chestnut Hills Dental endowment was established to support students' educational endeavors



Dr. Jun-Woo Park (DEN '94) was a post graduate student in oral and maxillofacial surgery at the School of Dental Medicine in 1994. He began a dental private practice in Seoul, South Korea, in April, 2018. He worked as a professor in the Department of Dentistry at Gang Dong Sacred Heart Hospital, Seoul, South Korea, and served as dean in the Graduate School of Clinical Dentistry at Hallym University from 2006-2016.



Colonel Shane Bagby ('93), Pitt Dental Medicine Distinguished Alumnus 2017, was confirmed by the U.S. Senate on May 24 to be promoted to Brigadier General and the United States Army's 28th Chief of the Dental Corps under Title 10, U.S.C. Sections 624 and 3064. Be sure to look for a feature story about him in an upcoming issue of Pitt Dental Medicine.

FOCUS Dental Clinic Opens in Hill District

Pitt Dental Medicine clinical assistant professor, **Dr. George Bellios (DMD '92)**, and **Dr. Diane Karnavas (DMD '86)**, through the organization Fellowship of Orthodox Christians United in Service (FOCUS), have begun seeing patients in a new dental clinic in Pittsburgh's Hill District neighborhood. Part of a free medical and behavioral health clinic for people who are uninsured or who don't qualify for medical assistance that opened in 2014, the dental clinic sees patients one Friday a month and provides cleanings, restorative procedures, emergency care and removable prosthodontics. Participating in SCOPE, Pitt Dental Medicine's community service program, the clinic enlists the help of dental students who work in the clinic and receive credit toward their academic programs. Dr. Bellios is seeking interested students and dentists to act as volunteers to expand the clinic hours and availability.



Dr. Lisa Babb (DMD '11), Dental Alumni Association President, is joined by Class of 2020 students, **Joy Lee** and **Barb Sterniczuk**, at the Pitt American Association for Women Dentists (AAWD) meeting last month.



WHAT HAS

DR. PRISCILLA HAMILTON

BEEN UP TO SINCE SHE RETIRED?

"I officially retired from the United States Army on October 1, 2015. In the nearly three years since then, I have become what I would call a 'professional volunteer.' I am very engaged in my church where I serve as an elder and am on many committees. I devote time to Penn State - Erie, Behrend College Capital Campaign Committee, helping to raise money for scholarships and increase philanthropy to the university. Also, I am fortunate to serve on the Council of Fellows at Penn State-Erie, The Behrend College. In this capacity I am able to advocate for the mission, vision and activities of the college, as well as act as an ambassador for the college in Erie.

I am a beekeeper, now, and joined the local beekeeping group to learn as much as I can about this ancient craft. I am a member of the Erie Veteran's Hospice Quilters Guild; the North Coast Striders walking group; and the Jefferson Educational Society. I am on the Board of Directors for the Association of Army Dentistry, and I just finished training to become a Veteran's Ambassador with the Army Heritage and Education Center, through which I will be part of a program responsible for collecting the oral histories of local veterans. This is a rare opportunity to capture the stories and living history of former US Army soldiers, firsthand, from the people who lived it.

And finally, I am continuing my dental career in a small way by working part-time at FORTIS Institute as a clinical supervising dentist in the dental hygiene program. All-in-all, there's not much white space left on my calendar.

I am truly humbled by working at these organizations. I have found that volunteer organizations seek the type of leadership and organizational experience that I earned in the Army and through Pitt Dental Medicine—it is a valuable contribution to their success. I can help them to channel their efforts in ways that are more focused to help organizations reach their goals. I was woefully underprepared as a beekeeper and gentleperson farmer maintaining a rural property, but it's an opportunity to learn something entirely new.

YES, I AM A BEEKEEPER

Many of you know me from my military dental career, but not long ago, I was entrusted to care for an orchard from my parents. It's not a huge orchard—I don't quite have hundreds of fruit trees or blueberries, and several of these old trees require some tender loving care and rejuvenation. To help with fruit production, I have added several bee hives—so now there are thousands of bees! I really didn't have any knowledge about raising bees or tending to an orchard when I first began this journey. In 2016, I attended a back-yard beekeeping course taught by the apiarist at the Asbury Woods Nature Center. To bolster my plant knowledge, I completed the Master Gardener program through Penn State University. I also joined the Northwest Pennsylvania Beekeeper's Association, am now an ad hoc member of the governing board, and I joined the Pennsylvania Beekeeper's Association and registered my little apiary with the state. There are many volunteer, outreach and community educational opportunities with these organizations that help me better understand and care for the bees and the trees. Beekeeping and master gardening are mutually supportive, and like dentistry, are lifelong learning endeavors.

WHY DID I CHOOSE TO RETIRE IN ERIE, PA.?

I'm not sure anything really prepares you for retirement. Any concept of sitting back and doing nothing is not reality for a person who prefers to be busy and engaged. I have lots of interests and hobbies. I encourage others to start now to find something outside of work to stimulate their mind and energy that they can carry into the next chapter of their life. I'm also very fortunate to be pretty healthy, thanks to an active Army life-style. I need to be strong to accomplish all the tasks of running a small farm.

I was born and raised near Erie, Pa., in the southern part of Harborcreek Township. Although

I could have lived anywhere in the world after having experienced much of it during my time in the Army, Erie is a great place to be. There is energy and potential here to create a new future for a small rust belt city and the surrounding county. Erie has many of the amenities of a big city—but not so many of the problems. I live in a rural and agricultural area, but I can get most anywhere I need to be in about 20 minutes. And the traffic is nothing like the Beltway around Washington, DC!

MAKING CHOICES THAT POSITIVELY INFLUENCE AND DIRECT THE FUTURE

Looking back, I don't think I would change anything about my education or career choices. I am really thankful for the solid and well-rounded education I received at Pitt School of Dental Medicine. I was well prepared to enter active duty, but really grew professionally with the experience of an Army Advanced Education in General Dentistry One-Year Program. The program prepared me well to take on the immediate challenge of being a solo dentist at an Army base in the northeastern part of South Korea. I had envisioned becoming an oral surgeon at the beginning of my career, but as other considerations cropped up, I instead trained to become a Comprehensive Dentist in the Army. That served me very well while deployed for Desert Shield/Desert Storm. Later in my career, I also was able to take advantage of so many more opportunities in military schooling, leadership positions and senior staff positions. What I do next is yet to be determined. There is so much to do that is already on my agenda, and only one life to live. Besides, if you want to make God laugh, tell Him what you are going to do tomorrow! I am really enjoying being a full participating member of my community, of nurturing the property my parents worked so hard to obtain and maintain, and pursuing paths to continue to give back and serve others. In many ways I live a very rich, blessed life.

18TH ANNUAL DEAN'S SCHOLARSHIP BALL

April 7, 2018, Senator John Heinz History Center

The School of Dental Medicine held the 18th Annual Dean's Scholarship Ball at the exciting Heinz History Center. Guests enjoyed cocktails and sit down dinner, followed by dancing, to celebrate recently retired dean, **Dr. Thomas W. Braun** and in support of scholarships for students at the school. New School of Dental Medicine dean, **Dr. Bernard J. Costello**, welcomed all to the event and, after dinner, honored his friend and mentor, Dr. Thomas Braun.

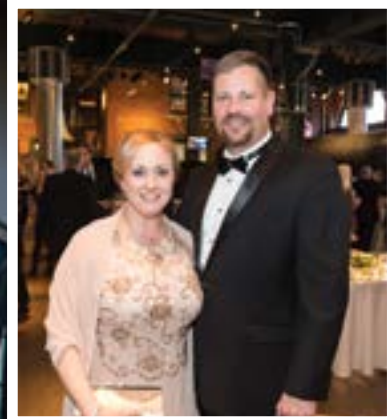
This year's Dean's Scholarship recipients are **Ms. Katie Alexander** and **Mr. Brett T. Becker**.

Learn more about Dr. Thomas Braun in the Winter 2018 issue of Pitt Dental Medicine magazine, or by visiting our website.





MEET THE 2018 DEAN'S SCHOLARSHIP RECIPIENTS



Brett T. Baker

A broken tooth in his sophomore year of high school, helped **Brett Baker** start thinking about dentistry as a career option. He considered and understood how important and impactful healthy teeth and a healthy mouth are to an individuals' self-worth and success in life

Originally from Camp Hill, Pa., Brett completed his undergraduate degree at Washington & Lee College. He is the founder of the Washington & Lee Pre-Dental Club, which began with 10 students about 2 years ago, and now has 20 members. His goal in creating the club was to help those interested in a career in dental medicine prepare themselves for further study and potentially a successful career in the field. The club members act as campus-wide advocates to improve dental hygiene, to support dental health by distributing brushing supplies on campus during ASDA's pre dental week, and to volunteer to expand outreach throughout the community.

A point of pride was the club's successful partnership with W&L Campus Kitchen and Rockbridge Area Health Center to provide dental supplies to more than 700 children in the area.

Shadowing, volunteering and eventually assisting in dental and surgical treatments, Brett already had a wide variety of experiences before applying to Pitt Dental Medicine. He built his shadowing experiences with several general and specialty dentists before ultimately pursuing an internship to qualify as an oral surgery assistant. In this position, Brett was able to assist in various procedures including sinus and implant surgeries, as a volunteer at Living Water Dental Health Ministry, (a free dental clinic providing care for migrant workers), Bradley Free Clinic Access to Dental Days Project, and a remote area medical clinic.

Brett shares an experience he had at the medical clinic when he had the opportunity to put to use all of his earlier training, skills and knowledge. While volunteering with a dental student at a middle aged woman's appointment, her shock at learning that she needed multiple extractions caused her to have a panic attack. Brett was able to call on his time as a peer counselor, his training as a surgical assistant, and his dental shadowing experiences, to help calm the patient and successfully proceed with the extractions. He looks forward to gaining more knowledge through experience to help him be a thoughtful, accomplished dentist.

"I will use my experiences helping others to guide my patient interactions and as a dentist, I will strive to maintain my patients' physical, social and psychological health."

Brett Becker is a member of Alpha Epsilon Delta (AED) National Health Preprofessional Honor Society; Omicron Delta Kappa (ODK) National Leadership Honor Society; Phi Eta Sigma (PES) National Honor Society; and Beta Beta Beta (TriBeta) National Biology Honor Society.

Katie Alexander

Until **Katie Alexander** had a dental appointment with a caring, thoughtful and friendly dentist —her childhood dentist was detached and unfriendly— she would never have considered a career in dental medicine. In fact, it was **Dr. Richard Gradisek (DMD '81)**, her caring, attentive dentist's photo-filled bulletin board that helped Katie feel that this was a career she would be proud to achieve. Seeing cards, photos and thank you notes from happy, appreciative patients was instrumental in guiding Katie toward her career choice. She was determined to find a career where she, too, could have such a positive impact on the lives of others. A native of Beaver County, Pa., she sought out opportunities to participate in dental-related activities during college and took advantage of a program making mouth guards for the football team. This activity, alone, cemented her decision to pursue a dental career.

Katie has had vast life experiences that have contributed to her readiness for a career in dentistry. Her participation in athletics, especially, has contributed to her arsenal of skills: time management, leadership, a strong work ethic and the ability to manage adversity.

A life-long competitive soccer player who was fortunate enough to attend Miami University on a soccer scholarship, Katie calls upon her sport's strict schedule for training, conditioning and rehabilitation to help her manage her time as a student. Plans need to be made in advance to coordinate the schedules of many teammates, coaches, physicians, physical therapists and the others involved in a successful practice or game. Her success in the sport permitted her to take on leadership roles where she faced increased responsibilities such as motivating others as well as learning higher-level interpersonal skills. She feels confident that this rigor, coupled with her strong work ethic and ability to accept and manage adversity, will help her be successful in dental school and throughout her career.

"My experiences, especially my time shadowing, have proven to be positive and empowering, confirming my desire to be a dentist."

Katie Alexander is a member of Miami University Presidential List; Miami University Pre-Dentistry Club; Alpha Phi Omega Service Fraternity; the Academic All Mid-American Conference Team and earned a Miami University Full Athletic Scholarship for Women's Soccer.



2017-18 IS THE YEAR OF HEALTHY U AT PITT



This year, Pitt has been studying, recognizing and appreciating practices that promote good health, showing how a crossdisciplinary understanding of health can lead to better lives. **The Year of Healthy U** was planned to positively advance our understanding of health in all its forms and to renew our commitment to fostering a healthy community. Over the past few years Pitt has celebrated the Years of Diversity (2016-17), Humanities (2015-16) and Sustainability (2014-15).

To support the University's efforts, Pitt Dental Medicine has held many events in celebration of the Year of Healthy U including book studies, an international pot luck meal and most recently, an art and writing expo. Photos here are from some of the events where faculty, staff and students from both Pitt Schools of Dental Medicine and Pharmacy came together to appreciate and celebrate being a healthier University.

Center Photo:
Dean of the School of Pharmacy,
Dr. Patricia Kroboth, joins Dean
of the School of Dental Medicine,
Dr. B.J. Costello, at the Year of
Healthy U Art & Writing Expo
celebration luncheon.

WELCOME NEW FACULTY



Dr. Suvendra Vijayan

In an effort to expand our capabilities in computer assisted dentistry, imaging and 3D manufacturing, Pitt Dental Medicine is excited to welcome Dr. Suvendra Vijayan to the Department of Diagnostic Sciences. His expertise in oral and maxillofacial radiology coupled with his interest in computer science, information systems, and artificial intelligence (AI) will help expand our presence in these areas as we grow new collaborations with our partners at Pitt, UPMC and CMU. He also is the recipient of the ADA Ahlstrom Award for his innovative research on 3D printing.

Dr. Vijayan completed his bachelor of dental surgery (BDS) from Mahatma Gandhi Post Graduate Institute of Dental Sciences in Pondicherry, India, in 2009.

He earned a master's degree in public health from the University of Texas Health Science Center at Houston in 2012. He worked as a data management analyst at the University of Texas Health Science Center at Houston School of Biomedical Informatics in research involving student retention, and attrition, and educational methodologies. In 2015, he joined The University of Iowa College of Dentistry

and Dental Clinics Oral and Maxillofacial Radiology graduate program where he earned a certificate in oral and maxillofacial radiology and a masters degree in oral sciences. Dr. Vijayan's research interests include cone beam CT, 3D printing and modeling, segmentation, bone quality assessment, pattern and texture analysis, dental education, informatics, and image processing and analysis.



Dr. Paul Schwartz

Dr. Paul Schwartz joined Pitt Dental Medicine this summer as he returns to his roots at Pitt. Dr. Schwartz will be an important addition to our full-time faculty in the Department of Dental Anesthesiology to expand our ability to provide superior anesthesia care for the patients of our community. He also will have an appointment in the Department of Oral and Maxillofacial Surgery, having trained in multiple disciplines. Dr. Schwartz was a student and trainee at the School of Dental Medicine and considers Pittsburgh his home.

Dr. Schwartz received his undergraduate training at the University of Pittsburgh

School of Pharmacy. He completed two post-graduate training programs—one in anesthesiology and critical care medicine in 1982-84, and a surgical residency in oral and maxillofacial surgery from 1984-87—at UPMC. He received his doctorate degree in dental medicine in 1982. Dr. Schwartz is board certified by the American Board of Oral and Maxillofacial Surgery (ABOMS).

Currently, he serves on the executive committee of the Maryland Society of Oral and Maxillofacial Surgery and is a founding member and officer of the Patuxent Dental Society, and has served both societies as president. He is past chairman and consultant to the American Association of Oral and Maxillofacial Surgeons Committee on Anesthesia (AAOMS CAN) and a committee member of the American Dental Association (ADA) Committee on Anesthesiology.

Recently, Dr. Schwartz was elected to serve as a director of the American Dental Society of Anesthesiology. This organization provides a national forum for education and research in order to promote safe and effective patient care in anesthesiology. Dr. Schwartz will provide an even more broad platform for the Department of Dental Anesthesiology to fulfill their mission. We are happy to have him return to his Alma Mater.



Dr. Giuseppe Intini

Born in Italy, Dr. Giuseppe (Beppe) Intini earned a degree in dentistry in 1995 from the University of L'Aquila (Italy). In 2000, he received a master's degree in Oral Sciences from the University at Buffalo (USA), and in 2007 he received a Ph.D in Oral Biology and a certificate in clinical periodontology from the University at Buffalo (USA). From 2007 to 2012 he has been a postdoctoral fellow of Developmental Biology at the Harvard School of Dental Medicine and a principle faculty member of the Harvard Stem Cell Institute. He also is a diplomate of the American Board of Periodontology.

Dr. Intini spent the first three years of his post-doctoral fellowship under the mentorship of Dr. Vicki Rosen at the Harvard School of Dental Medicine and two years under the additional mentorship of Dr. Charles Lin and Dr. David Scadden at the Massachusetts General Hospital. His postdoctoral research accomplishments were acknowledged by the NIH/NIDCR with a Pathway to Independence Award (K99/R00 Award). His current research focuses on the biology of the skeletal and periodontal stem cells. The Intini Lab studies the molecular mechanisms that control the "stemness" of these stem cells, their contribution to tissue repair and regeneration, and their role in development of certain bone and periodontal diseases. Additional projects at the Intini Lab focus on the role of cancer stem cells in development, maintenance, and metastasis

of osteosarcoma. Dr. Intini has recently been awarded an R21 from the NIH/ National Cancer Institute to develop a novel approach to characterize the osteosarcoma cancer stem cells. Since 2010 Dr. Intini has been teaching about bone stem cell biology and bone regeneration in graduate and post-graduate courses. He also developed and directed a new post-graduate advanced education program, The Research Academy at HSDM and Forsyth, which is a joint venture between the Harvard School of Dental Medicine and the Forsyth Institute aimed at providing the opportunity to dentists interested in basic science to perform PhD level research. During his career at Harvard, Dr. Intini was recognized by the 2007 and the 2008 Harvard School of Dental Medicine Dean's Scholar Award, the 2008 Young Investigator Award from the International Conference on Bone Morphogenetic Proteins, the 2009 American Academy of Periodontology Teaching Award, the 2010 Young Investigator Travel Award from the American Society of Bone Mineral Research, the 2012 American Academy of Periodontology Award for Outstanding Teaching and Mentorship, the 2013 Harvard Medical School Excellence in Tutoring Award, and the 2014 Harvard Medical School Eleanor and Miles Shore Scholars in Medicine Award. In recognition of his achievements, in 2015 he received the Distinguished Junior Faculty Award, the most prestigious award bestowed by the Harvard School of Dental Medicine. In 2016 he was inducted in the American Academy of Dental Science. Dr. Intini has been the PI of 9 grants, including grants from the NIH and the National Research Council of Italy, and supervised 18 trainees, many of whom have obtained a faculty position in dental schools in the US. he has been invited as speaker at national and international meetings and is an associate editor of the Journal of Translational Medicine.

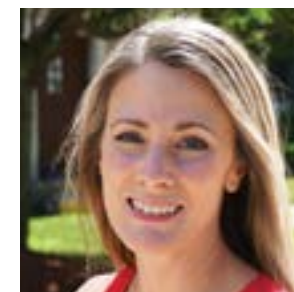
He regularly serves as ad hoc reviewer for scientific journals in fields of bone biology, orthopaedics, tissue engineering, and periodontology. As periodontist and attending clinician, Dr. Intini has interest in periodontal regeneration and bone augmentation procedures. Dr. Intini will join us this summer. Please welcome him, and his family, to our family at Pitt Dental Medicine.



Dr. Nyla Balakrishnan

Dr. Nyla Balakrishnan will join Pitt Dental Medicine in the Department of Public Health and contribute to a variety of subjects in the preclinical curriculum, as well as the Department of Restorative Dentistry and Comprehensive Care. She completed her bachelor of dental surgery (BDS) from Pondicherry University Mahatma Gandhi Post Graduate Institute of Dental Sciences, in India, in 2010. In 2013 she earned a master of public health degree at Texas A&M University School of Public Health. She worked as a research data coordinator at MD Anderson Cancer Research Center on various clinical trials and was a mentor to students and post-docs. In 2015, she joined The University of Iowa College of Dentistry and Dental Clinics to pursue a masters in Dental Public Health, and worked on various independent projects including one with the Centers for Disease Control and Prevention (CDC), and other collaborative projects like the Iowa Fluoride Study and Pittsburgh Orofacial

Cleft Studies. She also has a grant from the Delta Dental Foundation that explores the importance of oral health literacy on the elderly population. During her time at the University of Iowa, she was involved in teaching predoctoral dental students in the clinical simulation labs and clinics. Apart from teaching and training students, Dr. Balakrishnan's interests include oral healthcare research in areas such as oral health disparities, oral health in the elderly, oral health literacy, dental-medical integration, and oral health workforce issues. Please welcome her as she joins the Pitt Dental Medicine family and expands opportunities for our students.



Joelle M. Carlo, PhD

Dr. Joelle Carlo joins us from Northeastern University in Boston where she served as an assistant teaching professor within the School of Pharmacy. Dr. Carlo earned her Ph.D. in pharmacology and toxicology from the University at Buffalo (The State University of New York) with a research focus on molecular microbiology. Following graduate school, Dr. Carlo trained as a postdoctoral fellow at the Harvard School of Dental Medicine in the Department of Developmental Biology.

In her role at Northeastern, Dr. Carlo made significant contributions to both the undergraduate and graduate curricula in the School of Pharmacy by developing innovative courses and establishing

teaching laboratories. Dr. Carlo was an active member of the Academic Affairs Committee, the Student Professional Development Committee, and was the faculty advisor for the *Kappa Psi* Pharmaceutical Fraternity. Dr. Carlo also held an adjunct appointment in the College of Science where she instructed and designed coursework in their biotechnology graduate program.

Dr. Carlo has extensive teaching experience in such interdisciplinary topics as microbiology, pharmaceutical sciences, and biotechnology. Her teaching interests include the creation of interactive, online learning modules that can be utilized for online/hybrid course design and the application of teaching technologies to support active learning in the classroom.



Dr. Sarah Grafton

Dr. Sarah Grafton, assistant professor, will take on the new role of Vice Chair for Clinical Efficiency within the Department of Restorative Dentistry and Comprehensive Care, part of a new school-wide effort to increase clinical efficiency and improve community outreach, and to improve the patient and student experiences to provide safe, effective and cutting-edge care to a greater number of community members. Recently, Dr. Grafton helped improve the patient experience, increase patient volume and advance efficiency with a new patient screening clinic. Now, her efforts will be

directed at refining the clinical module experience by improving the flow and organization of the clinic—including how the modules collaborate with specialty areas in the school. She will work closely with the Office of Clinical Affairs to bridge administrative efforts with the patient experience and improve care. To lead our new efforts across all clinics, Dr. Marnie Oakley, Associate Dean for Clinical Affairs, will have focused responsibilities including clinical workflow, value measurement in healthcare delivery, quality and safety. Dr. Oakley will help to formulate a new vision for what dental care can be for our community and work to increase our patient volume with our partners in the region.

Pitt Dental Medicine is poised to recreate how dental healthcare is delivered. One of the key goals is to be the model for others in defining superior and more efficient ways to deliver care within a University setting.



DR. JOSEPH GIOVANNITTI
RECOGNIZED BY ADSA

Dr. Joseph Giovannitti, Chair of the Department of Dental Anesthesiology, has been named the recipient of the Jay A. Heidbrink, DDS, Award for 2019. This award is given by the American Dental Society of Anesthesiology and will be presented during the 2019 Annual Session of the American Dental Society of Anesthesiology (ADSA.) The Heidbrink Award is the highest honor of the ADSA, and is awarded to the individual who has had the most significant contribution to the advancement of anesthesiology in dentistry. It is given to honor Dr. Jay A. Heidbrink, a great pioneer in the field.

Dr. Giovannitti is a Professor of Dental Anesthesiology at the University of Pittsburgh School of Dental Medicine. He also is the Anesthesia Director of the school's Center for Patients with Special Needs. His past accolades include the Leonard M. Monheim Distinguished Service Award from the ASDA for outstanding contributions to the discipline of anesthesiology benefiting the dental profession. An actively involved teacher at all levels of dental education, he is the author of numerous scientific articles and book chapters pertaining to pain and anxiety control in dentistry, and has lectured at professional seminars nationally and internationally. He is the founder of the University of Pittsburgh Dental Anesthesiology Legacy Lecture Series, an annual event designed to fill a void in quality dental anesthesia continuing education. The first Anesthesiology Legacy Lecture took place in October, 2017. The next presentation will not take place until 2019—check our website near that date for details about the meeting. In October, 2018, the International Federation of Dental Anesthesiology Societies (IFDAS) will hold its meeting in Nara, Japan, where Dr. Giovannitti looks forward to seeing you.

The Center for Craniofacial and Dental Genetics (CCDG) director, **Dr. Mary Marazita**, had success funding its research in oral health disparities through the Center for Oral Health Research in Appalachia (COHRA). COHRA received a grant from the Center for Inherited Disease Research (*Dr. John Shaffer, PI*) for genome-wide genotyping on its datasets, enabling studies of the genetics of early onset childhood caries to proceed. COHRA also received NIH funding to expand its study to include African-American women and children (*Dr. Marazita, PI*). These two initiatives will allow the researchers at COHRA to study more of the factors that lead young children in Appalachia to have relatively high rates of caries.

Dr. Thomas Kunkel, chair for the Department of Prosthodontics, was accepted into the American Dental Education Association (ADEA) Leadership Institute Class of 2019. To support his attendance in the Institute, Dr. Kunkel received the 2018 ADEA/AADR/Colgate-Palmolive Co./Dr. Dominick P. DePaola Scholar in the ADEA Leadership Institute scholarship, \$1,500 support for the costs of attending. He also was invited to join the Beta chapter of Omicron Kappa Upsilon (OKU) for 2018.

Wednesday, April 25, 2018 was National DNA Day, commemorating the discovery of DNA's double helix in 1953 and marking the 15th anniversary of the successful completion of the Human Genome Project in 2003. A DNA sample from one of the CCDG's studies of orofacial clefts was the 100,000th whole human genome sequenced at the Broad Institute. This sample is from our studies as part of Gabriella Miller Kids First Pediatric Research Program.

CCDG scientists will use the genome sequencing data to identify the underlying causes of orofacial clefts, as well to identify pathways for potential treatments.



DR. PAUL MOORE APPOINTED
ADA SPOKESPERSON ON OPIOIDS

Dr. Paul Moore (DMD '73, PhD '77), professor, was appointed an American Dental Association (ADA) Expert Spokesperson on the topic of opioids in dentistry. As ADA spokesperson, he has provided presentations for local and state dental organizations for required CE entitled: "Prescribing Opioids in Dentistry: Requirements, Responsibilities, and Alternatives". He has been invited to speak at the Western Pennsylvania Dental Association's annual meeting and the ADA annual meeting in Hawaii in October.

He continues as a member of the ADA Council of Scientific Affairs which recently revised the "Statement for the Use of Opioids for Acute Pain in Dentistry." He published three JADA articles addressing acute pain management in dentistry: "Combining Ibuprofen and Acetaminophen for Acute Postoperative Pain Management: Translating Clinical Research to Dental Practice"; "Why Do We Prescribe Vicodin?"; and "Benefits and Harms Associated with Analgesic Medications Used in the Management of Acute Dental Pain: An Overview of Systematic Reviews."



School of Dental Medicine assistant professor, **Dr. Joanne Prasad**, recently was appointed Assistant Dean for Academic Affairs. "I feel truly privileged to be able to serve in this new role and I look forward to working with the administration, faculty, staff, and students to help enhance the educational programs offered at Pitt Dental Medicine."

At the end of April, she completed the Multidisciplinary Master of Public Health program at the Pitt Graduate School of Public Health and received a master of public health (MPH) degree, along with a certificate in health systems leadership and management. "Completing the program has given me a broader perspective on the practice of dentistry, issues in healthcare, value-based medicine, community health, and health policy and advocacy. I hope to be able to incorporate what I have learned from the program into different aspects of my work at the school." she said.

She also was selected for membership into the Delta Omega National Honor Society in Public Health, Omicron Chapter, on the basis of an outstanding record of achievement and anticipated contributions in the field of public health. Also this spring, she received a travel grant to attend the 2018 Sex and Gender Health Education Summit in Salt Lake City, Utah. The goal of the conference was to bring healthcare professionals and educators together in a multidisciplinary approach to promote the integration of sex and gender-based medicine concepts and practice into health education curricula.



WORKING ON DENTAL MERIT BADGES

On November 3, 2017, twelve Scouts from Troop 1313 in McMurray, Pa., earned their dentistry merit badges. Hosted by the Pitt Dental Medicine Department of Pediatric Dentistry, the event was coordinated by **Dr. Andrea Nave (DMD '99, Pedo '14)**, clinical assistant professor, who began the day with an educational lesson about teeth and the decay process, oral health, nutrition and potential careers in dental medicine. Volunteer dental students from the Class of 2019, along with department staff, then helped the scouts with a preclinical activity session where they were able to place sealants and use a handpiece to "drill" on typodont teeth, take alginate impressions and create stone models of a pediatric dental typodont arch. "It was a great experience for the scouts to get hands-on learning" said Mark Nave, Assistant Scout Master for the troop.



Top Photo: Scouts are joined by **Mr. Mark Nave**, left, and **Dr. Andrea Nave**, right, after they achieved their dental merit badges.

Bottom Photo: DMD Student, **Isaac No**, instructs scouts in how to create a dental impression.

To see more photos from this, and many other Pitt Dental Medicine events, please **visit our Flickr site**, user name **pittedental6: flickr.com/photos/100601931@N02/albums**

ADDITIONAL FACULTY AWARDS AND ACCOLADES 2018



Dr. Alexandre Vieira, Professor of Oral Biology at Pitt Dental Medicine, was elected president of the International Association for Dental Research (IADR) Clinical and Translational Science Network for a one-year term beginning during the 2018 IADR General Session & Exhibition in London, England. The network aims to promote translational research, communication, research collaboration and career mentoring.



The Center for Craniofacial and Dental Genetics (CCDG), **Dr. Mary Marazita**, Pitt Dental Medicine professor and director of the Center, had success funding its research in oral health disparities through the Center for Oral Health Research in Appalachia (COHRA). COHRA received a grant from the Center for Inherited Disease Research (Dr. John Shaffer, PI) for genome-wide genotyping on its datasets, enabling studies of the genetics of early onset childhood caries to proceed. COHRA also received NIH funding to expand its study to include African-American women and children (Dr. Marazita, PI). These two initiatives will allow the researchers at COHRA to study more of the factors that lead young children in Appalachia to have relatively high rates of caries.



Dr. Thomas Kunkel (DMD '85, Prosth '87), interim chair for the Department of Prosthodontics, was accepted into the American Dental Education Association (ADEA) Leadership Institute Class of 2019.

To support his attendance in the Institute, Dr. Kunkel received the 2018 ADEA/AADR/Colgate-Palmolive Co./Dr. Dominick P. DePaola Scholar in the ADEA Leadership Institute scholarship, \$1,500 support for the costs of attending. He also was invited to join the Beta chapter of Omicron Kappa Upsilon (OKU) for 2018.

Dr. Robert Engelmeier was appointed Civilian National Consultant in Prosthodontics to the Surgeon General of the Air Force on May 1, 2006. Honored to have been awarded this recognition more than a decade ago, he has held the position ever since, and recently was informed that he will maintain this position until his retirement.

"When I retired from the Air Force, I was the Active Duty Special Consultant in Prosthodontics to the Surgeon General of the Air Force. They tell me that I might be the only individual to have held both of these appointments."

Dr. Nicholas Miniotis, Clinical Assistant Professor in the Department of Restorative Dentistry and Comprehensive Care, served as an examiner for the treatment planning section of the American Board of General Dentistry oral board. Fifty-two candidates took the board in April, 2018.

Dr. Deborah Studen-Pavlovich (DMD '80), Program Director for the Pediatric Dentistry Residency Program, received the Lewis A. Kay Excellence in Education Award from the American Academy of Pediatric Dentistry at their annual session in Honolulu in May.

This annual award honors the director of the pediatric dental program determined to best exemplify the dedication and values set forth by Dr. Kay. The recipient must be committed to educating pediatric dental residents to provide children with comprehensive quality oral health care and must bring recognition to their program through contributions to society and the profession of dentistry.

"I truly am honored and grateful to be receiving this award from the AAPD after completing 35 years of teaching. I have been fortunate to have a career that I love that also helped others. It has been a privilege and a blessing."

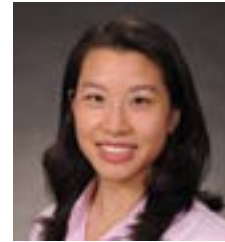
The University of Pittsburgh has conferred upon **Dr. Thomas W. Braun (DMD '73, MDS '73, PhD '77)** the title of Emeritus Distinguished Service Professor. Dr. Braun also received the Oral and Maxillofacial Surgery Foundation Award.



The University of Pittsburgh has conferred upon **Dr. R. Donald Hoffman (DMD '72, PhD '88)** and **Dr. L. Gregory Schneider** the title of Emeritus Associate Professor.



Dr. Bernard Costello, dean and professor, is president-elect of the American Cleft Palate-Craniofacial Association (ACPA).



Dr. Jacqueline Burgette, assistant professor, is the recipient of the Harold Amos Medical Faculty Development Program Award from the Robert Wood Johnson Foundation.

Dr. Paul A. Moore (DMD '73, MDS '73, PhD '77), professor, received the Pennsylvania Dental Association (PDA) Recognition Award.

Dr. Mary Marazita, professor and Director of the Center for Craniofacial and Dental Genetics, received a \$4M grant to expand studies of the Center for Oral Health Research in Appalachia (COHRA) Project.

Ms. Susan Ban, clinical instructor, received the Pitt Dental Medicine Distinguished Alumnus Award.



GIVING KIDS A SMILE

This year's GKAS event was made more exciting for the kids—and the students, faculty and staff at Pitt Dental Medicine—when the Pitt Panther joined to support child hood oral health.

The student chapter of the American Academy of Pediatric Dentistry at Pitt Dental Medicine took their patients "Under the Sea" at this year's 16th annual Give Kids A Smile Days (GKAS). Student club co-presidents, **Melissa Campbell** and **Andrea Montoya**, with GKAS coordinator, **Morgan Choe**, coordinated a very successful event. The Pitt Panther greeted patients and received his annual dental check-up. Dental students, pediatric dental residents, dental hygiene students, and pediatric dental faculty provided care to more than 72 patients. One third-year dental student even dressed as Ariel, Disney's Little Mermaid, and treated her patients in costume. Follow up care after the event included a pediatric dental patient who was treated under general anesthesia by a pediatric dental resident with services provided by the Department of Anesthesiology.

Pitt Dental Medicine provided more than \$150,000 worth of free dental care. "Our primary goal in this event is to promote a lifelong commitment to oral health. We encourage children and their parents to return to the clinic to receive ongoing care," said Dr. Studen-Pavlovich, professor and program director for the Advanced Residency Program in Pediatric Dentistry.

A special thanks to the Pennsylvania Dental Association (PDA) Foundation for their generous support of the Student Chapter of the American Academy of Pediatric Dentistry for Give Kids a Smile Day, and all of the other community outreach initiatives throughout the year!



Poor oral health can have a significant impact on a child's overall health, yet research suggests that dental care is the most common unmet health need in American children. Give Kids a Smile (GKAS) began at Pitt Dental Medicine in 2003 to provide uninsured children and adolescents with preventive and restorative care during a 2-day event. Treatments are provided by School of Dental Medicine faculty, resident and student volunteers in the Department of Pediatric Dentistry and the Dental Hygiene program and include cleanings, x-rays, extractions and restorations and fillings, as well as more advanced treatments that require anesthesia. All children are treated regardless of their family's ability to pay. Many families return for these events each year—some from neighboring states.

Summer Smiles is held each summer in the Department of Pediatric Dentistry. Summer Smiles was started in 2015 through a generous donation by faculty member and alumnus, **Dr. Edward Korenman (DMD '78)** and his wife, **Jan**. The event provides free exams, cleaning, fluoride applications and radiographs to children who also participate in the annual Give Kids a Smile Days as well as uninsured children and adolescents in the Metro Pittsburgh area.

The Department of Pediatric Dentistry tries to provide some of the more costly services that might otherwise be out of reach financially for these families to promote a lifelong commitment to oral health and encourage families to continue their dental care at Pitt Dental Medicine.



GRADUATION CELEBRATION

Pitt Dental Medicine congratulates all of our graduates. A highlight of the annual Graduation Celebration luncheon, the senior student awards recognize graduating seniors who have earned recognition within specific dental specialties at the school.

Pitt Dental Medicine is grateful to the Pennsylvania Dental Association for their continued support of the Graduation Celebration.

STUDENT AWARDS 2018

Gilbert N. Robin Continuing Education Scholarship to **Dr. Roman Michael Garcia**
Presented by Dr. Joseph Ambrosino

Quintessence Award for Clinical Academic Achievement in Restorative Dentistry to **Dr. Stephanie Lynn Zeiler**
Presented by Dr. Filip Barbaric

American Academy of Oral & Maxillofacial Pathology Award to **Dr. Elizabeth Mary Blaisse**
Presented by Dr. Elizabeth Bilodeau

Academy of General Dentistry Senior Student Dental Award to **Dr. Richard William Wilcko** and **Dr. Rebecca Yu-yi Rightmer**
Presented by Dr. Michael Dobos

Omicron Kappa Upsilon Dental Honor Society Inductees
Dr. Mohammad Hadi Ansari
Dr. Elizabeth Mary Blaisse
Dr. Chen-Ying Emily Chen
Dr. Seth M. Laino
Dr. Giana Maria Lupinetti
Dr. Megan C. Ross
Dr. Regina Caroline Sencak
Dr. Alexa Lynn Sicher
Dr. Geng Tian
Dr. Aimee L. Trabold
Presented by Dr. Joseph Giovannitti

American Dental Society of Anesthesiology Horace Wells Senior Student Award to **Dr. Roman Michael Garcia**
Presented by Dr. Michael Cuddy and Dr. Joseph Giovannitti

American Academy of Esthetic Dentistry Student Award of Merit to **Dr. Tyler Broderick Morehart**
Presented by Dr. Sarah Grafton

Academy of Osseointegration Outstanding Dental Student in Implant Dentistry Award to **Dr. Paul Steven Kukunas**
Presented by his father, Dr. Steven Kukunas

American Academy of Implant Dentistry Award to **Dr. Rebecca Yu-yi Rightmer**
Presented by Dr. Steven Kukunas

International Congress of Oral Implantologists Predoctoral Student Achievement Award to **Dr. Chen-Ying Emily Chen**
Presented by Dr. Steven Kukunas



Nobel Bio-Care Senior Implant Award to **Dr. Ashley Rose Klobuka**
Presented by Dr. Steven Kukunas

Straumann Senior Implant Award to **Dr. Aimee L. Trabold**
Presented by Dr. Steven Kukunas and Mr. Travis Scott (Straumann Rep.)

American College of Prosthodontists Prosthodontic Achievement Award to **Dr. Paul Steven Kukunas**
Presented by Dr. Thomas Kunkel

American Prosthodontic Society Student Award of Merit to **Dr. Megan C. Ross**
Presented by Dr. Thomas Kunkel

Dentsply Sirona Merit Award in Removeable Prosthodontics to **Dr. Chen-Ying Emily Chen**
Presented by Dr. Thomas Kunkel

Dr. W. Arthur George Prosthodontic Award to **Dr. Geng Tian** and **Dr. Laura Carvalho**
Presented by Dr. Thomas Kunkel

Whip Mix Corporation - Hanau Best of the Best Prosthodontic Award to **Dr. Ang Li-Miller**
Presented by Dr. Thomas Kunkel

American Association of Endodontists Student Achievement Award to **Dr. Matthew Leon Kulinski**
Presented by Dr. Marin Mandradjieff



Robert Rapp Award of Distinction in Pediatric Dentistry to **Dr. Regina Caroline Sencak**
Presented by Dr. Andrea Nave

American College of Dentists Outstanding Student Leader Award to **Dr. Giana Maria Lupinetti**
Presented by Dr. Joseph Petrone and Dr. Mary Ellen Cuccaruo

American Academy of Oral & Maxillofacial Radiology, Radiology Achievement Award to **Dr. Elizabeth Mary Blaisse**
Presented by Dr. Joanne Prasad

American Association for Public Health Dentistry Public Health Award to **Dr. Bailey Powers Moorhead**
Presented by Dr. Richard Rubin

Certificate in Dental Public Health to **Dr. Sammy Louis Gueringer II** and Dr. Aatiqah Aakifah Khalid
Presented by Dr. Richard Rubin

Masters of Public Health Concurrent Degree to **Dr. Bailey Powers Moorhead** and **Dr. Roman Michael Garcia**
Presented by Dr. Richard Rubin

American Academy of Periodontology Award to **Dr. Katherine Ni**
Presented by Dr. Charles Sfeir

Northeastern Society of Periodontists Award to **Dr. Alexa Lynn Sicher**
Presented by Dr. Charles Sfeir

Quintessence Award for Clinical Achievement in Periodontics to **Dr. Megan C. Ross**
Presented by Dr. Charles Sfeir

American Association of Oral & Maxillofacial Surgeons Dental Student Award to **Dr. Omar Faraj**
Presented by Dr. Mark Sosovicka

American Association of Oral & Maxillofacial Surgeons Dental Student Implant Award to **Dr. Mohammad Hadi Ansari**
Presented by Dr. Mark Sosovicka

American College of Oral & Maxillofacial Surgeons Dental Student Award to **Dr. Vivek Sharma**
Presented by Dr. Mark Sosovicka

Dr. Lathe L. Bowen Award to **Dr. Bailey Powers Moorhead**
Presented by Dr. Mark Sosovicka

American Academy of Pediatric Dentistry Certificate of Merit Award to **Dr. Ilsa Lynn West**
Presented by Dr. Deborah Studen-Pavlovich

International College of Dentists Student Humanitarian Award to **Dr. Regina Caroline Sencak**
Presented by Dr. Deborah Studen-Pavlovich

International College of Dentists Student Leadership Award to **Dr. Paul Steven Kukunas**
Presented by Dr. Deborah Studen-Pavlovich



Pierre Fauchard Academy Certificate of Merit Award to **Dr. Katherine Ni**
Presented by Dr. Deborah Studen-Pavlovich

American Academy of Oral Medicine Certificate of Merit to **Dr. Aimee L. Trabold**
Presented by Dr. Kurt Summersgill

Dental Lifeline Network - Brian D. Stone Memorial Award to **Dr. Geng Tian**
Presented by Dr. Lynne Taiclet

Outstanding Clinical Performance Award to **Dr. Chang Joo Lee**
Presented by Dr. Lynne Taiclet

Dr. Kay Thompson Award for Behavioral Management to **Dr. Katherine Ni**
Presented by Dr. Lynne Taiclet

Gerald Orner Award to **Dr. Tamara Latif**
Presented by Dr. Alexandre Vieira

Quintessence Award for Research Achievement to **Dr. Sara M. Barna**
Presented by Dr. Alexandre Vieira

American Student Dental Association Award of Excellence to **Dr. Katherine Ni**
Presented by Dr. Christine Wankiiri-Hale

Delta Dental Community Care Foundation Student Leadership Award to **Dr. Giana Maria Lupinetti**
Presented by Dr. Christine Wankiiri-Hale

Dr. Elliot Brodie Award for Clinical Competence to **Dr. Elizabeth Mary Blaisse**
Dr. Megan C. Ross
Dr. Regina Caroline Sencak
Presented by Dr. Christine Wankiiri-Hale

Academic Career Track Area of Concentration Certificate to **Dr. Madiha Khurram Ahmed Bhatti**
Dr. Kurnesh Chakote
Dr. Surbhi Chandna
Dr. Samiya Jabir
Dr. Saniya Kamran
Dr. Ashley Taylor Lazar
Dr. Giana Maria Lupinetti
Dr. Katherine Ni
Dr. Sruthi Satishchandran
Presented by Dr. Zsuzsa Horvath and Dr. Christine Wankiiri-Hale

Class of 2018 - Fall Faculty Award to **Dr. Robert Nerone**
Presented by Mr. Sammy Gueringer

Class of 2018 - Fall Staff Award to **Mr. Jim Roskowski**
Presented by Mr. Sammy Gueringer

Class of 2018 - Spring Faculty Award to **Dr. Tim Weber**
Presented by Mr. Sammy Gueringer

Class of 2018 - Spring Staff Award to **Mr. Norm Macher**
Presented by Mr. Sammy Gueringer

Class of 2019 - Fall Faculty Award to **Dr. Mark Ochs**
Presented by Mr. Rodrigo Sarmento

Class of 2019 - Fall Staff Award to **Mr. Bill Steinhauser**
Presented by Mr. Rodrigo Sarmento

Class of 2019 - Spring Faculty Award to **Dr. William Chung**
Presented by Mr. Rodrigo Sarmento

Class of 2019 - Spring Staff Award to **Mr. Jim Roskowski** and **Mr. Norm Macher**
Presented by Mr. Rodrigo Sarmento

Class of 2020 - Fall Faculty Award to **Dr. Edward Cheppa**
Presented by Ms. Violetta Chu

Class of 2020 - Fall Staff Award to **Ms. Carmen Lane**
Presented by Ms. Violetta Chu

Class of 2020 - Spring Faculty Award to **Dr. Edward McCarthy**
Presented by Ms. Violetta Chu

Class of 2020 - Spring Staff Award to **Mr. Joseph Rossetti**
Presented by Ms. Violetta Chu

Class of 2021 - Fall Faculty Award to **Dr. Timothy Matuszak**
Presented by Ms. Ariana Kelly

Class of 2021 - Fall Staff Award to **Mr. Zachary Davis**
Presented by Ms. Ariana Kelly

Class of 2021 - Spring Faculty Award to **Dr. John Schumann**
Presented by Ms. Ariana Kelly

Class of 2021 - Spring Staff Award to **Ms. Tracey Wassel**
Presented by Ms. Ariana Kelly

For a complete photo gallery of all of the award recipients, please visit our Flickr page at [flickr.com/photos/100601931@N02/albums](https://www.flickr.com/photos/100601931@N02/albums)

DENTAL HYGIENE CELEBRATES THE CLASS OF 2018

PITT DENTAL MEDICINE DENTAL HYGIENE PROGRAM CELEBRATED GRADUATES IN THE CLASS OF 2018 AT A LUNCHEON IN LATE MAY.

Attendees enjoyed congratulatory speeches by program director, **Ms. Angelina Riccelli** and Class of 2018 President, **Taylor H. Butler**. Dean **Bernard J. Costello, DMD, MD**, encouraged graduates during a speech he gave at the luncheon.

Each year graduating dental hygiene students are recognized for outstanding achievements through the presentation of the following awards:

Western Pennsylvania Dental Hygiene Association Outstanding Student Award
Kayla Berkebile

Hu-Friedy Golden Scaler Award
Jasmine Boulware

Dr. Clark J. Hollister Award for Dental Health Education
Taylor Butler

Elliott (Steve) Brodie, (Class of 1926) Award for Clinical Competence
Hannah Gilbert

Sigma Phi Alpha Membership
Taylor Butler
Hannah Gilbert
Chelsea Rumbaugh

Colgate Oral Health Advisor STAR Award
Joann McMillen



Before celebrating their graduation, Dental Hygiene Program students were required to pass both the Dental Hygiene National Board Examination, a computer-based exam, and a regional licensure examination—Commission on Dental Competency Assessment (CDCA) regional examination in Pennsylvania to receive their dental hygiene license. All students passed both sections of the CDCA exam: a clinical exam using live patients and a computer-simulated examination.

CONGRATULATIONS TO THE PITT DENTAL MEDICINE DENTAL HYGIENE CLASS OF 2018.



SCHOOL OF DENTAL MEDICINE 2018 DIPLOMA CEREMONY

Pitt Dental Medicine celebrated the Class of 2018 with family and friends of all 150 graduates. During the annual diploma ceremony, held at Heinz Hall on May 20, 2017, Dean, Dr. Bernard J. Costello welcomed graduates and guests to the convocation. Dr. Arthur Levine, Senior Vice Chancellor for Health Science and John and Gertrude Petersen Dean of the School of Medicine, spoke also to the graduating class as they begin their careers. The 2018 convocation saw 84 students receive their DMD, 29 received certificates in advanced dentistry, 7 students receive advanced degrees in oral biology, and 30 students received certificates in dental hygiene.

After the formal festivities, graduates and guests enjoyed an opportunity to recollect, reconnect and even make plans for their futures together amid generous refreshments in the lobby and patio of Heinz Hall.





The Orthodontics and Dentofacial Orthopedics Department held a continuing education course during the annual resident and alumni program, held in June of each year. This educational and networking event is made possible through funds from Orthodontics Department faculty members.



WHY I GIVE: DR. RICHARD J. DOERFLER

Dr. Richard J. Doerfler (DMD '86, MA '88, MDS '89, MS '93, CFP), clinical assistant professor in the Orthodontics and Dentofacial Orthopedics Department, is a proud graduate of the University of Pittsburgh. Just one glance at the wall of his office reveals the many degrees he earned at the school, and he will be the first to praise the quality of his experiences here. According to Dr. Doerfler, the excellent education allowed him to, "be competitive in private practice, to make a very good living and provide a good life for his family." He always has been grateful to the University for the way that it set him up to succeed. So when the opportunity arose for him to return to teach orthodontics and gross anatomy, it was a chance he could not turn down.

Upon his return to the School of Dental Medicine, he was glad to find that an emphasis on a quality education is still a defining characteristic of the program. However, something that had changed since his time as a student was the amount of debt dental students had to take on in order to obtain their degree. The average orthodontic resident, he explained, graduates with an average of four hundred thousand dollars of debt and enters into a far more competitive field than existed when he was a new graduate.

Dr. Doerfler sympathizes with their situation, as many are nearing a life stage where they want to purchase a house, raise a family or open their own practice—all of which require hefty investments. He explained, "It's a difficult time, because they're trying to balance all of the things we all want, but without the financial resources."

As a faculty member, it did not take long for Dr. Doerfler to realize that there were many opportunities, such as, national lectures and symposia, program, program-related travel, etc., that his residents would benefit from, but could not afford. Dr. Doerfler began teaching a year-long course in certified financial planning, making his department the only one in the U.S. with a business of orthodontics course. However, he knew there was a way he could do more. Although he had always given to the school, he saw a serious financial need and knew he could make a bigger impact. His driving goal was to provide the orthodontics residents with the same high-quality experience that he had, years before.

In order to address mounting debt concerns and to provide clinical, educational and professional enrichments for residents of the Orthodontics Department, Dr. Doerfler created an endowed fund. The fund is financed through his significant gift and will continue to grow through support from others in order to ease the financial strain on residents for many years to come.

While the fund is still in the initial growth process, Dr. Doerfler asks his fellow alumni and colleagues to consider making a gift to "Orthodontic Resident Fund" to support the resident's clinical and educational needs as well as to enrich and enhance their University experience.

Without question, Dr. Doerfler is humble but optimistic about the impact of his work, and believes the orthodontic profession is the best profession to practice. He takes his role as a faculty member seriously and wants each and every one of his students to succeed. And after so many years of rigorous academia, he wants them to have the quality of life they deserve and desire.

Dr. Doerfler's loyalty to Pitt Dental Medicine runs deep. And it is this commitment to and appreciation for the school that he hopes he might inspire in the next generation of dentists. He is confident that graduates, especially those who will benefit from this financial assistance, can continue to expand the precedent of giving back. The way he sees it, "you're supposed to leave the place a little better than you found it."



"It's nice to return to Pitt Dental Medicine and come full circle. Not that I can do everything, but it has to start somewhere. Someone has to be able to start the process and get the ball rolling."

IN MEMORIAM

Dr. Ronald (Max) Barmoy (DDS '63)
May 17, 2018

Dr. Robert W. Barrickman (DMD '69)
December 25, 2017

Dr. Mark M. Cackovic (DDS '64)
January 31, 2018

Dr. Jack A. Capello (DMD '69)
April 10, 2018

Dr. Angelo A. Costanzo (DDS '61)
January 25, 2018

Dr. Donald E. Gale (DDS '64)
March 21, 2018

Dr. Carl B. Hatchner (DMD '76)
September 13, 2017

Dr. John H. Hegley (DDS '54)
February 21, 2018

Dr. James J. Laubham Jr. (DDS '55)
October 10, 2016

Dr. Marshall W. Lindner (DDS '61)
February 22, 2018

Dr. Richard A. Mathieson Jr. (DMD '75)
February 16, 2018

Dr. Louis T. Mattioli (DDS '54)
May 2, 2018

Dr. Robert C. Morgart (DDS '55)
June 09, 2018

Dr. David Neustadt (DDS '49)
January 24, 2018

Dr. Donald M. Oakman (DDS '58)
January 8, 2018

Dr. James E. Overberger (DDS '54)
June 22, 2017

Dr. Myron G. Pavuk (DDS '58)
December 25, 2017

Dr. Salvatore Petrucci (DMD '90)
February 21, 2018

Dr. Fred R. Place (DMD '86)
June 05, 2018

Dr. Elmer J. Stevens, Jr. (DDS '54)
May 24, 2018

Dr. Michael David Swick (DMD '79)
July 6, 2018

Dr. Leo J. Wirth (DDS '53)
September 23, 2017

Ms. Andrea M. Zielinski (DH '72)
June 21, 2018

Please join Dr. Doerfler in support of this important initiative or the program of your choice.

You may make your contribution by mail or online.

Please mail your check made payable to the **University of Pittsburgh** and note the **Orthodontic Resident Fund to University of Pittsburgh School of Dental Medicine Office of Development; Suite 440 Salk Hall; 3501 Terrace Street; Pittsburgh, PA 15261.**

You also may visit giveto.pitt.edu/dental to make your donation.

Please contact **Paul Casey** at **412-383-7544** or **pbc8@pitt.edu** if you have questions about showing your support.



PittDentalMedicine

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CALENDAR OF EVENTS

For up-to-date details on any event listed, please visit dental.pitt.edu.

2018

OCTOBER

OCTOBER 11, 2018

Pitt Dental Medicine Reception AAOMS 100th Annual Meeting

McCormick Place West
Hilton Chicago
5:30-7:30pm

NOVEMBER

NOVEMBER 1, 2018

Deadline for nomination for Distinguished Alumni Awards, 2019

2019

FEBRUARY

FEBRUARY 15, 2019

14th Annual Winter Academy

Ritz-Carlton
Naples, Fla.

For more information, please
contact **Paul Casey, 412-383-7544**

MARCH

MARCH 2, 2019

Nineteenth Annual Dean's Scholarship Ball

Heinz History Center
6pm

MARCH 7, 2019

Alumni and Friends Reception Valley Forge Dental Conference

Valley Forge Casino Resort
King of Prussia, PA
4:30-6:30pm

MAY

MAY 17, 2019

Senior Luncheon

11:30am-1:30pm

MAY 18, 2019

Diploma Ceremony

1-4pm