

# ACP MESSENGER

Fall 2014

An educator's legacy

Nanotechnology

Digital dentistry:  
the next revolution

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*For my friends, Halloween scares meant ghosts and goblins. For me? It was apples. Due to a childhood injury, I wasn't confident in my teeth. That changed after I saw a prosthodontist. He showed me how it was possible to restore both the strength and the natural beauty of my teeth through digital planning and implant-guided surgery. The experience couldn't have been easier for me. Now? Halloween is all smiles.*

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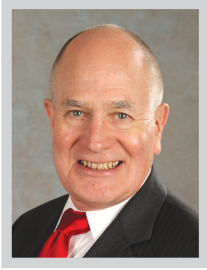
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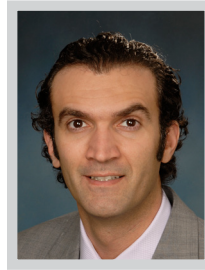
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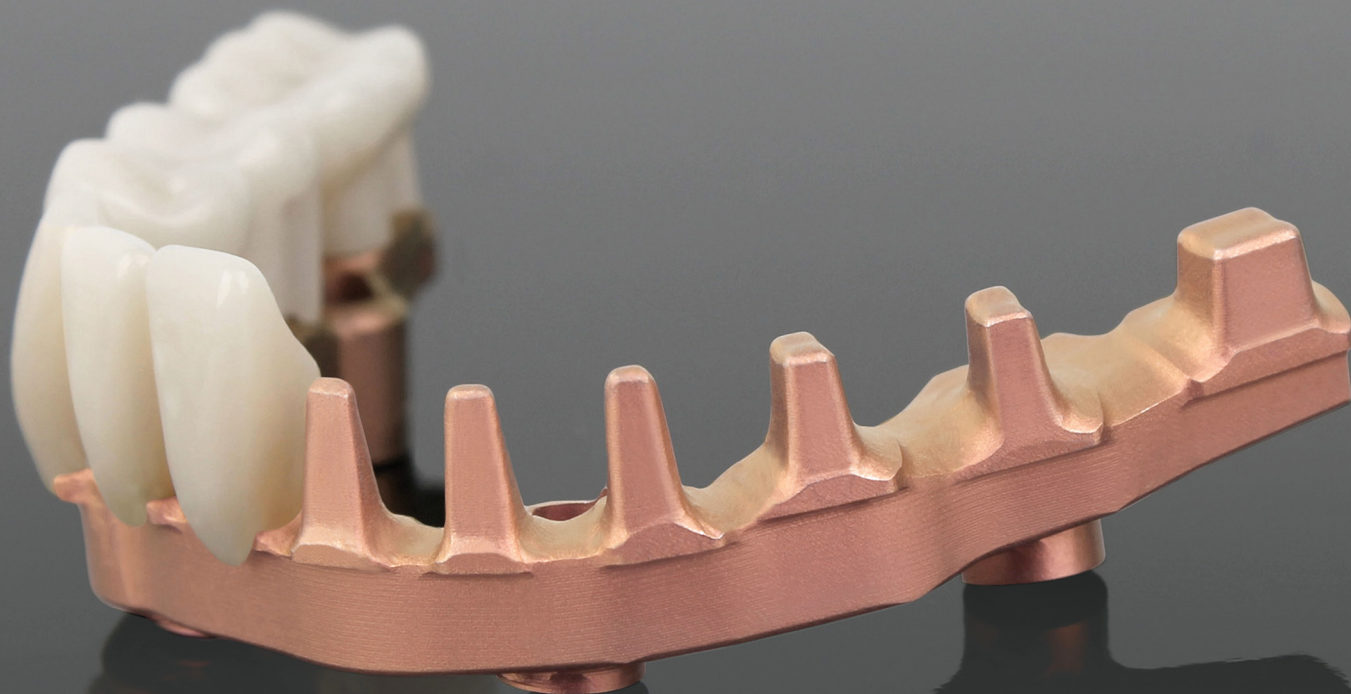
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2014 IDT READERS' CHOICE : TOP 10 TECHNOLOGY PRODUCT



# Today's modern prosthodontic office

Jacinthe M. Paquette,  
D.D.S., F.A.C.P.  
*ACP Messenger* Editor-in-Chief

It's everywhere. Fast-paced incorporation of evolving technologies in our every day lives and coming from all directions.

The same can be said for what we're experiencing in today's modern prosthodontic practice. Technology has seeped into every aspect of what we do. This evolving level of patient centered care is available from numerous entry points: diagnostic imaging with sophisticated 3D visualization, to surgical implant planning and delivery, to the fabrication of provisional and final prosthesis.

I had the opportunity to experience this dynamic shift first hand last week in our own practice. A six-unit implant-retained prosthesis had been delivered for a patient to replace her maxillary six incisors. Although she had initially accepted the esthetic outcome and the treatment, after delivery she felt the anterior restorations could have been a little longer. Historically, the thought of replacing a recently delivered prosthesis would have proved a daunting, time-consuming, and costly process. But because it was a CAD/CAM milled full zirconia prosthesis, it simply required the removal of the existing prosthesis and, with no additional chairtime and minimal laboratory time, a new prosthesis could be recreated with the incisal modifications the patient desired.

This Fall issue of the *ACP Messenger* highlights more of these evolving benefits in prosthodontically driven care. Drs. Elias Rivera and Peterson Huang share two clinical reports to highlight the benefits of surgical precision achieved through digital prosthodontic design for implant guided surgery. Their submission serves as a perfect example of the benefits gained with the accuracy of digital surgical planning.

This recurring theme of digital precision, accuracy, and efficiency can be seen throughout the issue. Dr. Cornell Lee's article nicely demonstrates the efficiency with which restorations can be created using digital restorative design instead of traditional waxing. Dr. Radi Masri looks to the future, highlighting evolving nanotechnology and the potential shift in how we treat dental disease. Finally, a point of personal privilege, our former president Dr. Charlie Goodacre, one of the great leaders of prosthodontics, shares his thoughts in an "up close and personal" interview.

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Prosthodontists, more than any specialty,  
have the ability to benefit and lead in  
the arena of digital dentistry

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ACP President Dr. John Agar elaborates further on the profound impact digital dentistry is having on our future prosthodontic lives. Prosthodontists, more than any specialty, have the ability to benefit and lead in the arena of digital dentistry. In combination with our specialty training and understanding of both the laboratory and clinical demands, we are ideally suited to control the digital workflows and deliver the final outcome.

See you in New Orleans for another inspiring and educational annual session!





Diagnostic imaging

Surgical implant planning

Digital restorative design

Nanotechnology

# Prosthetically driven implant-guided surgery

Elias Rivera, D.D.S., M.S., F.A.C.P.  
Peterson Huang, D.M.D., M.S., F.A.C.P.

Oral rehabilitation with dental implants is considered to be highly predictable. However, the long-term success of the prosthesis depends on the correct position of implants. This is based on both biological and mechanical considerations that are based on the prosthetic final design of the prosthodontist.

Nowadays, prosthodontists use the latest implant guided surgery technology to achieve the ideal implant placement. However, the foundation of tooth positioning is still dependent upon a traditional wax or denture setup. In a full mouth reconstruction, the pre-surgical prosthetic diagnosis and treatment requires that the vertical dimension of occlusion (and rest) must be first established followed by a diagnostic wax-up. An intra-oral mock-up evaluation can be achieved by using unbonded composite or provisional material where esthetics and phonetics are verified. Evaluation of the proper positioning of the teeth prior to the surgical phase allows for the assessment of the need for bone augmentation, but simultaneously may also reduce the complexity of the final prosthesis.

It is important to understand that dental implants should be placed within a predetermined prosthetic design. Digital technology advances have resulted in techniques that can provide optimal 3D implant positioning with respect to both prosthetic and anatomical parameters. The introduction of digital computed tomography (CT) or cone beam volumetric tomography (CBVT), implant planning software, and



computer aided design/computer-assisted manufacturing (CAD/CAM) technology has permitted the development of precision implant-guided surgery (IGS).

IGS can be applied to the full spectrum of implant restoration ranging from a single tooth to full arch prostheses. CBVT scans of the patient wearing a prosthesis with radiographic markers (radiographic template) and one of the prosthesis alone can be aligned and visualized on 3D implant software with even more simplification of this process already appearing on the market. A prosthetically-driven surgical implant placement can then be planned to determine the diameter, length, and location of the required implants. Once this is completed, a surgical guide can be milled or 3D printed to ensure that the execution follows the plan precisely.

Additionally, this technology allows the prosthodontist to create restorations prior to surgery that could be inserted on the day of the implant placement (“teeth in a day” and “tooth in a hour”). This provides greater patient satisfaction and simplifies the dental implant treatment process significantly.



## Clinical Report #1: IGS for a Single Tooth

A 59-year-old patient came to our dental clinic with a broken tooth. The patient was given the option of root canal therapy in conjunction with a cast post core and full coverage crown. It was explained that crown lengthening would be needed (Fig. 1). An alternative treatment plan of an implant-supported crown was proposed. The patient chose the latter option.

After extraction and healing, a CBVT was performed and IGS planning was done due to the proximity of the sinus floor (Fig. 2). A surgical guide was then fabricated and IGS was performed (Fig. 3).



Fig. 1: Clinical examination of fractured second premolar.



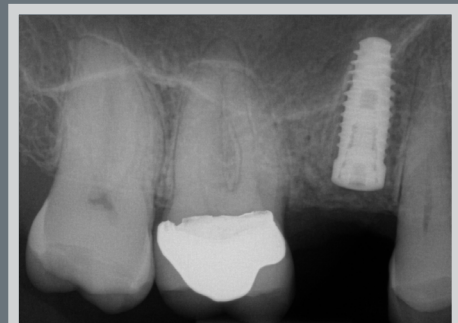
Fig. 2: After the tooth was extracted, a treatment plan was completed to place a 4mm x 11.5mm dental implant using guided surgery.

Fig. 3: Surgical guide and implant placement.

1



2



3

## Clinical Report #2: IGS for a Complete Arch

A 56-year-old woman came to our clinic. Her chief complaint was, “I would like to have fixed teeth. I am tired of wearing this top denture.” After a comprehensive oral exam (Fig. 4), a treatment plan was established involving eight dental implants with an implant-supported fixed restoration. Treatment started with the fabrication of a maxillary complete denture following conventional procedures. Duplication and modification of the complete denture into a radiographic template allowed for the patient and template to be scanned using a CBVT. Optimal implant positioning of the implants could then be planned using 3D implant software (Fig. 5). Once the surgical guide was fabricated, a set of provisionals were fabricated prior to the surgery using a virtual cast (Fig. 6).

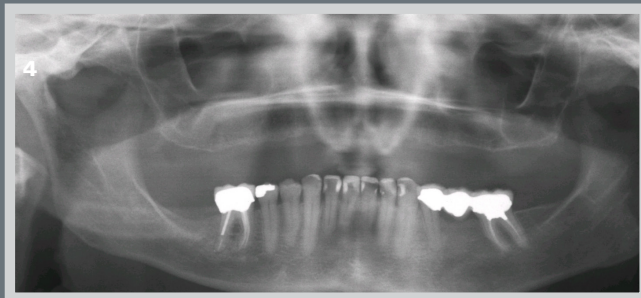


Fig. 4:  
Pre-operative  
photo and  
panoramic  
radiograph.

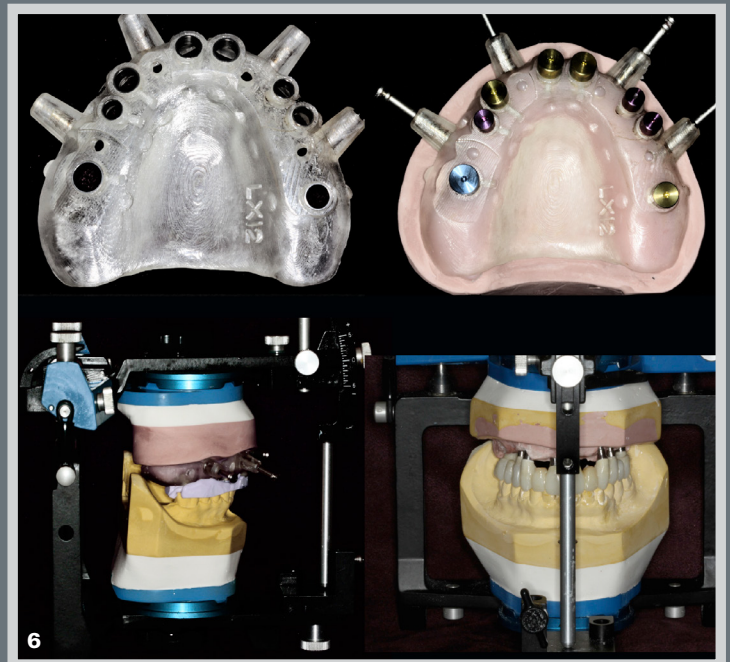
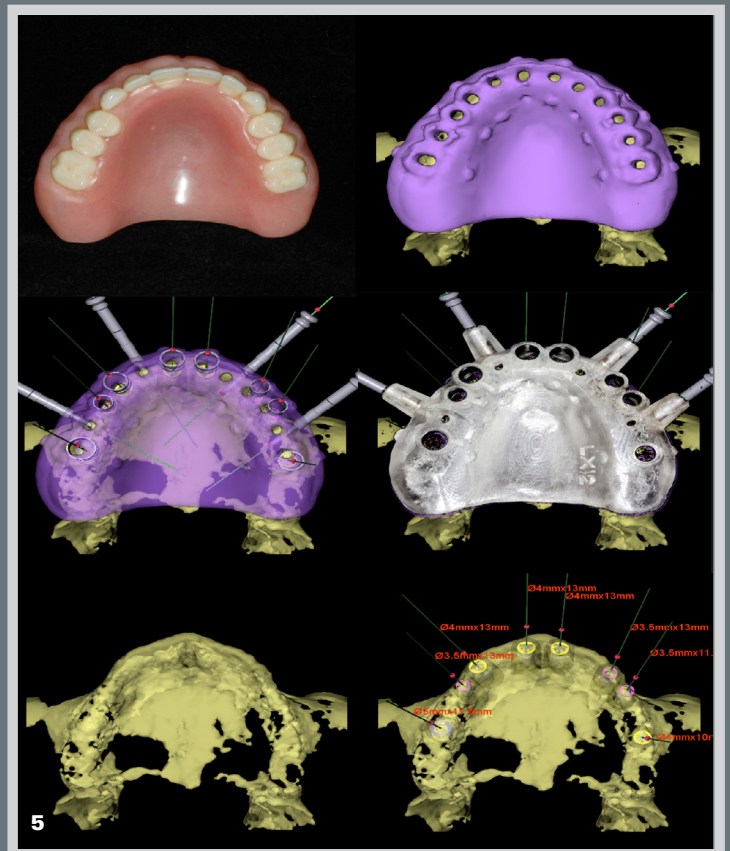
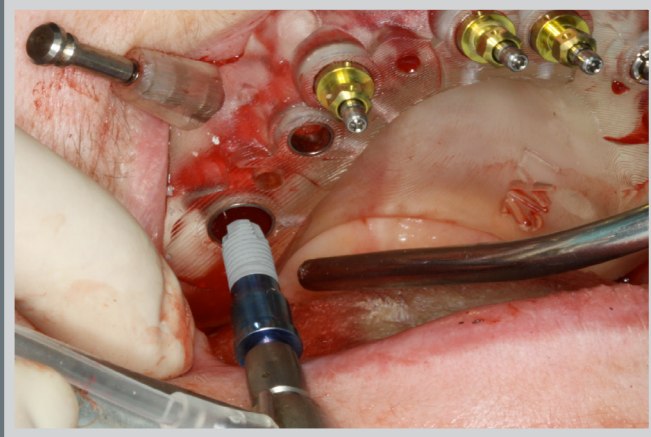


Fig. 5: Implant design sequence using 3D implant software.  
Fig. 6: Fabrication of a virtual cast using the CAD/CAM surgical guide and fabrication of provisionals prior to surgery.





7a



7b



7c



8



Fig. 7: Implant guided surgery and delivery of provisional restoration.  
Fig. 8: Abutments and final prosthesis.

IGS was performed flaplessly, which allowed for greater patient comfort and a shorter healing time. Provisional restorations were delivered at this appointment (Figs. 7a-c). Once osseointegration was achieved, abutments were fabricated, followed by the final prosthetic restorations (Fig. 8). Advances in pre-surgical prosthetic diagnosis and treatment planning simplified the restorations and eliminated the necessity of a bar or a substructure-superstructure prosthetic design.

### Some of the advantages of IGS include:

1. Correct 3D positioning of the implant
2. Avoidance of anatomical structures
3. Safe flapless procedures
4. Prosthetically-driven implant dentistry
5. Preparation of the prosthesis prior to surgery

### Limitations of IGS may include:

1. Difficulty in accessing surgical site due to length of the armamentarium
2. Limited flexibility of the system; no intra-operative modifications of the plan
3. Requires precise positioning of the guide
4. Cost benefit ratio may be prohibitive
5. Limitations in accuracy

In conclusion, implant-guided surgery can be an invaluable tool in a prosthodontist's office as evidenced by these two reports. Its versatility can include diagnostic and treatment planning ranging from a single tooth implant restoration to a full-arch oral rehabilitation. Benefits include avoidance of anatomical structures, pre-surgical preparation of the provisional restorations, and reduction of the complexity of the final prosthesis through optimal implant placement planning. ■

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# Digital dentistry: the next revolution

Cornell K. Lee,  
D.D.S., M.D.Sc., F.R.C.D.(C), F.A.C.P.

Essentially everything that can be accomplished by hand with wax can today be done virtually with the use of computer software.

A 56-year-old woman presented with concerns regarding the wear and color of her teeth (Fig. 1). After comprehensive treatment planning, the patient decided to proceed with orthodontic treatment followed by a full mouth rehabilitation with crowns. Adequate restorative space, gingival symmetry, and ideal tooth positions were created after one year of orthodontic treatment (Fig. 2).

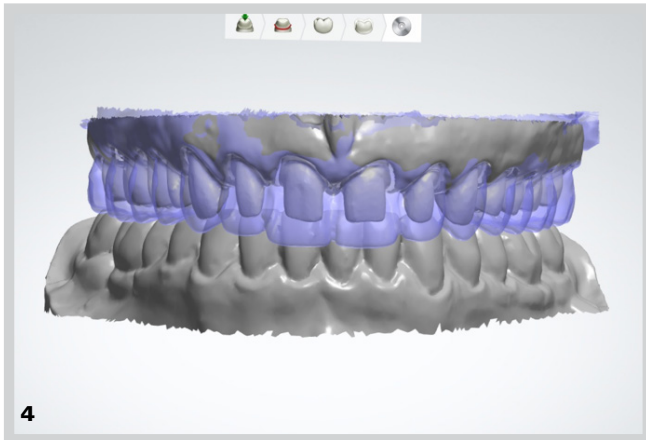
A diagnostic wax-up was done with an increase in the vertical dimension of occlusion. This was used to create an intra-oral mock-up and reference for tooth preparations. The anterior teeth were prepared for lithium disilicate crowns and the posterior teeth were prepared for zirconia crowns (Fig. 3). Conventional impressions of the tooth preparations and clinically validated interim restorations were obtained and poured in dental stone. These casts, along with the individual dies were digitally scanned. The images were superimposed onto each other to create virtual three-dimensional working casts (Figs. 4 and 5).



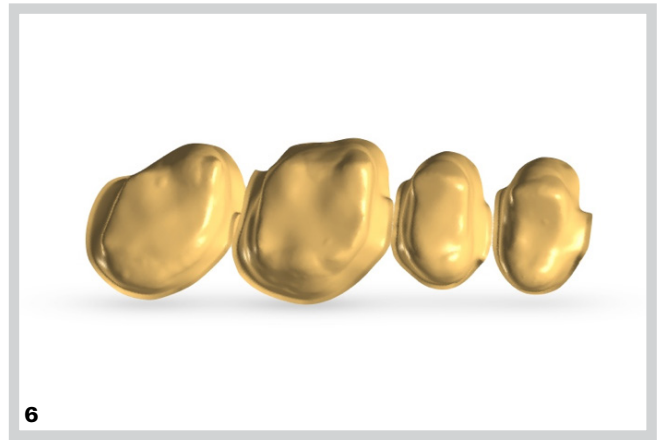
Fig. 1: The patient presented with generalized moderate wear and compensatory malpositioning of her teeth.

Fig. 2: Restorative space was created and the occlusal plane was idealized with orthodontic treatment.

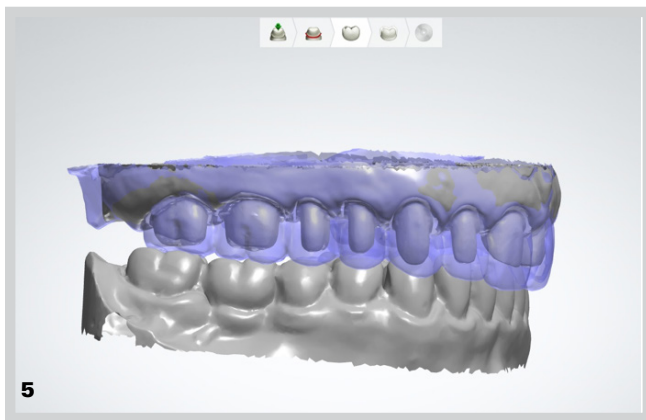
Fig. 3: Final tooth preparations.



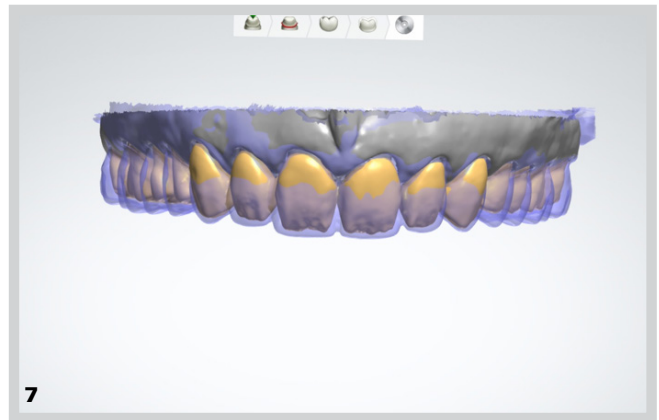
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6



5



7

Figs. 4 & 5: The master cast, individual dies and casts of the clinically validated interim maxillary and mandibular restorations were scanned and combined to create digital working casts.

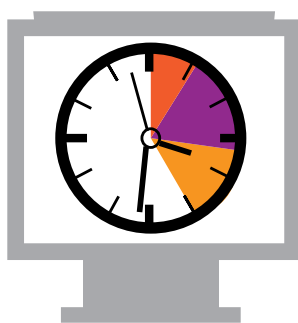
Fig. 6: Crown copings were designed to have anatomical support for veneering porcelain.

Fig. 7: Design of the copings with cutback for lithium disilicate crowns in the anterior and zirconia crowns in the posterior.

The individual crown copings were designed according to accepted design principles (Figs. 6 and 7). The digital files were sent to a milling facility and the crown copings were delivered in two working days. Afterwards, veneering porcelain was applied. The final result satisfied the patient's desire for a cleaner, whiter, but natural looking smile (Figs. 8, 9, and 10).

With the ability to visualize in three-dimensions and in layers, it is possible to argue that designing on the computer can be done with more precision compared to conventional methods. In addition to improved accuracy, the manufacturing process is also more efficient.

It takes approximately 24 hours of manual labor (eight hours to wax, eight hours to cast, and eight hours to fit) to fabricate fourteen ceramometal copings using the lost wax technique. Using digital dental design software, the equivalent can be



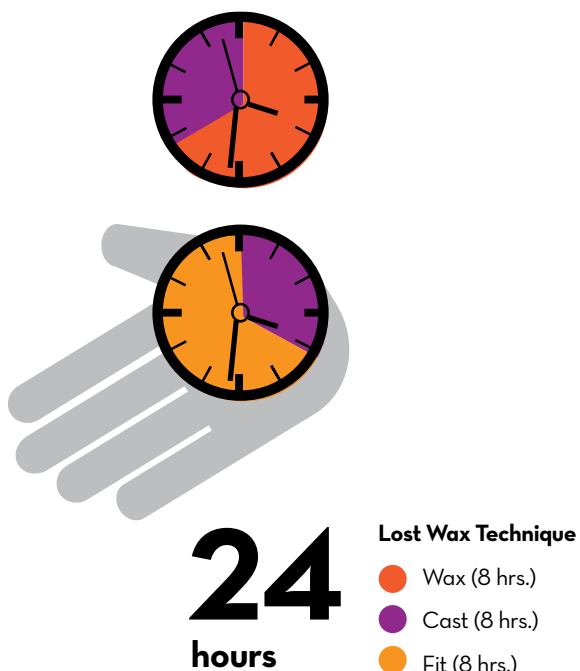
**5**

**hours**

**Digital software**

- Wax (1 hr.)
- Cast (2 hrs.)
- Fit (2 hrs.)





accomplished in approximately five hours (one hour to scan, two hours to design, and two hours to fit).<sup>1</sup> This does not take into account the time it takes the manufacturing facilities to mill the product, but this is where increased productivity and cost-savings are realized.

Digitization of the modern prosthodontic office has been occurring gradually over time. Technologies such as digital radiography, practice management software, and digital photography are now indispensable tools. The next revolution to affect our practices will be digital dental technology. The circumstance for every practice is different and the correct solution varies from practice to practice. However, the challenge for today's prosthodontist is not if one should be involved with digital dentistry, but when and how. ■

*The author would like to thank his in-office ceramist Yuzo Matsumura for his diligence and execution of the dental laboratory work shown.*

<sup>1</sup> Personal experience in an in-house dental laboratory setting



Before



After

Fig. 8: Final restorations.

Fig. 9: Pre-treatment smile.

Fig. 10: Post-treatment smile.

# Innovative use of nanotechnology

Radi Masri,  
D.D.S., M.S., Ph.D., F.A.C.P.

Nanotechnology may cause a paradigm shift in how we treat dental disease. Data obtained from *in vivo* animal studies and *in vitro* experiments on extracted human teeth will be used to design and implement clinical studies in humans to further develop this technology from bench to clinic.

Dentinal tubules are microscopic channels that extend outwards, from the pulp to the enamel border. They are abundant in dentin. In human teeth, dentinal tubules are 0.3 – 2  $\mu\text{m}$  in diameter. They may exhibit branching as they approach the pulp, and their density ranges from 10 – 30 tubules per 100  $\mu\text{m}^2$  of dentin; their density and branching increases as they approach the pulp.

Dentinal tubules serve as an important route for the delivery of nutrients to the dentin from the pulp. They contain dentinal fluids, un-mineralized collagen, and cellular processes of odontoblasts, which are cells that line the roof of the pulp chamber and deposit dentin, sensory nerve terminals, and immunoglobulins, and complement proteins that assist with the defense against microorganisms. It is thought that mechanical and thermal stimuli activate sensory processes in dentinal tubules by changing the pressure and the movement of the fluid in these tubules. It is also through these tubules that the by-products of bacterial fermentation and bacterial antigens attack the pulp and cause pulpitis. Dentists recognized the importance of these tubules decades ago and routinely use them to provide microretention of fillings to tooth structure. Dentists have also tried to exploit dentinal tubules to deliver medications to the pulp. However, those attempts enjoyed limited success.

Here, a novel method to deliver medications through dentinal tubules is described. This method employs two key ideas: (1) The use of biocompatible magnetic nanoparticles that elute (slowly release) medication;

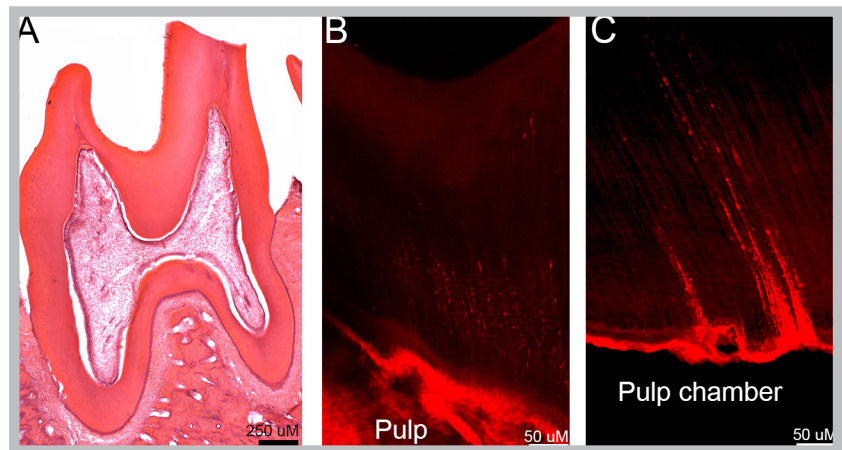


Fig. 1 (A): A decalcified section of a rat molar tooth treated with nanoparticles and stained with H&E (magnification: 4X).

(B): An adjacent, unstained section from the same tooth was viewed using a fluorescent microscope at 20X. Nanoparticles (red) penetrate deep into dentinal tubules and are present in pulpal tissues. To perform this experiment, a cavity (0.25 mm deep and 0.5 mm diameter) was prepared in the occlusal surface of a rat mandibular left molar. Nanoparticles were applied to the cavity, *in vivo*, and subjected to magnetic pull for 30 minutes. The rat was then perfused and the mandible decalcified and serially sectioned (7  $\mu\text{m}$ ).

(C): A decalcified section in a human molar tooth, treated *in vitro* and observed under a fluorescent microscope (20X). Nanoparticles (red) penetrate deep into dentinal tubules, reaching the pulp chamber.

and (2) The use of magnetic forces to transport drugs through the dentinal tubules to the pulp. Unlike previous attempts, which relied on passive processes, magnetic forces can be arranged to act in one direction to actively transport substantially more medication to a target in a short time. Indeed, experiments performed on freshly extracted third molar teeth demonstrated our ability to deliver medication-eluting nanoparticles in large quantities to the pulp (Fig. 1). These nanoparticles (100-300



µm in diameter) consist of biodegradable iron cores coated by starch or chitosan, to which therapeutic agents such as steroids and broad-spectrum antibiotics can be ionically bound with a strength that can be adjusted depending on the application. In animal experiments, it was demonstrated that these particles are well tolerated by pulpal tissues without inducing inflammatory response (Fig. 1).

In prosthodontics and all fields of dentistry, prevention is better than a cure. Accordingly, this gentle and active delivery method may be used to help patients suffering from dentinal hypersensitivity. It may be effective into guiding bonding agents deeper

into dentinal tubules, thus enhancing the restoration bond to dentin. It may also be effective in reducing pulpal inflammation and may obviate the need for root canal treatment. This will lead to a reduced need for full coverage restorations in endodontically treated posterior teeth.

This technology only requires a small permanent magnet and commercially available nanoparticles. Thus, it would be considerably less expensive, and both less painful and less traumatic, than current conventional treatments. It allows the delivery of medications directly to the affected area with fewer side effects compared to systemic drug delivery. ■

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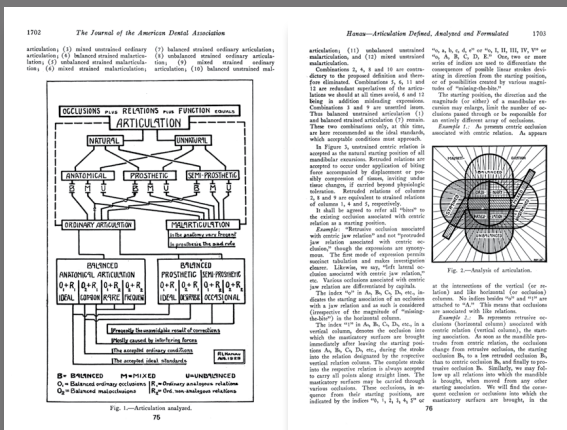
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Volume III



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Classic Prosthodontic Articles Volume III

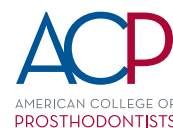


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## Q&A: 'X' Marks the Spot



### Q: How are digital X-rays improving treatment?

A: Digital imaging is a relatively new technology in dentistry and offers features that enhance the viewing of any problem areas. Digital X-rays use low levels of radiation and an electronic sensor to create a black and white picture of teeth and surrounding bone. The images are displayed almost instantly on a computer screen and are stored in the computer allowing easy electronic transmission. Digital X-rays are used inside the mouth to examine the teeth, the jaw-bone, and dental restorations. They play an important role in the diagnosis of decay and failing crowns and fillings, the correct placement of dental implants, and the proper treatment of teeth requiring root canals.



### Q: Are there any health risks involved with digital X-rays?

A: All dental X-rays, including digital X-rays, use very low levels of radiation and are very safe. Protective lead aprons can be used.



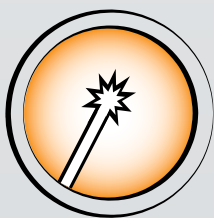
### Q: What is a CBC/CT (CAT scan) or Dental CAT Scan?

A: This type of dental X-ray allows the prosthodontist to see your teeth or jaws as a 3D image. It can be one of the most useful ways to allow a safe and predictable outcome for dental implants. State-of-the-art technology makes it possible for implant-supported replacement teeth to look, feel, and function like natural teeth.



### Q: What is CAD/CAM and how can it help treatment?

A: CAD/CAM stands for “computer-aided design/computer-aided manufacturing”. Prosthodontists use CAD/CAM systems to design and create crowns, bridges, dentures, and other prostheses more quickly than was possible before. Using advanced 3D printing technology, CAD/CAM turns a computer model into physical reality. Prosthodontists who offer “chairside” CAD/CAM can provide some treatments, such as crowns and veneers, in a single visit.



### Q: How is laser surgery used in prosthodontic treatment?

A: Dental lasers are a new treatment option for diseases of hard and soft tissues and teeth. The dental laser is a machine that focuses a beam of energy down a hollow tube of a thin strand of glass filament. Lasers are a safe way to allow your prosthodontist to remove extra gum tissue. This focused heated energy can remove the tissue being worked on. It also lessens bleeding and swelling, and kills bacteria limiting disease potential. Using laser surgery may also reduce the need for dental anesthesia, giving your prosthodontist more control with bleeding, less swelling after a procedure, and less discomfort.

# As a prosthodontist

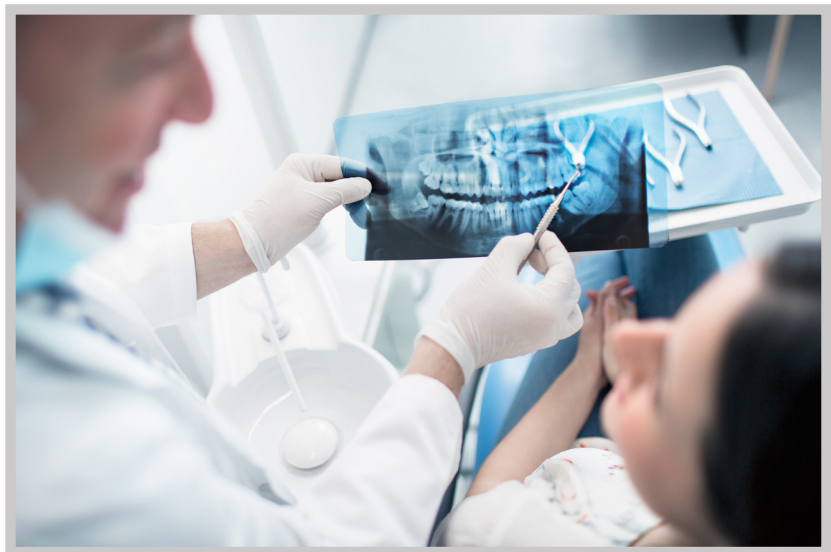
John R. Agar,  
D.D.S., M.A., F.A.C.P.  
ACP President

I have never been more proud or optimistic about being a prosthodontist. Our specialty has evolved and adapted without abandoning the core principles of patient-focused care associated with complex and unique habilitative challenges.

Osseous integration and technological advances have transformed the practice of prosthodontics and advanced dental care tremendously. These advances require continuous learning and adjustment to ensure we can put the very latest techniques, materials, and technologies toward the benefit of our patients.

The nature of our specialty also requires that we understand the diagnostic aspects and treatment options of other specialties and disciplines in order to properly consult, plan, and refer for optimal patient care. This requires significant knowledge and collegiality with other specialties. Prosthodontists enjoy this challenge and strive to tailor the best possible oral function, comfort, appearance, and health for each individual patient. A common trait of our specialty is the feeling by members that there is always more to learn. This is true of most residents finishing training as well as successful practitioners, teachers, and researchers. This dedication can be admired, but prosthodontists should not be too critical of ourselves nor other dentists.

Dental implants have become a big part of our armamentarium for rehabilitation of missing or deficient teeth and/or oral and maxillofacial tissues. Prosthodontists vary in their practice relative to referring patients for implant placement. Almost



all residency programs require, at different levels, the restorative procedure of implant placement as well as instruction in the importance of proper referral. We keep improving our ability to use these restorations through improved treatment planning and by studying restorative outcomes. Perhaps the biggest problem associated with implant placement is poor three-dimensional positioning causing varying degrees of compromised esthetics, health, function, and durability. Pre-prosthetic planning and careful execution have improved patient results dramatically. Prosthodontists excel at this. We can be proud of the fine prosthodontists who contribute their talents to research and provide excellent continuing education about all aspects of implant care.



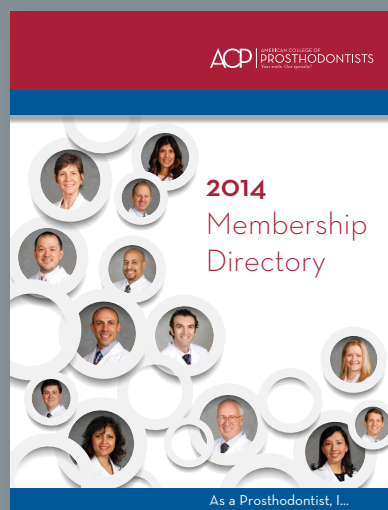
Digital technologies have opened opportunities that will transform how we practice in the future. For many years prosthodontists have developed instruments to measure jaw movements. They have researched many techniques to make better restorations. Measuring mandibular movements and constructing better complex restorations using computers is rapidly progressing to new levels. The background prosthodontists share makes understanding of the best use of these technologies a natural process for our specialty. We are fortunate to have ACP members in practice, education, and research involved in advancing technology that supports solving complex and unique problems in rehabilitations.

Those attracted to our specialty have always been individuals dedicated to excellence. Camaraderie shared between prosthodontists is founded in a mutual respect. This does not necessarily include always agreeing about how things should be done. Different opinions stimulate improved solutions.

Most importantly, we share a love for providing the best care possible for our patients. Our dedication brings us together. That is why I have never been more proud to introduce myself to a patient or a fellow practitioner with the words, “As a prosthodontist...” ■

## ACP Committees & Task Forces: How to Volunteer

1. First, study the membership roster for potential committees that you would enjoy supporting and potentially leading in the future. You can find a handy list of committees in your ACP Membership Directory. In fact, the cover of this year's directory spotlights committee chairs!
2. Then use the contact information in the directory to reach out to individuals serving in these areas to ensure you are suited for that particular committee or task force. They can tell you about specific projects the committee is handling and some of the time requirements involved.
3. Contact the President-Elect, Vice President, and/or Committee Chair, as well as the Central Office staff member responsible for the committee or task force that you are interested in. (The President will already have finished populating Committees for his year in office.)
4. The ACP constantly needs hard-working volunteers, but sometimes a certain committee has ample volunteers at a particular time. Let it be known that you are interested in serving on the committee when a vacancy occurs. Current committee chairs and division directors can recommend you as replacements are needed.
5. If you are not set on a particular committee but would like to serve, please notify the President-Elect and Vice President about your interest. They may be able to recommend committees with a need for your skills.
6. You need to make your interest known every year. If you expressed interest last year, do it again this year. Why? Because volunteers' interests change and information about potential volunteers is often lost. This is best done before the Annual Session using email. Follow-ups are important – don't depend on someone remembering that you spoke to them during a party or event! Emails can be forwarded to others involved in the process of populating the committee(s).



# Why do you give?

From private practitioners to academic program directors, support for the ACP Education Foundation comes from members in many areas of prosthodontics and many stages of their careers. We asked these recent donors: “Why do you give?”



“Having been a Program Director for over 20 years, I appreciate the Foundation supplying funding for the Educator/Mentors meeting, so that Directors can share their thoughts in improving the education process of the residents. The Foundation also has enabled hundreds of residents to attend the Annual Session with no registration fee. This exposes them to the highest level of prosthodontics and camaraderie.”

- **Carl Driscoll, D.M.D., F.A.C.P.**



“The ACPEF brings together clinicians, educators, researchers and leaders to work together to improve our specialty. I remember the support I received as a resident that encouraged me to succeed. I also am appreciative of the meetings and symposia that had helped guide me, from training to career. Join me in paying it forward, for the future of our practices and specialty.”

- **Julie Holloway, D.D.S., M.S., F.A.C.P.**

“I view my annual foundation contribution as an insurance policy to protect my professional career and ensure the ACP can continue to promote the interests of the specialty.”

- **Terry M. Kelly, D.M.D., F.A.C.P.**

“My contentment in my life, personally and professionally, is attributable to many factors: support from my wife, support from my family, and support from the specialty. My commitment to ACP Education Foundation is in honor of all of my past mentors and teachers. This is only a small way that I can give back and support our specialty that has allowed me to have continuous opportunities.”

- **Bruce Nghiem, D.M.D.**



“Coming together as a specialty gives prosthodontists an edge. Giving to the ACPEF is a firm demonstration of this commitment and is very important to our future. I'm proud to be a part of forward progress and hope others will feel the same way.”

- **Carl Pogoncheff, D.D.S., M.S., F.A.C.P.**

“I think the greatest thing that has happened is the funding of residents to attend the Annual Session. I have been active in other organizations and we constantly struggle to maintain membership. The core group of people keep getting older and nothing comes in to re-fortify the organization. The students add so much to our Annual Session and it is a fantastic educational opportunity for them to actually see a lot of the people whose literature they study. This influx of youth is valuable and gives us the opportunity to display the importance of supporting their specialty and the value of the ACP as the leading prosthodontic organization. I also believe the specialty is growing at an unprecedented rate and therefore needs all the support it can get in the form of research grants and educational opportunities. I believe it is our duty as stewards of our profession to do that and encourage all members to consider this.”

- **Paul Scruggs, D.D.S.**

Pictured: Dr. Carl Driscoll, Dr. Julie Holloway, Dr. Terry Kelly, Dr. Bruce Nghiem, Dr. Carl Pogoncheff, Dr. Paul Scruggs



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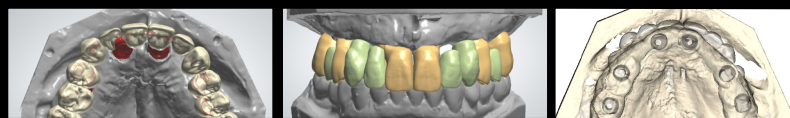
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# An educator's legacy

Jacinthe M. Paquette,  
D.D.S., F.A.C.P.  
ACP Messenger Editor-in-Chief

Dr. Charles J. Goodacre has served as Dean at the Loma Linda School of Dentistry, where he is currently a Professor of Restorative Dentistry. He is a Past President of the American College of Prosthodontists and the American Board of Prosthodontics. But he was also once a young dental student at the start of his career. In this interview, *ACP Messenger* editor-in-chief Dr. Jacinthe Paquette talks to Dr. Goodacre about the educators who influenced him, the meaning of leadership, and the future of dental education.

**Q: First of all, why prosthodontics for you?**

A: Well, my father began his career by attending the Corcoran Art School in Washington, DC. During the Depression years, jobs were scarce for artists so he began working in a sign shop, painting signs and lettering office doors and trucks. After he got married, he needed a better job, so he began working for the railroad as a fireman on steam engines and then as an engineer. However, he always continued with his sign work as a part-time activity. As I grew up, I had the opportunity to work with him on some of the sign projects, mostly interfering rather than contributing. In those days, you actually made the signs, too, including the ones on the highway. You would build the wood structure, paint it, letter it, and go out and hang it up. So I have always enjoyed artistic



types of projects. In school, prosthodontics just “rang my bell” as far as the preclinical projects and also the patient treatments that were technically demanding and artistic.

**Q: Something where you could admire the product afterward?**

A: Absolutely.

**Q: After dental school, you went into prosthodontics. Did you have a mentor, someone who guided you in that direction?**

A: In dental school at Loma Linda, I had some wonderful faculty. Melvin Lund, Chair of Restorative Dentistry, and Lloyd Baum, also from Restorative Dentistry, influenced me. Another person that had a significant impact on me was John Neufeld, Chair of Prosthodontics. While I was in dental school, I worked for Dr. Neufeld, doing laboratory work for his private patients. When I graduated, I decided to go to Indiana University for my advanced training in prosthodontics. At the same time, Dr. Lund was transitioning from being Chair of Restorative Dentistry at Loma Linda to Chair of the Operative Dentistry Department at Indiana. In fact, our things were packed in the same moving van.

At Indiana, the two people that most influenced my professional growth were Roland Dykema, the Chair of Prosthodontics, and Ralph Phillips, Chair of the Dental Materials Department. I went to Indiana on a National Institute of Dental Research fellowship to study both dental materials and prosthodontics. They had, at that point in time, a special program that combined the two disciplines. They wanted to educate





dentists to become future educators. So I completed a three year program that combined those two areas. Ralph Phillips was the world's recognized authority in dental materials at the time, as was Roland Dykema in fixed prosthodontics.

There was an interesting story that was told to me by Art Dugoni, who was, to me, one of the great dental school deans during my era as a Dean. Dr. Dugoni served as Dean at the University of the Pacific for many years. When he graduated from dental school, his first assignment was to teach dental materials. He did not have any formal training in dental materials, just a fundamental course when he was in dental school. He recognized he needed help. So he asked around, "Who's the expert in dental materials?" And everybody said, "Well, you need to talk with Ralph Phillips." He called Ralph Phillips on the phone and he said, "You don't know me, but I've been asked to teach dental materials, and I don't know anything about dental materials. Can you help me?" So Ralph Phillips said, "Why don't we get together?" They met in San Francisco, and he found out what Art Dugoni needed. So when Dr. Phillips returned home, he sent all of his lectures, all of his slides, all of his handouts, all of his exams, and all of his quiz questions. In effect, he provided Dr. Dugoni with all the materials he needed for a course. Art uses this as an example of what it means to be a true professional. A true professional is somebody that's willing to give and share with other people. That philosophy is what started me down the road of wanting to develop content and share it with other people. I've met some people that aren't interested in sharing any of their



material and that always bothered me because there is so much we can gain from each other. Every time I look at somebody else's material, my knowledge is enhanced and I learn new approaches.

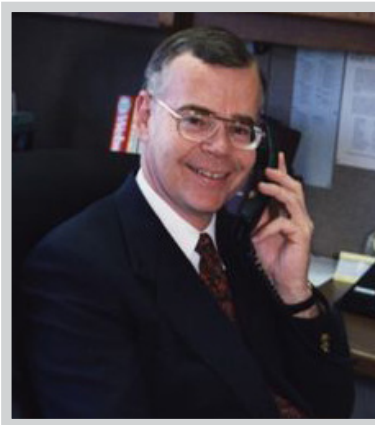
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That's what led to the concept of Prosthopedia®, the educational resource library of the ACP. I wanted there to be a resource where people who were interested in sharing their material could do that and others could benefit. Over the years, I have always shared my presentations with anyone who wanted them and many others have done the same for me. We have all been enriched and blessed by that process.

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***Q: It's touching that you refer to Art Dugoni as a true professional. I view you as a true professional as well. You've given so much in the world of prosthodontics. I suspect you did a lot of research and literature early on, when you were involved in NIDR and that realm.***

A: It was during my graduate study that I was bitten by the bug to develop literature review topics. I was particularly interested in synthesizing the literature so individuals could read an article and gain an overview of what research articles had concluded. That was back before the days of the systematic reviews that are being done today and have a higher position on the hierarchy of evidence-based resources. The first synthesis I did was on Palladium-Silver alloys. I then completed one



on gingival esthetics. These were basically literature reviews that coalesced available information and data to provide readers with an evidence-based overview. I also did a three-part series on the restoration of endodontically treated teeth. Eventually I worked with faculty at Loma Linda in the development of articles related to complications in fixed prosthodontics and dental implants as well as one on the principles of tooth preparation. If I were redoing the clinical complications articles today, they'd be done in the form of a systematic review with more sophisticated calculations, and they'd fall into the systematic review category. At the time, they were written to present clinical trends related to complications and they still provide valuable information about what you can expect with various treatment procedures in prosthodontics.

***Q: You've given so much in research, and you've given so much in teaching. Art Dugoni was viewed as a great leader, and many view you as a great leader as well. What makes a great leader in your opinion?***

A: To me a leader is someone who recognizes the center of the world doesn't focus around them but on others. They recognize that their job is to support other people and make things happen through other people. One of the things I always tried to do as a Dean was to support the faculty. They are the ones that make things happen. In a dental school, you can change administrations and the school marches on. The key people are the ones teaching in the preclinical

laboratory courses and the clinic. They're the ones that really create the education of the students. You have to figure out ways to support those people.

You also have to surround yourself with people that are willing to discuss and disagree with you. I heard an interesting interview recently. The person being interviewed was involved with President Nixon and he said that Nixon did not want to be surrounded with anyone that disagreed with him. That's how the whole Watergate mess came about, because he proposed and implemented a lot of inappropriate things and nobody in his group of advisors was willing to disagree with him. I have known other leaders who suffer from that same disease. I think an effective leader surrounds themselves with good advisors and listens to those people. Effective leaders also encourage people to develop their own ideas and support them in the process. Some leaders don't know how to do that. Helping others develop their full potential is one of the great rewards of leadership.

***Q: How many years did you serve as Dean at Loma Linda?***

A: 19.

***Q: You've had the luxury of seeing prosthodontics evolve over a few decades now. In your opinion, what is really important in prosthodontics in terms of its place in the world of dentistry at large?***

A: To me, it's the most wonderful blend of science and technical excellence. It takes special skill and





a commitment to science. Today, almost everything happening in the world is in the 3D realm and this provides a unique opportunity for prosthodontics to come to the surface. I think we've seen that ever since the introduction of dental implants, along with the 3D diagnostic and treatment technology.

Our educational process needs to be focused on the development and use of 3D resources. I first recognized the value of 3D resources when I was assigned the responsibility of teaching tooth morphology to first year dental students at Indiana University in 1975. I carved large teeth out of styrofoam, veneered them with a thin layer of dental stone, and then painted them. I would hold them up in class and rotate the teeth around while describing the morphology. The students' interest increased and their performance improved. The course developed a personality and I discovered that good courses need to have a unique personality created by something, someone, or both. Today, comprehensive diagnosis often includes the use of a 3D resource. Education has to embrace the use of 3D programs, including prosthodontics. That's been a passion of mine for many years and I hope prosthodontics moves in that direction so that we become the leaders in the use of 3D educational resources to enhance student learning.

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We need to embrace and become the major innovators in the 3D world. That includes dental education. If you read the literature on the psychology of learning, you realize very quickly that the people who have the greatest success in the sciences - and that's all of the sciences - are the people that have the best spatial abilities, that is those who perceive things three-dimensionally. They score higher on examinations and perform better in terms of technical skills and patient care.

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***Q: In your opinion, then, for us, as mature prosthodontists, how can we impact young practitioners?***

A: If a person is enthused about what they're doing, and they love what they're doing, you don't have to do anything other than interact with them and they capture the vision. They see what you like, that you enjoy your specialty. That's the key to me to showing people what prosthodontics is all about. You show them what you enjoy doing. If you genuinely enjoy it, it becomes apparent. If you don't, you can't fake your way through it.

As a teacher, I think our goal should be to develop students who have superior knowledge and skills to what we have. Consider this: if we don't have students who become more knowledgeable and more skillful than we are, how can prosthodontics continue to advance? To me, this is a key philosophy that teachers need to have in mind. Be thrilled when a student comes along who's smarter and more knowledgeable than you are. Then we can really keep advancing. The real goal of educators should be to train students to be better than they are. ■

# From complications to solutions

Carl F. Driscoll, D.M.D., F.A.C.P.  
Annual Session Program Chair

Complications are a part of our specialty. They're basically a fact of life as a prosthodontist. But if you only wanted to handle simple cases, you wouldn't be reading this.

At the ACP's 44th Annual Session in New Orleans, we've dedicated a full day on Friday to the question at the heart of it all: how do you move from complications to solutions?

Solutions are about the creativity, skill, and resourcefulness of your approach. Throughout the morning and afternoon, speakers will wrestle with complications from their personal experience, from implant therapy in the esthetic zone to the diverse methods used in assessments and treatments of temporomandibular joint disorders.

Solutions are about knowing your materials, too. What does the evidence suggest about the effect of cementation procedures on the health of peri-implant hard and soft tissues? Is it true that ceramic restorations fail more frequently in implant-supported restorations than in tooth-

supported restorations? What do fractographic analyses of failures tell us about the fundamental requirements for all-ceramic success?

And solutions are about the bottom line for your practice. Unforeseen consequences affect your profit margin, and unpredicted costs affect your ability to make the most out of technological advancements in dentistry. Speakers will describe how to navigate the variations between treatment modalities and methods of complication reporting, and assess the true, full cost of a big ticket purchase.

Ultimately, solutions arise from your superior clinical judgment as a prosthodontist. Whether you're at the beginning of your career or you've been a part of the specialty for years, this Annual Session is designed to support you in making the hard decisions – the choices that will take you through the complications and on to the solutions. ■



Visit [acp44.com](http://acp44.com) or register onsite in New Orleans, Nov. 5-8 for the premier prosthodontic meeting of the year!





### Extend the Impact with Saturday Sessions

Even if you've already registered for the ACP Annual Session, there are several ways to extend the impact of your registration with optional events and workshops on Saturday.

ACP members are invited to enjoy breakfast and conversation at the **Regional Town Hall Meeting**. No advance registration is necessary; stop by between 7:30 – 9:00 a.m. and share your thoughts on this year's meeting, College activities, and advocacy for the specialty.

Continuing Education credits are available at the **Corporate Partner Symposia** on Saturday morning and **Clinical Complications, Innovative Laboratory Solutions** on Saturday afternoon, both of which are included with Annual Session registration at no additional charge.

When was your last hands-on experience with ridge grafting and sinus lifts? If it's time to catch up on the latest techniques, plan to attend the all-day **Bone Grafting Workshop** on Saturday. With special rates for ACP members and students, this exceptional course will build on your past experience and improve your surgical skills.

If your residency was recent or it's wrapping up soon, **Transitioning into Private Practice** on Saturday afternoon is exactly what you need. A trio of experienced practitioners and a dental design studio will help you decide whether to start from scratch, buy an existing practice, or associate with another practice.

Visit [acp44.com](http://acp44.com) or inquire at the registration desk to add Bone Grafting or Transitioning into Private Practice to your Annual Session registration.

## Complications, Failures, and Solutions in Prosthodontics

Friday, Nov. 7 • 7:50 a.m.–12:30 p.m.

*Moderators: Dean Morton, B.D.S., M.S., F.A.C.P. and Avinash S. Bidra, B.D.S., M.S., F.A.C.P.*

### **Prosthodontic Management of Esthetic Implant Complications**

Urs C. Belser, D.M.D.

### **Life with Four: Challenges and Complications with the All-On-Four-Procedure®**

Mark W. Adams, D.D.S., M.S.

### **Accelerated Placement and Loading Options for Edentulous Patients: When to Hit the Gas and When to Hit the Brakes**

Robert Jaffin, D.M.D.

### **Complications: Comparing Apples with Oranges in Real-Life Prosthodontics**

Terry Walton, A.M., B.D.S., M.D. Sc., M.S.

### **Battlefield Prosthodontics**

Vincent Celenza, D.M.D., F.A.C.P.

### **All-Ceramic Materials and CAD/CAM Technology in Prosthodontics: A Success Story without Drawbacks?**

Petra C. Guess, D.D.S.

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2:00 p.m. – 5:30 p.m.

*Moderators: Lino P. Calvani, D.D.S., M.Sc., F.A.C.P. and Mark C. Hutten, D.D.S., M.S., F.A.C.P.*

### **Digital Approach to Implant Prosthodontics**

German Gallucci, D.M.D.

### **Ceramic Failure in Implant Prosthodontics – What Gives?**

Thomas D. Taylor, D.D.S., M.S.D., F.A.C.P.

### **Unmasking the Real Cost of a Technological Purchase**

Brody J. Hildebrand, D.D.S., M.S.

### **True Illusion: Survival Statistics**

Danielle Layton, B.D.S. (Hons) (Qld), M.S.c. Oxon, M.D.Sc. (Hons) (Syd)

### **Getting Real with Cement-Induced Peri-Implant Complications and Failures**

Alfonso Piñeyro, D.D.S.

### **TMD in Clinical Practice: What You Should Have Learned in Your Residency Program**

Jonathan P. Wiens, D.D.S., M.S.D., F.A.C.P.



## ACP Members Celebrate New Prosthodontic Clinic

For many Eastman Dental prosthodontic alumni who attended the formal celebration of the newly renovated Prosthodontic Clinic, it was an emotional moment to see the complete transformation of their old stomping grounds.

“It’s such a beautiful clinic,” said ACP member Dr. Izchak Barzilay, who graduated from the Eastman program in 1986 and owns a practice in Toronto. “The new residents are going to realize they will be working in a facility that is on par or even better to what they will work on when

they enter into practice. This project clearly shows the commitment from the department and the university about the importance of a quality education and providing residents the ideal learning environment.”

The \$1.3 million renovation and expansion provided two additional treatment rooms, new and larger sterilization area, a technology area for CAD/CAM equipment, a Cone Beam Computerized Tomography machine, new office space, and complete renovation and optimization of the existing space and equipment.

“This renovation allows us to fulfill our mission of teaching our residents at the highest level and maintain our program as one of very high standards,” said fellow ACP member Dr. Carlo Ercoli, chair and program director of the EIOH Prosthodontic program.

## Now Online in the *Journal of Prosthodontics*

The 2011 Japanese tsunami and earthquake was a devastating natural disaster, with over 15,000 recorded fatalities. Now online in the *Journal of Prosthodontics*, Dr. Yukihiro Sato of the Department of International and Community Oral Health, Tohoku University Graduate School of Dentistry and his coauthors present the results of a survey of more than 700 denture wearers who were affected by the tsunami.

Although such disasters, whether earthquake, hurricane, tornado, or wildfire, strike with unfortunate frequency, no previous study has examined the negative impact of disaster-related denture loss, despite its importance from a public health perspective. According to the authors, “The majority of studies conducted after disasters have focused on mental health. A relatively small number of studies have focused on physical health problems, and even fewer have addressed oral health.” Additionally, while many researchers have evaluated the positive effects of dentures on oral health, it is not ethical to investigate the impact of denture loss by asking patients to stop using them.

The survey results found that denture loss due to the earthquake and tsunami compromised eating and speaking ability and discouraged individuals from communicating with others. No previous studies have investigated the incidence and consequences of denture loss due to natural disasters.

Dr. Sato and colleagues stress the important role dentists can play in disaster response. Previous studies have suggested the possibility that denture use improves health, thus underlining the importance of dental care after disasters.

Sato Y, Aida J, Lohse C, Takeuchi K, et al: Impact of Loss of Removable Dentures on Oral Health after the Great East Japan Earthquake: A Retrospective Cohort Study. *J Prosthodont* doi: 10.1111/jopr.12210



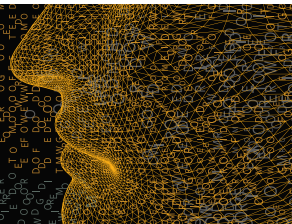
## Pennsylvania Section Meeting

The PA Section of the ACP held its annual session at the Toftrees Golf Resort and Conference Center, State College, PA, June 5-7. Dr. David Kopecki was this year’s scientific chairman and put together an excellent program that blended both dental science and team building. The list of speakers included Dr. Dean Vafiadis, Dr. Aldo Leopardi, and Mr. Dick Vermeil. Pictured are the attendees with Mr. Vermeil.



# Harnessing the Power of Digital Dentistry

Feb. 23-24, 2015 in Chicago  
Prosthodontics.org



## Teeth for a Lifetime: Joint Symposium Brings Together Prosthodontists, Endodontists, and Periodontists

*Lyndon F. Cooper, D.D.S., Ph.D.*

In an era where a generalist model is widely promoted in dental education, the recent Joint Symposium in Chicago was a remarkable event that engaged generalists in a broad based discussion of how we save teeth instead of replacing them.

“We’re here to get back to the core of what we do as dentists: save the patient’s natural tooth,” said Dr. Lily T. Garcia, Chair of the ACP Education Foundation, who provided the introduction.

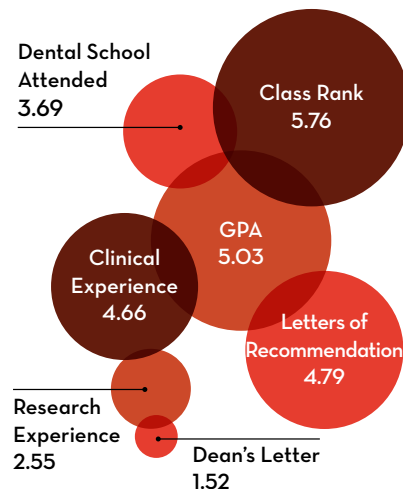
It was exceptional at several levels. First, it was extremely well attended. Secondly, participants were vocal in their support of the concept that a rational approach to treatment of teeth is needed and this approach should be based on evidence. Third, and significantly, the participants heard from and were enthusiastically accepting of evidence, guidance, and knowledge provided by highly trained and experienced specialists.

“The recent Joint Symposium was a remarkable success in the eyes of those who attended,” agreed Dr. Alan H. Gluskin, American Association of Endodontists member and Joint Symposium committee chair. “The three specialties and our profession were well served by this unique and collegial effort to get back to the foundational principles that underlie our profession – saving teeth and promoting oral health.”

The dental specialties earn their credentials everyday through dedication to research and focused application of evidence-based education and patient care. Our Joint Symposium represented the transfer of this level of information to the larger community of general dentists and it exemplified an emerging role for the specialties to assure the highest levels of professionalism and quality care to the broader community.

## Did You Know?

Earlier this year, 29 program directors were surveyed about the criteria they use in deciding whether to offer an interview to an applicant. Class rank was given the highest average ranking, followed by GPA:



## Illinois Section Meeting

After a several year hiatus, the Illinois Section of the ACP had a Section Meeting on July 16, 2014 at Maggiano’s Little Italy in Oak Brook, IL. In attendance were 16 section members and three staff members from the ACP Central Office. Following an enjoyable meal with friends and colleagues, Dr. Anil Agarwal provided a lecture entitled, “Practice Management: The Importance of the Case Presentation”. This presentation was interactive, informative, entertaining, and appreciated by all in attendance. The IL Section tentatively plans to have its next meeting in March 2015.



## Annual Sessions to Come

Oct. 21-24, 2015  
Renaissance Orlando  
at Sea World

Oct. 5-8, 2016  
San Diego  
Nov. 1-4, 2017  
San Francisco

Oct. 31-Nov. 3, 2018  
Baltimore

## Welcome New Members

*July–August 2014*

### New International Fellow

Dr. Mai H. Al Mujel

### Reinstated Members

Dr. Shereen S. Azer  
Dr. Matthew D. Gemp  
Dr. Olga Malkin  
Dr. Berna Saglik

### New Global Alliance Members

Dr. Anwar A. Al-Fayume  
Dr. Arun K. Thangavel

### New Dental Technician

#### Alliance Member

Mr. James A. Angelone, Jr.

### New Advanced Program and Graduate Student Alliance Members

Dr. Joel E. Diaz-Arana  
Dr. Harrison Gordner  
Dr. Joseph Grant, III

### New Student Members

Dr. Fadi Al Farawati  
Dr. Omar S. Alburawi  
Dr. Hamed Alenezi  
Dr. Mohammad A. Alhaddad  
Dr. Lama R. Aljabr  
Dr. Bahaa Alshawaf  
Dr. Abdulkareem M. AlShehri  
Dr. Luis M. Alvarado Amado  
Dr. Khaled M. AlZahrani  
Dr. Silvia Patricia Amaya-Pajares  
Dr. Ashley A. Amini  
Dr. Watcharapong Aroonsang  
Dr. Midhat M. Asfar  
Dr. Khalid A. Azzouz  
Dr. Jenna M. Benko  
Dr. Sarah Ahmed Bukhari  
Dr. Hamad Burashed  
Dr. Jesus E. Cabrera  
Dr. Ehesar J. Caffroni  
Dr. Nathan E.B. Cain

Dr. Paul Canallatos  
Dr. Jyme Rae Charette  
Dr. Sonchanin Chinsawananon  
Dr. Seung Kee Choi  
Dr. Diana K. Cole  
Dr. Russell J. Crockett  
Dr. Jonathan Hunter Dawson  
Dr. Nicole L. Deakins  
Dr. Andrey V. Doroshenko  
Dr. Alexander S. Drew  
Dr. Hannah C. Drew  
Dr. Benjamin D. Fitzharris  
Dr. Loreta Geneviciute  
Dr. Petrina Gerogianni  
Dr. Heather Lynn Giannotta  
Dr. Darren MJ Goring  
Dr. Tien M. Ha-Ngoc  
Dr. Fernando Harp Ruiz  
Dr. Eric A. Heckenbach  
Dr. Samuel James Hickman  
Dr. Gregory S. Hughes  
Dr. Lauren Jain  
Dr. Faris Z. Jamjoom  
Dr. Wissanee Jia-mahasap  
Dr. Geoffrey Johnston  
Dr. Yu Kato  
Dr. Florian R. Kernen  
Dr. Wei King  
Dr. Drew T. Krena  
Dr. O D. Kwon  
Dr. Evangelia Lampraki  
Dr. Richard A. Langiulli  
Dr. Christine Lee  
Dr. Vanessa K. Leewing  
Dr. Rosemarie Liao  
Dr. Kevin G. Lim  
Dr. Jenny L. Limchoa  
Dr. Dan Lin  
Dr. Michael Ryan Lituchy  
Dr. Joseph A. Lucero  
Dr. João Malta Barbosa  
Dr. Jonathan Mandel

Dr. Sharif A. Mohammad  
Dr. Firas Mourad  
Dr. Joseph R. Muckenthaler  
Dr. Hugh G. Murphy  
Dr. Zachary A. Mursic  
Dr. Nicholas G. Norvell  
Dr. Aaron J. Omura  
Dr. Liliana Alejandra Ortiz Camacho  
Dr. Miguel Angel Ortiz  
Dr. Megha Y. Pathak  
Dr. Federico Jose Pigem Gasos  
Dr. Adrien Bruno Jean Pollini  
Dr. Anthony P. Prudenti  
Dr. Mahmoud A. Qabazard  
Dr. Neha Rajput  
Dr. Ali Hussain Ramadhan  
Dr. Joshua L. Rockwood  
Dr. Nicholas J. Ruggiero  
Dr. Christina M. Schiltz  
Dr. Kimberly K. Schlam  
Dr. Afsaneh Shahrokhi Rad  
Dr. Wesley S. Shute  
Dr. Jose A. Sierra  
Dr. Jessica E. Silvestri  
Dr. Bashar Salahaldeen Snober  
Dr. Pooya Soltanzadeh  
Dr. Tyler J. Thomas  
Dr. Seyed M. Tofighbakhsh  
Dr. Loana M. Tovar Suinaga  
Dr. Candice M. Vinson  
Dr. Geoffrey L. Ward  
Dr. Pandora K. Wojnarwsky  
Dr. James M. Womack  
Dr. Hui Wen Yu  
Dr. Jamie M. Yum  
Dr. Richard E. Zavada

### New Predoctoral Student Alliance Members

Mr. Alexander C. Brao  
Ms. Miranda Krivca



**Job Opportunities**

**California (Sacramento)** – Exceptional opportunity for enthusiastic outgoing prosthodontists to replace retired partner in multi-specialty, multi-doctor, multi-location, dental group. Associate leading to equity partnership. Contact Dr. Brock Hinton at 916-454-0855 or BHinton@prosthogroup.com.

**Colorado (Colorado Springs)** – Board certified Prosthodontist seeking associate with buy in opportunity. Well-established (22 years), fee for service, state of the art practice limited to the speciality of prosthodontics. 3837 sqft; 6 ops; full fabrication in-house lab. Partner of 17 years recently retired. Please send cover letter and CV to seamandds@aol.com.

**Colorado (Denver)** – For Immediate Hire: Mature prosthodontist office in the Denver area is looking for an additional associate to join our practice with purchase options being available in the near future. We are a well known in the community and have enjoyed long term success due to the benefit of an enthusiastic gp and specialists referral base that has helped us prosper! We need a motivated associate/partner that has, or is able to obtain a Colorado license to provide treatment to our many patients. The compensation is commensurate upon experience.

Please contact: Ron Bergloff at 720.431.6060 for questions or email your CV directly to Ron@rostronmanagement.com for further details.



**Florida (Hallandale Beach)** – High-end multidisciplinary team seeking a motivated associate. The center is located in an upscale area near Gulf Stream Plaza. Approximately one mile from the ocean. The practice recently underwent a modern and technological renovation. Please visit us

online at [www.ThePremierSmile.com](http://www.ThePremierSmile.com). Our team coordinates and provides continuing education courses i.e. Invisalign, dental implants, cosmetics, sedation. We employ a wonderful and highly trained staff that focuses on providing high quality care in a state of the art environment. We will provide the practice support needed for your success. Partnership opportunities are available. Please email CV to Howard Corbeau: [howardcorbeau@gmail.com](mailto:howardcorbeau@gmail.com) or fax to (888) 800-4955.

**Georgia (Lawrenceville)** – Prosthodontist Opportunity: Modern, prosthodontic practice is looking for a right associate with partnership opportunity. Knowledge of Spanish is a plus. Fully equipped lab, digital radiography, cone beam CT scan. Georgia Prosthodontics Smile Specialists. Lawrenceville, GA. email: [mysmilespecialist@gmail.com](mailto:mysmilespecialist@gmail.com)

**Michigan (Oakland County)** – Practice opportunity leading to full partnership in a well-established multi-practitioner prosthodontic practice located in Oakland County, Michigan. Fee for service practice: fixed, removable, implant prosthodontics and maxillofacial prosthetics. Full staff including two technicians and 8 operatories. American Board of Prosthodontics certification preferred. Confidential email inquiries to: [PicMichigan@comcast.net](mailto:PicMichigan@comcast.net)

**New York and Vermont (Delmar, NY or Brattleboro, VT)** – Employment Opportunity: 1st Advantage Dental is an established multi-specialty group practice with locations in New York, Massachusetts, and Vermont. Whether it's the Capital District of New York or the beautiful Pioneer Valley of Vermont, we are committed to providing the best possible oral health care to our patients. We are interested in speaking with candidates for full time in Delmar, NY and part time in Brattleboro, VT. Send CV & Cover Letter to [kateanderson@amdpi.com](mailto:kateanderson@amdpi.com)



**South Carolina (Medical University of South Carolina)** – The James B. Edwards College of Dental Medicine, Medical University of South Carolina is seeking applications for a full time Prosthodontist faculty position in the Department of Oral Rehabilitation. The Department provides classroom and clinical instruction for pre-doctoral dental students and AEGD Residents in the areas of operative dentistry, fixed and removable prosthodontics, esthetic dentistry, Cad/Cam dentistry and implant prosthodontics. The Prosthodontist will work collaboratively within all disciplines of the department and other departments of the James B. Edwards College of Dental Medicine in a comprehensive care environment.

Qualified candidates must hold a DDS or DMD degree, have graduated from a Prosthodontics Residency program and be board eligible or certified. Experience in educational innovation, use of technology in education and computer skills are expected with preference given to those with previous teaching and research experience. Successful applicant should have a South Carolina Dental License or qualify for a teaching license. Salary and rank will be commensurate with experience. Participation in the Dental Faculty Practice for private patient care is expected. MUSC is an EEO/AA employer—minorities and women encouraged to apply. Apply online at <http://academicdepartments.musc.edu/hr/>.

**Texas (Austin & Dallas)** – Board certified Prosthodontist is seeking a motivated associate to join our practice with purchase options being available in the future. We offer state of the art technology and facilities: Modern office with fully equipped removable and fixed in-office labs, digital radiography, cone beam CT scan and great support staff. Email [BCPDallas@yahoo.com](mailto:BCPDallas@yahoo.com).

**Wisconsin (Waukesha)** – Eon Clinics, a Premier All-In-One Dental Implant Center located in Waukesha Wisconsin, is seeking a Prosthodontist (graduate of an ADA accredited prosthodontist program), to join our team. We offer state of the art technology and facilities: On site ICAT, dental laboratory and technicians, surgical suites, restorative offices, consultation rooms, and an experienced support staff. Find out more about us at [www.Eonclinics.com](http://www.Eonclinics.com). Please send your current CV directly to [tina@eonclinics.com](mailto:tina@eonclinics.com).

### Practices for Sale

**California (Central Coast)** – Well-established practice located in California's gorgeous Central Coast area. Beautifully appointed, spacious 1,568 sq.ft. office with 4 fully equipped ops, pros lab and other amenities. Situated just minutes from the ocean and <5 miles away from one of California's historic Mission Cities, this practice is nestled in a highly desirable community. 2013 gross receipts were \$1.2M+ and 2014 is annualized at \$1.3M+ on a 4 day doctor workweek, w/4 days of hygiene/week. Approx. 15 new patients a month and ~1,500 active patients (all fee-for-service). Owner/doctor is willing to help Buyer for smooth transition. For more details on this amazing opportunity please call Carroll & Company (650) 403-1010 DRE#00777682.

**California (Palm Desert)** – State of the art specialty practice established in 1992. Digital pano, Dentrrix, 5 ops, lecture room, ADEC equipment, 2,600 sq ft. Prosthodontist that also places implants best candidate.

Adding referrals doubles profits. Need to move out of state and am very motivated to sell. Collected 650k in the first 8 months of 2014. Serious inquiries only. Kept confidential. Email contact info to: [golfinthedesert@gmail.com](mailto:golfinthedesert@gmail.com).

**California (Palo Alto)** – High quality nicely appointed dental practice located in Palo Alto, California on Middlefield Road close to University Avenue and Stanford. Practice age: 35 years. Fee For Service General and Prosthodontics. 929 sq feet with three ops, upgraded computers, Dexis x-rays and Dentrrix G-2. Pleasant reception area, business office, private office, public & private restroom. Doctor is retiring. For more information, please send a cover letter and current CV to [healthcarepracticesales@gmail.com](mailto:healthcarepracticesales@gmail.com) or call Douglas Falk at 408-205-8833.

**California (Rancho Mirage)** – Prosthodontic Practice For Sale. Seller has been in the area since 1991, but moved to a new office in 2012 with four operatories of new equipment. The practice collects over \$750,000 per year on four days per week with three and a half days of hygiene per week. Medical issues necessitate the sale. Pictures of the office can be seen at [www.leeskarinandassociates.com](http://www.leeskarinandassociates.com). Contact Kurt Skarin at 805-777-7707 or by email at [lsainc@aol.com](mailto:lsainc@aol.com) for more details.

**Hawaii (Maui)** – Comprehensive restorative practice. All phases of prosthodontics, perio, implant placement. Established and well respected over 34 years. Excellent opportunity to continue expansion of the practice on the best island in the world. Email: [mauiddmsd@yahoo.com](mailto:mauiddmsd@yahoo.com) or (808) 205-2432.

**Minnesota (Minneapolis)** – Practice for Sale: Long standing and successful Minneapolis prosthodontic practice with a proven recall system in place. Established referral network fueling mainly full mouth dentistry including crown and bridgework, implant and removable prosthodontics. Located within 4 miles of U of M School of Dentistry, 2 miles from downtown. Current prosthodontist willing to continue part time to ensure patient retention. Contact Rebecca at [rebecca@warpeha.us](mailto:rebecca@warpeha.us).

**Washington D.C.** - Practice for Sale: State-of-the-art specialty practice. CBCT, Dentrrix, ALL DIGITAL OFFICE, PELTON AND CRANE equipment, 2,300 sq ft. Prosthodontist that also places implants best candidate. Tremendous growth potential. Serious inquiries only. Kept confidential. Email contact information: [tkristalis@aol.com](mailto:tkristalis@aol.com)

**Washington (Seattle)** – OPPORTUNITY TO LIVE AND PRACTICE IN THE BEAUTIFUL PACIFIC NORTHWEST. PROSTHODONTIC PRACTICE for sale in the greater Seattle area. Outstanding practice with high gross & high net. Building is in a great location with plenty of parking and visibility. Building could eventually be for sale to prospective buyer. Experienced staff will stay on with the practice. Owner would stay on 1-2 days per week for up to a year to ensure a smooth and complete transition.

Contact:  
Buck Reasor, DMD  
REASOR PROFESSIONAL DENTAL SERVICES  
Cell: 503-680-4366  
Fax: 888-317-7231  
email: [reasorprofessional dental@gmail.com](mailto:reasorprofessional dental@gmail.com)

**Washington (Spokane)** – Practice for sale. Unique opportunity in the beautiful Pacific Northwest. Prosthodontic practice just miles from endless year round outdoor recreation. Heavy emphasis on crown and bridge and implant reconstruction. Very strong net and a solid corner in prosthetic dentistry as the only prosthetic practice in North Spokane. There are two full time and one part time prosthodontic practices in the entire city and county. This practice features 6 ops and an active hygiene department and is located in a 2-story professional building with a periodontist, an orthodontist and 4 general practices. Current lease is up on 8/31/2017 with a 5 year option available. Doctor will stay for transition period if desired. Call: O 509-327-4469, C 509-688-9288 or email: [retoother@hotmail.com](mailto:retoother@hotmail.com).



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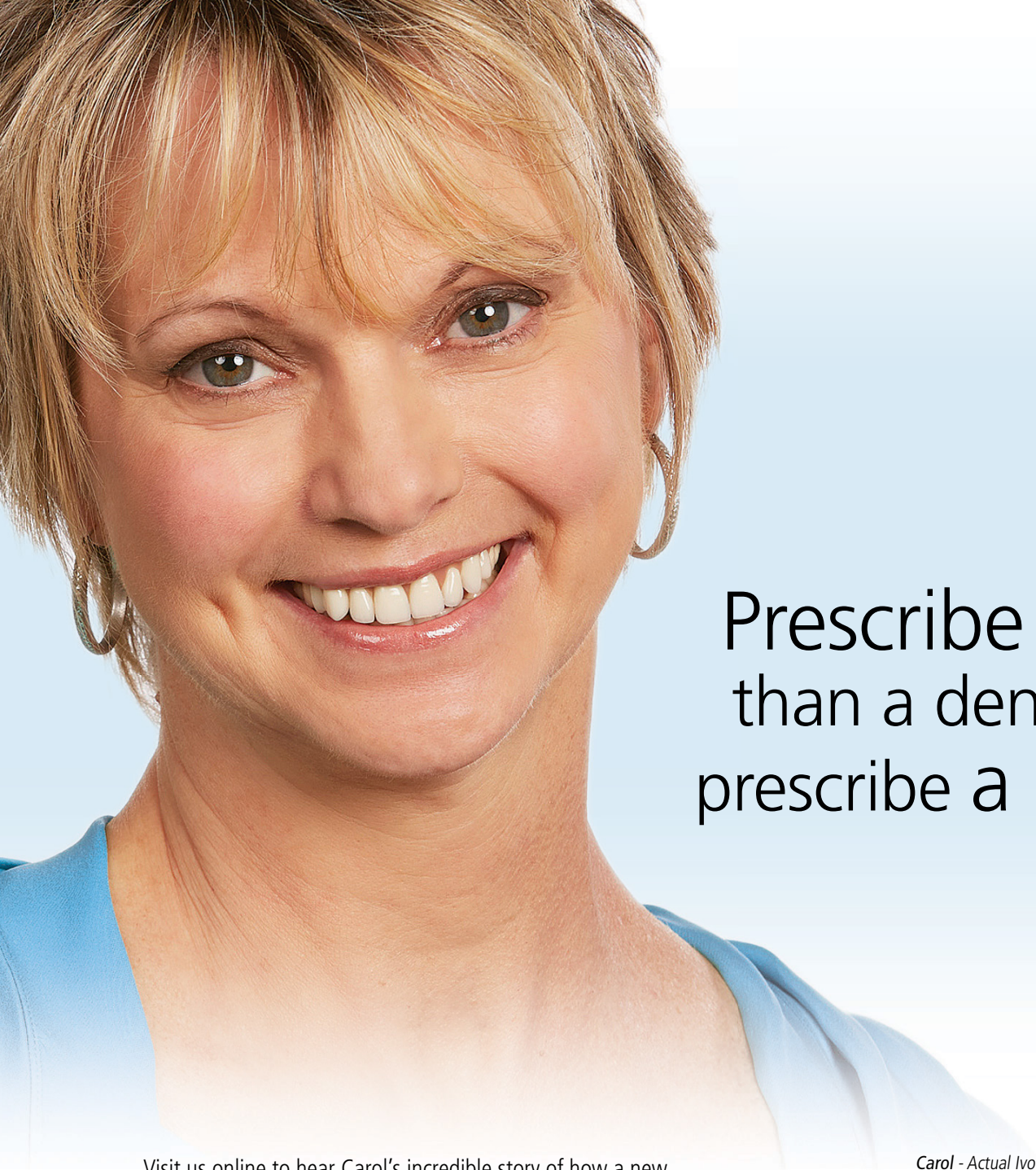
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