Chip checks for oral cancer
Rice's nano-bio-chip effective in pilot study to detect premalignancies

By Mike Williams, Rice News Staff

The gentle touch of a brush on the tongue or cheek can help detect oral cancer with success rates comparable to more invasive techniques such as biopsies, according to preliminary studies by researchers at Rice University, the University of Texas Health Science Centers at Houston (UTHSC) and San Antonio and the University of Texas M.D. Anderson Cancer Center. A new test that uses Rice’s diagnostic nano-bio-chip was found to be 97 percent “sensitive” and 95 percent specific in detecting which patients had malignant or premalignant lesions, results that compared well with traditional tests. The study is available online in the journal Cancer Prevention Research.

“One of the key discoveries in this paper is to show that the miniaturized, noninvasive approach produces about the same result as the pathologists do,” said John McDevitt, the Brown-Wiess professor of chemistry and bioengineering at Rice. His lab developed the novel nano-bio-chip technology at the university’s Bio-Science Research Collaborative. Oral cancer afflicts more than 300,000 people a year, including 35,000 in the United States alone. The five-year survival rate is 60 percent specific in detecting which patients had malignant or premalignant lesions, results that compared well with traditional tests.

‘This Is Your Mouth’ video benefits NCOHF: America’s Toothfairy

By Fred Michmershuizen, Online Editor

“This Is Your Mouth,” a new video from Johnson & Johnson Healthcare Products that is narrated by actor Neil Patrick Harris, takes a closer look at the potential effects of rapidly multiplying bacteria in the mouth and illustrates how LISTERINE Antiseptic destroys the millions of germs that are left behind from brushing alone.

Each time the documentary is viewed, a $1 donation will go from Johnson & Johnson Healthcare Products to National Children’s Oral Health Foundation: America’s Toothfairy. “I never realized how much goes on ‘behind the scenes’ in our mouths, and...
percent, but if oral cancer is detected early, that rate rises to 90 percent.

McDevitt and his team are working to create an inexpensive chip that can differentiate premalignancies from the 95 percent of lesions that will not become cancerous.

The minimally invasive technique would deliver results in 15 minutes instead of several days, as lab-based diagnostics do now. Instead of an invasive, painful biopsy, the new procedure requires just a light brush of the lesion on the cheek or tongue with an instrument that looks like a toothbrush.

“This area of diagnostics and testing has been terribly challenging for the scientific and clinical community,” said McDevitt, who came to Rice from the University of Texas at Austin in 2009. “Part of the problem is that there are no good tools currently available that work in a reliable way.”

He said patients with suspicious lesions, which are usually discovered by dentists or oral surgeons, end up getting a scalpel or punch biopsies as often as every six months. “People trained in this area don’t have any trouble finding lesions,” McDevitt said.

“The issue is the next step — taking a chunk of someone’s cheek. The heart of this paper is developing a more humane and less painful way to do that diagnosis, and our technique has shown remarkable success in early trials.”

Nano-bio-chips are small, semi-conductor-based devices that combine the ability to capture, stain and analyze biomarkers for a variety of health woes that also include cardiac disease, HIV and trauma injuries. Researchers hope the eventual deployment of nano-bio-chips will dramatically cut the cost of medical diagnostics and contribute significantly to the task of bringing quality health care to the world.

The new study compared results of traditional diagnostic tests to those obtained with nano-bio-chips on a small sample of 52 participants. All of the patients had visible oral lesions of leukoplakia or erythroleukoplakia and had been referred to specialists for surgical biopsies or removal of the lesions.

“The chips should also be able to see when an abnormality turns precancerous. “You want to catch it early on, as it’s transforming from pre-cancer to the earliest stages of cancer, and get it in stage one. Then the five-year survival rate is very high,” he said.

“Currently, most of the time, it’s captured in stage three, when the survivability is very low.”

The device is on the verge of entering a more extensive trial that will involve 500 patients in Houston, San Antonio and England. That could lead to an application for FDA approval in two to four years.

Eventually, McDevitt said, dentists may be the first line of defense against oral cancers, with the ability to catch early signs of the disease right there in the chair.

McDevitt’s co-authors include Rice senior research scientist Pierre Floriano, Rice postdoctoral associate Shannon Weigum and Spencer Redding, a professor and chair of the Department of Dental Diagnostic Science at the THSC at San Antonio.

Also contributing were: UTHealth San Antonio’s Chih-Ko Yeh, Stephen Westbrook and Alan Lin, all of the Department of Dental Diagnostic Science; H. Stan McGill of the Department of Pathology and Frank Miller, Fred Villarreal and Stephanie Rowan, all of the Department of Otolaryngology, Head and Neck Surgery; UTHealth Houston’s Nadarajah Vigneswaran of the Department of Diagnostic Science; and Michelle Williams of the Department of Pathology at University of Texas M.D. Anderson Cancer Center.

The researchers received a Grand Opportunity Grant from the National Institute for Dental and Craniofacial Research Division of the National Institutes of Health for the work.

of humor, dental professionals and scientists explain how bacteria multiply and collect in the mouth to form a thick layer called plaque biofilm, which is more harmful than a wandering bacteria and may increase the potential for bad breath and gingivitis. The video also depicts when LISTERINE Antiseptic was first formulated in 1879 and offers rare glimpses of retro advertisements.

“Plaque is not a simple matter, and there is more to be concerned about than meets the eye,” said Marcelo Araujo, DDS, PhD, associate director, scientific & professional affairs, Johnson & Johnson Consumer Products Worldwide, division of Johnson & Johnson Consumer Companies.

“We all need to understand the effects of the plaque biofilm. This ‘documercial’ will educate viewers on the important role that rinsing plays in fighting the plaque biofilm.”

“We are very grateful that the makers of LISTERINE share our commitment to children’s oral health and choose to direct proceeds from the production of ‘This Is Your Mouth’ to NCOHF smile-saving programs,” said Fern Ingher, NCOHF president and CEO.

“This generous donation will enable NCOHF affiliates to continue providing quality treatment and critical preventive services to children under vulnerable populations, effectively break the cycle of preventable dental disease.” The video may be viewed at www.listerine.com/yourmouth.

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Regards,

William W. Oakes, DDS

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Museum showcases the latest technology for dental practices

By Fred Michmershuizen, Online Editor

There’s no doubt that any dentist who has been to a dental meeting recently knows a lot about new technology. Now, thanks to a new exhibit at the National Museum of Dentistry, members of the general public will get to see much of this new technology as well.

The new exhibit showcases some of the most technologically advanced dental treatment systems available for dental offices — from digital X-ray systems that expose patients to less radiation to foot-operated computers that improve the delivery of procedures, reduce patients’ time in the office and improve oral health.

“The ‘Tomorrow’s Dental Office ... Today’ exhibit gives us an opportunity to feature some of the latest advances in dental care, showing how far the techniques of modern dentistry have come and their positive impact on the public,” said National Museum of Dentistry Executive Director Jonathan Landers, in a press release announcing the new exhibit.

The exhibit is made possible through the support of Benco Dental, a privately owned, full-service distributor of dental supplies, dental equipment, dental consulting and equipment services.

“We were honored to be selected to put together the ‘Tomorrow’s Dental Office ... Today’ exhibit for the National Museum of Dentistry,” said Benco Dental President Charles Cohen. “It’s an exciting venture, bringing dental technology to the general public.”

The “Tomorrow’s Dental Office ... Today” exhibit includes the following:

• Dentist operatory equipment from A-dec that was developed to optimize patient ease and comfort in the treatment room while enabling dentists to perform more efficient dentistry.

• The A-dec 500 dental chair, featuring a slim headrest and backrest to give the dentist more time in the office and improve oral health.

• The PaX-Duo3D Cone Beam CT unit from Vatech, featuring switching technology for digital panoramic radiographs or CT scans. The unit has dedicated sensors for each system and an imbedded camera for proper patient positioning.

• The LAVA Chairside Oral captures X-rays via a digital sensor impression system that allows the dentist to both capture and view continuous 3-D images, as well as create precise digital impressions. The benefits of digital impressions include increased patient comfort and decreased seating times.

• The SP Newton LED advanced piezoelectric device from Acteon, which uses ultrasonic vibrations and an array of tips for tooth cleaning, root canal procedures, periodontal surgeries and cavity preparation. The LED lights provide illumination for procedures in the back of the mouth.

• The SoproLIFE (light induced fluorescence evaluator), an intraoral camera and cavity detection device in one. Switching to blue LEDs allows the dentist to see variations in the health of a tooth’s dentin, which can aid in decay detection and decay removal during treatment.

• The MiniLED Autofocus 2 dental material curing light from Acteon that automates the curing process through a complex geometry system.

• The Cleankeys keyboard, featuring a flat surface, which can be wiped down and easily disinfected.

• The Snapshot X-ray sensor from Instrumentarium Dental, providing the latest in digital intraoral radiology technology. It captures X-rays more patient friendly than on film, providing patients with less radiation and dentists with enhanced diagnostic tools.

• The SIROLaser Advance from Sirona, providing preset therapy programs for laser applications in the fields of periodontics, endodontics, surgery and pain relief.

• The SWERV3 Magnetostriuctive Ultrasonic Scaler from Hu-Friedy, delivering a full range of power for efficiently removing calculus on the teeth while still providing patient comfort.

• The SmartLife PS by DENTSPLY, used by the dental team to cure a variety of dental products ranging from cements and adhesives to composites.

• The NOMAD Pro handheld X-ray unit by Aribex, the first for intraoral use. The unit’s light weight and rechargeability allow for its use on humanitarian missions in remote areas and for dental forensic identification following mass disasters. The internal shielding and external backscatter shield protect the operator, making it extremely safe to use.

• The Dental R.A.T., a foot-operated computer mouse and keyboard for hands-free computer use. Developed by a frustrated hygienist to allow for single-person periodontal charting, the unit has become even handler as more patient information is recorded and stored digitally.

At the museum, visitors can also see for themselves how dentistry has changed dramatically over time. Galleries include some of the hand-forged iron tools of the early American dentist on horseback, to the 19th-century office of G.V. Black, known as the “Father of Dentistry,” to the cutting-edge dental equipment available today.

In short, the museum shows how dental care has evolved and oral health has improved through the ages.
Musings from CDA Anaheim meeting

By David L. Hoexter, DMD, FACD, FICD, Editor in Chief

The California Dental Association (CDA) had its annual southern meeting in Anaheim, Calif. on May 14–16. The very successful meeting was facilitated by the spacious and plentiful facilities of the convention center.

The CDA presented a multitude of educational courses, including practical “hands-on” lectures, which were all very well attended.

The commercial booths were a delight, both from the participants’ and the exhibitors’ points of view. Course times were staggered, allowing for a constant flow of participants on the commercial floors, and avoiding mad rushes and bunched-up crowds of participants. Also, the comfort and enjoyment of the participants was the presence of wide aisles in the commercial areas.

The highlight of the meeting for me was the appearance of “The Greatest,” Wayne Gretsky. He was at the Glove Club booth, meeting and speaking with the attendees. Gretsky is truly one of the great athletes, the finest hockey player of all time, much taller than I had thought, and humble to boot. He even signed pucks for all who requested it. He regaled me with conversations about his career and his personal relationship with dentistry.

Interestingly, it appears that most hockey players eventually need dentistry, especially when their playing careers are over. Gretsky truly sets an example, both in leadership and class.

The CDA has dedicated an area called “The SPOT,” and equipped it with comfortable couches, chairs, conversational areas and work cubicles and tables with electrical outlets for computers and cell phones.

The CDA also cleverly arranged for educational presentations and hands-on courses around The SPOT. As described by Dr. Rick Rouvelle, an experienced member of the CDA Board of Managers, it is “a work in progress.” Dr. Craig S. Yarborough, also a dedicated member of the board of managers of the CDA, believes The SPOT will grow and adapt to the participants’ needs and desires.

It is a wonderful concept, already being copied by other meetings. The SPOT is a well thought-out concept, enabling both a networking and a welcome working area, with room and ideas to grow.

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This meeting is the representation of the southern portion of California. The northern section will be represented this fall in San Francisco, which I have reported on in previous years. Although the CDA has two separate meetings each year, the personnel working on these meetings, including the CDA executives, the CDA Board of Managers and the staff all work as one unit with two excellent results.

This CDA meeting was a well-organized meeting and presented up-to-date knowledge of possibilities and availabilities in dentistry today.

About the author

Dr. David L. Hoexter lectures throughout the world and has published nationally and internationally. He has been awarded 11 fellowships, including FACD, FICD and Pierre Fauchard. Hoexter maintains a practice in New York City limited to periodontics, implantology and esthetic surgery.

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Employee embezzlement: Don’t let it happen to you

By Stuart Oberman, Esq.

The day-to-day pressure in running a dental practice is enormous, especially in today’s economy when every dollar counts. Unfortunately, dentists spend most of their day practicing dentistry instead of supervising the staff members who manage their dental practice. In this type of atmosphere, embezzlement can thrive.

According to industry statistics, approximately 40 percent of dental offices have been or will become the victim of employee embezzlement.

Recent studies indicate that employee embezzlement in a dental office has become so rampant that it accounts for the majority of ordinary business losses suffered by dentists.

The average amount of employee embezzlement from a dental office is approximately $105,000 per incident, which is a staggering amount.

Listed below are signs employee embezzlement may be taking place:

- You fail to receive financial information in a timely manner.
- Employees are resistant to any type of change in the present accounting system.
- You have large numbers of unexplained accounting adjustments.
- Your collections have slowed.
- Your cash deposits have declined.
- An employee refuses to take a vacation.
- A staff member resents your income or lifestyle.
- An employee always works late and/or takes work home.
- You have employees who always seem to have cash on hand, and/or appear to live above their means.
- An employee treats office procedures as an annoyance.

Perform an embezzlement audit of your practice

If you suspect that an employee is embezzling funds, there are three ways to initiate a practice audit.

1) Request that your accountant performs a practice audit or hires a forensic accountant that specializes in employee embezzlement;
2) Ask your accountant to design a brief self-audit process for you to follow; or
3) Perform an immediate, cursory, on-the-spot random audit by pulling approximately 15 to 20 patient charts from the past week’s schedule in order to confirm that the treatment performed has actually been posted to each patient’s account.

If you suspect embezzlement in your practice

Anytime you suspect that you are the victim of embezzlement, you should seek legal advice immediately. Your attorney should prepare an investigation strategy that should include working closely with your practice CPA or an outside forensic accountant.

When the owner of a dental practice is first confronted with the prospect of employee embezzlement, there are four primary objectives, which are:

1) to determine whether employee embezzlement has actually taken place,
2) to determine the total amount and method(s) of the theft,
3) to remove the dishonest employee from the workplace (and take remedial actions to prevent employee embezzlement in the future), and
4) to recover the money or property lost.

Conducting the investigation

It is extremely rare that an employee is actually caught embezzling funds by direct observation. Most embezzlement cases are detected based upon initial circumstantial evidence, such as an inconsistent practice financial report or through a random audit.

If you suspect that employee embezzlement has taken place, one of the first things you should do is conduct an investigation with an attorney and CPA in private, and proceed with extreme confidentiality.

The reason for this is two-fold: to avoid exposure to defamation claims and to avoid premature disclosure of information to the wrong party.

The next step is to identify employees at every level of the practice that had access to financial information and the opportunity to commit the theft. In addition, it is important that you identify employees that may have known that embezzlement was taking place, but failed to disclose it.

All employees with access to financial information and the opportunity to commit the theft should be included in the investigation regardless of their employment record, length of employment or position within the practice.

For substantial losses, an attorney should assist in the investigation including a partner in the practice, if you have one. No one should be exempt from investigation, including a partner in the practice, if you have one.

If you suspect that the loss is potentially large, or the theft appears to be complex, you should always seek the advice of legal counsel, a CPA, a computer-data-retrieval specialist and other required experts to assist in the investigation.

It may be appropriate for such experts to be hired by outside legal counsel in order to maintain privileged communication with the experts and to avoid any appearance of a conflict of interest.

At the early stages of an employee embezzlement claim, and depending on the extent of the theft, you may wish to contact your insurance agent in order to determine whether you have employee dishonesty coverage. Most insurance policies have strict time requirements for reporting an employee dishonesty claim.

For substantial losses, an attorney should assist in the investigation, and proceed with extreme confidentiality.

The owner of a dental practice or the office manager should never interview any employee without seeking the advice of legal counsel.

Appropriate disciplinary action

Once the investigation has been thoroughly completed, and if you have determined that employee embezzlement has actually occurred, you must decide what action you should take, including termination of the suspected employee.

In certain ways, investigating suspected embezzlement is similar to investigating other employ...
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The scope and manner of the investigation will depend in part on the size and complexity of the theft.

Of course, as with any investigation, the employer’s rights and abilities to investigate the facts and circumstances surrounding the incident are intertwined with the myriad of rights and protections conferred upon employees by federal and state law.

An often-discussed issue is whether a dishonest employee’s pension or profit-sharing plan may be seized in order to repay the amount of money that was embezzled.

The Employee Retirement Income Security Act (ERISA), as construed by the courts, may very well prohibit any type of garnishment, attachment or constructive trust regarding an employee’s pension or profit-sharing plan, even if an employee is terminated for embezzlement. However, an employee may voluntarily request distribution of his or her plan in order to repay the amount that was stolen. Extreme care must be used in order to avoid any type of undue coercion or duress should this path be undertaken.

Recovering the losses
Depending on whether the loss is covered by your insurance policy, and if so, the amount of the deductible, the owner of a dental practice may wish to file a civil action against the dishonest employee in order to recover any type of loss.

However, the prospects of recovery (depending on the wrongdoer’s assets) may not justify the costs of litigation.

Another avenue to consider is criminal prosecution, which can be a very slow process. It is important to note that civil lawsuits and criminal prosecution are matters of public record, and as a result, you must weigh the consequences of any adverse publicity.

Summary
In today’s marketplace, employee embezzlement is rampant. However, with a little precaution, the financial hardship of employee embezzlement can be avoided.

In addition, with proper employee screening, proper control and oversight, as well as prudent financial control, a devastating financial loss can be avoided.

Stuart J. Oberman, Esq., has extensive experience in representing dentists during dental partnership agreements, partnership buy-ins, dental MSOs, commercial leasing, entity formation (professional corporations, limited liability companies), real estate transactions, employment law, dental board defense, estate planning and other business transactions that a dentist will face during his or her career.

For questions or comments regarding this article, visit www.gadentalattorney.com.
Implant fracture: A look at the physical mechanisms for failure

By Dov M. Almog, DMD, Odalys Hector, DMD, Samuel Melcer, DMD and Kenneth Cheng, DDS

The etiology and physical mechanism of fractured dental implants phenomenon have been reviewed and studied at length in recent years.1,2 For the most part, the studies concluded that the crown-to-root ratio guidelines associated with natural teeth should not be applied to a crown-to-implant restorations ratio. According to these studies, the crown-to-implant ratios of those implants that were considered successful at the time the reviews took place were similar to those implants that failed. Apparently, according to some of these studies, the guidelines that are used by some clinicians to establish the future prognosis of implant-supported restorations are usually empirical and lack scientific validation as far as the possible causes for implant fractures. However, as oral implantology has been the fastest growing segment in dentistry, the gaining of insight into these failure processes, including the accurate understanding of critical anatomical, restorative and mechanical information, might stimulate the clinicians' implementation of preventive action that may avoid the future fractures outcome with dental implants.

Case report
A 72-year-old Caucasian male recently presented to our clinic. Consistent with the patient's chief complaint, a comprehensive oral and maxillofacial examination, including full-mouth X-rays, revealed, among other things, two fractured endosseous implants #6 and #7 (Fig. 1). These 3.3 mm x 15 mm implants (Lifecore Biomedical, Chaska, Minn.) were placed and restored in 2003. The implants were allowed to integrate for six months. No surgical complications were noted during this time. At the conclusion of the six-month waiting period, the implants were uncovered in the normal manner and healing abutments placed.

The implants were subsequently restored with implant-supported crowns that were functional for approximately six years until the implants fractured. While this treatment option was developed with an appreciation of the patient's occlusal and mechanical circumstances and habits, following the implants' fracture, a retrospective analysis of the site planned for the implants revealed extended inter-occlusal space on the articulated models and widespread occlusal wear of the opposing dentition (Fig. 2).

Figs. 1A, B: Implants #6 and #7 (Lifecore Biomedical, 3.3 mm x 15 mm) before (A) and after the fracture (B).

Proceeding with careful assessment of all the available retrospective diagnostic information and upon further discussion with the patient, several diagnostic assumptions and one follow-up treatment option were established that included replacement of the implant-supported crowns by a removable cast partial denture.

Considering the need for the removal of fractured implants must be balanced against the risk of increasing damage, a decision was made to remove the remaining abutment and the fractured piece of implant #6 allowing for primary closure of the site over the remaining implant bodies #6 and #7, i.e., “put them to sleep” (Fig. 4). This was followed by insertion of an immediate castable partial removable partial denture, and subsequently, a cast partial denture will be fabricated.

This report attempts to provide an argument in favor of the consideration of physical mechanisms as potential contributors to implant fractures. While controversy continues to exist as to whether crown-to-root ratio can serve as an independent aid in predicting the prognosis of teeth,3 the same certainly applies to crown-to-implant ratio, unless multiple other clinical indices such as opposing occlusion, presence of parafunctional habits and material electrochemical problems, just to name a few, are considered.

Implant fractures are considered one potential problem with dental implants, especially delayed fracture of titanium dental implants due to chemical corrosion and metal fatigue.4

Following careful review of the referenced articles, which are very enlightening, we realized that to a great extent they support our theory that there are multiple factors involved in implant fractures. These factors include magnitude, location, frequency, direction and duration of compressive, tensile and shear stresses; gender; implant location in the jaw; type of bone surrounding the implant; pivot/fulcrum point in relation to abutment connection; implant design; internal structure of the implant; length of time in the oral environment as it relates to metallurgical changes induced in titanium over time; gingival health and crown-to-implant ratio.

Considering the multiple factors involved in implant fractures, both physical and biological, we can only assume that it can happen especially if the forces of the opposing occlusion and/or parafunctional habits are greater than the strength of the implant, especially over time.

Therefore, it is imperative that the clinician be knowledgeable about the diversity of factors before recommending dental implants. Errors in diagnosing potential con-
Contributors to implant fractures are the most common reason that dental implants fail.

Conclusion
Although, according to the literature, the use of the crown-to-implant ratio in addition to other clinical indices does not offer the best clinical predictors, and even though no definitive recommendations could be ascertained, considering that dental implants are becoming increasingly popular, an increase in the number of failures, especially due to late fractures, is to be expected. This report attempted to provide an argument in favor of consideration of physical mechanisms as potential predictors to implant fractures. Therefore, it is essential for us to familiarize ourselves with the understanding, and diagnostic competence of the multiple factors involved in implant fractures. Once observed, this predictor would certainly lead to better diagnosis and treatment planning.

A complete list of references is available from the publisher.

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Figs. 4A, B, C: The remaining abutment and the fractured piece of implant #6 were removed, allowing for primary closure of the soft tissue over the remaining implant bodies #6 and #7 (A, B), followed by an insertion of an immediate acrylic removable partial denture (C). (Photos/Provided by Dr. Dov M. Almog)
Two is better than one

The Greater New York Dental Meeting announces two Live Dentistry Arenas with no tuition and no pre-registration fee

As the leading dental convention and event in the United States, the Greater New York Dental Meeting (GNYDM) continues to grow and reach for new innovative programs in hopes of attracting the most renowned clinicians and dental professionals from around the world.

In 2009, the GNYDM registered 59,166 attendees from all 50 states and 124 countries, a remarkable increase from the previous year. The GNYDM organizers feel that the event must contain programs to inspire the entire dental team to excel in their profession.

The 2010 meeting has expanded to include two Live Dentistry Arenas in order to incorporate more cutting-edge oral health-care programs.

In 2009, the GNYDM not only filled the arena’s seating for 500 attendees during the entire four days, but also had an additional 100 attendees watching from outside the arena.

With attendance such as this, it is no wonder the GNYDM is expanding to include another eight sessions as a part of its live dentistry program. The meeting will now offer 16 three-hour live sessions that will occur in two separate arenas during all four days of the meeting.

Dr. John Halikias, general chairman of the GNYDM, stated, “The Live Dentistry Arena is a place where the most prominent and respected clinicians can share breakthrough technology and techniques, allowing dental professionals the chance to learn the most about innovative dental products, technology and procedures.”

This year, the GNYDM is offering an innovative live hygiene session where, for the very first time, dental hygienists and assistants will learn and see the latest materials and equipment available on the market to advance their skills and knowledge.

In these two modern high-tech arenas, attendees will watch procedures on numerous 60-inch high-definition LED screens that will project up-close views of live procedures right on the exhibit floor. By using the most modern equipment to view real-time dental procedures, the GNYDM continues to set educational standards that other dental meetings seek to emulate.

Due to its immense popularity, the arenas fill up quickly so be sure to pre-register and arrive early to obtain a seat at one or all of the tuition-free sessions.

Check out the schedules (see tables) and visit the GNYDM’s website at www.gnydm.com for additional information and updates on this year’s Live Dentistry Arenas as well as other workshops, seminars and essays scheduled for the 86th annual session.

During the holiday season, New York is indeed a magical place to be, with the city dressed up in all its holiday finery; the festive spirit is evident citywide. New York City has something for everyone during this spectacular time.

Meeting attendees can enjoy world-renowned museums, Broadway theaters, restaurants, historical sites and stores lavishly decorated for the season. A must-see event includes the annual lighting of the Christmas tree at Rockefeller Center, which takes place on Wednesday during the Greater New York Dental Meeting.

“No pre-registration fee for dentists, their staff and their families is only found at the Greater New York Dental Meeting. We want the entire dental team not only to enter the meeting at no cost, but to have the opportunity to attend at least eight hours of free continuing education programs every day,” said GNYDM Executive Director Dr. Robert Edwab.

Come be a part of the GNYDM and experience New York City during one of the most marvelous times of the year starting on Friday, Nov. 26 and continuing through Wednesday, Dec. 1.

For additional information, please contact the Greater New York Dental Meeting at 570 Seventh Ave., Suite 800, New York, N.Y., 10018-1608; telephone (212) 398-6922; fax (212) 598-6934; info@gnydm.com. ■

(at right) Dr. Bruce Lish of New York City prepares for his talk on ‘Mini Dental Implants to Retain Lower Dentures’ in the Live Dentistry Arena on Tuesday, Dec. 1, 2009.

![Image of the Greater New York Dental Meeting arena](image1)

![Image of the Greater New York Dental Meeting arena](image2)

![Image of the Greater New York Dental Meeting arena](image3)

![Image of the Greater New York Dental Meeting arena](image4)

![Image of the Greater New York Dental Meeting arena](image5)

Live Dentistry Arena No. 1

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Henry Schein, Inc., the largest distributor of health-care products and services to office-based practitioners, and the New York University (NYU) College of Dentistry have announced a five-year sponsorship of the dental school’s national and international outreach programs—the NYU College of Dentistry Henry Schein Cares Global Student Outreach Program.

Through the sponsorship, Henry Schein will provide dental supplies to be used for each individual program throughout the year. In 2010, the six geographic areas targeted for outreach include the tri-state region of Grenada, Hudson, N.Y.; Chiquilistagua, Nicaragua; Santo Domingo, Dominican Republic; Fort Yukon, Alaska; with a program to be initiated in Machias, Maine in the fall. The program’s model is designed to be both clinically and financially sustainable.

“Care for the community’s sustainability is in pediatric care, which is obtained through education, prevention and comprehensive care. In addition to oral health care education, the program provides emergency dental services for adults and complete, comprehensive care for the pediatric population, including oral health screenings, fluoride varnish applications, sealants, restorative treatments, root canal therapy and extractions.

In many cases, there is also an opportunity to identify and train local members of the community to help extend oral health education and prevention on an ongoing basis.

"We are privileged to build on our two-decade strategic relationship with NYU College of Dentistry through this valuable oral health initiative that makes an important impact in underserved and at-risk communities around the world, while enriching the professional experience of students and faculty," said Stanley M. Bergman, chairman and chief executive officer for Henry Schein.

"This aligns well with our mission of ‘helping health happen’ through Henry Schein Cares, our global social responsibility program, by underscoring the importance of good oral health prevention programs on a long-term sustainable basis, and improvement in the quality of care for patients who will benefit from these outreach efforts.

The first mission for 2010 took place in Grenada. A 45-member team of dental providers and public health specialists from the NYU College of Dentistry Henry Schein Cares Global Student Outreach Program spent two weeks in January performing a national oral health survey of the children and providing free oral health care to Grenadians. Henry Schein efficiently facilitated the international shipment of 1,500 pounds of requisite supplies and helped ensure that the team’s clinical operations ran smoothly.

During the mission, NYU dental team participants conducted a comprehensive nationwide oral health assessment, which included the examination of 1,075 children at 22 schools throughout the country.

The findings of this assessment, as well as recommendations for the establishment of a sustainable oral health model for the country, were presented to the Grenadian Ministry of Health in June 2010. NYU dental team participants also provided free general and emergency dental care for hundreds of children and adults— including root canals, fillings and extractions—at the Tivoli Medical Clinic in St. Andrew’s Parish.

In addition, NYU dental team participants provided education for parents on the importance of preventive oral health care and provided free continuing professional education in both the specialties of pediatric dentistry and endodontics for dentists throughout Grenada. The NYU College of Dentistry Henry Schein Cares Global Student Outreach Program plans to return annually to Grenada to maintain the care provided to the children of Tivoli in St. Andrew’s Parish.

The second mission for 2010 took place in Chiquilistagua, Nicaragua. A dental team from the NYU College of Dentistry Henry Schein Cares Global Student Outreach Program travelled to Chiquilistagua and provided free emergency dental care for adult patients. The team also conducted oral health assessments and provided free fluoride varnish treatments and sealants for school children as part of the program’s sustainability and preventive oral health care model. More than 800 adults and children were treated throughout the duration of the program.

Subsequent missions for 2010 included NYU College of Dentistry Henry Schein Cares Global Student Outreach Program participants conducting various dental outreach programs in Hudson, N.Y. as well as a two-week trip north of the Arctic Circle in Alaska to Fort Yukon, Arctic Village, Circle and Venetie.

“Henry Schein shares NYU’s commitment to advancing global oral health, to providing and sharing working models for education and treatment, and to establishing sustainable community-based programs where they are most needed,” said Dr. Charles N. Bertolami, dean of the NYU College of Dentistry.

"Over the past 18 years, the NYU College of Dentistry has developed a dental outreach program designed to reduce disparities in access to dental care resulting from geographic, physical, developmental, financial and cultural barriers. This has evolved to become a unique, sustainable model, with teams of dental faculty, students, post-graduate residents and staff annually participating in a series of week-long visits to underserved communities.

"Our relationship with Henry Schein will help us further extend the scope and impact of this important initiative."

The NYU College of Dentistry provides an extensive array of student outreach opportunities. Students have the opportunity to participate in local outreach programs for schoolchildren, the elderly, people with disabilities, the homeless and other underserved populations.

In 1995, the NYU College of Dentistry introduced an international outreach program, which started in the Dominican Republic and expanded to Jamaica, Honduras, Nicaragua, India and Tanzania. Early models included a venture with Miracle Corners of the World in Tanzania, providing education and clinical services to the communities of Arusha and Songea.

The clinical services also have expanded from an initial focus on emergency care to a more comprehensive approach that includes restorative care, endodontics, pediatric care and clinical sustainability.
Why dentists need a secondary income

By Kevin Thompson

Though they may not admit it openly, many dentists are extremely frustrated with their practice. How can I be so sure? Simple. I’ve spent time talking with many of them, and have been amazed by how open and candid they’ve been with me. Maybe it’s because I’m not associated with the profession, and they know their secrets are safe with me?

I was recently in Louisville, Ky., speaking with a group of dentists, and that evening I had the opportunity to speak privately with one dentist in particular who told me how frustrated he was with everything that was happening to him.

His practice was completely controlling his life, and he felt trapped. He found himself adding and adding to the list of things he had to do in order to grow his practice — and now he was becoming increasingly frustrated with the whole process.

In November of last year, I was in Las Vegas, speaking for another group of dentists, and the same thing happened. When the Vegas event concluded, several dentists stayed afterward so they could speak with me privately. Surprisingly, I heard much of the same story that I’d heard in Louisville months earlier.

I’ll never forget the conversation I had with one of those dentists. He was in tears as he told me about his situation. Though he had a thriving practice that provided him with a great lifestyle, his personal life was a mess. His wife was preparing to file for divorce. His daughter wanted nothing to do with him. Basically, his entire personal life was “caving” in on top of him, and he was desperately searching for answers.

At this point, you’re probably wondering, who in the heck I am and why are so many dentists coming to me for advice? My name is Kevin Thompson (and though you and I come from different worlds), we have more in common than you might imagine.

In 1996, I started my first business with huge dreams and aspirations. By 1999, I had a business that was massively successful by most people’s standards, but I was completely miserable. And as I began to look at what I’d created, I thought to myself, “This is not what I had in mind when I originally started going down this path.”

To make a long story short, I took swift action to remedy the situation. Now, I have a business that compensates me more than I could possibly imagine, for doing what I love doing, and this business fits in perfectly with the lifestyle that I’ve chosen to live. Since figuring out how to have a “lifestyle-business” of my own, I’ve been on a mission to help as many other people as I can by sharing my discovery.

So, let me ask you a question: If you woke up excited every morning knowing that you’d be spending your day doing what you loved, and that you got compensated extremely well for doing it, what’s the thing you’d most want to be doing? Because the fact is, life is too short to spend all your time doing stuff that you don’t even enjoy.

What if I were to tell you that you could have a lifestyle-business that compensated you better than you ever imagined, was more fun than you ever imagined, and you wouldn’t have to sacrifice your integrity, family or health in order to make it happen? In my business I collect $100,000-plus per month with less than 15 percent overhead, have no stress and have zero employees. To find out if this is a right fit for you, go to page 3A of this publication. P.S. If you currently enjoy your dental practice, what would happen to your income stream (lifestyle) if you become disabled?

Visit www.oda.org for more information!
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- caries removal

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- stain removal
- caries removal

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Bone expander drills are an alternative to osteotomes for the expansion and condensing of the atrophic mandible and maxilla in preparation for dental implant insertions. Expanders are also an alternative to the maxillary sinus elevation technique.

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A banker’s bond: When less is more

By Sarah Kong, DDS

This banking executive was recently chosen as the official cosmetic dentist for the Georgia and South Carolina United States Pageant contestants.

Morton said he is excited to help contribute to the grace and beauty of the event by making every smile as beautiful as it can be.

The United States Beauty Pageant provides a great opportunity for women from all over the country to showcase their talent and beauty on a national stage. The competition brings together representatives from every state to compete in a wide range of areas.

These young women strive to be the best they can be in all aspects of their lives, always reaching for excellence in education, community service and peer leadership. Recently, Copelyn Jue of Georgia was named 2009 Miss Junior Teen United States.

A great deal of preparation goes into competing for such a title, with the greatest attention paid to every possible detail. The flowing evening gown must be hemmed just right, special talents practiced over and over again, and of course nothing less than a little more. This time, he wanted to see how we could make his teeth look more aligned, and again, without the aid of orthodontics. He asked about porcelain veneers for all his teeth, wondering if this was a feasible option.

Fig. 1A: Before, pre-op, full face.

Fig. 1B: After, happy patient.

Closer clinical examination revealed several cosmetic issues including, but not limited to:

1) palatally inclined lateral incisors,
2) prominent and mesially rotated canines,
3) #9 slightly more retroclined than #8,
4) an uneven gumline due mainly to a large cervical divot on #8 with associated gingival overgrowth,
5) anterior crowding and
do retruded premolars that made the smile end at the canines in a narrow arch form (Fig. 5).

We discussed all these factors with the patient and then, as before, we did a mockup of teeth #7 through #10 to show the patient what he would look like with four resin veneers (Fig. 5).

The patient did not understand the need for the gumlift on #8, so we added bonding to the gumline to give the illusion of a more uniform gumline that the patient could see and understand.

At this stage, we pointed out how his premolars seemed to drop off his smile and get lost in the buccal corridor. The premolars on one side were mocked up as resin veneers so he could see the difference the extra teeth would make in comparison to the other side if left undone.

Georgia cosmetic dentist treats beauty pageant contestants

By Fred Michmershuizen, Online Editor

Talk about having it made. Dr. Darrell Morton was recently chosen as the official cosmetic dentist for the Georgia and South Carolina United States Pageant contestants.

Morton said he is excited to help contribute to the grace and beauty of the event by making every smile as beautiful as it can be.

The United States Beauty Pageant provides a great opportunity for women from all over the country to showcase their talent and beauty on a national stage. The competition brings together representatives from every state to compete in a wide range of areas.

These young women strive to be the best they can be in all aspects of their lives, always reaching for excellence in education, community service and peer leadership. Recently, Copelyn Jue of Georgia was named 2009 Miss Junior Teen United States.

A great deal of preparation goes into competing for such a title, with the greatest attention paid to every possible detail. The flowing evening gown must be hemmed just right, special talents practiced over and over again, and of course nothing less than the best must be ensured for the trademark of any beauty queen: her smile.

Morton, a dentist based in the Atlanta area who has a practice called Mint 32, was chosen from a wide range of dental professionals for the position.

He will work with contestants of the following pageants: Mrs. South Carolina United States, Miss Georgia United States, Miss South Carolina United States, Miss Teen South Carolina United States, Miss Junior Teen Georgia United States and Miss Junior Teen South Carolina United States.

Morton and the entire Mint 32 team have been providing professional dental treatment and personal care to residents of the greater Atlanta area for years.

Yet patients do not have to be beauty pageant contestants. Mint 32 provides professional care and personal service to every patient.

“Any smile can be effectively treated with the wide range of cosmetic procedures offered,” Morton said.

“Bonding can quickly repair damaged or misaligned teeth, porcelain veneers can cover unsightly gaps or stains, and professional whitening procedures can brighten any smile.”

Dr. Darrell Morton is pictured with two beauty pageant winners. (Photo/Provided by Mint 32 Dentistry)
Multiple images were taken of the various mockup options and e-mailed to the patient, along with multiple treatment plan options. After careful consideration, the patient opted to do the resin veneers on teeth #7 through #10 as well as the gumlift. It was because of the mockup and photographs that the patient realized the value of the gumlift in creating a more ideal smile. He wanted to think about the resin veneers for the premolars and possibly have them done in the future.

The procedure

The patient presented for the bonding appointment with his teeth whitened and ready to go. We began by placing topical anesthetic before anesthetizing teeth #7 through #10 with The Wand. Subsequent injections of Lidocaine were placed around the gumline of teeth #7 through #10 before electrosurgery of the gums.

Using Bident, a bipolar electrosurgery unit, the gingiva around #8 was contoured to ideal proportions (Fig. 7). Once the gingiva was removed, it was discovered that the underlying bone had grown into the cervical divot of #8, right on top to the enamel. It was then decided that crown lengthening would be indicated, so a small, round diamond bur was used to contour the bone to match the ideal gumline.

We proceeded to contour the gingiva. Fig. 7: Gumline after Bident and CCL.

Fig. 8: Immediate post-op of resin veneers and gumlift on #7 through #10.

Tell us what you think!

Do you have general comments or criticism you would like to share? Is there a particular topic you would like to see articles about in Cosmetic Tribune? Let us know by e-mailing feedback@dental-tribune.com. We look forward to hearing from you!
Fig. 9: Two weeks post-op, close-up, retracted.

Fig. 10: Two weeks post-op, close-up.

giva on the mesials of #7 and #10 and to create symmetry of #9 with that of tooth #8 (Fig. 8).

The Bident unit allowed for gentle, clean coagulation in a wet field. There was no grounding needed, and because the unit is meant to be used with water, there was no tissue charring or shrinkage.

A more effective, more precise and safer result was achieved with essentially no post-op bleeding — a perfect scenario for bonding teeth immediately with no worries of a contaminated field.

The teeth were now ready to be bonded. They were carefully cleaned with pumice to remove any surface debris and stains. Metal strips were placed interproximally to isolate each tooth.

Then they were microetched with aluminum oxide to allow for better mechanical retention. Thirty-seven percent phosphoric etch was placed and rinsed before the application of a bonding agent, such as OptiBond Solo Plus Unidose.

Tooth #8 was bonded first using various layers of composite, starting with a microhybrid (Premise) and ending with a microfilled composite (Renamel). This tooth was contoured and polished with a series of polishing discs (Shofu) before proceeding so that the next tooth (#9) could be matched to this tooth without being bonded to it.

Teeth #7, #9, and #10 were bonded in a similar fashion with various shades to create a more natural, graded appearance.

As before, each tooth was polished before bonding the next one. Final contouring and polishing were achieved and a high shine was gained with a Twist-2-It and polishing paste.

In about two hours, the patient had a new smile! Even the gumline looked amazing immediately post-op with no bleeding (Fig. 9).

Gentle Gel, an aloe vera and herbal-based gel, was placed along the gumline and given to the patient to apply at home to help soothe the gums and provide for quicker healing.

The patient was amazed and in love with his new smile, even immediately post-op.

When he returned for his two-week follow-up visit, the gums were ideally contoured and the resin veneers looked wonderful, and the patient said they felt wonderful, too (Fig. 10).

No polishing was needed, so we just did another high shine polish to make them sparkle. Post-op photographs were taken and the patient loved the results (Fig. 11).

He also mentioned that he had no post-op pain originally and the gums looked and felt better in just a couple days after the bonding appointment.

Overall, the patient was ecstatic about the dramatic improvement, especially how contouring the gumline contributed immensely to the final cosmetic result.

He also loved the fact that orthodontics was avoided and a beautiful smile was achieved in a single bonding appointment with a minimally invasive approach — less is more.

Now he is already thinking about and looking forward to his next dental venture — resin veneers for his premolars.

Advanced registration for the 2011 AACD meeting in Boston, May 18–21, opens this month! For more details, visit www.aacd.com.

About the author

Sarah Kong, DDS, graduated from Baylor College of Dentistry, where she served as a professor in restorative dentistry. She focuses on preventive and restorative dentistry, transitionals, anesthesia and periodontal care.

Kong is an active member of numerous professional organizations, including the American Dental Association, the Academy of General Dentistry, the American Academy of Cosmetic Dentistry, the Texas Dental Association and the Dallas County Dental Society.

You may contact her at drkong@dallasdentalspa.com.
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How a technical advisor can help your lab

Introducing a bimonthly column focused on the liaison between the clinician and technicians

By Kevin Kim

“You have one new voicemail,” my cell phone read early one Saturday morning. I knew who it was, and I knew what it was about. One of my clinicians in Ohio was calling to thank me regarding the Jane Doe case that we ardously planned over a period of a month. And although 2,000 miles separated myself and the clinician, because we stayed in constant contact, the case dropped right in with no adjustments.

The key to every successful clinician/laboratory relationship is clear communication. Keating Dental Arts has set aside a whole department dedicated solely for this purpose, and this has played a key role in our success.

As a technical advisor, it is my job to act as a liaison between the clinician and the technicians to ensure the best result for the patient. On any given day, each technical advisor at Keating Dental Arts will evaluate 50-60 cases that need to be addressed with our respective accounts. These cases range from simple calls such as a needed shade or a missing opposing cast to complex treatment planning. In the end, it is important for both the clinical team and the laboratory to work together for the benefit of the patient.

How many frustrated patients have stormed out of the clinician’s office? How many hours of chair time have been lost as a result of ineffective communication between the clinician and lab? How many late nights have lab technicians had to work overtime due to a prescription that was unclear or was not followed? How many times have clinicians looked bad because the patient was sitting in the chair but the restorations weren’t there?

All of these things are an unfortunate reality in our industry, but with solid communication, we can minimize these discouraging moments.

Another advantage to having a technical advisory department is that

PRODUCT REVIEW

Easy, quick modeling

By Joachim Mosch, CDT

Even though dental cases have been modeled for decades mainly using the most varied types of dental waxes or PMMA powder-liquid resins, “The better is the enemy of the good.”

As the requirements of modern dental technology change, a modern modeling material should also have new, improved and user-friendly properties.

An advanced material that incorporates these properties is primopattern LC from primoart (Westport, Conn.). This article will explain in detail why patterns can be modeled particularly easily and quickly using primopattern due to its material properties.

Dental sculpting waxes are well-established and certainly have many advantages, though they also have disadvantages that are no longer questioned but simply accepted. Technicians have come to terms with them. Nevertheless, it is, of course, annoying if a bridge distorts unnoticed on removal, if the wax retracts slightly from the metal surfaces of the primary crowns or abutments in the marginal region, if a different wax must be used for every imaginable indication or if there is not a suitable wax available for specific applications (e.g., contact scanning).

primopattern LC was developed in order to eliminate all these inconvenient disadvantages of conventional modeling materials.

primopattern is a light-curing, ready-to-use, one-component material that is available as a modeling gel or modeling paste (Fig. 1). As a universal composite material in two consistencies (gel or paste), it can be used for virtually all conventional as well as modern laboratory applications.

In the form of a modeling gel, primopattern LC is easily and precisely applied directly from the dispensing syringe, almost in one step (Fig. 2).

The viscosity of the gel is exactly preset and guarantees quick, precise modeling with high dimensional stability, which ensures that the gel applied does not run (Fig. 3). primopattern gel is also thixotropic, i.e., it flows more easily with vibration and stops as soon as the vibration ceases.

These properties make primopattern LC gel ideal for use in attachment and telescope crown cases (Figs. 4-6).

Other areas of application include the entire range of fixed restorations as well as implant prosthetics. primopattern LC modeling paste (Fig. 7) has a more kneadable consistency in comparison with the gel. This allows the material to be easily kneaded to the shape and adapted.
you get to know your clients on a more intimate level. This is a great way to retain your customers. As you speak to a clinician, you will understand what he/she likes and dislikes. Over time, you will understand your client’s personal preferences and gain his or her trust.

This is crucial when the time comes that another lab stops by your client’s office and tries to gain his or her business. When both clinical and laboratory teams are on the same page, everything falls into place.

The clinician and the patient are delighted with the esthetics and the functionality of the restoration. The laboratory is recognized for a job well done. We can all breathe a sigh of relief.

As for me, the technical advisor, the greatest sense of gratitude comes when I get those Saturday morning voicemails, thanking me for Jane Doe’s case … speaking of which, I just got another voicemail I have to check — it must be about John’s case.

Kevin Kim began in the dental lab industry as an outside sales representative for a small lab in Anaheim, Calif. While attending Los Angeles City College’s dental technology program, he was taken under the wing of the late John C. Ness, CDT, of Productivity Training Corporation. Currently, Kim works as a technical advisor for Keating Dental Arts in Irvine, Calif.

Global lab revenues projected to exceed $14.5 billion by 2015

By Fred Michmershuizen, Online Editor

Increasing numbers of elderly people and more demand for high-quality dental esthetics are cited among reasons for an increase in global demand for the services of dental laboratories.

According to a recent report, the world market for dental laboratories is projected to exceed $14.5 billion by 2015.

The report, by Global Industry Analysts, a publisher of market research, states that dental laboratories are witnessing a significant increase in demand for dental prosthetics as well as other restoratives.

The report also cites the increasing purchasing power of the Baby Boomer generation as another factor driving the dental laboratory market.

The United States represents the largest market for dental laboratories worldwide, according to the report.

The threat of outsourcing, the scarcity of technicians and the availability of modern restorative technologies and systems are driving dental laboratories to deliver quality dental restorations to dentists on time. Outsourcing is a key element in the U.S. dental laboratory industry.

The report, titled “Dental Laboratories: A Global Strategic Business Report,” provides a comprehensive review of dental laboratories, market trends, recent industry activity and focus on market participants.

The study analyzes market data and analytics in terms of value sales for regions, including the United States, Canada, Japan, Europe, Asia Pacific, Latin America and the rest of the world.

Key players profiled in the report include 1st Dental Laboratories, Attenborough Dental, Champlain Dental Laboratory, Dental Services Group, iDent Dental Lab, Lord’s Dental Studio, Knight Dental Design, National Dentex Corp., Southern Craft Dental Laboratory, Utah Valley Dental Lab and others.


(Source: Global Industry Analysts)

Outsourcing is a key element in the U.S. dental laboratory industry.

Lab Tribune strives to maintain the utmost accuracy in its news and clinical reports. If you find a factual error or content that requires clarification, please report the details to Managing Editor Sierra Rendon at s.rendon@dental-tribune.com.
The paste is always used when larger amounts of material (bars, pontics, etc.) need to be applied quickly. It can be combined with primopattern gel without any problem.

For example, with bridge frameworks where the copings of abutment teeth have to be modeled first using primopattern gel, light cured and then prepared. The pontic, which is fabricated using primopattern LC paste, is then simply placed between the finished copings (Fig. 8). The connectors can then be adjusted using gel, if required (Fig. 9).

The gel ensures a good connection between both the polymerized copings and the paste. Additional areas of application for the combined use of paste and gel are:

- All types of implant work.
- Frameworks for zirconia copy milling machines.
- Tertiary frameworks over electroformed mesostructures.
- Frameworks for electroformed bridges.

Generally, primopattern can
be polymerized in all conventional units with a light spectrum of 320 nm to 500 nm. Metalight units (primotec, Westport, Conn.) are particularly suitable as they have a cooling function that enables the material to be polymerized more gently (Fig. 10). The average polymerization time is between 1.5 and 5 minutes, depending on the light-curing unit.

During polymerization, primopattern maintains its properties and dimensional stability. The material does not have any clinically relevant shrinkage and does not distort, even when it is polymerized in stroboscope units.

It is very satisfying how perfectly the patterns fit following polymerization, without having to separate and reconnect them or insert relief cuts.

Accuracy of fit and stability of the patterns are therefore very basic requirements for the success of laboratory work, particularly with implant bridges (Fig. 11) and bars. In both cases, the implant abutments and copings over the abutments are modeled very effectively with primopattern gel and the pontics and bars with primopattern paste (Fig. 12).

The light-cured patterns should be trimmed and finished with cross-cut carbide burs or rubber polishers.

As primopattern burns out cleanly and completely without residue, it can even be decided at this working stage whether the pattern should be sprued and cast, scanned, copy milled or pressed.

Taking everything into consideration, primopattern LC is an advanced modeling material that meets all the requirements of modern dental technology and is completely universal.

Fig. 10: Metalight light-curing units have a special cooling system and are particularly suitable for gentle polymerization.

Fig. 11: Practical combination of primopattern gel and paste. The abutments have been fabricated using gel and the pontics with paste.

Fig. 12: As primopattern burns out without residue, the pattern can be cast, scanned, copy milled or pressed.

It is very satisfying how perfectly the patterns fit following polymerization, without having to separate and reconnect them or insert relief cuts.

About the author

Joachim Mosch completed his dental technology and commercial training in Frankfurt am Main, Germany. He was employed for 18 years in the European headquarters of an American dental company, the last 10 years of which was in a general management position.

In 2000, he founded his own companies: primotec and primodent. As the innovative engine of the companies, together with his team, he develops new products, technologies and procedures that help increase the quality and efficiency of dental and laboratory work compared with conventional methods. Mosch has published numerous articles on dental technology topics in the best-known dental journals. He is an international lecturer who presents a variety of innovative topics.

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