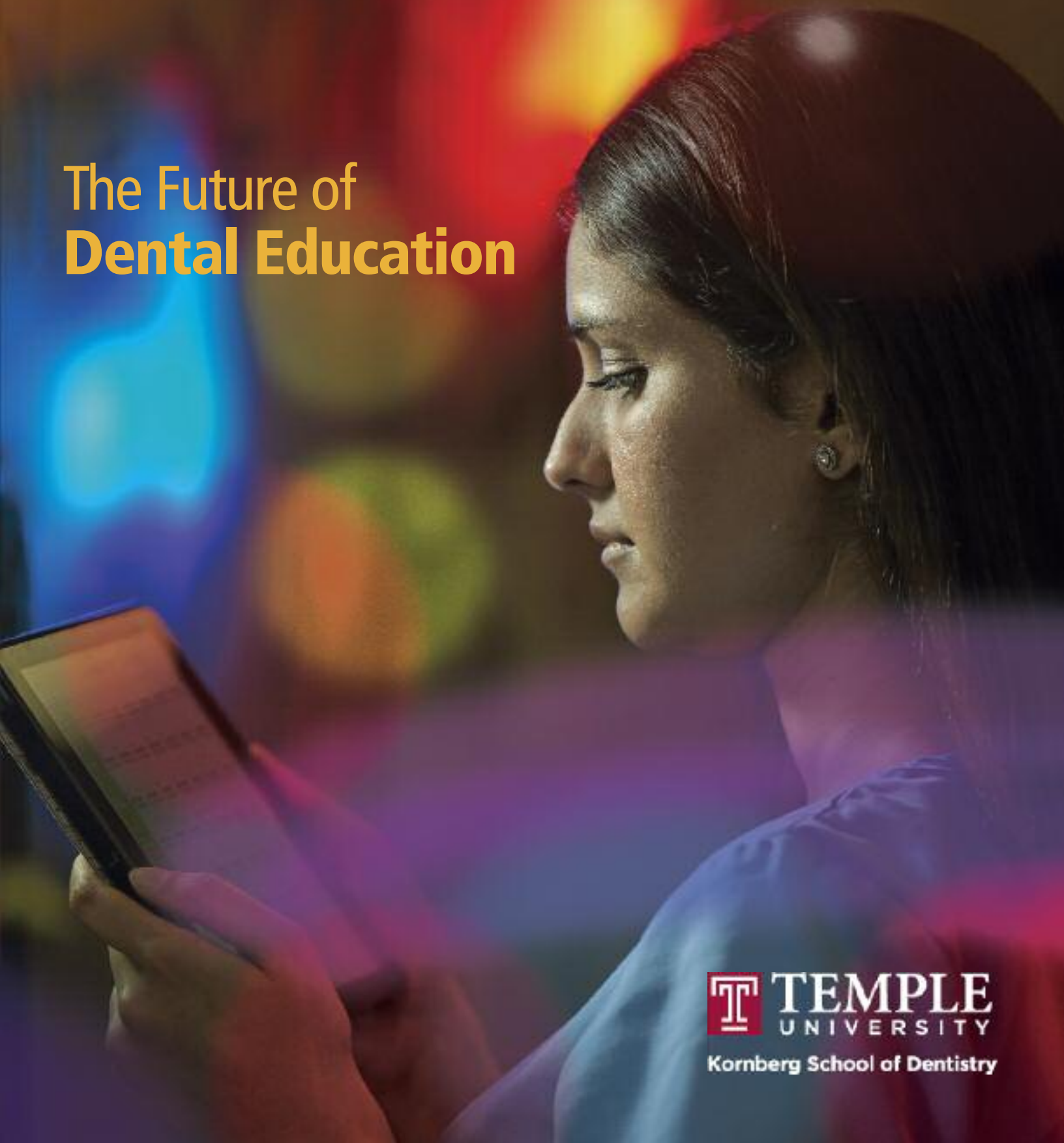


DIAMOND

Maurice H. Kornberg School of Dentistry Magazine | Spring 2015

The Future of Dental Education



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DIAMOND

Maurice H. Kornberg School of Dentistry Magazine | Spring 2015

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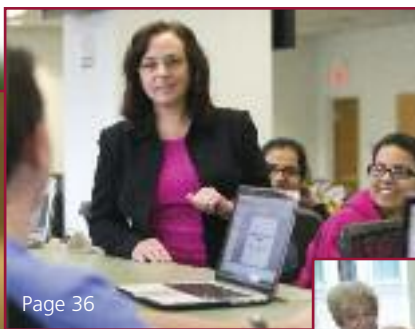
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Dental Education at the Crossroads: **Can We Meet the Challenge?**

Since 2009, the hard work of our faculty, students and staff, and the tremendous support of our alumni, have enabled us to meet and surpass contemporary best practices in dental education. Our clinics continue to provide students with a strong clinical education, and more patients visit the school to receive care than ever before. Clinical income, in spite of the cuts to adult Medicaid in Pennsylvania, has almost doubled since 2010. These funds are reinvested in new programs and in hiring additional faculty and staff, as well as in offsetting the need for higher tuition increases. We have begun to achieve our shared vision for Temple University Kornberg School of Dentistry to be branded as an internationally recognized center for excellence in dental education; however, the pace of change in our field is relentless, requiring us to constantly respond to continuous environmental challenges that are shaping the future of dental education. A wise leader today should set the stage for a new “norm” of change (Dr. Kathleen O’Loughlin, page 4). This is the theme of this issue of our *Diamond*. It is hard to predict the future, and those who try are usually scorned if their projections are not realized. Our guest authors in this issue cite convincing evidence and analysis of major trends that I believe make the job of “setting the stage” for the future of dental education considerably more likely to succeed.

If there is one word that describes the future of dentistry, it will be “smart.” Smart materials, smart tools (that collect data and make decisions) and smart decision algorithms will enable dentists to treat more patients and provide better care at a lower cost. We will experience an exponential growth in digital dentistry that will transform the way dentists practice and the skill sets they require. Our clinical curriculum must keep up with these changes, requiring dental school faculty to gain and practice new sets of skills themselves so they can teach the rising generations of dental students.

The issue of the future supply of dentists that Dr. Marko Vujicic, chief economist of the American Dental Association, discusses (page 8) points to the incongruity of the current trends of educating more



Dean Amid I. Ismail
Laura H. Carnell Professor

“If there is one word that describes the future of dentistry, it will be ‘smart.’ Smart materials, smart tools and smart decision algorithms will enable dentists to treat more patients and provide better care at a lower cost.”

— Dean Amid I. Ismail

dentists in an environment of changing practice patterns, stagnant demand for dental care, expansion in care for low-income children and special populations, and the debt burden faced by dental students upon graduation. These forces may lead to a significant decline in applicants to dental schools with effects that will reverberate throughout the profession and the dental healthcare system.

I contend that we will need fewer, not more, dentists to work in this environment. Dental schools are increasingly dependent on high tuition and that is not the right course. We must respond to the challenges by building financially sustainable and revenue-generating patient care centers; using digital methods of learning; reducing student debt and building models that will allow our graduates to own practices; and successfully dealing with the shifting trends in the patient population.

In the dental market, the key competitive advantage of the future will be the size and diversity of the practice. The market is already correcting itself by encouraging large investment in consolidated and group-managed practices that offer guaranteed salaries and benefits

(Dr. Reem Shafi, Class of 1998, page 12). Group practices, like any new trend in dentistry, have been negatively received, but I believe they will emerge in the near future, after several adjustments, as a force that will shape both dental practice and dental education. Large group practices definitely can deliver better-integrated, lower-cost and value-focused healthcare, and compete on outcomes. They can also deliver on integrated medical-dental-behavioral care better than any single solo or small group of practitioners can.

I am for balance in all systems of healthcare. Based on historical experiential information on how successful systems work, I contend that we must strengthen and prepare solo or small independent group dental practices to maintain their competitive edge in the 21st century. Hence, it is the vision of Temple University Kornberg School of Dentistry to educate general dentists with advanced clinical skills who can learn and adapt fast to changes in

“The rapid pace of change is dizzying, and our dental school is in a race to make the right changes and steer in the right direction to ensure the oral health and quality of life for the members of our communities.”

— Dean Amid I. Ismail

their environment. Our task is to prepare dentists who are “lean managers” of their practices and who can provide high-quality care at lower cost. This formula, coupled with a focus on customer service, will enable the new generation of solo general practitioners to compete with large group practices. In 2015, we will start a course on how to manage practices in underserved communities where the majority of patients are covered by Medicaid or are low-income earners. We will also start this year, with a generous in-kind contribution from Henry Schein, Inc., expansion of our digital dentistry program to cover all aspects of clinical care. Digital dentistry could have a significant impact on reducing the cost and time required to provide dental care.

We are in the beginning stages of changing our curriculum to be focused more than before on integrated and comprehensive care (Dr. Richard Valachovic, page 6, and Dr. Daniel Boston, page 34). Our system of providing care is becoming more patient-centered. We will introduce more-advanced financial literacy courses and practicums. Soon we will open a sedation center and a medical clinic at the dental school to treat patients that we currently must refer out to other facilities. We have approval to start renovating a suite to open the Greater Philadelphia Health Action Primary Care Clinic at 3223 N. Broad Street. Two nurse practitioners (NPs) and staff will consult and provide healthcare for all patients who desire to receive care at our medical clinic. Moreover, the NPs will work with our dental faculty to screen patients and manage medical conditions, consult with all clinics, and provide prescriptions at low cost to our patients.

The rapid pace of change is dizzying, and our dental school is in a race to make the right changes and steer in the right direction to ensure the oral health and quality of life for the members of our communities. I invite all readers of this magazine to join us in this rapid and invigorating period in the life of Temple Dental. With your help we can meet the challenges of the future. Please visit your dental school and be PROUD.

“I invite all readers of this magazine to join us in this rapid and invigorating period in the life of Temple Dental. With your help we can meet the challenges of the future.”

— Dean Amid I. Ismail

The Future of the Dental Profession: A Primer for New Graduates



By Kathleen O'Loughlin, DMD, MPH
Executive Director/Chief Operating Officer
American Dental Association

We live in a rapidly changing world. Change is the new normal. We see it in our daily lives, from the way we communicate to how we commute. Emerging smart technologies, combined with new economic realities and a rising consumerism, are forcing public-focused organizations large and small to compete and adapt like never before.

The dental profession is not immune to these sweeping changes. But by analyzing the data driving the transformations within dentistry, perhaps we can anticipate what's in store in the future.

According to research compiled by the American Dental Association's Health Policy Institute (ADA/HPI), the profession is seeing:

- **Increasing diversity**—this is especially true when it comes to gender; females now make up nearly one-half of dental school enrollment.
- **The rise of group practices**—rapidly increasing numbers of new dentists are moving toward this model, which meets their needs whether they are financial, work-life balance, job satisfaction or a feeling of inadequacy around business management in a complex and challenging healthcare environment. Millennials make up more than 30 percent of group practice dentists, and only about 5 percent of solo practice dentists.
- **Exploding dental student debt**—since 2001, it has more than doubled, to more than \$240,000 per dental student on average, driven by a doubling in dental school tuition and fees.
- **A dental disparity** in which children have seen remarkable gains in dental coverage and access in recent years while the same cannot be said for most underserved adults.

• **A lack of growth** in overall consumer demand for dental services, in dental spending and in dentist earnings during the last decade.

These are the trends heading into the future. Some of them, like the growing diversity within our profession, should be embraced and nurtured. Others, like the rising student debt and dental health challenges facing the underserved, must be addressed. Still others—like the increase in group practices—are merely the new economic realities of our industry that all dental professionals must face.

What's clear as we move forward is the need for a strong and vibrant ADA to help empower dental professionals in these challenging times—from students and new dentists to those about to retire.

During the past couple of years, ADA has been adapting to meet the needs of the future and stay relevant in these transformative times. We've been modernizing our technology to help members better connect with our association. Today's new dentists demand the same outstanding and measurable value and convenience from the ADA that they expect from Apple, Starbucks and the other companies they rely on. By updating ADA technology, we are better able to provide members with quality and cutting-edge products and services to empower them in today's world.

ADA has been preparing for the future through the Action for Dental Health, our community-based movement on behalf of the underserved. Thousands of member dentists are making a difference by bringing dental health and education to those in need. Helping communities find dental homes, keeping dental patients from having to go to hospital emergency departments, making sure the elderly are able to get the care they need and want, and

improving our public health and Medicaid programs are priorities.

ADA is enhancing its engagement with dental students, faculty and new dentists to talk about the ways we can help members prepare for the future on an individual level, including lifelong learning through best-in-class continuing education, training in evidence-based dentistry and business management education/leadership development through our Center for Professional Success.

But ADA is more than just a resource to rely on—we're a family of 158,000 members who are a huge support network for the mutual challenges we all face. I encourage you to seek out a mentor, a local ADA leader and become active. By reaching out, you'll meet colleagues who care about your success, and you will find friends who will be valuable assets throughout your lives—I know I did, and my mentors changed my life.

The future is yours for the taking—through the ADA you can arm yourself with the skills, knowledge and support to prepare for the future and be a success throughout your career. You are our number one priority!

"The future is yours for the taking—through the ADA you can arm yourself with the skills, knowledge and support to prepare for the future and be a success throughout your career."

— Dr. Kathleen O'Loughlin

Dental Education at the Crossroads: **Reflections After 20 Years**



By Richard W. Valachovic, DMD, MPH
President and CEO
American Dental Education Association

The Institute of Medicine (IOM) published a report of a study in 1995 entitled “Dental Education at the Crossroads: Challenges and Change.” It was designed to be an independent assessment of dental education. The timing was right for such a study. Six private dental schools had closed in the previous decade and enrollment reductions had significantly reduced the number of graduates. Several other schools were at risk for closure. There was concern about the relationships between dental schools and their parent institutions, and between dentistry and healthcare in general. The political environment within dentistry was challenging at best. The IOM found that “the dental profession is at odds with itself on a number of issues including work force policies, licensure, and health care restructuring.” We were definitely at a crossroads.

The IOM Committee on the Future of Dental Education consisted of 18 senior leaders in higher education and healthcare. They undertook a comprehensive approach that engaged the key communities of interest. They identified five key elements for the future:

- 1.** Dentistry will be more closely aligned with medicine and the healthcare system;
- 2.** Clinical dental education needs to more patient-centered and community-based;
- 3.** Dental schools need to demonstrate their value to their parent institutions;
- 4.** Reforms in accreditation and licensure are needed to enhance the quality of dental education; and
- 5.** Testing of alternative models of education, practice and performance assessment are required, especially related to workforce issues.

“Here we are 20 years later. ... A number of events have occurred in the ensuing two decades that have created a new environment for dental education.”

— Dr. Richard W. Valachovic

“There is a phenomenal opportunity for us to grow as a scientifically based profession, conducting innovative research and scholarship, producing practitioners who are critical thinkers and lifelong learners, and providing accessible and affordable dental care to our communities.”

— Dr. Richard W. Valachovic

In the end, they developed 22 recommendations to provide guidance for the 10- to 20-year horizon they envisioned.

Here we are 20 years later. With the value of 20/20 hindsight, we can see that the report was pretty accurate about the challenges that we faced at that time. The study was undertaken toward the end of a period of contraction of dental education, a time of fear about the future, and an era of political turmoil within the profession. But a number of events have occurred in the ensuing two decades that have created a new environment for dental education. Although one more dental school closed subsequent to the report, 12 universities have opened new dental schools and there are many more under consideration. The relationships between dental schools and

their parent institutions have improved dramatically, fulfilling a vision that the dental school be seen as the “front porch” of the university through their community-oriented approaches to education and patient care. The healthcare system has changed in many ways, but dentistry has not yet found its place in these new collaborative care models. Interprofessional education (IPE) is becoming more integrated into academic health centers and dentistry is a willing partner in this transformation. Substantial changes have been made in dental accreditation, and progress is being made in licensure reform. Many states are developing new and expanded models of practice and this remains a controversial issue.

To me, the IOM report is as alive and enduring today as it was 20 years ago. It continues to be a roadmap for our future. We have made great progress, but there is still much to be done. The reality is that change takes time. We faced a crossroads in 1995, made some choices, and now find ourselves at another crossroads in a changing healthcare and academic world. There is phenomenal opportunity for us to grow as a scientifically based profession, conducting innovative research and scholarship, producing practitioners who are critical thinkers and lifelong learners, and providing accessible and affordable dental care to our communities.

The IOM report is available for download at: www.nap.edu/catalog/4925/dental-education-at-the-crossroads-challenges-and-change.

An Economist's Take on the Dental Care Market



By Marko Vujicic, PhD
Chief Economist and Vice President
Health Policy Institute
American Dental Association

The past decade has seen significant shifts in the market for dental care in the United States. The American Dental Association's Health Policy Institute has done a substantial amount of in-depth research on dental care utilization, dental spending, barriers to dental care, dentist income and busyness levels, Medicaid and other important aspects of the dental sector. One of our most important findings is that dental care utilization among adults has been declining steadily since the early 2000s, a trend that is unrelated to the Great Recession. In contrast, more and more children are receiving dental care, especially low- and lower-middle-income children. These shifts in dental care use patterns have had an enormous impact on total dental care spending in the United States, dentist earnings, and dentist busyness levels. In a nutshell, the dental economy started to stagnate before the economic crash and is showing little sign of recovery through 2013, the most recent year for which data are available. Declining demand, in the face of a fairly stable supply of dentists, unsurprisingly has led to stagnant average dentists earning in the United States for the past several years. This should come as no surprise to both economists and non-economists.

Looking to the future, what will happen to demand for and supply of dental care? On the demand side, there are a lot of factors that potentially will come into play. Research we just completed shows that the

top two reasons adults say they do not intend to visit a dentist in the next 12 months are cost and no perceived need. Among high-income adults, no perceived need is by far the most important reason. Children, on the other hand, face far fewer barriers to dental

"One of our most important findings is that dental care utilization among adults has been declining steadily since the early 2000s, a trend that is unrelated to the Great Recession."

— Dr. Marko Vujicic

care. In fact, the share of U.S. children without any form of dental coverage is at its lowest level ever. Dental care utilization among U.S. children is at its highest level ever. Other than Medicaid expansion, which could extend dental benefits and spur demand for dental care among low-income adults in many states, there is nothing on the horizon, in my view, to reverse the downward trend in dental care use among adults. The Medicaid expansion is significant—up to 8.3 million adults gaining dental coverage. If that increased coverage translates to increased dental care use, the Medicaid market will see a boom. We modeled the effect of the aging baby-boomer population on demand for dental care and total dental spending. We found that the expected increase in dental spending in the coming years among children and seniors will not counteract the decline among adults. Indeed, a new normal of zero growth may be upon us.

On the supply side, we just completed a sophisticated empirical model of the future supply of dentists. Contrary to much of the conventional wisdom, the supply of dentists is likely to increase steadily in the coming years. Combined with sluggish demand for dental care, increased numbers of dentists in the market could very well lead to continued stagnation in average dentist earnings. Practice consolidation is expected to continue as well.

“Increased interprofessional collaboration has the potential to increase referrals and allow dentists to contribute much more significantly to whole-body health.”

— Dr. Marko Vujicic

There are also tremendous opportunities opening for the dental profession in this period of major transition in the U.S. health care system. Increased interprofessional collaboration has the potential to increase referrals and allow dentists to contribute much more significantly to whole-body health. A new wave of healthcare consumerism and a drive for value and quality will bring increased market share to dental practices that demonstrate high value for dollars spent on care. The profession is on the cusp of significant change and with this change come exciting new opportunities. Dentistry is an extremely attractive profession in terms of return on investment when compared to other professional occupations and is likely to stay that way for years to come.

For more information on the Health Policy Institute and to access research cited in this article, visit www.ada.org/hpi.

How Did I Succeed in Private Practice



William Choi, DMD
Class of 2009

I have been in private practice for only four years, and I feel very fortunate to have the opportunity to constantly seek out new graduates to add to our growing team of dentists. I take particular interest in advising students and residents from various dental schools who are about to join the workforce regarding what employers are looking for when considering a new graduate for an associate dentist position. These attributes are a few of the most important qualities I seek:

- 1. Punctuality.** There may be a variety of excuses why someone is late; however, it does not change anything. Excuses only waste more valuable team time which could be spent for productive work.
- 2. Diligence.** During working hours, there should be no downtime. Employees who are able to keep themselves busy finding and performing needed tasks are invaluable to a dental practice.
- 3. Compassion.** We must remember that some of our patients may come from a very difficult background and could use someone who understands where they are coming from and who caters to their needs.
- 4. Intellectual Curiosity.** The real school just started. You barely got a license to inject, drill and pull. Now is the time to find out what you are made of. Dentistry requires lifelong training to fine-tune your communication and clinical skills.
- 5. Team Player.** We've all heard this saying numerous times, but when it applies to private practice dentistry, the importance of collegiality is profound. The individual role of a single doctor is no more important than the role of any other staff member, regardless of whether that staff member is your managing dentist or your back-office assistant.

Providers who truly understand this concept will have easier, more pleasant workdays while those who forget this idea will have a tougher time on the job market.

One of the most valuable pieces of advice I give to new graduates is simply: "Work where you love living." Your happiness and the time you have at this stage in life is incredibly valuable. Don't spend hours of your free time driving or desperately seeking things to do.

Lastly, find motivation within our profession. If you ever find yourself feeling that private practice is an obligation to meet your financial needs but wish you could do something else with dentistry, try dedicating some time outside of private practice toward an unmet need. I have devoted the past four years volunteering one day per week to teach oral surgery or hospital dentistry. Instead of being exhausted or burdened by my private practice career, I find volunteering the perfect escape where I can invest my skills to advance a profession I love.



Expectations of Employers from Dental Education



By Reem S. Shafi, DMD

CEO

Two Rivers Dental, P.C.
Class of 1998

Dentists are healthcare professionals, and their patients expect them to be experts in oral health. Dental employers, on the other hand, not only expect their associates to be good clinicians, but they also demand that they possess sound interpersonal skills and have good business acumen.


On the clinical side, I see more and more dental students graduating from dental schools with limited knowledge of endodontic and, specifically, of rotary endodontic, a standard in most practices. Dental employers expect graduating dentists not only to be proficient in using these systems, but also to be comfortable in treating molar root canals. It was surprising for me to learn that, while in school, a student had attempted only one multirooted root canal. Endodontic is the basic bread and butter of dentistry, and it is very important to be skilled in endodontic. Unfortunately, this lack of training makes them reluctant to treat emergency patients, particularly those who need a molar root canal.

Another clinical factor is speed and confidence. It is key to being a successful dentist, and yet I see most dental students graduating with a lack of such skills. Private practice is very different from a dental school setting. In the real world, patients do not like to spend time in the chair; they want the treatment done and then out of the chair and back to their work. Dental schools can help students by sending them on a two-week internship in a private practice to learn how the real world works.

“It is clear that dental employers expect young dentists to be excellent clinicians, but to succeed in the post-school world, dentists need to be good entrepreneurs and sound businessmen as well.”

— Dr. Reem S. Shafi

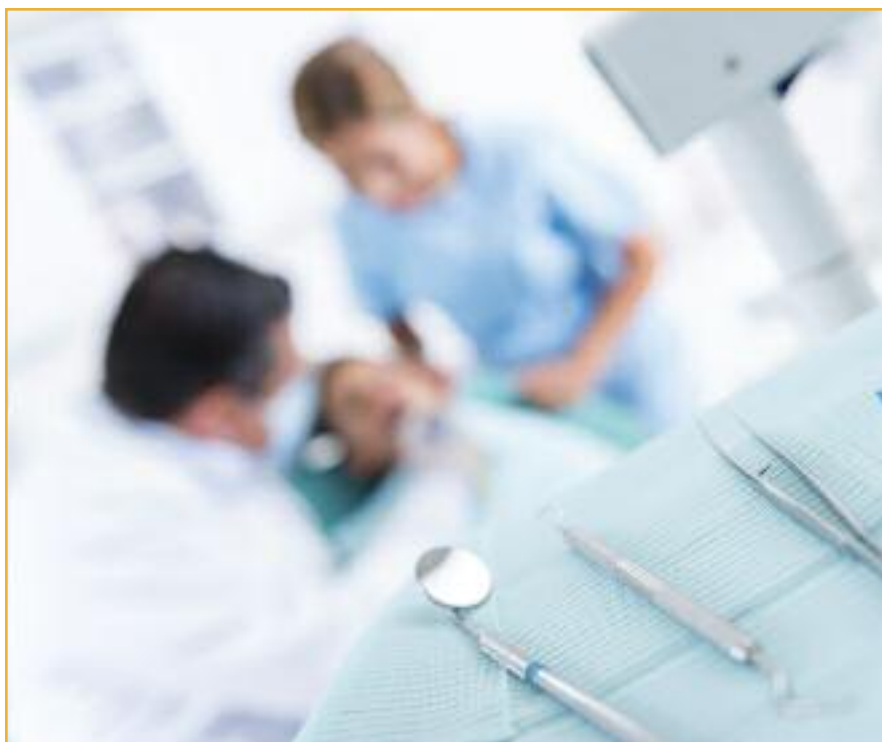
The other important clinical consideration is implant dentistry. Today, patients are very informed about their dental health and the options available. For example, restoring missing teeth with crown and bridge is no longer the best treatment option. People are aware of implants. To this end, dental students must have considerable exposure to implant restoration. While in school, they should be taught treatment planning for implants instead of bridges.



It is clear that dental employers expect young dentists to be excellent clinicians, but to succeed in the post-school world, dentists need to be good entrepreneurs and sound businessmen as well. To this end, dental employers expect that along with clinical education, dental schools must include additional business education in their curriculum.

On the business side, among the specific skills the employers expect graduating dentists to know are marketing, insurance, financing, accounting and, most important of all, management. In other words, they should know the elements of a successful dental practice and know the best way to monitor the performance of their practice. As clinicians, they must provide the best care to their patients, and as businessmen, they need to keep one eye toward maximizing revenues and the other toward minimizing expenses.

As a dental employer who interviews many dentists every year, my hardest interviews are with those dentists who have just graduated from dental schools. That is mainly because most graduating dentists lack even the basics when it comes to possessing business skills surrounding the profession of dentistry. For example, they lack the skills to read a



simple profit-and-loss statement, or to understand how the insurance industry works or how to manage accounts receivable. Financial success in dentistry requires a multitude of skills. More than half of the graduating dentists will one day open their own practices. In that role, they will be required to become good CFOs of their practices and will be expected to know the ins and outs of dental business.

For example, in the beginning, most graduating dentists will join other practices as independent contractors. As an independent contractor, their compensation is generally based on a percentage of collections. And a major source of collections is insurance payments. Yet, most graduating dentists know little about how the dental insurance works. At a minimum, I expect young dentists

to know the difference between indemnity and PPO plans; between discount and HMO plans. They should know patients' co-pays and deductibles. I expect the dental education they receive from dental schools to make them well versed in most important tasks of dental business.

Let me illustrate my point by using the most common and basic workflow within a dental office.

Let's take an example of a patient who came to the office for a crown. The crown cost \$1,000, of which \$500 was expected from his insurance and the other \$500 is patient co-pay. Assume that the patient only paid \$250 at the time of his treatment. This example will generate \$750 in accounts receivable. And if the dentist is being paid against his collections, then the accounts receivable needs to be tracked and managed effectively. An associate should not delegate this responsibility to the front-office staff. The above workflow touches several business sides of dentistry. It starts with knowing your own fees, calculating the insurance adjustment, if any, and the patient's co-pay and then tracking the accounts receivable if the account becomes delinquent. A successful dentist knows the systems that are commonly used to track all dental workflow.

“Financial success in dentistry requires a multitude of skills . . . They (graduates) will be required to become good CFOs of their practices and will be expected to know the ins and outs of dental business.”

— Dr. Reem S. Shafi

It is also not enough to know the key performance indicators (KPI) such as production, collection, adjustments, number of new patients or outstanding accounts receivable. What's more important is to know the relationship between the different KPIs. For example, the ratio between your net production for the month and collection should be 1:1. Meaning your monthly collections should equal your last month's net production. Likewise, when tracking recall rate, the goal should be to achieve an 80 percent or higher recall rate. The month-over-month production and collection numbers should show an upward trend. The spending on dental supplies should not be more than 5 to 6 percent of production. Likewise, the lab bill should not

be more than 6 to 8 percent of production. The more the new doctors understand the relationships between numbers, the more successful they will be in their new associateship roles.

If a solid business foundation is covered in school, the rest can be learned in a work environment. Ultimately, the difference be-

tween an average dentist and a successful entrepreneur dentist lies in familiarity with new technologies and the business education they impart on themselves. Good clinical skills combined with prudent business acumen will ultimately turn all dentists into successful practice owners.

“Good clinical skills combined with prudent business acumen will ultimately turn all dentists into successful practice owners.”

— Dr. Reem S. Shafi

Dr. Reem S. Shafi, CEO, Two Rivers Dental, is the epitome of modern dentistry. She received her dental degree in 1998 and is a proud alumna of the Temple University Kornberg School of Dentistry. After her graduation, she relocated to Chicago, Ill., and opened her first dental practice by 2004. During that year of running her own practice, Dr. Shafi realized she had much more potential and decided to open a second practice. Now, a decade later, Dr. Shafi

owns 17 dental practices, all of which are located in and around the Chicago area. Her company now employs over 1,180 employees and 30 dentists.

During the course of her professional career, Dr. Shafi has won numerous awards, including her induction into Temple University Fox School of Business League for Entrepreneurial Women Hall of Fame for the year 2013.

Dr. Shafi's philosophy is guided by the highest of ethics, excellent patient care and affordable treatments at no expense to quality.

Aside from her busy lifestyle of going from office to office, Dr. Shafi is a proud wife and mother of three children.

I Chose Kornberg...

The Kornberg School of Dentistry is a center for excellence in clinical dental education, patient care and community-based service and research. The school's faculty is a unique and dynamic group of more than 245 full- and part-time scholars who teach, innovate, collaborate and take part in research initiatives that impact the lives and health of our community and around the world. Our faculty ranks include experts in general dentistry, prosthodontics, endodontics, periodontology, orthodontics and oral surgery. Each member of our faculty brings skill sets that add to our legacy of first-class education and patient care.

Take a look at some of our new faculty and staff who will help prepare students to shape the future of the dentistry.



© Fabio

Jo Ann Allen Nyquist, BSDH, MA, EDS

Associate Professor, Department of Pediatric Dentistry and Community Oral Health Sciences, Associate Dean of Student Affairs, and the Director of the Post-Baccalaureate Program

"The opportunity to become a part of the faculty at Kornberg will allow me to continue the passion and commitment in support of students' achieving their career goal to become a dentist. Temple is in a wonderful urban setting where I can continue to work with the faculty and students to address community outreach activities and initiatives in which students can continue to be both educators and providers of dental care."

Nyquist is deeply committed to academic excellence and is a passionate advocate for student success. She has spent her career in private practice and in dental education at both the university and community college levels as an educator, mentor, program administrator, dean and counselor. For the last 13 years, she served as discipline chair, assistant dean for allied health, program coordinator for dental hygiene and full-time faculty in the Department of Dental Hygiene, Wayne County Community College District. Nyquist's memberships include the American Dental Education Association, the American Dental Hygiene Association and the North East Regional Board of Dental Examiners.

Education:

- Bachelor of Science Degree, Dental Hygiene Program, University of Detroit Mercy
- Master's Degree in Guidance and Counseling, University of Detroit Mercy
- Education Specialist Degree in Administration, Oakland University



Betsy Tweddale, DMD

Assistant Professor, Department of Restorative Dentistry

“Temple Dental is a world-class institution that fosters excellence in didactic and clinical education. At Temple, I have the opportunity to help cultivate the careers of our many promising and gifted students who are eager to learn and grow as professionals. I enjoy working with the top-notch team of faculty members and specialists at Temple, and the focus on community outreach is perfectly in line with my professional philosophy.”

A general dentist, Dr. Tweddale worked in private practice at Central Bucks Dental Associates prior to joining Kornberg. She is also a dentist with AIDS Care Group, a nonprofit clinic for HIV-positive patients in Sharon Hill, Pa. Dr. Tweddale is a member of the American Dental Association, the Massachusetts Dental Society and the Pennsylvania Dental Association.

Education:

- Boston University Goldman School of Dental Medicine
- AEGD (Advanced Education in General Dentistry) Residency, Lutheran Medical Center, New York



**Education:**

- New York University College of Dentistry

Chrystalla Orthodoxou, DDS

Director, Advanced Education in General Dentistry Program, and Clinical Associate Professor of Restorative Dentistry

“I am proud to join such a prestigious organization with great leadership, educators and student body. Kornberg has an excellent reputation, delivering quality care and making an impact in the Philadelphia community. I wanted to align myself with an academic institution that has a proven track record of innovation and a reputation for quality and leadership in the field of higher education.”

Dr. Orthodoxou has been practicing general dentistry for 17 years with a focus on delivering care to special populations in New York. She also spent seven years educating and mentoring dental residents as an attending faculty member at two New York health systems. In her most recent role, Orthodoxou served as clinical director of oral health for Callen-Lorde Community Health Center, considered to be a New York City leader in providing quality care services with specific focus on women’s health, HIV/AIDS care, LGBT care, mental health and adolescent and senior care services. In this role, she was responsible for directing dental operations and ensuring the delivery of high-quality dental care for the surrounding community and those residing in the Brooklyn and Bronx regions. During her tenure, she significantly improved access to needed dental care for the underserved in New York City. In addition to directing a large and busy dental program, she was also the clinical site director of Lutheran Medical Center’s AEGD program, a satellite training program where she provided training and experience to dental residents in comprehensive clinical care and patient management in this community healthcare setting.



Taheerah Sabb, BS

Director, Information Technology

“Temple is deeply rooted in the community and has been a pillar in Philadelphia for many decades. I chose a career at Temple because of the university’s commitment to diversity. I have been working at Temple since 2008, and am now excited to share my knowledge of technology and dedication to helping others at Kornberg.”

Since 2004, Sabb (pictured on the right in the photo) has been affiliated with Temple University, both as a student and now as an employee. She has worked in information technology for more than 18 years and has expertise in the areas of IT management, software development and application programming, web design, database administration and health informatics. Her career began with the School of Medicine and continued within the Office of University Housing and Residential Life. She is now excited to share her knowledge of technology and dedication to helping others as a member of the Office of Information Technology at Kornberg.

Education:

- Bachelor of Science Degree in Computer and Information Science, Temple University College of Science and Technology
- Completing Master of Science Degree in Health Informatics in May 2015





By Dr. Sally Gray

Class of 1982, 2004
Associate Professor

It's 6:00 a.m. on a Monday morning in 1980 and I'm standing in a crowd of mostly male dental students hoping to get a chair for next week. I'm only a junior so there's no hope for a chair in crown and bridge. We all know that those who arrive earliest have the best chance of working with the "good" faculty and thereby the best chance of graduating on time. It's a free-for-all, complete with student workers at the microphones and the all-too-common "Dr. Fine, Dr. Howard, Dr. Fine" page. The requirements are brutal, and we save all of our Form 10s in the event that we have to prove ourselves. Asking for new patients is like begging for forgiveness. There are many delayed graduates.

When patients "no-show," we gather in the cafeteria to play pinochle, and at night, we go to one of the fraternity houses in the neighborhood to do lab work, study back exams, play pool, and/or throw down a beer. We work hard and we suffer the same abuses as other dental students in other dental schools suffer at this time. We think of it as a rite of passage, and we agree that the best action is no action. The rule of the day is to keep a low profile.

To make things worse, the "administration" is suddenly requiring us to wear gloves and masks when we work on patients. How is this possible? Impressions are a nightmare, and we're losing all tactile sense. I wonder about the future of our new profession.

I'm graduating. Who is that man on the stage? I've never seen him before and I've practically lived at this school for the past four years. I'm offered a spot in the Prosthodontics program and a year later, a seat on the faculty. This is not my life plan, but I vow to become a "good" faculty member.

In time, students stop playing pinochle, and the fraternity houses are sold and/or torn down. I make friends with a male prostitute who greets me every morning as I walk into the school (I thought he was a woman!).

The crack houses across from the school become stores and restaurants, and my new friend disappears. We open the first Infectious Disease Clinic, and we watch the *Challenger* disaster on our TV on the clinic floor.

I watch as Mayor Wilson Goode symbolically digs a hole in the Gold Seal parking lot at the groundbreaking ceremony for our new building. Our new magazine, *The Diamond*, wins a national award. We change our school name. For the first time, the school enrolls more women than men.

It's now 2014. My youngest daughter is a junior student. The dean is Amid Ismail. She's known him for years. She has an assigned chair in Cluster 1, listens to lectures at home, takes exams on her laptop, and tracks patient treatment by computer.

Clinical requirements have changed but are equally challenging. Most patient treatment is done in the clusters, and the students have free implants to offer their patients. They use fiber optics and loupes, and turn in leased instruments to Central Sterilization at the end of each session. Most students do research. They serve on student/faculty committees and take an active role in curriculum development and school policy. They hold competitive elections for positions on Student Council and the Honor Board. They take courses in law, ethics, practice management, behavioral management and implant dentistry. They sing in the Impressions and present case reviews.

No, it was not my life plan to stay at the school for 30+ years as a student, resident, faculty member and administrator, but it was a great plan. I have had the privilege to see thousands of students pass through these halls under the tutelage of hundreds of dedicated faculty—some too tough, but others fantastic.

I'm guessing that the next 30 years will bring warp-speed changes to dentistry and to our school. I'm fortunate to have contributed to this great legacy.

"No, it was not my life plan to stay at the school for 30+ years as a student, resident, faculty member and administrator, but it was a great plan. I have had the privilege to see thousands of students pass through these halls under the tutelage of hundreds of dedicated faculty—some too tough, but others fantastic."

— Dr. Sally Gray



Temple Dental Students Take Charge

The future of the dentistry profession is bright...thanks to Temple Dental students who are taking charge and making an impact in the field they will one day lead.

While academic and clinical work are top priority when it comes to dental school and training, many Temple Dental students are going above and beyond to immerse themselves in the field and serve as leaders for their classmates and the Kornberg School of Dentistry.

Be inspired by the stories of four Temple Dental students who are leading organizations, serving as class ambassadors, working hand-in-hand with Temple faculty and representing their home country miles away.

Khaled Alnajdi, Class of 2018



When first-year Temple Dental student Khaled Alnajdi was a high school student in Kuwait, he didn't know what his future held, but he was interested in the medical field. He thought he might go to school for medicine in the United Kingdom but when he was assigned dentistry in the United States, he wasn't disappointed.

"Dentistry chose me," Khaled said. He is the first student representative from the Kornberg School of Dentistry's Kuwaiti AEGD/MS program, a program that trains dentists for the Ministry of Health, Kuwait.

Khaled received a scholarship to come to the United States in 2011 to complete his undergraduate degree in biology at Temple University. He started at Temple Dental this past fall.

"Without the scholarship, this wouldn't have been possible," Khaled said. "I feel blessed."

Nicholas Bizzaro, Class of 2017

Dental school has been a new and challenging experience for Khaled.

"It's a whole new chapter; a different lifestyle," Khaled explained. "The coursework is demanding and I take it very seriously. This was a competitive scholarship, so it's a huge responsibility to keep my grades in check."

While dentistry wasn't originally on Khaled's radar, he has fallen in love with the profession.

"It was kind of like fate," he explained. "My interest kept growing as I learned more and explored the field. I love sketching and calligraphy and there's definitely art in dentistry."

Khaled is only a couple of months into his Temple Dental experience, but he is looking forward to the future.

"It has been eye-opening," he said. "I enjoy that every experience is new. Dental school tests your ability to stay strong and not give up. It makes your skin thicker."

When Khaled completes dental school in 2018, he will return to Kuwait to practice dentistry.

"I'm looking forward to going back. Kuwait is my home," Khaled explained. "Without the scholarship, this wouldn't have been possible. I want to give back to the country that made me who I am."

Nicholas Bizzaro, from Montgomeryville, Pa., didn't always want to be a dentist.

"Like a lot of dental students, I knew I wanted to go into a health profession and initially had my eyes set on medical school," he said. "After spending a lot of time volunteering at hospitals and shadowing physicians, I became less certain of my choice and began to look into dentistry."

After his first experience shadowing a dentist, Nick's choice was clear. "I was pretty much hooked," he said.

When Nick came to Temple Dental, he immediately got involved as a student leader on campus. For the past two years, he has served as the vice president of the class of 2017. His main responsibilities in this role involve being a voice for his class to Temple Dental instructors and faculty.

"I've always tried to stay involved in organizations I've been a part of. It's not necessarily important to me in the sense that I get to put it on a résumé or have a title, I just like doing what I can to help out," Nick said.

While Nick enjoys his leadership roles at Temple Dental, he also gives significant credit to the students who don't have official leadership titles, but still do so much to give back among their classmates.

"There are people who always make time to answer your ques-



tions on preclinical techniques, those who will generously share their meticulous notes and outlines and the people who simply remind you to not take yourself so seriously," he said.

Nick looks forward to starting his dental career in comprehensive family dentistry. He likes the idea of having regular patients and their families that he'll care for and get to know for years on end.

As for his Temple Dental experience thus far, Nick said, "Dental school is really what you make of it, as cliché as that might sound. I think the key is just finding out what makes you happy. It seems to me that as long as you show up every day to do your best and are honest with yourself about who you want to be, then you'll be able to achieve your goals."



Amrita Bhan, from Lancaster, Pa., became interested in dentistry in high school and college after spending summers working at a local dental practice.

"For me, dentistry is a career that combines several of my interests: science, working with my hands and interacting with people," Amrita explained.

Now in her third year at Temple Dental, Amrita looks forward to continuing clinicals and learning as much as she can before graduating in 2016.

Dental school can be overwhelming, but Amrita appreciates the well-rounded and comprehensive education and experience she has received at Temple Dental. "There is a lot of material to master and the faculty does a great job presenting us with informa-

tion," she said. "In the didactic dental courses, we usually start by learning the basic principles of each technique, and then follow it through time to what is currently practiced and where each field is headed in the future. This gives us an appreciation of how our profession has evolved over time."

Amrita has been busy with the clinical portion of training. "One of the best parts of the clinic is having the chance to work with different faculty members. It is so valuable to be surrounded by teachers from varied backgrounds," she said.

For Amrita, getting involved at Temple Dental was important to give her the opportunity to step away from the day-to-day of studying to see the bigger picture of the school and the dental profession.

As a first-year dental student, Amrita immediately became involved on Student Council and served as vice president of her class. In her second year, she was the president of her class and now serves as vice president of Student Council.

"I work with each class's elected officers. This has given me the chance to develop my leadership skills, as well as the chance to focus on broader concerns that students may have, rather than just those that affect my class," she said.

Amrita also serves on the Curriculum Management Committee, which is composed of one student representative per class and a group of faculty members. They meet regularly to review the courses in the curriculum.

"This experience has taught me so much about dental education, and how it is a constantly evolving process. This has been especially enjoyable and enlightening for me because I think I want to teach someday," said Amrita.

Amrita says serving as a leader throughout dental school has given her a new appreciation for Temple Dental's student-focused approach.

"My involvement on campus has taught me how much work goes on behind the scenes at our dental school, and how much thought goes into each decision," she said.

Janine Musheno, Class of 2015

For years, Janine Musheno, a fourth-year student at Temple Dental, considered a future in medicine or interior design.

The Clarks Summit, Pa., native enjoyed the healthcare field but was also very interested in art. When she discovered how a dental career blended serving others through hands-on and sometimes, artistic work, she knew she had found the perfect fit.

In her final year at Temple Dental, Janine is now completing clinical requirements.

Janine credits her fellow students and Temple Dental faculty with helping to create an excellent experience for the past four years. "I am surrounded by students that aspire to learn from each other's experiences," Janine said, describing her classmates.

Janine has been impressed with her Temple Dental experience. She remembers back to her first few years as a dental student developing hand skills and learning the background knowledge necessary to enter the clinic. Now working in the clinic, Janine has been exposed to not only the



different specialties of dentistry, but also all aspects of medicine necessary for patient safety.

"The faculty have been so helpful in the clinic, and every day I am introduced to different tips and techniques that they have found helpful in their careers," Janine explained.

Despite a full course load and clinicals, Janine has kept busy with campus leadership roles. As the representative for the class of 2015, Janine represents her classmates and voices their concerns in order to improve their Temple Dental experience.

"I have enjoyed this position because I feel that it promotes an environment where we work together as a class, rather than one of a competitive nature," said Janine.

Janine also serves as president of the Endodontic Study Club. In this role, Janine coordinates lunches with speakers so students can gain more exposure to the field outside of their own clinical cases. Next semester, the club is planning a hands-on seminar where students will have the opportunity to practice with a rotary endo system.

"It's important for me to be involved so that I can make the most of my four years here at Temple. The more time that you spend at school, even if it is simply assisting other students or speaking with the faculty, the more you will be able to learn," said Janine.

Janine plans to practice as a general dentist upon completing dental school.

"I am confident that my Temple education will allow me to be an excellent clinical dentist, and I am excited for what lies ahead after graduation in May," said Janine.

"It's important for me to be involved so that I can make the most of my four years here at Temple."

— Janine Musheno

Making Dental School Accessible: Temple Dental to Distribute \$700,000 in Scholarships This Year

The Kornberg School of Dentistry at Temple University is making dental school even more accessible to those interested in the field. This past fall semester, Temple Dental introduced a new scholarship structure that will allow for more than \$700,000 to be distributed to deserving students this year alone.

In a letter to the Temple Dental community, Amid Ismail, dean and Laura H. Carnell Professor, explained, "We have pooled the resources of scholarship funds established in past years and significantly increased budget allocations to scholarships to create a targeted scholarship award program."

Under the leadership of Dean Ismail and Scholarship Chair Marisol Tellez-Merchán, BDS, MPH, PhD, a committee was formed to examine and restructure the way Temple Dental distributes scholarships. The new structure was officially announced at the beginning of the fall 2014 semester.

Under the new scholarship structure, Temple Dental has two primary goals:

1. To reduce the amount of money students need to borrow to finance their dental education.
2. To inspire students to achieve academic and professional excellence.

Clara Terry-Griffin, student services coordinator at Temple Dental, worked hand-in-hand with Dr. Tellez-Merchán and the scholarship committee on this initiative.

"An increased scholarship budget has enabled the school to offer more scholarship dollars. The new structure offers funds and acknowledgement to a wider population of students," Griffin explained.

Now, Temple Dental can offer scholarships based on

students' financial need status, as well as academic achievement, professional behavior and ethical standards. The changes to the scholarship structure allow for students' attributes to be a consideration in the selection process.

"The new scholarship structure is intended to help more students offset the cost of tuition and be an incentive for students to excel both academically and professionally," said Griffin.

More than 200 Temple Dental students will benefit from eight scholarships in different categories this academic year.

This is the first time in several years Temple Dental's scholarship program has been restructured to this extent. Temple Dental's finance team reports that the \$700,000 being distributed this year is roughly more than double last year's scholarship total.

Of the eight scholarship categories available, three are brand new. The Dean's Scholars (awarded to students whose cumulative GPAs place them in the top 25% of the class), the Professionalism and Ethics Scholars (awarded to students who have demonstrated the greatest ethical and professional behavior) and the Hardship Fund (financial assistance to students who experience an immediate emergency financial need) were introduced this year and combined will offer more than \$172,000 to students. The Merit Scholars category was modified to be inclusive to all students, not just freshmen as it was in past years.

Other scholarship categories include the Maurice H. Kornberg Scholars, awarded to two incoming first-year students; Freshman Scholars, awarded to 14 students in the first-year class who have the highest undergraduate GPA; the I. Henry Grant Scholarship/SNDA Scholarship, awarded to a third-year student who is a Student National Dental Association

member; and Support for Delaware Students, awarded to students from Delaware and provided by funding from the state of Delaware.

The opportunities for Temple Dental students are endless. Griffin says the students are excited about the new scholarship structure. They have been included in the nomination process for one scholarship in particular (the Professionalism and Ethics Scholars award), and Griffin notes that many students have asked questions about the new system and look forward to being included.

"The new scholarship structure is a diversified system that is inclusive and fair to all students," said Griffin.

Dean Ismail is grateful to Temple Dental's generous alumni whose support helped to create and form the new scholarship structure.

"I want to thank all of our generous donors who have made this support possible," he wrote in the letter.

The funding for the scholarship program comes from the school's budget, endowed and other alumni funds and outside organization funding sources. The finance team explains that Temple's new Responsibility Center Management (RCM) budget model and the financial success Temple Dental has enjoyed in recent years led to the decision to restructure the school's scholarships.

"We believe this new scholarship award program will significantly strengthen the dental school's support to students, a result that is only possible from the support of our alumni and friends," said Dean Ismail.

To learn more about Temple Dental's scholarship program and to support student scholarships, check out <http://dentistry.temple.edu/giving>.

Interested in learning more about the scholarships available to Temple Dental students? Here's a breakdown of the eight scholarship categories.

Maurice H. Kornberg Scholars: Awarded to two incoming first-year students (\$25,000 per year for four years).

Funds awarded in 2014-2015: \$50,000
Number of awards: 2

Dean's Scholars: Awarded to students whose dental school cumulative GPAs place them in the top 25% of each class at the beginning of each academic year. The first, second, and third highest ranked students will receive \$5,000, \$3,000 and \$2,000, respectively. The remaining students will receive \$1,000 each.

Funds awarded in 2014-2015: a minimum \$126,000
Number of awards: 105

Freshman Scholars: Awarded to 14 students in the first-year class who have the highest undergraduate GPA (\$6,000 each).

Funds awarded in 2014-2015: \$84,000
Number of awards: 14

Professionalism and Ethics Scholars: Awarded to two students in each class who have demonstrated the greatest ethical and professional behavior (\$5,000 each).

Funds awarded in 2014-2015: \$30,000
Number of awards: 6

I. Henry Grant Scholarship/SNDA Scholarship:

Awarded to a third-year student in good academic standing who is a Student National Dental Association (SNDA) member (\$3,000).

Funds awarded in 2014-2015: \$3,000
Number of awards: 1

Support for Delaware Students: Awarded to students from Delaware and provided by funding from the state of Delaware.

Funds to be allocated in 2014-2015: \$27,500
Number of awards: 10 to 15

Merit Scholars: Awarded to 14 students in each class with the greatest financial need as determined by the Office of Student Financial Services (\$5,000 each).

Funds to be allocated in 2014-2015: \$280,000
Number of awards: 56

Hardship Fund: Available funds provide financial assistance to students who experience an immediate emergency financial need.

Funds available in 2014-2015: \$16,561
Number of awards: Based on need

Mission Trip Delivered Healthy Smiles in Jamaica



It's bad, take it out," the mother said, while her 7-year-old daughter patiently waited in the chair. But Dr. Bryan Nguyen, '15, resisted. He had seen the badly decaying tooth while doing a routine cleaning and was surprised at the damage in such a young child. "She needs that tooth to maintain space in her mouth and help with chewing," he explained. So he began to carefully remove all the decay, then fill and rebuild. When he was finished, the young girl left the clinic, as appreciative as her mother.

That was the rewarding part, agreed the 15 students and three faculty supervisors who went on the most recent mission trip in October to Jamaica. Grateful patients travel miles on foot and even come back the next day if necessary.

"The people are amazing, some of the nicest ones you'll ever meet," emphasized Dr. Bob Miller, Kornberg's assistant professor of oral maxillofacial pathology, medicine and surgery, who has participated in the trips for four years. "When they hear the dentists are in town, they start to line up at 5 in the morning. Then they'll take a number and sit an entire day to wait their turn. That's how much they want to get treated. Sometimes they'll come back the next day with a gift—a handmade card, some food, a prayer card."

Said Howard Yen, '15, who organized the trip, "We'd arrive at 8 to 8:30 in the morning and see 40 to 50 people lined up." One man, a fisherman, even came by boat, which took about one and a half hours, recalled Nguyen.

Concern about their smile

In Jamaica the smile is everything. Since most Jamaicans are in the hospitality industry, their front teeth need to look good. With no dental clinics in the villages and dental care beyond most families' resources, a program supplying quality, free dental care is a great gift. Kornberg students in the Xi Psi Phi dental fraternity have helped deliver that gift for the past eight years. They've done it through the 1000 Smiles program of Great Shape! Inc., a Jamaican partnership project.

Known as ZIP, Xi Psi Phi sponsors the mission, "taking up the responsibility for fundraising, organizing the trip, purchasing instruments and getting donations of toothbrushes and supplies," explained Dr. Susan Chialastri, faculty advisor for the fraternity as well as associate professor and clinical scholar in periodontology. "Temple encourages

membership as part of student service but doesn't subsidize the trip. Students raise the money themselves and often pay for their own flights to participate."

For Yen, this humanitarian mission was his first, and he wasn't disappointed. "I'd always wanted to do a foreign outreach program, but didn't have the right opportunity to do it before. That's why I became the organizer." He saw patients with teeth so broken down that only roots remained. He saw severe gum disease and loose teeth that should have been extracted years earlier. Making the call about which procedure to do, he said he "felt like a real dentist." If he looked for faculty advice, he got help, but mostly he worked independently and "felt really good about what I was doing."

One moment was particularly memorable. "It was the second

day with two hours left. I was doing an extraction, packing in gauze and nothing worked, not the suction, not the drill. We had a power outage." So Dr. Loven Litchmore, the faculty supervisor who started the program at Temple, told Yen how to proceed with hand instruments. "I was amazed," he said.

Making a difference

Unlike Yen, Macy Luong, '15, had been on several mission trips. Her first experience "was life changing" and made her want to go into dentistry. Subsequent trips, including this one, have reinforced that decision. "You can get jaded with all of the coursework and lose sight of why you're here. Life is about studying. So I make sure to incorporate travel so I know I'm doing the right thing with my life. Being able to help people shows me I can really do something to make a difference, even if it's a small difference."





Working hard from 8 a.m. till 5 p.m., eating lunch at 4:00 or not at all was the usual routine for Luong. "We had one patient in the chair and one ready to go," she said. That meant she could do 50 extractions and 15 restorations, or as she describes it, "a year's schoolwork in one week."

The payoffs after a long day, in addition to huge amounts of satisfaction, were a clean bed, great food and a luxurious hot tub, all thanks to Sandals Foundation and Sandals Resorts International, which provide free accommodations. Other partners with 1000 Smiles are the Jamaica Ministry of Health and Jamaica's University of Technology. Under the umbrella of Great Shape! Inc., 1000 Smiles works with more than 400 volunteers every year in Jamaica. Only four dental schools from the United States participate, and Kornberg was the first. It's also the only one from the East Coast. Dental teams also come from the University of the Pacific, the University of San Francisco and the University of Washington.



This fall the group from Kornberg provided extractions, scaling and root planing, prophylaxis, anterior composites and education in temporary dental clinics and schools. "They are always really exhausted," commented Dr. Martine Forrester, assistant professor and clinician scholar of restorative dentistry, who has been participating in the program since her first year on Kornberg faculty.

A typical day began with breakfast and sharing stories, especially miscommunication with language. For instance, a "baggie" that might be filled with dental floss meant something quite different in Jamaica—large panties fitting a grandma! After the morning meal, buses took students to four temporary clinics. Miller described the building in Whitehouse where he worked with students. "It was a community center, cement block with a cement floor. One of the nicer facilities we've ever had, it came with very good equipment, although we brought our own supplies so we wouldn't run short."



Receiving more than giving

In a country the size of Connecticut with 3.6 million people, half of them in the city center, the need is great. Access in remote areas is so difficult that many can't even get a tooth pulled. Making matters worse is the folklore that brushing with abrasive sugar cane keeps teeth clean. "What's needed," emphasized Forrester, "is education about scientifically based methods of oral hygiene." Through this program, that's done with patients and also in preschools where the dental students spend time dispensing toothbrushes and teaching how to brush.

Although she said her official role is always to supervise, letting students do the work, Forrester admitted she did more this trip. "When there was a swarm of people, I wanted to help. So I set up a chair, not an official dental chair because I didn't want to take one from the students, but one like in a dining room. Then any patient waiting for an extraction, I personally did it. It was so different



from the United States. Here, if your patient isn't in a dental chair, you're not doing dentistry. But there it showed that even in the not-most-ideal circumstances, you can help." In that way, she maintained, the "patients give students way more than they receive."

Miller agreed, remembering the next-to-last day. "It was Thursday, and an extremely poor gentleman came in. He looked so disheveled, so dirty and only wanted a filling. A student did it. Then the next day the man came up to me and said, pointing to his tooth, 'Thank you so much, I love you all.' For the very poor, their only exposure to a dentist is when we go."

Commented Nguyen, "Most teeth are pulled because it's too expensive to preserve teeth. They don't see the need for restoration, so people in their late '30s and early '40s have dentures. We need to reeducate them." Just as eye-opening for Nguyen were patients' reactions to pain, even when dental health had been neglected for years. "They don't

complain, just say 'I'm fine,' when asked how they're feeling."

Seeing confidence grow

Temple's initial involvement with the program started with Dr. Litchmore, who still participates in the trips although he's now in private practice in Florida. According to Chialastri, Litchmore saw the need and liked the way Great Shape! partnered with local entities. At the time he was a faculty member in the oral surgery department. When Litchmore left Temple, Miller took over as lead faculty supervisor.

"It's the first time in their dental education when they do their own treatment with minimal faculty assistance," Miller said. "We're there in case they get into trouble. But they're seniors, so they should know what they're doing. We can see their confidence grow. They work as a team,

jumping in to assist when they don't have a patient. That is one of the most satisfying things, to see them function as dentists. It makes teaching very worthwhile."

Nguyen agreed that a sense of pride and accomplishment was a major benefit. "It was one of the most eventful weeks in my life. It helped me be more confident and independent." In fact, each of the students interviewed responded similarly. They also expressed a strong desire to go back.

"Students are clinically prepared, but culturally they have no official preparation," concluded Forrester. "They say, 'What should I expect?' We talk to them, but they don't get it till the first day: We're doing it to take care of people. These trips renew my commitment to teaching because I want the students to go out and use their gift to help others."



Dental Students Provide Oral Healthcare to Peruvian Orphans



By Preston Moretz

For the past two summers, students from Temple's Kornberg School of Dentistry, led by Bari Levine, a student in the Doctorate of Dental Medicine/Master of Public Health (DMD/MPH) dual-degree program, have traveled to La Ventanilla, Peru, to provide needed oral healthcare to children at La Sagrada Familia orphanage.

Levine first learned about the orphanage, which houses nearly 800 children, in 2012 when she was asked to provide toothbrushes for the children, who were being visited by Temple medical students.

She secured the supplies, and also talked her way onto the trip.

"I immediately fell in love with the children and noticed the need for oral health education and supplies," said Levine, who will graduate in 2016. "I vowed then that I would return to the orphanage the next year."

Since that visit, Levine has organized two dental missions to the orphanage. "I combined the knowledge and skills from my public health and dental school classes to design an oral health program with the goal of improving the children's oral health," she said.

"I immediately fell in love with the children and noticed the need for oral health education and supplies. I vowed then that I would return to the orphanage the next year."

—Ms. Bari Levine

In addition to raising money and recruiting fellow Temple dental students, she has made the project a family affair by involving her parents, who are both dentists and Kornberg Dental alumni. Her mother, Sheryl Radin (ENG '78, DEN '82), is a pediatric dentist, while her father, Robert Levine (DEN '81), is a periodontist.

During their first visit in 2013, the group—Levine, her mother and three Kornberg students—focused primarily on providing oral health screenings and oral health education to 140 children. They also trained nine supervisors at the orphanage on the importance of oral health.

"We discovered from our questionnaires and screenings that the children's oral health was neglected," said Levine, who credits the mentorship of Public Health Assistant Professor Freda Patterson for motivating her. "I wanted to return in 2014 and have a fully functional dental clinic."

For this past summer's trip, Levine enlisted the support of Henry Schein, Inc., a provider of healthcare products, which donated thousands of dollars' worth of dental equipment through its foundation. The KinderSmile Foundation supplied X-ray and dental equipment, three dentists, a hygienist, and 10 college students for the trip.

"Over five and a half days, we screened, educated and treated 150 children—including over 70 children we saw in 2013—and 10 supervisors. We provided over \$35,000 in dental procedures, including X-rays, cleanings, restorations, sealants and extractions," said Levine. "We now have dental records on the children to track their oral health progress year after year."

The orphanage has also entered into an agreement with Kornberg Dental that allows Levine and her group to provide care for the next six years, ensuring the program's sustainability.

Fundraising is already underway to meet Levine's goal of \$30,000 for the 2015 trip. To donate or for more information, contact Levine at barilevine6@gmail.com.



The Evolution of Comprehensive Care

Comprehensive care is not a new concept for dental schools across the country. But according to Kornberg Dental Associate Professor Daniel Boston, DMD, and the Laura Carnell Professor of Restorative Dentistry, the model is undergoing a rapid evolution, particularly at Temple.

"Schools have always emphasized comprehensive care over episodic care, but I think it's a concept that has grown in recent years to really include health outcomes for patients," Boston explains. "We're trying to prevent disease and address behaviors, like diet, and treat disease early with a more minimal approach."

Boston is one of the faculty members leading the way for comprehensive care at Kornberg. With a research background in the field, he was named associate dean of comprehensive clinical care five years ago, and says the creation of the position is sign of the school's commitment to the endeavor. But it isn't just a nameplate: Boston says there have been significant changes to curriculum and student evaluation in recent years.

"Students now actually get clinical credit, not just for procedures and completing comprehensive care, but also for the completion of a treatment plan," Boston says. "It's something I believe is relatively unique."

As Boston explains, students are still evaluated for their ability to provide preventative care and patient instruction for common ailments such as periodontal disease or dental caries, as well as operative and non-operative treatments. But once treatment is completed for a patient, a post-treatment case review is held to evaluate the outcome.

"At the conclusion of treatment, we re-examine and re-interview the patient, looking for any signs of reoccurrence," Boston says. "We also look for the quality of care, to make sure we've addressed all



factors involved in disease, and that they have a good diagnosis going forward."

Changes have also been made to the Kornberg curriculum. Boston says students now must complete a case presentation that emphasizes comprehensive care as part of their senior year capstone. Completed online, the 14-page template requires that the student present all aspects of care, including a post-treatment review case and an assessment of the outcome of treatment. After the presentation is uploaded, 17 faculty work to evaluate it.

To further prove they grasp the concept of care beyond the operatory, students are also required to complete a treatment plan and competency exam.

"Part of it is completed live with a partner and faculty member, and part of it is a case presentation done face-to-face with faculty and other students

present,” Boston says, adding that comprehensive care is also being added to clinical evaluation. “Within the last year we’ve added clinical credit for case completion of post-treatment case review.”

Susan Chialastri, DMD, MS, and associate professor of periodontology and oral implantology, has seen the effects of comprehensive care on the school’s clinical practices first-hand. Over the past few years, the school’s predoctoral clinic has been shifting from a disciplinary approach to a comprehensive model, with Chialastri at the helm.

“They made me director, and I’m a periodontist, so it was an interesting way to approach it,” Chialastri says. “It was mainly a restorative-based clinic and the [first step] was to combine the periodontal clinic, fixed prosthodontics and removal, the restorative clinic, operative and treatment planning.”

Chialastri says the results of the combination have been beneficial, leading to more-accurate diagnoses, and therefore better outcomes.

“Diagnosis is key for everything that follows,” Chialastri says. “For example, if we see a mouth is healthy periodontally, it’s easy to go ahead with any kind of restorative treatment plan. We can quickly assess any problems that may arise during the preparation, and it eliminates having to bring the patient to another clinic.”

In addition to better outcomes for patients, Chialastri believes the changes also benefit students and faculty alike.

“It encourages a dialogue between the students and the faculty,” Chialastri says. “The student is seeing the interaction between the faculty, which is part of the learning process and helps develop critical thinking.”

She adds that the student might be exposed to different ways of thinking and multiple treatment plan

“Students now actually get clinical credit, not just for procedures and completing comprehensive care, but also for the completion of a treatment plan. It’s something I believe is relatively unique.”

— Dr. Daniel Boston

possibilities. They are also shown the value of the referral process and the need for collaboration between faculty with varying expertise.

“They experience looking at things from different perspectives,” Chialastri says. “They see we’re not just filling holes—we’re treating the patient and the whole mouth.”

Faculty also benefit from the model, Chialastri says, even when they don’t agree.

“The discussion the faculty have is an open dialogue, and we sometimes disagree in a very professional manner,” Chialastri says, adding that she believes it complements the educational experience. “It helps to have a shared, patient-centered, problem-solving kind of approach to education.”

Combined with Kornberg’s creation of “cluster units,” which created a similar model of comprehensive care clinics for third- and fourth-year students, both Chialastri and Boston believe students are becoming better prepared than ever for careers in dentistry.

“It helps to be more interdisciplinary...we can develop outstanding problem-solving skills and good critical thinking in the students,” Chialastri says. “That should be our goal, so that they can go on and provide comprehensive care to patients when they graduate.”

Kornberg Begins Integrated Approach to Basic Science Curriculum



Every year, students of all ages, at all levels of education, ask the same exasperating question as they're nose deep in their textbooks: Are we ever going to actually use any of this information?

At the Kornberg School of Dentistry, there's an effort underway to not only answer those questions with a resounding "Yes," but also a "And here's how."

Starting in the 2014 academic year, Kornberg rolled out a new science curriculum for second-year students that fully reorganized and added to prior coursework. As Maria Fornatora, DMD, and associate dean for academic affairs, explains, the new system aims to link traditional scientific concepts to their clinical applications.

"The curriculum integrates interdisciplinary blocks that incorporate the basic, clinical and behavioral

sciences into courses designed around human organ systems," Fornatora says. "The basic sciences courses of physiology, microbiology, pathology and pharmacology no longer exist; they have been integrated with the clinical courses."

The fusion resulted in the creation of four, team-taught courses designed around themes relevant to oral healthcare: "Inflammation, Infection and Wound Healing," "Nervous System and Pain," "Human Systems and Disease I," and "Human Systems and Disease II." Fornatora says studies have shown that organizing courses in this manner has resulted in increased student comprehension.

"There is ample evidence in educational literature that this type of integrated, systems-based approach helps students, particularly novices, see the relevance of the basic sciences in the care of patients," Fornatora says, adding that new accreditation

standards from the Commission on Dental Accreditation, as well as the national board examination, are being altered to place more emphasis on integrated knowledge.

The decision to create the new courses is also part of an ongoing process at Kornberg to revamp its science curriculum. The first changes began appearing in 2008, when the school added clinical correlation sessions to all of the basic science courses. The new model saw dental faculty visiting classrooms to teach the clinical significance of the science content.

While first-year students still benefit from the approach, Fornatora says the school's curriculum management committee realized a need to further expand integrated coursework for second-year students.

"For a second-year science curriculum that covers disease states, a more robust integration of science and clinical sciences was needed to better support the application of science to clinical decision making," Fornatora says.

To accomplish the task, a working group of scientists from the medical school and clinicians from the

"...a more robust integration of science and clinical sciences was needed to better support the application of science to clinical decision making."

— Dr. Maria Fornatora

dental school was formed to pore over the previous curriculum. Meeting every other week for nearly nine months, the group evaluated prior course materials, at times down to the PowerPoint slide, to eliminate outdated or redundant content and look for places to incorporate more problem-solving and interdisciplinary connections.

While the group accomplished its goal of creating new coursework for second-year students, Fornatora says Kornberg staff are constantly working on new ways to update the school's curriculum.

"This entire process...is more of an evolution of a curriculum than it is a once and done change," Fornatora says. "We look forward to working together with the students to continue to find ways to make further improvements, and to optimize the opportunities created by this type of curriculum."

BASIC SCIENCE CONTRIBUTORS

Barrie Ashby, PhD

Professor of Pharmacology in the School of Medicine

Jennifer Black, MD, DDS

Adjunct Assistant Professor

Marion Chan, PhD

Associate Professor of Microbiology and Immunology in the School of Medicine

Laurie MacPhail, DMD, PhD

Chair of the Department of Oral Maxillofacial Pathology

John Martin, PhD

Associate Professor of Physiology in the School of Medicine

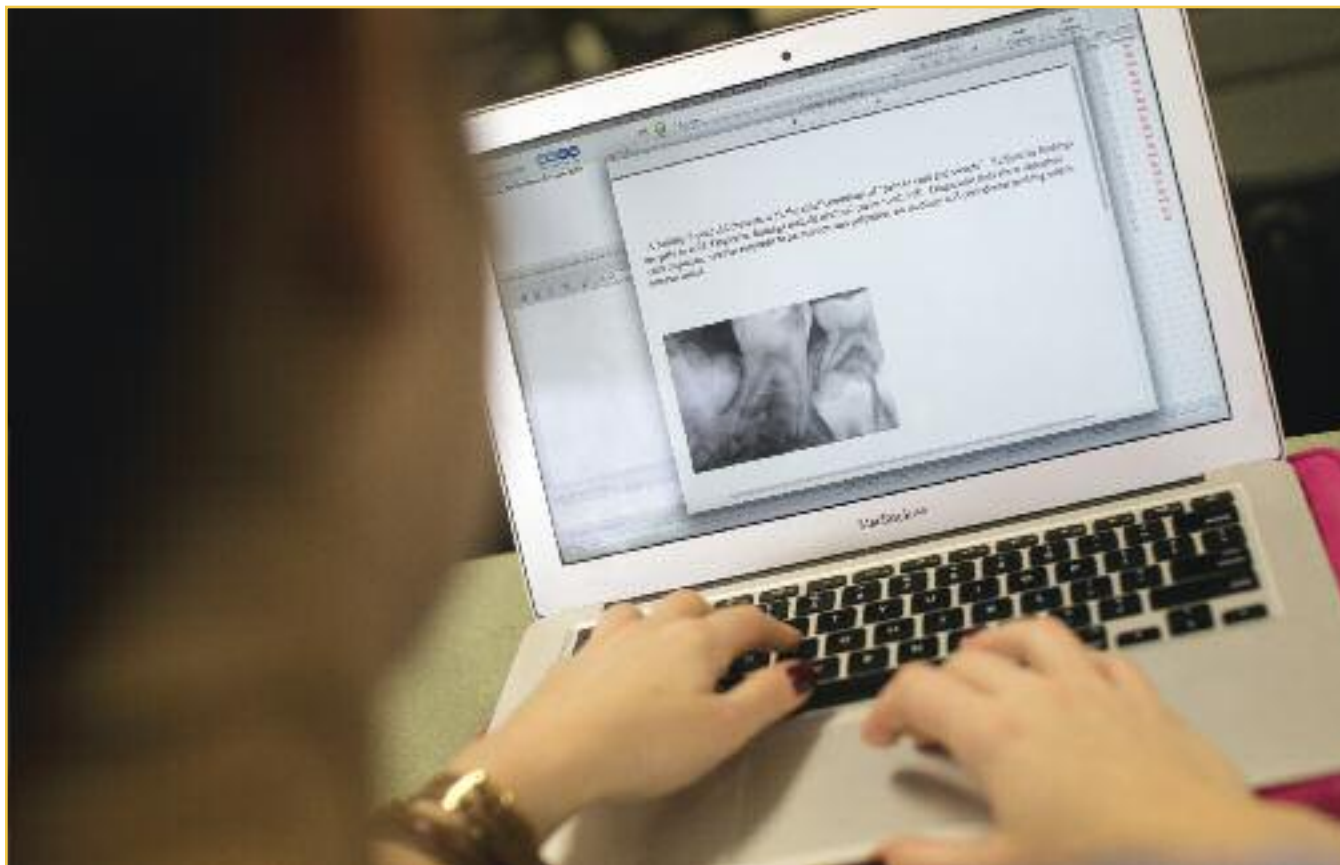
Gordon Pringle, DDS, PhD

Professor of Pathology and Laboratory Medicine in the School of Medicine

Gerry Sterling, PhD

Senior Associate Dean for Education in the Department of Pharmacology in the School of Medicine

What does the next generation of examinations look like for dental students?



In the mid-1970s, Minnesota's Scantron Corporation, commonly known as "Eagan," burst onto the American education scene, revolutionizing test taking with the scanner-read answer sheets that have become ubiquitous in classrooms across the country.

But like all technologies, something new and more efficient was bound to knock Scantron off its pedestal. Now, administrators at the Kornberg School of Dentistry believe they may have found the answer in a product called ExamSoft.

"With so many exams and quizzes given every semester, we needed to look for ways to work smarter, not harder, to deliver quality assessments," says Maria Fornatora, DMD, and associate dean for academic affairs.

Fornatora says the school's curriculum management committee decided to implement the software after the topic of electronic testing was discussed by an interprofessional education working group of associate deans from the schools of Podiatric Medicine, Pharmacy, Medicine and Dentistry.

"The medical school has been using electronic testing for some of its courses for some time, and was looking for input on other platforms on the market," Fornatora says. "As a group, we identified the available platforms and products...and then piloted the best fit for our needs."

After conducting trials of several software products, the group moved forward with the Boca Raton, Fla.-based ExamSoft. Fornatora says the system works by

allowing professors to input test questions into an online interface, which is then accessed by students taking examinations using their laptops or iPads.

The system locks out the rest of the computer's programs during examinations, and tests can even be downloaded to be completed offline. The potential for cheating is further eliminated by the software's ability to randomize the test questions, making it difficult for test takers to share answers.

But Fornatora says the real benefits of the system come from the time it saves and the ability professors now have to move beyond traditional assessment methods.

"Electronic testing allows case-based testing using high-quality clinical photographs, radiographs, histologic photomicrographs and more," Fornatora says. "Additionally, we are encouraging more short-answer and essay questions on our exams to assess critical thinking and decision making. The time involved in grading these kinds of written responses has traditionally dissuaded course directors from such questions."

Fornatora says there's also an added benefit in allowing professors to quickly evaluate their tests and make scoring adjustments.

"In just a few minutes you can analyze how many students got a question correct or incorrect and other performance indicators...and eliminate bad questions to re-score the entire class," Fornatora says.

She added that more than 70 exams and quizzes were scheduled to be administered using the ExamSoft system in the fall semester. But like all changes in technology, some professors initially expressed apprehension.

"During the training sessions, I could sense that there was enthusiasm for the electronic testing as a concept, but also a feeling that there would be a learning curve that went along with a very elaborate and sophisticated product," Fornatora says.

To ensure familiarity, Kornberg expanded its training to one-on-one sessions held throughout the fall on all phases of the process, including question banking, assessment creation, exam posting, test taking and scoring adjustments. Jeremy Hull, assistant director of academic affairs at Kornberg, also attended every exam to provide technical support and answer questions.

Ultimately, Fornatora says the system has become a success to date, and she believes it will continue to elevate the school's assessment quality as professors discover more of its features.

"Faculty, staff and students have responded very positively to the change in exam delivery—even those that were more skeptical at first," Fornatora says.

"In just a few minutes you can analyze how many students got a question correct or incorrect and other performance indicators... and eliminate bad questions to re-score the entire class."

— Dr. Maria Fornatora

Serving Those in Need



On Saturday, Sept. 6, 2014, and Saturday, Sept. 20, 2014, students, faculty and staff volunteered for two days of service jointly with the New Era Dental Society, screening members of ENON Tabernacle Baptist Church and military veterans. Over 350 patients were seen and then asked to continue their treatment with the dental school.





1964 Alumnus "Goes for the Gold"

During the 2008 Olympics in Beijing



Dr. Mandell is in the front row, third from the left.

When the dental director of the 2008 Olympic Games in Beijing called Dr. Charles (Chuck) S. Mandell, DDS, a 1964 graduate of Temple Dental, and said, "I would like you to come to China and train 93 dentists that will be on duty for the Olympic Games," the answer was obvious.

My immediate reply was, "Of course, I'd love to!" recalled Dr. Mandell, who now resides in Miami, Fla.

But Dr. Mandell's history and love story with China started long before that exciting phone call.

A Look Back

Originally from Brooklyn, New York, Dr. Mandell made the decision to go to dental school at Temple University.

"Temple had a reputation (and still does!) for taking in great students. Temple Dental had the attitude I wanted," Dr. Mandell explained. He describes his four years at Temple Dental in Philadelphia as among some of the happiest in his life.

"The camaraderie of my particular class was wonderful," explained Dr. Mandell. "We still keep in touch. In fact, I recently got together with 14 of them in Miami!"

Upon graduating from Temple Dental, Dr. Mandell moved south to Florida and opened his own dental practice. "It's a true family practice. We're now in the fourth generation of a lot of the families who come to me," he explained.

Owning and running a practice wasn't enough though. Dr. Mandell wanted to stay busy and give back to the community.

With a deep love for education, Dr. Mandell wanted to continue learning so he joined the Dade County Dental Research Clinic (DCDRC), a clinic that served the community and those who need it most in the region. While there, Dr. Mandell took courses in periodontics, pedodontics and surgery.

He came across a course he hadn't heard much about called implantology and decided to dive in headfirst. He quickly became passionate about the field of implantology.



"I was fascinated," Dr. Mandell described. "Fascinated to the point that my teacher was the first dentist to ever place an implant in the state of Florida and I was the second."

Fifty years later, Dr. Mandell still volunteers with DCDRC and has served as the chairman of the program.

"I've taught hundreds of dentists how to place implants," said Dr. Mandell proudly.

A Global Adventure in China

About 35 years ago, Dr. Mandell read an article in the FDI World Dental Federation's magazine about the president of the Chinese Dental Society.

"As I was reading the magazine, I thought to myself, 'It would be great to meet him,'" explained Dr. Mandell.

The article mentioned an ambassador program that brought groups of dental professionals to other countries to bring them U.S. education. From there, Dr. Mandell made up his mind that he would somehow get to China to be part of one of these programs. When Dr. Mandell got in touch with the ambassador program, he asked if they'd be interested in developing and bringing a dental implant group to China. They gave him the green light and Dr. Mandell got to work. For the next two years, Dr. Mandell served as a delegation leader and developed a program, traveling back and forth to China to prepare.

On that first trip, 11 dentists joined

Dr. Mandell to bring U.S. education to Beijing and Chengdu. After that first visit to China, Dr. Mandell was hooked and has been back to the country several times since.

"Each time has been a completely different experience lecturing in different parts of the country," said Dr. Mandell. "It has been incredible."

Now, Dr. Mandell maintains friendships with several people from his many trips abroad.

"I can't say enough about the Chinese people. They are just wonderful," he said.

"One World, One Dream": The 2008 Olympic Games

After Dr. Mandell received that life- and career-altering phone call inviting him to the 2008 Olympic Games, he jumped into action.

The trip was arranged with the Chinese government and Dr. Mandell traveled to Beijing where he was the guest of the government for two weeks before the 2008 Olympics began.

"It was an honor," explained Dr. Mandell. "I believe there has never been another dentist in this country given an honorarium to travel to China."

During the two weeks Dr. Mandell spent in Beijing in 2008, he trained 93 Chinese dentists who would be on duty taking care of dental emergencies during the Olympic Games. The goal was to teach the dentists a more Americanized way of taking care of the Olympic athletes.

During his time in Beijing, Dr. Mandell and the other trainers presented the dentists with different scenarios that might occur during the Olympics to ensure they'd be able to properly and swiftly care for the athletes. "The dentists were wonderful. All 93 were volunteers who wanted to be part of the Olympics," remembered Dr. Mandell. "It was an incredible experience."

"Being in Beijing before the Olympics was amazing," recalled Dr. Mandell. "They were actually still building much of the infrastructure while we were there."

While Dr. Mandell returned home before the Olympic Games officially began, he spent time in the Olympic Village and came home with an extra suitcase full of Olympic souvenirs and mementos. He even has a plaque from the chief of the Olympic Games.

"The whole Olympic experience was nothing short of phenomenal," said Dr. Mandell.

Looking Ahead

Dr. Mandell shows no signs of slowing down anytime soon. He still works 50- to 60-hour weeks at his practice, plays handball regularly and continues to volunteer with the DCDRC. He even recently traveled to Philadelphia for his 50th Temple Dental class reunion.

As for his next global adventure?

He's starting a dental implant program in Peru.

1964 Reunion Attendees



Members of the Class of 1964 gathered to celebrate their 50th reunion with other alumni during Reunion Weekend 2014. Guests gathered together at the dental school for tours of the newly renovated facility, attended a cocktail hour downtown, joined together for brunch as the 50th reunion class received honorary diplomas, and went to a matinee showing of *Phantom of the Opera*. The 50th reunion class also attended a special dinner at the Loews Hotel to commemorate their milestone.



Gallery of Success Awards



Jay Michael Goldberg, DDS

Class of 1983, 1985

Alumni from each of Temple's schools and colleges are honored every fall and highlighted for one year in the Gallery of Success showcases, located in Mitten Hall's lower level. Previous winners' names are also on permanent display. The Gallery of Success is a collaborative effort between Temple's Career Center and the Office of Alumni Relations.

This year, Dr. Jay Michael Goldberg, DDS, '83, '85, was selected as the Kornberg School of Dentistry's award recipient. Dr. Jay Michael Goldberg has been in full-time private endodontic practice in Philadelphia since completing the postgraduate residency program in endodontics at Temple University in 1985. He served as president of the Philadelphia County Dental Society, a component society of the American Dental Association (ADA), from June 2010 until December of 2012 and served for three years as a member of the Society's Board of Governors. He was president-elect from June 2009 to June 2010, and will continue to serve on the board as immediate past president until December 2014. He has also served as president of the Louis I. Grossman Study Club, the Eastern Dental Society and the Northeast Philadelphia Dental Society.

Dr. Goldberg is actively involved in serving the community as the lead endodontist for Pennsylvania's Mission of Mercy (MOM-n-PA), a nonprofit, all-volunteer dental group which provides dental care to underserved citizens of Pennsylvania.

Dr. Goldberg has been a faculty member at Temple University Kornberg School of Dentistry since 2011 in the Department of Endodontics. He has been an active alumnus of the dental school, lending his support toward raising funds for student scholarships and building renovations, as well as class reunions. In June of 2011, he was awarded the Leadership Award given by the Kornberg School of Dentistry Alumni Society. He also serves as a member of the Board of Visitors of Kornberg Dental.

He is a 1979 graduate of the University of Pittsburgh College of Arts and Sciences, with a BS in biology and received his DDS from Temple University School of Dentistry in 1983.

Class

NOTES

1940s



This March, at age 92, **Dr. Harry B. Lutz, DDS, ('45)**, of Lancaster, Pa., celebrates 70 years of practicing dentistry. Upon graduating at Temple University's School of Dentistry in 1945, Lutz served as an Army dentist at their hospital in Asheville, N.C. He was promoted to chief oral surgeon at Camp Kilmer, N.J., the largest processing center for troops heading overseas and returning from World War II. Lutz began his own dental practice in 1947. He also served as the chief of the dental staff at St. Joseph Hospital; he served as the head dentist for the county's schools; he worked on behalf of the

city's free dental clinic for children; and he was an active member of the Lancaster City Branch of the American Dental Association, serving as its president for a year. He is a well-loved dentist, and many of his patients and their families span three generations of sitting in his chair.

1970s

Louis K. Rafetto, DMD, ('77), was named president-elect of the American Association of Oral and Maxillofacial Surgeons (AAOMS) during the association's annual meeting in Honolulu. Prior to his election, Dr. Rafetto served a one-year term as vice president and four years as District II trustee on the AAOMS board of trustees, where he represented the oral and maxillofacial surgeons in Delaware, Maryland, New Jersey, Pennsylvania and the District of Columbia. Dr. Rafetto is a diplomate of the American Board of Oral and Maxillofacial Surgery. He maintains a private oral and maxillofacial surgery practice in Wilmington, Del., and serves as chairman of the section of oral and maxillofacial surgery and also as the director of implantology and alveolar reconstruction in the Department of Oral and Maxillofacial Surgery at Christiana Care Health System in Wilmington. He is chair of the Delaware Institute for Dental Education and Research and a past president of the Delaware

Valley Society of Oral and Maxillofacial Surgeons. He has also been president of the Delaware State Dental Society and is a member of Health Volunteers Overseas.

Thomas Gamba, DDS, ('76), who practices dentistry in Philadelphia, was elected second vice president of the American Dental Association (ADA). The election took place during the ADA House of Delegates meeting in San Antonio, Texas. Dr. Gamba has been an ADA member for 40 years and has served in many leadership positions within the dental community, including president and speaker of the house of the Pennsylvania Dental Association (PDA). He also served on the ADA Council of Ethics, Bylaws and Judicial Affairs and the Council on ADA Sessions.

Joseph Breitman, DMD, MS, FACP, ('79), received the American College of Prosthodontists 2014 Private Practice Award for Region 2-Eastern. He was one of five private practice prosthodontists who received this recognition for his contributions to the specialty and the college. Dr. Breitman received the award at the 44th Annual Session of the American College of Prosthodontists in New Orleans in November 2014. He graduated from the University of Pennsylvania's School of Dental Medicine and Temple University's Prosthodontic Specialty Program. Dr.

Breitman also received a postdoctoral master's degree in dental materials/oral biology at Temple University. He is a diplomate of the American Board of Prosthodontics, an ACP fellow and an associate professor of the Kornberg School of Dentistry at Temple University.

1980s

Michael Matz, DMD, FAGD, ('88), a dentist in Elkins Park, Pa., competed in the 2014 United States Masters Swimming Long Course Summer Nationals at the University of Maryland, where he took eighth place in the men's 50-54 age group 50 meters backstroke event. He hopes to compete in the World Championships of the Macabi Games in Israel in the near future. Dr. Matz is a fellow of the Academy of General Dentistry (FAGD).

2000s

Christina Gregory, DMD, ('01), was inducted into the American College of Dentists as a new fellow this past October 9 at the San Antonio Marriott Rivercenter.

Faculty Notes

Marisol Tellez-Merchán, BDS, MPH, PhD, associate professor, Kornberg School of Dentistry, was named one of Delaware Valley's Most Influential Latinos by *Impacto Latin Newspaper*.

In Memoriam

Colonel Saul Strauss, DDS, ('43), passed away on October 8, 2014. Colonel Strauss served in World War II as a battalion surgeon. After the war, he became commander of the Command and Control Headquarters of the U.S. Army, overseeing 252 dentists on the East Coast. He practiced dentistry in Chapel Hill, N.C., until his retirement in 1979.

Perry Fennell, Jr., DDS, ('59), passed away on November 21, 2014, of respiratory failure. Dr. Fennell was born in Philadelphia and graduated from West Philadelphia High in 1950. Using an American Legion Scholarship, he entered Temple University and received a bachelor's degree in 1954. He graduated in 1959 from Temple University School of Dentistry. In 1959, he joined the Army and served as a dentist, attaining the rank of captain. Dr. Fennell, a prominent dentist and longtime community leader, ran the annual Broad Street Run, a number of other races, and one marathon. He was a man devoted to helping Philadelphia young people live productive lives, an Army veteran and dedicated family man. Dr. Fennell's work for community earned him the prestigious Philadelphia Award in 1975.

Roger Wiener, DDS, ('75), passed away October 20, 2013. He practiced dentistry in Kearny, N.J., for 38 years. His father **Arthur Wiener, DDS, ('38)**, passed away on April 23, 2001. Both were members of Alpha Omega dental fraternity while in dental school.

William Silverstein, DDS	DEN '36
Custode A. Crisci, DDS	DEN '42
Paul G. Zackon, DDS	DEN '43
Domenic J. Piccolella, DDS	DEN '44, CLA '45
Joseph Sherman, DDS	DEN '45
Sidney Hochberg, DDS	DEN '45
Graham E. Martin, DDS	DEN '46
Alexander J. McKechnie, Jr., DDS	DEN '50
Terrance A. McMahon, Jr., DDS	DEN '50
Samuel J. Paul, DDS	CST '42, DEN '51
Morton S. Steinberg, DDS	DEN '52
Dr. Harry H. Difenderfer, Jr., DDS	DEN '52
Howard J. Hippensteel, DDS	DEN '52
Joshua H. Barron, DDS	DEN '52
Alvin Steinberg, Jr., DDS	DEN '52
James D. Mendenhall, DDS	DEN '52
Joseph W. Palis, DDS	DEN '52, CST '48
John Irvin Gilson, DDS	DEN '53
Dr. Robert Alan Ortelere, DDS	DEN '54
Rodney R. Hooper, DDS	DEN '54
Charles F. Wagner, DDS	DEN '54
John W. Holston, Jr., DDS	DEN '56
Thomas J. Cush, Jr., DDS	DEN '57
Perry C. Fennell, Jr., DDS	DEN '59, CST '54
John H. Hanley, DDS	DEN '59
Frederick B. Storey, DDS	DEN '61
Michael A. Berky, DDS	DEN '61
Eugene B. Myerov, DDS	DEN '61
Amos V. Persing, DDS	DEN '62
Jerome Roseff, DDS	DEN '62
Thomas Shaudis, DDS	DEN '64
Dr. William G. Pringle, III, DDS	DEN '66
Thomas J. Forgeng, Jr., DDS	DEN '69
Hugh W. Wilson, DDS	DEN '70
Robert W. Tighe, DMD	DEN '02, DEN '06
Miss Theresa F. Martin	FACULTY

Dr. David Bresler, '79



"I feel that I have lost a member of my family. His zest for life and good nature will be sorely missed. Wednesdays at our school will forever change because David will not be with us."

— Dean Amid I. Ismail

Dr. David Bresler, graduate of Temple University's College of Liberal Arts, Class of 1975, and Temple University's Dental School, Class of 1979, passed away on March 21, 2015.

Dr. Bresler was a beloved member of the Kornberg School of Dentistry family; a distinguished and loyal alumnus; respected colleague; member of our Board of Visitors; trusted advisor; and devoted steward of the school's legacy and future. Most importantly, he was a committed teacher and mentor to countless students who had the opportunity to work beside him and under his thoughtful guidance in the school's pediatric clinic. Generations of Temple Dental graduates—and their patients—will continue to benefit from his commitment to the dental profession for many years to come.

Dr. Bresler was a pioneer in developing an efficient model of pediatric dental care for all children regardless of their income level. The "Bresler model" of pediatric dental care that he had created is unmatched and will survive as a model for dental care for the world to follow.

Dean Ismail, in his announcement of Dr. Bresler's passing to Temple Dental students, faculty and staff, said, "I feel that I have lost a member of my family. His zest for life and good nature will be sorely missed. Wednesdays at our school will forever change because David will not be with us."

In our next edition of *The Diamond*, we welcome you to contribute to an article entitled "The Life and Legacy of Dr. David Bresler: Perspectives from His Students."

Please send your thoughts to Ashley LaRosa at alarosa@temple.edu.



Don't miss out on some great CE Courses!

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Treatment Planning and
Contemporary Computer Guided
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Friday, Sept. 25, 2015

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(Hands On)*

Dr. Howard Glazer

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Friday, Oct. 2, 2015

*Orthodontic Diagnosis and
Treatment Planning for the
General Dentist*

Dr. Harold Slutsky

D\$295 DT\$125; SFC / 6CE

Friday, Oct. 9, 2015

*The 7 Habits of Highly Esthetic
Dentists*

Dr. Joseph Greenberg D\$295

DT\$125; SFC / 6CE

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Dentistry*

Dr. S. Rand Werrin

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Implant Complications*

Dr. Donald Clem

D \$295 DT \$125; HUB / 6CE

Wednesday, Nov. 11, 2015

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the Deteriorated Dentition*

Dr. Joseph Breitman

D\$295 DT\$125; SFC / 6CE

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Dentistry, Office of Continuing Education,
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PLEASE JOIN US AT THE FOLLOWING ALUMNI EVENTS!

Thursday, May 7th

Alumni Reception at the
American Association of Endodontists Annual Session
Seattle, Washington
Sheraton Seattle Hotel in the Medina Room from 6:00-7:30pm

Saturday, May 16th

Alumni Reception at the
American Association of Orthodontists Annual Session
San Francisco, California
Moscone Center West Building, Room 2003 from 7:30-9:00pm

Saturday, May 23rd

Alumni Reception at the
American Academy of Pediatric Dentistry Annual Session
Seattle, Washington
Sheraton Seattle Hotel in the Juniper Room from 5:00-7:00pm



To register email Ashley LaRosa at alarosa@temple.edu or call (215) 707-9005.



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