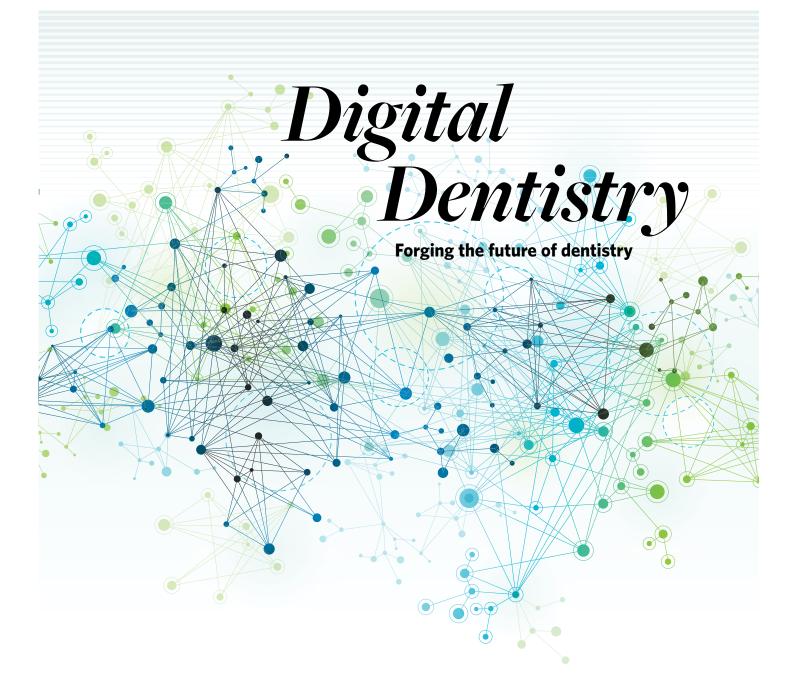
Boston University Henry M. Goldman School of Dental Medicine

impressions





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Dr. Russell Giordano Introduces Rock Star Ceramic A closer look at ENAMIC and the product launch.

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Dentistry Gone Digital: Inside GSDM's Cutting-Edge Technology It's not news to say that the world

It's not news to say that the world has gone digital. But...dentistry?

Task Force on Digital Dentistry The people at GSDM who are shaping

The people at GSDM who are shaping the future of dental education.

Quoted

"I hope that each of you will be able to attend one of our celebratory events in 2013."

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Spring 2013

IMPRESSIONS

A publication for the alumni and friends of Boston University Henry M. Goldman School of Dental Medicine

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Boston University's policies provide for equal opportunity and affirmative action in employment and admission to all programs of the University.

0413

Please recycle.



DEAR ALUMNI AND FRIENDS, In the aftermath of the events surrounding the 2013 Boston Marathon, I join my fellow Bostonians and all of the members of our Henry M. Goldman School of Dental Medicine (GSDM) in prayer for the victims and their families. As an active member of our community, GSDM stands ready to help our neighbors in any way we can as our city and neighbors continue to cope with the impact of these tragic events.

I am delighted to share that as part of our Applied Strategic Plan, we continue to implement the Group Practice Model. In support of that model, I have established a Task Force to Implement Digital Dentistry at the Henry M. Goldman School of Dental Medicine. This task force has been charged with determining the necessary facilities, equipment and support required to create a seamless all-inclusive digital patient record to facilitate comprehensive treatment planning and efficient delivery of oral healthcare at the highest quality of care using digital dental technologies. I look forward to their findings and I will certainly keep you updated on progress.

As you know, throughout the calendar year of 2013 the Boston University Henry M. Goldman School of Dental Medicine (GSDM) will celebrate our 50th Anniversary of the founding of our School by Dr. Goldman. The festivities began with a kick-off Alumni Reception Friday, February 1 at our reception held during the Yankee Dental Congress in Boston. Additional 50th Anniversary Alumni Receptions have been held in Arizona, Washington, California, Hawaii, and Italy. These will be followed by events and receptions across the country and the world throughout 2013.

I hope that each of you will be able to attend one of our celebratory events in 2013. Our alumni and friends have certainly been central to our success and growth thus far and you will undoubtedly be a very important part of our celebration and our future.

At each of these events, and in the pages of previous issues of this magazine, I have shared details with you about the Boston University "Choose to be Great" \$1 billion dollar fundraising campaign. This One Billion Dollar Campaign, the first of its kind for Boston University, marks a significant moment in the history of our University and our School. What also makes this Campaign different than others is that the money we are able to raise will remain with the Henry M. Goldman School of Dental Medicine. The money we raise will be ours to use and will go to the funding of our new facility, along with the establishment of endowed Professorships and Scholarships.

We began implementing our Applied Strategic Plan in March 2011 and as part of this implementation, we have been working very closely with the University on a facility proposal. Both a Task Force and a Steering Committee have worked very closely with the SmithGroup architectural firm to analyze existing space and utilization, understand future direction and needs, develop and present several facility option solutions, and develop a Facility Master Plan for our School.

Our proposed solutions are currently under consideration by President Brown and the University Space Committee and we hope to be able to share definitive plans with you soon. Once the facility plans are approved by the University Trustees, our work to fund the new facility will begin in earnest. Your support will be critical to our ability to transform our School as we Choose to be Great and in so doing we realize my and what I hope is now your vision for the Boston University Henry M. Goldman School of Dental Medicine becoming the premier Center of Excellence in Oral Health Education, Research, Patient Care and Community Service in this nation and the world.

Sincerely,

JEFFREY W. HUTTER, Dean





50TH BIRTHDAY CELEBRATION KICKS OFF AT YANKEE

The 2013 Yankee Dental Congress (YDC) was especially celebratory for the Boston University Henry M. Goldman School of Dental Medicine (GSDM). Our School celebrated its 50th anniversary, welcomed back alumni, and saw Nadia Malik DMD 13 honored by the American College of Dentists.

At the Boston Convention & Exhibition Center, alums reconnected at the GSDM Alumni Lounge. A photo slideshow of the School's first 50 years played throughout the Congress. Also exhibiting was GSDM Continuing Education, whose representatives promoted upcoming continuing education opportunities.

We celebrated the past, present, and future of our School at a 50th Anniversary Pre-reception Celebration on February 1, 2013. The special guests invited were closely involved in planning the anniversary celebration. They were:

- the Honorary Committee to Plan the 50th Anniversary Celebration of the Founding of the Henry M. Goldman School of Dental Medicine
- the Dean's Advisory Board
- the GSDM Executive Committee
- the GSDM Alumni Association Board Later that evening 1,125 alumni, fac-

ulty, staff, students and friends gathered for a reception and 50th Anniversary Kickoff Celebration.

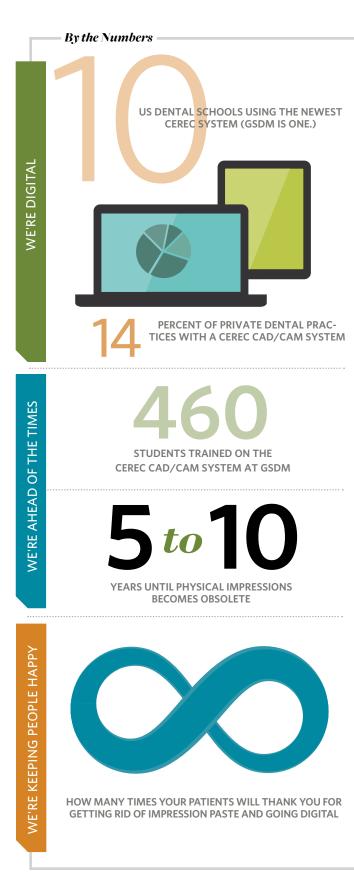
"It means a great deal to me," Dean Hutter said, "to see our community gather in such numbers to celebrate our past and gather our momentum as we continue our move forward into the future of our School and our University."

Ron Nevins PERIO 67 received the alumni award for Service to the Profession. Dr.

Nevins' many hats include dental educator, practitioner, editor, American Academy of Periodontology leader, former Board director, founder and President of Perio Implant Research, Inc., and supporter of our School.

Special guests spoke, praising the past, present, and future of GSDM:

- BU Provost and Chief Academic Officer Dr. Jean Morrison
- American Dental Association President
 Dr. Robert Faiella
- American Dental Education Association
 President Dr. Gerald Glickman
- Dean's Advisory Board Chair
 Dr. David Lustbader DMD 86, CAS 86
- BU Alumni Council President
 Dr. Shadi Daher DMD 90, OMFS 94
- GSDM Alumni Association President
 Dr. Mitch Sabbagh DMD 87
- Chair of the Committee to Plan the 50th Anniversary Celebration Dr. Thomas Kilgore



Dean Hutter concluded the program by saying, "Together, we can build on the momentum of a legacy of innovation and fund our proposed new facility to provide us with the infrastructure required to bring excellence to all of our programs

as we build together a future that is truly great for our Henry M. Goldman School of Dental Medicine and our Boston University and we realize my and what I know is now your vision of becoming the Premier academic dental institution in the world, promoting excellence in dental education, research, oral health care, and

"IT MEANS A GREAT DEAL TO ME," DEAN HUTTER SAID, "TO SEE OUR COMMUNITY GATHER IN SUCH NUMBERS TO CELEBRATE OUR PAST AND GATHER OUR MOMEN-TUM AS WE CONTINUE OUR MOVE FORWARD INTO THE FUTURE OF OUR SCHOOL AND OUR UNIVERSITY."

-Dean Jeffrey W. Hutter

community service to improve the overall health of the global population."

A video commemorating the past 50 years and the future of our School then premiered at the reception.

Dean Jeffrey W. Hutter presented fourth-year DMD student Nadia Malik the American College of Dentists Senior Student Award at a luncheon on February 2, 2013.

Dean Hutter said, "Since first meeting Nadia during her Class of 2013 orientation in August 2009, I have been continually impressed with her intelligence, dedication, motivation, can-do attitude, and wonderful personality. As with the other student award winners here with us this afternoon, Nadia represents the reason why the future of our profession is so very bright."

BU ELECTED TO THE ASSOCIATION OF AMERICAN UNIVERSITIES

The Association of American Universities (AAU) elected Boston University as a member in 2012. AAU is a nonprofit organization consisting of 62 leading public and private research universities in the United States and Canada. The other Massachusetts-based members are Harvard University, the Massachusetts Institute of Technology, and Brandeis University.

Boston University President Robert A. Brown said, "The decision by the AAU's current members to add Boston University to their ranks is a tangible validation of the quality and impact of our doctoral research programs and of the research and scholarship of our faculty."

AAU was founded in 1900 to advance the international standing of U.S. research universities. More recently the organization has switched its focus to issues critical to research-intensive institutions, such as research funding and policy, and the direction and quality of graduate and undergraduate education. ■

CHALLENGES BECOME OPPORTUNITIES ON MEXICO MISSION

As you might imagine, coordinating an international externship is a feat when unexpected challenges happen. That was the case when Erik Engelbrektson, Patrick Moore, and Josephine Verde, all DMD 13, set out for San Blas, Mexico from October 4 to October 15, 2012, with LIGA, The Flying Doctors of Mercy.

Mission supervisor Dr. Fred Kalinoff was forced to cancel his trip last minute for medical reasons, leaving GSDM students without a mentor and unable to practice dentistry. Thanks to quick thinking from Assistant Director of Extramural Programs Kathy Held and a lot of compassion from Ismael Montane DMD 10 AEGD 11, the group had a new preceptor—Montane—just days later. After receiving the phone call from Held, Dr. Montane jumped on a plane to Mexico.

Montane participated in a Project Stretch mission as a student in 2010 and returned as a co-supervisor with Frank Schiano CAS 01 DMD 06 AEGD 07 earlier in 2012. This time, Montane led his team in providing comprehensive care. In a letter to Montane following the trip, Held said: "The tasks you faced and your judgment calls were commendable."

The team treated 60 patients a day totaling 240 patients. Montane estimates the team did in one week what a private practice in the U.S. would accomplish in several weeks.

"Each day on a mission trip is probably equivalent to a week in a clinic in the U.S.," says Montane. "When you go back to school, it gives you a better

frame of reference for how to approach each situation. You become a clinician."

Engelbrektson agrees.

"You don't have your hand held on an international externship," he says. "Now, as we return to school, we have more knowledge and experience so we can make stronger decisions while still under faculty supervision in the patient treatment center."

Engelbrektson reflects on how the residents affected him: "They were so gracious even if they had waited the whole day. Every time they'd leave and smile, that just gave me energy for the next patient."

The team visited four area schools to offer screenings to about 400 children. They invited to the clinic those who needed fillings and extractions.

Verde reflects on the tough choices required of them: "It's challenging because you know you're fixing a problem by extracting a bad tooth, but you also know you're potentially causing a problem down the road."

Verde, Engelbrektson, and Moore all recall the mission as an incomparable learning experience. As for Montane, he enjoyed his new role as a team leader.

Said Dean Jeffrey W. Hutter, "On behalf of the entire Boston University Henry M. Goldman School of Dental Medicine community, I would like to express appreciation for Dr. Montane's enthusiastic readiness to step in for mission supervisor Dr. Fred Kalinoff so that the students could treat these needy patients. Dr. Montane has demonstrated the core values of responsibility, excellence, and service that the Goldman School of Dental Medicine aims to instill in all of its students." "You don't have your hand held on an international externship," he says. "Now, as we return to school, we have more knowledge and experience so we can make stronger decisions while still under faculty supervision in the patient treatment center."

-Erik Engelbrektson DMD 13



Dr. Jonathan Shenkin Featured in Parents Magazine

Parents Magazine's Jan Sheehan spoke to Clinical Assistant Professor in the Department of Health Policy & Health Services Research Dr. Jonathan Shenkin for the February 2013 article, "The Fight Against Cavities." The article offers tips for keeping young children's teeth free of decay.

- Dr. Shenkin's tips:
- Start cleaning the mouth early. "A child can get a cavity even if s/he only has one tooth," he says.
- Lose the pacifier by age two or use one that is "orthodontically-correct."
- If a child has no cavities by age four, s/he is likely in good shape for the rest of childhood.
- Insist on dental sealants

Dr. Shenkin is a spokesperson for the American Dental Association and has a private practice in pediatric dentistry in Augusta, Maine. His advocacy focuses on effecting change in oral health policy, with particular attention to the oral health of children.

GSDM Has a Night in the Spotlight at Agganis Arena

Students, faculty, staff, and family members of Boston University Henry M. Goldman School of Dental Medicine (GSDM) enjoyed a night in the spotlight at the February 28, 2013, men's basketball game between the Boston University Terriers and the Stony Brook University Seawolves. Thanks to coordination between GSDM Student Affairs and BU Athletics, it was BU Dental Night at Agganis Arena.

For BU Dental Night, members of the GSDM family were treated to free tickets to the game. In addition, representatives from each of the pre-doctoral classes were featured in a halftime knockout contest. The contest participants were Kabir Ram AS 13, Joseph Hackstie DMD 13, Paul Toor AS 14, Jay Patel DMD 14, Ramandeep Samra DMD 15, and Kevin Treger DMD 16. Kevin Treger won the shootout and received a prize of \$100 to Andre's Café.

For members of the GSDM community, BU Dental Night at Agganis provided a refreshing time-out from the demands of day-to-day work—the type of respite that is a vital element for success.



(top, I-r) Paul Toor AS 14, Kevin Treger DMD 16, Ramandeep Samra DMD 15, Kabir Ram AS 13, Rhett, Jay Patel DMD 14, Joseph Hackstie DMD 13, and Dr. Joe Calabrese, Assistant Dean of Students

GLOBAL OUTREACH AT ADEA ANNUAL SESSION

Several members of the GSDM community attended the 2013 American Dental Education Association (ADEA) Annual Session & Exhibition, March 16-19 in Seattle. The theme of this year's Annual Session was "Landscape of Learning." The theme encompassed key issues and future-oriented concepts in dental education. Educational sessions focused on: cur-



ricular change with a focus on inter-

professional education, various pedagogical approaches especially related to learning how to teach, to inspire and motivate students as learners and future professionals, and methods of effective reflection and positive self-assessment.

Assistant Professor Kathy Held and Clinical Assistant Professor Ana Zea SPH 16 presented a lecture, "'GLOBAL': What's in it for your school, students and communities?" The presentation identified benefits and challenges in the creation of a global health program, discussed important considerations for the planning and implementation of global missions, and reviewed evaluation strategies for key stakeholders.

"It was our goal when presenting at the ADEA Annual Session to highlight GSDM's programs aimed at addressing global oral health disparities," said Held. "By taking the lead we hoped to provide tools to other dental academic institutions also committed to fostering an understanding and helping disadvantaged populations both domestically and abroad." Zea added, "We look forward to working with the other dental schools who participated in the session and supporting their global initiatives in the future."

Dean Jeffrey W. Hutter applauded the presentation. "It is truly gratifying to see the commitment of the Global and Population Health Office to actively support students, faculty, and staff in their efforts to improve the health of the world's populations. I am very pleased and proud of these efforts," he said.

In addition to the programs currently operating in Columbia, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, and Ukraine, GSDM recently announced that it will expand its Global Elective Externship program during the 2013-14 academic year to include an exchange program with two institutions in China: Shanghai Jiaotong University School of Stomatology (SJUSS), located in Shanghai, and the Fourth Military Medical University School of Stomatology (FMMUSS), located in Xi'an. GSDM students and residents will have the opportunity to do one- or two-week rotations in Oral and Maxillofacial Surgery under supervision by SJUSS and FMMUSS faculty. In return, GSDM will accept students and scholars from SJUSS and FMMUSS for clinical observation and/ or research experience in various specialties at GSDM.

In his Strategy for a Global University, Boston University President Robert A. Brown states, "I believe that the future success and impact of Boston University as a great private research university will be interwoven with our presence as a truly global university in the 21st century." Through these new exchange programs with FMMUSS and SJUSS, GSDM plans to extend its international dental externship program initiatives and to help fulfill the mission President Brown writes about. Dean Hutter said, "It is an honor and privilege to contribute to the global profile of this great University."

→ GLOBAL AND POPULATION HEALTH NEW POSITION FOR DR. MICHELLE HENSHAW

Dean Jeffrey W. Hutter appointed Dr. Michelle Henshaw to the position of Associate Dean for Global and Population Health, effective February 1, 2013.

In this capacity, Dr. Henshaw leads efforts related to developing and showcasing the Henry M. Goldman School of Dental Medicine's (GSDM) position as a world leader in global health and interprofessional care initiatives. She leads a new Office of Global and Population Health. "I have every confidence that Dr. Henshaw will excel in her new role," said Dean Hutter. He continued, "Establishing the Office of Global and Population Health is an important strategic expansion for our School as we continue to contribute to the global profile of Boston University."

The Office of Global and Population Health actively support students, faculty, and staff in their efforts to improve the health of the world's populations, and facilitates interdisciplinary health research, teaching, and practice across all departments and programs at GSDM and the University, with a special emphasis on global health and interprofessional care. Dr. Henshaw retains her previous responsibilities related to Community Health Programs, the Northeast Center for Research to Evaluate and Eliminate Dental Disparities (CREEDD), and Community Partnerships and Extramural Affairs. She also retains her appointment as Professor

in the Department of Health Policy & Health Services Research.

Dr. Henshaw has been charged with: establishing an organizational structure that identifies and addresses the challenges of developing and conducting global health training, research, and service projects; working with "ESTABLISHING THE OFFICE OF GLOBAL AND POPULATION HEALTH IS AN IMPORTANT STRATEGIC EXPANSION FOR OUR SCHOOL AS WE CONTINUE TO CONTRIBUTE TO THE GLOBAL PROFILE OF BOSTON UNIVERSITY."

—DEAN JEFFREY W. HUTTER

the School of Medicine, School of Public Health, and healthrelated professional schools on the Charles River Campus to create programs that will rigorously prepare trainees for collaborative practice and interprofessional care; administering national and international community-based educational programs; administering and expanding the GSDM community service and service learning programs; and seeking funding for innovative research and educational programs that will catalyze the development of interdisciplinary translational research projects that provide a firm scientific base for clinical practice and public health policy. Dr. Henshaw received a BS in Psychology from Columbia University in 1989, a BS in Dental Science and a DDS from the University of California at San Francisco in 1993, and a MPH with a dual concentration in Epidemiology/ Biostatistics and Health Services from Boston University School of Public Health in 1996. She was a General Practice Resident at the Brockton Veterans Administration and a Faculty Training Fellow in Geriatric Dentistry for the US Department of Health and Human Services/Bureau of Health Professions at Boston Medical Center/Boston University School of Medicine from 1993-1994. Dr. Henshaw earned a Certificate of Advanced Graduate Study in Dental Public Health at GSDM in 2000.

Dr. Henshaw has been a Professor in the Department of Health Policy and Health Services Research at GSDM since 2008. She previously served that department as an Associate Professor from 2004-2008 and Assistant Professor from 1997-2004. Prior to that, she served as Assistant Professor in the Division of Dental Care Management from 1996-1997.

Dr. Henshaw has served as the Project Director at the Chelsea School Dental Center, the Director of Community Health Programs at GSDM, Dental Director at the Boston Center for Refugee Health and Human Rights at Boston Medical Center, and Co-PI for Clinical and Community Liaison Core at the CREEDD. She has served as Co-Director at the CREEDD since 2005, and as Assistant Dean for Community Partnerships and Extramural Affairs at GSDM since 2006.

Dr. Henshaw has received numerous awards and honors including: ADEA Gies Foundation 2011 William J. Gies Award for Innovation in the Dental Educator category; NIH-NCMHD Health Disparities Scholar, 2004-2007; Oral Health Care Access Program Scholar, Santa Fe Group and ADTA, 2002; Community Campus Partnerships for Health Fellow, 2002; Spencer N. Frankl



Excellence in Teaching Faculty Award, 2000; Geriatric Dental Fellowship Award, Boston University Goldman School of Dental Medicine, 1997; Best Overall Presentation and Use of Graphics, University of Iowa Health Sciences Center, 1997; Omicron Kappa Upsilon Society, Member, 1993-Present; Chancellors Award, University of California at San Francisco, 1993; Professional Development Award, University of California at San Francisco, 1991; California Dental Association Award, University of California at San Francisco, 1991; and Mendelson Scholar Award, University of California at San Francisco, 1989-1993.

Dr. Henshaw is a member of several professional organizations including:

American Association for Dental Research; American Association of Public Health Dentistry; American Dental Association; American Dental Education Association; American Public Health Association; International Association for Dental Research; Massachusetts Dental Society; and Massachusetts Public Health Association.

Dr. Henshaw has written numerous articles for several dental health publications including the American Journal of Public Health and the Journal of Dental Education.

KUKURUZINSKA LAB PUBLISHES ON POTENTIAL CANCER-CAUSING GENE DPAGT1

A manuscript published online November 23, 2012, in the Journal of Cell Science presents new insights into the mechanisms that control epithelial cell behavior as discovered by Dr. Maria Kukuruzinska's laboratory in the GSDM Department of Molecular & Cell Biology. The research identifies the DPAGT1 gene as a regulator of canonical Wnt signaling and E-cadherin adhesion through positive and negative feedback loops and suggests that DPAGT1 may—at least in vitro—function as an oncogene (a gene that has the potential to cause cancer).

Dr. Kukuruzinska's laboratory previously showed that the DPAGT1/



canonical Wnt signaling loop is unusually amplified in oral cancer. This new research suggests that even a modest increase in DPAGT1 expression leads to a much greater amplification of canonical Wnt signaling and a substantial inhibition of E-cadherin adhesion. This is associated with a dramatic shift from an epithelial to a mesenchymal morphology.

Researchers have shown that the highly conserved metabolic pathway of protein N-glycosylation functions in an interactive network with the canonical Wnt signaling pathway and E-cadherin-mediated cell-cell adhesion. Through this network, cells adjust proliferation in response to density information and achieve functional maturity by establishing stable

E-cadherin-mediated cell-cell junctions.

The N-glycosylation pathway is initiated by the DPAGT1 gene, which regulates the extent of N-glycosylation and the quality of N-glycan structures. DPAGT1 is a target of the canonical Wnt signaling pathway, which plays a prominent role in regulating cell proliferation and cell fate. DPAGT1 regulates canonical Wnt signaling by affecting the N-glycosylation status, activity, and localization of Wnt ligands and co-receptors. By controlling the N-glycosylation of E-cadherin, a major epithelial cell-cell adhesion receptor and regulator of cell polarity and survival, DPAGT1 regulates the molecular organization of E-cadherin junctional complexes, thus impacting their adhesive functions. In turn, DPAGT1 and canonical Wnt are antagonized by E-cadherin via a mechanism that involves the depletion of transcriptionally active b- and g-catenins. Moreover, N-glycosylation affects the ability of E-cadherin to antagonize canonical Wnt signaling and DPAGT1 expression.

The authors of the manuscript, "Coordinate regulation of N-glycosylation gene DPAGT1, canonical Wnt signaling and E-cadherin adhesion," are Pritam K. Sengupta, Meghan P. Bouchie, Mihai Nita-Lazar, Hsiao-Ying Yang, and Maria A. Kukuruzinska.. ■

THREE MEMBERS OF GSDM COMMUNITY AWARDED FIRST EVER SEED GRANTS

The Boston University Henry M. Goldman School of Dental Medicine (GSDM) named three faculty members as winners of the first-ever Seed Funding Competition in December 2012. GSDM's Research Endowment Fund awarded the 2012 winners \$15,000 each in grant funds to enhance research at the School.

These grants are intended primarily to support new investigators but can also be used to fund new and exciting collaborations by established researchers.

This year's recipients are Srinivas Ayilavarapu DSc 08, PERIO 10 assistant professor, Department of General Dentistry; Dr. Manish Bais, research assistant professor, Department of Periodontology & Oral Biology, and Dr. Ki-Young Kim, research assistant professor, Department of Molecular & Cell Biology.

Dr. Ayilavarapu's research project, "Periodontal disease and Type 2 Diabetes have excessive systemic inflammation and impaired resolution programs," will test the hypothesis that people with periodontal disease (PD) and type 2 diabetes (T2D) will present with systemic inflammation that fails to resolve and present with priming and aggregation of platelets, neutrophils and monocytes.

Dr. Bais's research project, "LOXL2 in anabolic response to osteoarthritis," will build on previous observations that LOXL2 is expressed in fracture healing and is a critical regulator and effector of chondrocyte development.

Dr. Kim's research project, "Control of ribosomal protein gene expression by transcriptional attenuation," will study a novel regulatory mechanism known as transcriptional attenuation. The authors have described the phenomena in yeast and now they will study various attenuation relief factors (a continuation of their previous work).

"The seed funding competition will help drive research momentum at the School," said Dr. Maria Kukuruzinska, Associate Dean for Research. "We are very excited to fund three outstanding projects that can be developed into competitive proposals for extramural funding."

INTERNATIONAL ELECTIVE EXTERNSHIP



Teaching the Importance of Oral Health in Honduras

If given a choice, most people would choose not to see the dentist. That's the problem students and staff encountered on their January 9-15, 2013 mission to Buena Vista, Honduras. Upon arriving at the school where Global Brigades had set up a pharmacy and medical and dental clinic, residents of the small coffee-growing community checked off a form to see only the physician or the physician and the dentist as well. Most people did not check the "dentist" box.

"They thought seeing the dentist automatically meant extractions," says Jung Ahn DMD 13, who volunteered. "So they were really afraid at first."

Clinical Instructor Gladys Carrasco, the

Jung Ahn, Anna Lechowicz, and Christina Woo (all DMD 13), Clinical Instructor Gladys Carrasco, and Bostonarea dentist Dr. Chris Choi volunteered in Buena Vista, Honduras, with Global Brigades in January. (above) Jung Ahn with a young Honduran patient

first Spanish-speaking dentist to join the mission, realized that patients were only asking to see the dentist if they had toothaches. She took on the task of teaching the local population, in their native language, how the dentist can help with everyday oral health care.

"We need to educate the people about why they need to see the dentist," she says. "There are a lot of other diseases we can find out just by looking at their mouths."

The number of dental appointments increased dramatically, from 10 people the first day to 40 the second and even more on the third and final day.

Anna Lechowicz DMD 13 noted that despite the lack of oral health education, some people's teeth were even better than you sometimes find in Boston.

"They're cut off. If you want to go down the hill it would take three or four hours to walk," she says. "I don't think they had access to processed foods. I don't think they could afford coca cola." Whether by choice or by chance, it's a small win for the residents of Buena Vista and dental health providers treating them.

Also joining the team were Christina Woo DMD 13 and Boston-area dentist Dr. Chris Choi.

Global Brigades is a unique externship experience. First, the group pairs dental and medical students (called "professionals") with undergraduate students working toward those professions. GSDM students not only had the chance to serve the people of Buena Vista, but they also served as mentors for pre-dental students on the trip. Pre-dental students helped out as dental assistants.

Second, Global Brigades asks volunteers to spend a portion of their mission working outside of their field of expertise as well. This can include any of the areas Global Brigades works in: architecture, business, dental, environmental, human rights, medical, microfinance, public health, or water. On their last day in Honduras, GSDM volunteers helped build a community center that will be a permanent site for one physician and one dentist in Buena Vista.

Global Brigades follows the theory of "holistic development." According to the group's website, this is "a system of collectively implementing health, economic, and education initiatives to strategically meet a community's development goals."

"We at the Goldman School of Dental Medicine are so proud of Jung Ahn, Anna Lechowicz, Christina Woo, and Drs. Carrasco and Choi," said Dean Jeffrey W. Hutter, "not only for their commitment to teaching the importance of regular oral health care but also for mentoring the next generation of dental students on this extraordinary mission." ■

GSDM'S SNDA HOSTS FIRST EVER IMPRESSIONS DAY

On Saturday, March 2, 2013, Boston University Henry M. Goldman School of Dental Medicine's (GSDM) Student National Dental Association (SNDA), American Student Dental Association (ASDA) and Hispanic Student Dental Association (HSDA) launched the first SNDA Impressions program in the School's history.

Impressions is a flagship event for SNDA chapters nationwide. The program encourages and educates pre-dental students by inviting them to campus and introducing them to several aspects of dental school and GSDM in particular.

Forty-two pre-dental students from local colleges and universities joined forty GSDM student volunteers at the School to participate in the daylong program. Their schedule included presentations led by Assistant Dean of Students Joseph Calabrese DMD

91, AEGD 92 and Director of Diversity & Multicultural Affairs Larry Dunham DMD 83, information sessions from the GSDM Admissions Office and Kaplan Test Prep, a School tour, an interviewing skills workshop, a session in the Simulation Learning Center (SLC), and a presentation about taking the Dental Admissions Test (DAT).

Dr. Calabrese praised the results of the program. He said, "Our first SNDA Impressions program was very successful. A strong turnout from pre-dental students as well as our GSDM student volunteers created a buzz in the School. I look forward to the next Impressions program and hope we will maintain this level of excitement and participation from GSDM students and pre-dental students."

Wyatt Traina DMD 14, Community Service Chairman of GSDM's SNDA chapter was thrilled with the day's outcome as well. "It was a smashing success," said Traina. "The event ran smoothly and was well received. It was terrific when Dean Hutter came by to speak to some of the undergrads as well."

"I enjoyed speaking with the pre-dental students regarding careers in dentistry, their current college and university experiences, and how they were enjoying their day at GSDM," said Dean Jeffrey W. Hutter. "Thanks to all the GSDM students who participated in this wonderful event."



"A STRONG TURNOUT FROM PRE-DENTAL STUDENTS AS WELL AS OUR GSDM STUDENT VOLUNTEERS CRE-ATED A BUZZ IN THE SCHOOL. I LOOK FORWARD TO THE NEXT IMPRESSIONS PROGRAM AND HOPE WE WILL MAIN-TAIN THIS LEVEL OF EXCITEMENT AND PARTICIPATION."

-Dr. Joseph Calabrese

The pre-dental students in attendance expressed their gratitude to GSDM for organizing the program. "On behalf of the UMass Amherst Pre-Dental society, I would like to say thank you for hosting us at this year's BU Impressions Day, " said Raquel Manley, President of the Pre-Dental Society at the University of Massachusetts Amherst. "Every society member I have talked to is definitely interested in applying in the coming years."

DEAN UPDATES ON PROSPOSED NEW FACILTY



On Tuesday, November 20, 2012, Dean Jeffrey W. Hutter held a special meeting of the Boston University Henry M. Goldman School of Dental Medicine (GSDM) Faculty and Staff to provide an update as to the status of a proposed new facility.

Since the Applied Strategic Plan was launched in March 2011, progress included discussions with the leadership of Boston University and the University Space Committee. Dean Hutter praised the work of SmithGroup, the architecture firm GSDM has worked with in developing the GSDM Facility Master Plan and evaluating multiple sites for a proposed facility on the BU Medical Campus.

Dean Hutter will keep the GSDM community apprised of pertinent updates as the planning for a proposed new facility continues.

DR. ERRANTE LOOKS TO STRENGTHEN RELATIONSHIPS, AFFECT POLICY AT LEADERSHIP INSTITUTE

The American Dental Education Association (ADEA) welcomed Dr. Margaret Errante to the ADEA Leadership Institute on January 14, 2013. The ADEA Leadership



Institute is a yearlong program designed to develop individuals at academic dental institutions to become future leaders in dental and higher education.

In an acceptance letter, Executive Director Dr. Richard Valachovic said, "You have joined a cadre of the nation's most promising dental educators and upon graduation will become one of only 285 members of this prestigious institute."

Dr. Errante says she is honored to have been given the opportunity by Dean Hutter to attend the ADEA Leadership Institute.

"I am excited to participate in the yearlong program that among other initiatives will focus

on strengthening relationships within our institution and nationwide," she says. "The program will also introduce policy issues affecting academic dentistry and I will be given an opportunity to speak as an advocate with national policy makers."

Leadership Institute graduates from our School say Dr. Errante is more than qualified.

Dr. Ronni Schnell says, "Dr. Errante will be a wonderful asset to her peer group in the Leadership Institute. She brings with her a wealth of knowledge and experience, while stepping out of her environment and collaborating with colleagues from other dental institutions. I wish Dr. Errante all the best in her yearlong program; she is certainly up for the challenge."

Dr. John Guarente says, "Dr. Errante has vast experience operating private dental practices and this will only strengthen at the Leadership Institute, which proves how the educational component can fit within the operational model. I know that she will take full advantage of this opportunity to explore the approaches of different institutions."

Members will meet for four workshops over 2013-2014.

Dr. Errante is a Clinical Assistant Professor in the Department of General Dentistry, Director of the BU Dental Health Center, and Director, Clinical Operations at our School.

DR. JOSEPH BOFFA FEATURED IN METROWEST DAILY NEWS

Associate Professor in the Department of Health Policy & Health Services Research Dr. Joseph Boffa guest authored an op-ed article, "Don't sacrifice health to cut deficits," in the January 18, 2013, issue of the Metrowest Daily News.

"Congress must do the right thing," he says, "in order to preserve some of the programs that actually work to keep America healthy."

Dr. Boffa urges Congress to avoid cuts in Medicare Part D, citing both research and cases he witnessed personally as Executive Director of HealthLink Wellness of New England. He praises Part D for lowering non-prescription drug medical spending and hospital



admissions and saving billions overall.

"Preventing and managing chronic diseases among our retirees should be a national priority," he says, "not a ledger to balance."

In Memoriam

Clinical Associate Professor Emeritus **Dr. Thomas A. Arm**strong

passed away on April 1, 2013. He was a distinguished member of our



faculty who had received the Spencer N. Frankl Award for Excellence in Teaching.

Dr. Armstrong was born in Barbados on October 30, 1931 and was a Newton resident for nearly 41 years. He received a Bachelors of Science in Chemistry and a DDS, both from Howard University. He maintained a private practice in family dentistry in Washington, D.C., until 1972, when he moved to Boston to practice at the Roxbury Comprehensive Clinic (RCC) at BU. He joined the GSDM faculty in 1973. He later became director of RCC while maintaining private practices in Mattapan and Jamaica Plain. He retired in 2004.

He was a member of Omicron Kappa Upsilon, the National Dental Society, and the Massachusetts Dental Society.

He was predeceased by his parents, Ethelin and Thomas; his sister, Doreen Aleta Green; and two brothers, James Athelston and Darnley Archibald Armstrong. He leaves behind his wife, Ida (Mason) Armstrong; his two daughters, Lorna C. Armstrong Batson and Julia Pamela Armstrong Goring; his granddaughter, Serena C. Batson; his brothers, Francis Bishop, Aubrey, and Winston; and many siblingsin-law, nieces, and nephews.

Donations may be sent to the American Cancer Society or The Parkinson's Disease Foundation.

→ GONE TO GUATEMALA: Two externships start the year off right

MUTUAL GRATITUDE SHARED BY STUDENTS AND PATIENTS ON GUATEMALA MISSION

If someone pulled out one or more of your teeth, would you think of giving her a gift the following day? Lauren Chinnici DMD 13 was on the receiving end of this seemingly unlikely experience when she received gifts from several patients that she saw during her international externship in Poptun, Guatemala, in January 2013.



In one case, Chinnici extracted four teeth from a little girl who returned the following day with a bag of fresh bananas. Another girl, named Erica, made a bracelet for Chinnici and sent it through Erica's brother and mother when they visited the mission's clinic the next day. Chinnici was still wearing this bracelet upon her return to Boston. All seven students who provided dental services in Poptun were received with appreciation: Many hugs were shared around the treatment rooms during the mission.

On this trip directed by the non-profit organization LIGA International (The Flying Doctors of Mercy), two groups of DMD 13 students traveled to Poptun: Danielle Berkowitz, Nadia Daljeet, and Caitlin Reddy from January 10 to 21 and Lauren Chinnici, Christina Donnelly, Michelle Holzinger, and Hilary Linton along with Assistant Professor Kathy Held. The team leader for the Poptun mission was GSDM alum Kevin Acone MET 02, DMD 07.

Despite challenging conditions at the makeshift clinic, attendees described a positive experience during which they were able to improve their dentistry skills and confidence in their work and judgments. With no X-rays, poor lighting, and limited material and equipment, each student saw from 60 to 100 patients every day, performing consultations, extractions, fillings, and applying fluoride varnish. They worked 10 to 11 hours daily seeing patients who were often suffering from numerous dental problems. Communication with patients was also difficult because the students did not share a common language. Christina Donnelly managed to keep children smiling by using only a handful of phrases she knew, like "¿te gustan los perros?" That is, "Do you like dogs?"

Nadia Daljeet described the mission as "my best experience in dental school." Danielle Berkowitz reported that "the trip was an amazing experience in which my abilities were used for the greater good of a poor population." Caitlin Reddy wrote in her feedback: "Invaluable experience. Can't say enough about it."

Dean Jeffrey W. Hutter praised the students' work: "These students embody the mission of GSDM to provide community service to improve the overall health of the global population. On behalf of the School, I extend my thanks to them for serving as positive global representatives for the School."

(left, from top) Lauren Chinnici DMD 13, Michelle Holzinger DMD 13, Christina Donnelly DMD 13, and Hilary Linton DMD 13 in Poptun; La Merced Church in Antigua, Guatemala; Kevin Acone DMD 07 observes as Michelle Holzinger DMD 13 treats a patient



GSDM COLLABORATES WITH MIL MILAGROS "A THOUSAND MIRACLES" IN GUATEMALA

To those familiar with GSDM's community outreach programs, it may not come as a surprise that the School recently partnered with an organization whose name translates from Spanish as "a thousand miracles." In January 2013, Assistant Professor Kathy Held and frequent international externship supervisor Dr. Fred Kalinoff joined the organization Mil Milagros to lead a fluoride clinic at a school in Chutinamit, Guatemala.

Mil Milagros is a Boston-based non-profit organization founded in 2007 by Margaret Blood. The organization works in Guatemala with the mission to prevent malnutrition and hunger and to ensure that children complete sixth grade, literate and healthy.

Under the direction of Held and Kalinoff, 42 children from Chutinamit and the nearby community of Xecotoj

received fluoride treatments and toothbrushes. While there, Held trained 15 mothers as well as Mil Milagros staff members to administer fluoride treatments. The training will enable the mothers and staff to add fluoride treatment to their services, helping prevent cavities, tooth decay, and hypersensitivity. In addition, Mil Milagros' very own Captain Cavity Fighter was on hand to give a lesson on good oral hygiene to the children.

This recent collaboration of GSDM with Mil Milagros represents a potential future partnership between the School and the organization for an additional international externship opportunity for dental students. Most importantly, it presents an opportunity to improve the oral health of disadvantaged children.

Said Dean Jeffrey W. Hutter, "I commend the efforts of Ms. Kathy Held and Dr. Fred Kalinoff to continue the global expansion of the School's community outreach programs. On behalf of the entire School, I extend my gratitude for their efforts."





Good Works and Good Hope

DENTIST CARES FOR UNDERSERVED COMMUNITIES HERE AND ABROAD

The Forest Hills Dental Office is an airconditioned oasis on a scorching summer day along Dorchester Avenue in Boston, where a laundromat, Vietnamese market, and Your Style sportswear store fill out the rest of the block. Maria Depina, a native of Cape Verde, rises from the plastic-covered couch and shakes the hand of the dentist she calls her "son."

Fidelito Gabriel SAR 01, DMD 05 grew up in Dorchester as a Haitian immigrant and decided he could best serve his community—here and abroad—through dentistry. Fidelito Gabriel, dressed in a spotless white jacket and tie, has been Depina's dentist for nine years, and through fillings and root canals and routine cleanings, has been, she says, more concerned with the quality of care than with how much he's paid for it. One time Gabriel charged her nothing for the filling he did on her son.

"Dr. Gabriel has a good heart," Depina says. "He's willing to do things for free just to make you happy."

Gabriel came to the United States from Haiti more than two decades ago, a skinny kid fleeing the aftermath of a bloody coup in the Western hemisphere's poorest country. Here, his hard work earned him the favor of teachers and mentors, a full-ride scholarship to BU, a dental degree, and eventually his own practice, with offices in Dorchester and Jamaica Plain.

These days, Gabriel is working hard to provide others with the kind of help he was given. He regularly sends money to his mother and her family in Haiti, travels on dental missions to the Dominican Republic and his home country, is a board member of a local charter school, and mentors the next generation of dentists in Boston. And last spring, he joined the Massachusetts Army National Guard.

Back in Haiti, the young Gabriel had never planned to become a dentist. "All I wanted to do is become a scientist who can work on cancer and find a cure," he says.

While his father worked in Port au Prince, Gabriel and his brothers and sisters lived with their mother in the village of La Cour Jules. When Gabriel was of age, he went to school in the capital, where everything changed drastically with the 1986 coup d'état that ousted President Jean-Claude Duvalier. Gabriel's father fled to the United States, planning to bring his entire family once he was settled. But when he saw the violence in Haiti, broadcast nightly on American television, he knew he couldn't wait. He sent for his children—first the youngest daughter, then the three oldest, including Gabriel, in 1988.

Growing Up Early

They all lived with his father and his new American wife and her children on Intervale Avenue, one of the toughest streets in Dorchester. Violence and shootings were commonplace. Gabriel knew no one and spoke no English. Just eight at the time, he quickly realized that even though his family was living in a wealthy country, they were not rich. In some ways, things had been better in Haiti.

As his family bounced from Dorchester to Roxbury and back again—each time moving to a safer neighborhood-Gabriel tested into better public schools. At West Roxbury High School, he joined Project Success, a pro"He had a seriousness of purpose that other 19and 20-year-olds don't tend to have."

gram that introduces inner city children to the medical professions. He hoped to work with cancer researchers, but when the project's organizers heard that his father was a dentist, they assigned him—much to his chagrin—to the oral cancer research laboratory at the Forsyth Institute.

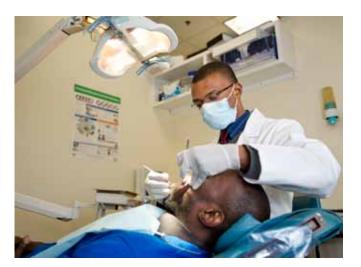
With encouragement from high school teachers, Gabriel applied for a full scholarship through the Boston High School Scholars program to Sargent College, where he worked in the muscle biology laboratory of Susan Kandarian, a professor of health sciences. Gabriel maintained cell cultures, meticulously stored plasmid DNA for researchers and doctoral students, and conducted research examining the cause of muscle atrophy, funded by BU's Undergraduate Research Opportunities Program.

"He had a seriousness of purpose that other 19- and 20-year-olds don't tend to have," recalls Kandarian. "He really got that we were making discoveries like any other lab to really contribute to our understanding of biology."

Working in Kandarian's lab reinforced his love for science, but he also learned in talking to doctoral students that the path to a PhD often took longer than anticipated. And he knew that family back in Haiti needed money. "In my third year in college, I thought maybe trying to cure cancer is very important, but it's not what I need to do," he says.

Gabriel was accepted to the Henry M. Goldman School of Dental Medicine. When he registered, he says he promised himself, "I would try it for one year, and if I didn't like it, I'd dump it because I know I love cancer research." He cruised through his first year and even helped tutor his classmates. That summer, he enrolled in the Applied Professional Experience program, which sends first-year dental students to private or public practices for an eight-week internship. He was assigned to the Codman Square Health Center, where the majority of patients are Haitian. He spoke their language, understood what it was like to be Haitian in America, and knew the answers to more than their dental questions. He knew also that what he was doing was badly needed. CONTINUED





Gabriel at his practice, Forest Hills Dental Office

> "Before they can pay for dental care, they have a lot of other things to consider, feeding their families, paying bills, taking care of elders."

Gabriel stayed at Codman after graduation and in 2009 joined Forest Hills Dental Office, which his father ran and they later bought together. Many of their clients are low-income, have state health insurance, and come from Central America, Haiti, or other parts of the Caribbean.

"Before they can pay for dental care," Gabriel says, "they have a lot of other things to consider, feeding their families, paying bills, taking care of elders. In our community, most of us don't just care for ourselves; we care for elders and other people in our families."

Missions, Military, and Mentorship

Gabriel often works with patients to establish payment plans for uninsured care, counsels them on which insurance best serves their needs, and refers them to other dentists for specialized care. He also regularly sends money to his mother and her family in Haiti and pays his brother's rent and college loans.

For the past four summers, he has traveled with the Hispanic Dental Association to Haiti or the Dominican Republic, where he gives free preventive and restorative care to hundreds of poor patients—some of whom have never visited a dentist. "Typically, I'm part of the restorative team," he says. "We try to prevent large cavities from becoming an infection to help them preserve the smile." His group has also spoken with members of the Dominican Republic's public health community about how to introduce fluoride into people's diet in table salt.

This spring Gabriel added another title to his name: captain. He joined the Massachusetts Army National Guard's Dental Corps, serving one weekend a month and 15 days during the summer supervising contracted dentists who care for service members at a handful of locations around Boston. His three-year com-

mitment could include occasional deployments overseas.

He also joined the board of trustees of the Smith Leadership Academy, a charter middle school in the Field's Corner neighborhood of Dorchester that focuses on leadership and character development. Board chair Kevin Tarpley says he recruited Gabriel because of his science background and his personal story, describing him as humble, a deep thinker, and a team player. "It's great when we introduce board members to the students," many who come from Haiti, "because they can say, 'Look, I can become a dentist,"" Tarpley says. That message resonated with Gabriel, who is on the development committee and academic excellence committee.

Gabriel also mentors dental students he meets at the Annual Haitian Health Career Seminar held at the Medical School each spring, coaching them on issues from good study habits and organizational skills to choosing classes and dental techniques. Sheina Jean-Marie MED 08 says he mentored her through the admission process to Tufts School of Dental Medicine, and they regularly chatted whenever she had questions about the profession. "It was refreshing to speak with someone who knew the experience and was able to walk you through every step of the way," she says.

"Mentoring helped me get where I am right now," Gabriel says. "I was a good student, but if I didn't have people who were interested in me and showed me the way to go so that I could become a dentist, I probably wouldn't have made it."

This article was written by Leslie Friday and first appeared in the Fall 2012 issue of Bostonia.

Dr. David Russell

JOINS GSDM AS THE DIRECTOR OF THE GROUP PRACTICE EXPERIENCE AND TEAM LEADERSHIP

On November 1, 2012, Dr. David Russell joined the Boston University Henry M. Goldman School of Dental Medicine (GSDM) as the director of the group practice experience and team leadership, and clinical associate professor of general dentistry. He reports to Associate Dean for Clinical Education Dr. John Guarente. Dr. Russell had previously served GSDM as a consultant at the Curriculum Summit II held in March 2012.

Dr. Russell's role at GSDM is clearly aligned with and supportive of Goal 2 of GSDM's **Applied Strategic** Plan: provide excellence in lifelong dental education and scholarship. He provides leadership in the development, implementation, and sustainability of vertically integrated teams within group practices that have designated spaces, staff, faculty, and pre-doctoral students



and post-doctoral residents. The group practice model will create a sense of continuity of care for our patients within a patient-centered clinical education construct for faculty-guided, student-provided, high-quality oral health care. Once the group practice model is in place, Dr. Russell will continue to monitor, develop, revise as needed, and supervise the group practices regarding efficiency, student progress, quality assurance, and competency requirements. Dr. Russell is settling into his new role at GSDM and making progress on the implementation of the group practice model and in other areas. "Through the support of Dean Hutter, Dean Guarente, and the GSDM faculty, the group practice model will become a fabulous new reality as the way we treat our patients and teach our students," he said. "It's been an honor to help develop the program. The enthusiasm of the entire community has been electric."

Dr. Russell earned a BA in Theology and Music at Boston College, a DMD from Tufts University School

of Dental Medicine, and an MPH from Tufts University School of Medicine. He also completed a general practice residency at Overlook Hospital in Summit, New Jersey. He is a past member of the Board of Registration in Dentistry for Massachusetts, having been appointed by Governor Romney He was also a Robert Wood Johnson Health Policy fellow in the office of Senator Orrin Hatch. He comes to GSDM directly from his position at Gentle Dental, where he was the director of doctor relations from 2008 to 2012.

The first part of Dr. Russell's career was in academia, at Tufts University School of Dental Medicine, and his experience is broad and innovative. He was associate dean for clini-

cal affairs, associate clinical professor and associate professor of prosthodontics and operative dentistry, and course director of oral diagnosis and treatment planning. Prior to that, he held positions at Tufts as assistant dean for clinical affairs; adjunct professor of veterinary surgery; lecturer in dental anatomy and operative dentistry; and course director, operative dentistry remedial course. Dr. Russell was instrumental in the design and development of the group practice model and the placement and development of the electronic health record at Tufts.

He also served as chair and cochair of numerous committees, including the Risk Management, Safety & Infection Control Committee; the Patient Care Quality Assurance Committee; the University Benefits Advisory Committee; the Appointments, Promotions, and Tenure Committee; the Executive Faculty Committee; and the University Sexual Harassment and Diversity Committee. Dr. Russell also founded and served as program development coordinator for both the Hyde Park Regional Vocational Technical High School Dental Assistant Program and the Middlesex Community College Satellite Student Dental Clinic.

Dr. Russell has published extensively and lectures both nationally and internationally. He is a fellow of both the American College of Dentists and the International College of Dentists, and he is a member of the American Dental Association; the Massachusetts Dental Society; Pierre Fauchard Academy; Omicron Kappa Upsilon Dental Honor Society; the American Dental Education Association; the American Public Health Association; the American Association of Public Health Dentistry; the American Association of Dental Boards; and the Northeast Regional Board of Dental Examiners. He maintains a private practice in Boston.

"We are thrilled that Dr. Russell has joined the Boston University Henry M. Goldman School of Dental Medicine faculty," said Dean Jeffrey W. Hutter. "His expertise and leadership skills make him uniquely qualified to serve as director of the group practice experience and team leadership." ■



With the Hands of a Woman

KATHERINE HALTOM, DMD 79, OMFS 82

Dr. Katherine Haltom DMD 79, OMFS 82, has a thriving solo practice in Framingham, Massachusetts. She kindly spoke to Impressions staff about her experience as the first female Resident and the first female Chief Resident in the GSDM Oral & Maxillofacial Surgery program under Dr. Donald Booth. While the profession has certainly become more open to women over the years, according to the American Association of Oral and Maxillofacial Surgeons (AAOMS), in 2012-2013, only 11% of OMS faculty and 14% of Residents currently in training are women. Dr. Haltom shares her experience and wisdom with prospective female oral surgeons for success in this largely male profession.

What led you to a career as an oral surgeon?

My father was a wonderful physician so I was always intrigued with medicine and thought I would pursue medicine as a career. When I went away to college at Hollins College in Roanoke, VA, my father encouraged me to pursue other interests, maintaining that I had already spent a great deal of time studying sciences. I focused on history, psychology, and art, along with many science courses and I became fascinated with speech pathology. As I took speech pathology courses, primarily working with stutterers, I found myself much more interested in the patients with severe facial anomalies and eventually realized that I was drawn to oral surgery.

I asked my father if he knew any oral surgeons in Nashville. If I could spend the summer months working for an oral surgeon I thought I could see how interested I really was in oral surgery as a career. I worked for Dr. Jim Nickerson in Nashville, TN, for three consecutive summers. He was a recent Vanderbilt OMS graduate and full of enthusiasm. I really felt like I was in my element and put in many long hours in the office and in the operating room. By the time I enrolled in dental school, I had extensive exposure to office based oral surgery and the complex workings of orthognathic surgery in the operating room.

I moved to Boston for personal reasons and enrolled in a master's program at Boston College in biochemistry, with an eye toward dental school. My father didn't want me to pursue dental school or oral surgery. He remembered that the few women he had known in medical school had been discriminated against and mistreated and he didn't want that for me. Once I decided on my path for Oral Surgery, he was my biggest advocate.

Was it an unusual choice for a woman at that time?

In general, yes, more so for Oral & Maxillofacial Surgery. However, as I recall, GSDM was way ahead of the rest of the country on the gender imbalance issue. I believe we were somewhere near 25% female DMD students when I graduated in 1979. I credit Dean Frankl for being very forward thinking about the DMD program, the School, and the profession. I also credit Dr. Booth's vision for the Oral Surgery department.

When I interviewed for the DMD program, I told my interviewer that I wanted to be an oral surgeon, but he discouraged me from settling on a specialty at that early stage. After completing the DMD program, I applied to OMS Residency programs at both GSDM and Vanderbilt and was the first female accepted to both programs. I ultimately decided to continue on at BU, which I am so very happy about. I loved Boston and it was at Boston City Hospital where I met the love of my life, Larry Joyce.

And while I loved GSDM and being in Boston, I did feel a great responsibility as the first woman accepted into the OMS program. I was very conscious of representing all future women applicants as the first female Resident.

What sets GSDM apart?

From the time of Dr. Goldman, the focus at BU has been on the whole patient and the whole body. At that time, many other dental schools focused exclusively on the mouth. I felt the total body approach was a great preparation for treating patients. At that time, the first two years were spent in classes with the medical students, which really helped us to think about the whole body when treating our dental patients. To this day I focus on comprehensive medical care and being aware of treating the mouth as part of the whole body.

In terms of the OMS program, what set it apart was Don Booth. He was very focused on teaching us to treat our patients with kid gloves and great respect for the tissue. He had a reputation for delicate and beautiful procedures and his patients had virtually no swelling. He used to tell the almost exclusively male Residents, "You must operate with the hands of a woman." What he meant by that was that there are plenty of rough surgeons out there and this is not what we are about at GSDM. Oral surgery requires a great deal of delicacy, which he tried to communicate by insisting OMS students operate with the hands of a woman.

Do you see differences between the environment for women in dentistry now versus when you were in school?

My fellow Residents very much treated me like "one of the guys," and I honestly felt that if I worked hard and pulled my own weight I was accepted. I did notice some resistance to my role as Chief Resident, but Dr. Booth counseled me to just get on with taking the leadership role assigned to me by Dr. Maloney.

After graduation I stayed at GSDM and taught full time for four years, becoming the Director of the Oral Surgery Clinic and became part of the Oral & Maxillofacial Surgery faculty group practice. I loved teaching and I was able to become board certified during that time. At the same time I was working weekends and taking calls for another oral surgery group and I truly did enjoy both. Eventually I decided to focus on private practice. I found as I interviewed around that there were inappropriate questions about my plans for marriage and family that would certainly never be asked today.

I eventually joined a group practice started by Dr. Norm Nathanson, who turned out to be an important mentor in my early career and beyond. Dr. Nathanson was a true lifelong learner and was eager for all of the latest techniques that I had been taught by Dr. Booth. He was still a student—the oldest young person I ever knew. Once he retired, Dr. Nathanson was also extremely supportive of me when I decided to leave the group practice and strike out on my own. Other mentors include my wonderful father, Tom Haltom, Don Booth, Tom Kilgore, Jim Nickerson, David Sortor, and Phil Maloney of Boston City Hospital.

In the 80s there was also a fair amount of patient resistance to being treated by a female oral surgeon at that time. Today it's very different. Things have evolved and I think you will continue to see the numbers of female oral surgeons climb. In general, colleagues and patients accept female oral surgeons because now women are everywhere, in every profession.

Things really started to shift in the 1990s. It just seemed like women were everywhere in the workplace. Women seemed to be turning out in great numbers in general dentistry and in the other dental specialties and I could feel the change among colleagues and among patient acceptance. There was no longer any hesitation or doubt about a female dentist or oral surgeon.

If you are a female dentist seeking to specialize in oral and maxillofacial surgery, I am a big advocate of group practice in order to make work/life balance possible. It can be difficult to find that balance, but as I tell young college students and dental students who come to me seeking advice, it IS possible!





DMD 84



President

Frank Schiano CAS 01, DMD 06, AEGD 07



Monique Mabry Bamel DMD 90



Nazila Bidibadi CAS 82, DMD 87



Joseph Calabrese DMD 91, AEGD 92



Shadi Daher DMD 90, OMFS 94



William Gordon DMD 88, ORTHO 90



Claudia Grail PEDO 90



Ralph Hawkins ENDO 89

GSDM Spotlight



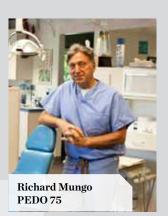
Zhimon Jacobson PROS 80, DMD 86



DMD 03



DMD 84, PERIO 86





Loretta Castellanos Nunez DMD 91



Boston University Henry M. Goldman School of Dental Medicine's (GSDM) Alumni Association Board has pledged to donate \$250,000 to the School.



Josephine Pandolfo CAS 74,DMD 79,PERIO 82



Megan Ryan GMS 06, DMD 10



Ronni A. Schnell **DMD 81**

Steve Perlman

PEDO 76



John West ENDO 75



ENDO 81

Dean Hutter led a champagne toast for the Alumni Board before the 2013 Yankee Dental Congress alumni reception. (I-r) Bill Gordon CAS 84, DMD 88, ORTHO 90; Monique Mabry Bamel DMD 90; Shadi Daher DMD 90, OMFS 94; Dean Hutter; and Frank Schiano CAS 01, DMD 06, AEGD 07



The board is offering these funds to support Dean Jeffrey W. Hutter's goal of constructing or acquiring a new building for the School.

Tina Valades DMD 84, immediate past president of the board, described the discussions that led to this pledge, which occurred during her tenure as president. "We were inspired by Dean Hutter's vision of where the School needs to go at this point in its history," she said.

The board reviewed the fundraising pyramid and pinpointed the level at which they wanted to contribute. All the members agreed, and as a group they formed the donation structure. Dr. Valades added, "Everyone on the board is very committed and dedicated to the School, and this pledge was one way we could show our commitment."

Dr. Valades added, "The School needs to grow in order to maintain its excellent reputation, and this financial pledge—along with additional alumni support—is essential to ensuring the success of the next generation of GSDM dentists." The board is also working closely with the GSDM Office of Development & Alumni Relations and reaching out to alumni of all ages and career phases. GSDM alumni know firsthand that the field of dentistry is changing rapidly and how crucial it is for the School to remain competitive, according to Valades. "I think alumni understand what they've been able to accomplish as graduates of GSDM," she said. "Our GSDM training has given us our livelihood. We all want to give back to the profession and to the School."

Board President Mitch Sabbagh DMD 87 noted the importance and significance of giving back to GSDM. "Our professional achievements are a direct result of our education," said Dr. Sabbagh. "The board's pledge and alumni support overall are essential to ensure future generations of GSDM students receive the same exceptional training that we did."

The GSDM Alumni Association Board members making the five-year pledge are: Mitch Sabbagh DMD 87, president; Tina Valades DMD 84, immediate past president; Frank Schiano CAS 01 DMD 06 AEGD 07, secretary; Monique Mabry Bamel DMD 90; Dr. Nazila Bidabadi CAS 82, DMD 87; Joseph Calabrese DMD 91, AEGD 92; Shadi Daher DMD 90, OMFS 94; William Gordon DMD 81, ORTHO 90; Claudia Grail PEDO 90; Ralph Hawkins ENDO 89; Zhimon Jacobson DMD 86, PROS 80, PROS 81; Bing Liu DMD 03; Robert Miller DMD 84, PERIO 86; Richard Mungo PEDO 75; Loretta Castellanos Nunez DMD 91; Josephine Pandolfo CAS 74, DMD 79, PERIO 82; Steve Perlman PEDO 76; Megan Ryan GMS 06, DMD 10; Ronni A. Schnell DMD 81; John West ENDO 75; and Donald Yu ENDO 81. ■

"I think alumni understand what they've been able to accomplish as graduates of GSDM. Our GSDM training has given us our livelihood. We all want to give back to the profession and to the School."

-Tina Valades DMD 84

(I-r) Assistant Dean of Students Dr. Joseph Calabrese, Lyle Smith DMD 15, Antonio Maceda-Johnson DMD 15, Assistant Dean for Admissions Ms. Catherine Sarkis, Keely Matheson DMD 15, Andrew Pham DMD 15, Marina Gonchar DMD 14, and Benjamin Irzyk DMD 14

Aspen and Frankl Scholarship Awardees Sustain the GSDM Spirit

In fall 2012, six students each received an ominous email: they were to report for a "mandatory meeting" with Assistant Dean of Students Dr. Joseph Calabrese and Assistant Dean for Admissions Catherine Sarkis.

Speaking to the students' humble nature, upon receiving the email, each of them immediately tried to recollect something they might have said or done wrong. The summons felt reminiscent of being called to the principal's office. One of the students, Marina Gonchar DMD 14, recounts walking into Dr. Calabrese's office, finding Ms. Sarkis sitting there, the door being closed, and feeling "so scared."

Far from having done something wrong, each student had excelled. Gonchar—like Benjamin Irzyk DMD 14, Antonio Maceda-Johnson DMD 15, Keely Matheson DMD 15, Andrew Pham DMD 15, and Lyle Smith DMD 15—had been summoned by Dr. Calabrese and Ms. Sarkis because of their academic and personal achievements. Gonchar and Irzyk learned that they were being awarded the Aspen Dental Scholarship. Maceda-Johnson, Matheson, Pham, and Smith learned that they were receiving the Spencer N. Frankl Scholarship.

CONTINUED

Antonio Maceda-Johnson knew from the moment he stepped foot into GSDM for his interview that it was the right place. He felt an immediate "vibe" of friendliness and support.

Dean Jeffrey W. Hutter said of the six, "On behalf of the entire Boston University Henry M. Goldman School of Dental Medicine community, congratulations to Marina, Benjamin, Antonio, Keely, Andrew, and Lyle for being honored as scholarship recipients." He continued, "I am very proud to have such remarkable representatives for the School."

The criteria that Dr. Calabrese and Ms. Sarkis apply when deciding the recipients for both the Aspen and Frankl scholarships include strong academic performance, demonstration of ethical and professional behavior, and active participation in School and community activities outside the classroom. Both scholarships are for \$5,000 and intended to assist students with the expense of dental education.

Ms. Sarkis said of the scholarship recipients, "They represent excellence in academics and character and embody the values held by the Boston University Henry M. Goldman School of Dental Medicine." Dr. Calabrese concurred: "It is so enjoyable to be able to reward students who have made outstanding achievements and contributions to the School."

The humility with which the students received the awards, together with the great appreciation they expressed for those who had helped them in their achievements, lend a clue to their selection. The awardees describe a culture of supportiveness at Boston University Henry M. Goldman School of Dental Medicine (GSDM)—students, faculty, and staff all working hand in hand to help each other achieve and improve.

What sets apart Gonchar, Irzyk, Maceda-Johnson, Matheson, Pham, and Smith as exceptional are the outstanding ways that they perpetuate the supportive and selfless culture at GSDM.

The Aspen Dental Scholarship

The Aspen Dental Scholarship was established at GSDM in 2012. Irzyk and Gonchar will each receive \$5,000, which will be disbursed in two payments of \$2,500—one in their third year and the second in their fourth year of dental school.

Benjamin Irzyk has worked in the GSDM Admissions Office as a tour guide. He shares his positivity about GSDM and aims to excite students about attending the School. Irzyk also supports the efforts of Oral Health Promotion Director Kathy Lituri in Community Health Programs activities by volunteering for events such as Christmas in the City and Countdown to Kindergarten. He describes reflecting at the end of a long day of volunteering on all that happened and feeling rewarded...and tired.

Irzyk describes as "really rare" the great job that Student Affairs does in making students feel comfortable with coming to them with any need. He also says that having the "assistant dean of students or the assistant dean of admissions really getting involved within the community of students and being a resource for us is really special."

Marina Gonchar describes GSDM as unique for its culture of balancing a high level of education with encouragement to be involved in social activities that allow an "escape" from the stresses of school. As Chair of the Boston University chapter of the American Student Dental Association (ASDA), Gonchar contributes to the continuation of this beneficial culture.

About receiving the scholarship, Gonchar says, "I was so honored. It's really hard to be in dental school because you're trying to do your best, you're studying all the time, and in third year you're seeing patients and trying to balance studying, so to be recognized for what you're doing, to be chosen out of so many people, is just such an honor."

Gonchar describes the doors of Student Affairs as always open, and help immediately available to address not just student problems, but any type of problem. She feels that this is unique to GSDM.

The Spencer N. Frankl Scholarship

Established in July 2006 and named after the School's former dean, the Spencer N. Frankl Scholarship is an endowed annual scholarship of approximately \$5,000. While there is normally only one recipient per year, there were four recipients in 2013: Antonio Maceda-Johnson, Keely Matheson, Andrew Pham, and Lyle Smith, all DMD 15.

Originally from Venezuela, Antonio Maceda-Johnson is very active outside of the classroom; he serves as the ASDA representative for his class and is chair of the Community Service Committee for the Boston University chapter of the Hispanic Dental Association.

Maceda-Johnson says that he knew from the moment he stepped foot into GSDM for his interview that it was the right place. He felt an immediate "vibe" of friendliness and support.

Maceda-Johnson describes his own happiness at GSDM and hopes future students will have the same experience. He recounts the start of his first year and how students were competitive and only worried about their him determine what steps he needed to take to be a successful applicant.

Pham now carries forward the supportive spirit that Ms. Sarkis showed to him when he was an undergrad by being active in the ASDA pre-dental society. He helps students in the ways he was helped when he was interested in GSDM: he gives tours to undergraduates, helps them to understand the application process, and offers tips on increasing one's chances of being accepted. Pham says, "It is a great opportunity because I was in the same situation once, and I can give them some insight and help them with the ins and outs."

Pham also cites his father as a great influence on him, and also his uncle—a clinical instructor in the Department of Orthodontics & Dentofacial

Andrew Pham says that when listing pros and cons to help him choose a dental school, he put Ms. Sarkis in the "pro" column. She had been a vital resource for Pham.

grades—until, that is, the second-year students stepped in to help. He says that "by the time you finish your first year, students have helped you so much that they have made you a better applicant for future residencies than themselves." It is a culture of selflessness, and Maceda-Johnson is dedicated to keeping this culture going.

Keely Matheson is dedicated to her work with ASDA. In her first year, she started a yoga initiative and by her second year is getting even more people involved. She says that she would never have been able to work on the health initiative without the support of the School. Matheson has embraced and worked to enhance the School's support of balancing life and work.

Matheson found it ironic to receive a scholarship decided upon by Dr. Calabrese and Ms. Sarkis because they were both instrumental in her choice of GSDM. They were present on her interview day, and the impression they left with her made her decision of which dental school to choose very easy.

Andrew Pham says that when listing pros and cons to help him choose a dental school, he put Ms. Sarkis in the "pro" column. She had been a vital resource for Pham when he was struggling to get into dental school, helping Orthopedics-Dr. Khiem Pham-Nguyen.

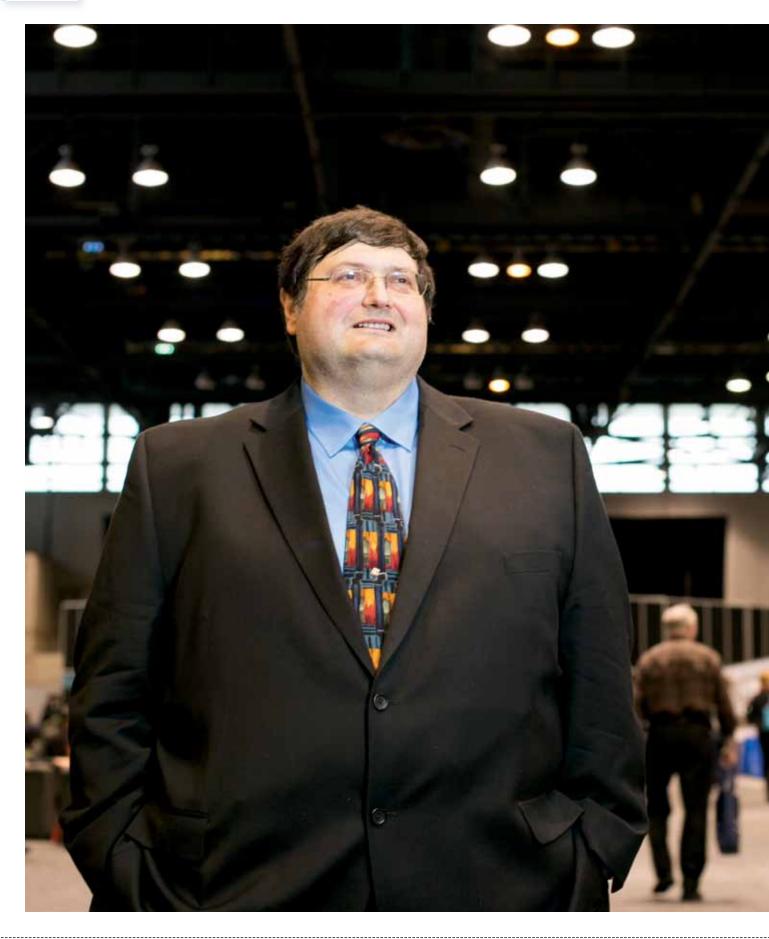
As an undergraduate at Boston University, Lyle Smith found a school that pushed him hard to reach his fullest potential. Never one to avoid a challenge, Smith considers the culture of excellence one of the reasons he decided to stay at BU for dental school.

Smith is grateful to Dr. Calabrese and Ms. Sarkis for recognizing him with this award and echoes the other awardees' appreciation for Student Affairs.

Perpetuating the Spirit of GSDM

The outstanding characteristics that unite the Aspen Dental Scholarship winners and the Spencer N. Frankl Scholarship winners are their drive and dedication to carrying on the core values that set GSDM apart from other dental schools: respect, truth, responsibility, fairness, and compassion.





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Dr. Russell Giordano at the 2013 Chicago Dental Society Midwinter Meeting

Dr. Russell Giordano Introduces Rock Star Ceramic

In March 2013, German porcelain manufacturer VITA Zahnfabrik introduced the product, called Enamic, to the European market. A month earlier, it went on sale in the United States to such acclaim that it sold out in three weeks. Production has since increased to meet the unprecedented demand.

Dr. Russell Giordano's new hybrid ceramic is a rock star in the world of dental materials.

ENAMIC is a flexible ceramic that combines the best properties of a conventional composite resin with those of a conventional ceramic. It can withstand stress better than conventional ceramics, and it's easier to work with.

"It's better all around," says Dr. Giordano, who is associate professor and director of biomaterials in the Henry M. Goldman School of Dental Medicine (GSDM) Department of Restorative Sciences & Biomaterials. "It doesn't wear as badly as composite resins, doesn't wear the opposing teeth, is very color stable, has some flexibility like a composite resin does—but not too much—and it matches the properties of dentin very well."

That's important, he says, because research shows that when the restoration has the same stiffness value as dentin, the result is more stable. ENAMIC is about 86% ceramic, so the stiffness value is close to dentin. Moreover, it can be adjusted as needed. "You may be able to do less tooth preparation and save more of the natural tooth as well," Giordano adds.

As of the product launch, ENAMIC was approved for use in crowns, no-prep veneers, inlays, onlays, and on top of implants. It is designed to be used with the CEREC CAD/ CAM system now in wide use at GSDM. In the future, Giordano expects dentists will be able to use ENAMIC to make bridges, chair side, in one visit. Potential applications include posts, cores, and bracket materials. Implants and implant abutments are a possibility.

"As biomaterials researchers, we want to solve problems that exist in dentistry, help patients, and help dentists, all so that we can provide better long-term results for the patient," Giordano says. "This is one of the products that should do that." Giordano presented Enamic during the Mid-winter Meeting Laboratory Technician Day. Dean Jeffrey W. Hutter attended the meeting and the presentation and said, "I was absolutely delighted with the impressive presentation of Enamic made by Dr. Giordano." He continued, "We are very proud to have him on our faculty.



"As biomaterials researchers, we want to solve problems that exist in dentistry, help patients, help dentists, all so that we can provide better results for the patient long term." –Dr. Russell Giordano

He is a valued member of GSDM and Boston University."

For Giordano, the development of ENAMIC has been a longstanding labor of love.

His relationship with ceramics began in the late 1980s when he was studying CAD/CAM materials at Massachusetts Institute of Technology's Ceramics Processing Research Laboratory. The project was required research as part of the prosthodontics degree he was pursuing at Harvard School of Dental Medicine. He was supposed to become a dentist and join his father's practice, but Giordano was hooked on ceramics research.

VITA sponsored a program at MIT to improve existing ceramics. When Giordano joined BU he began working on a combination of ceramic and resin-based polymer materials, trying to find one that would be more stress-resistant and easier to work with. In 1996, he had made enough progress to apply for a patent on what would become ENAMIC.

"It's something that wasn't in existence, at least for dental materials, so there really wasn't any path to follow," Giordano says when asked why he has been working on the material for so long. "It took a while to figure out if the material was completely homogeneous, that it was cured properly, and such."

To date, there is no product similar to ENAMIC on the market. Dr. Giordano says that the ceramic's most notable characteristic



is that its components are completely interconnected. "If you look at ceramics and porcelains, you have pieces of crystal floating in a sea of glass; if you look at composite resin, you have pieces of glass floating in a sea of resin. ENAMIC is the only material where all the components are connected to each other."

Many believed it couldn't be done, including, at one time, VITA. Company representatives had such trouble recreating Giordano's work in Germany that they sent someone overseas to film him working. But Giordano always believed in the product, and he credits Dr. Norbert Thiel, director of research at VITA, for also believing.

"I always thought that we'd be able to get this product made, and there were a lot of good properties that we found in it along the way, so that was really motivational," Giordano says. "This is a material that I think will have a lot of applications, not only in dentistry but also outside of dentistry, more than other materials in existence."

Some of those applications include countertops, tile, and armor. "In theory, ENAMIC would lend itself to being a good lightweight armor because of its properties and structure," Giordano says. "And it will be easier if you don't have to make it look like a tooth!"

Right now, no one is about to put on a suit of ENAMIC, but that future may not be far off.





closeup of the Nobel Biocare scanner in the GSDM Simulation Learning Center Technology Lab

Dentistry Gone Digital: Inside GSDM's Cutting-Edge Dental Technology

It's not news any more to say that the world has gone digital. Music, film, textbooks, games, lectures, you name it. But...dentistry? Boston University Henry M. Goldman School of Dental Medicine (GSDM) is now one of a handful of top-tier dental schools practicing digital dentistry. GSDM is already solidly front and center in the future of dentistry.

A SEA OF CHANGE FOR DENTISTRY

A transformation in the nature of a visit to the dentist's office is underway. Patients will say farewell to X-rays altogether, thanks to high-resolution, three-dimensional images of teeth and tissue created through Optical-Coherence Tomography, or OCT, which makes it possible for dentists to detect tooth decay in patients far sooner than with traditional X-rays. Patients will no longer have to bite down on sharpedged film cards; researchers are working on an inch-wide rectangular sensor that enters information directly into a digital dental file with the click of a button. Radiation exposure will drop by nearly 20 percent.

And digital radiography is just the beginning.

Sirona, the world's largest manufacturer of dental technology, has helped bring cutting-edge dental technology to GSDM. Faculty are trained in Ceramic Reconstruction (CEREC) technology and instruct students in its use. The software enables dental practitioners to restore teeth using a variety of materials, guided by an intraoral scanner. The intraoral scan can then be imported to Cone Beam Scans to enable comprehensive implant treatment planning. Currently, about 14 percent of private practices are using computer-aided design and computer-aided manufacturing (CAD/CAM) to create custom crowns, inlays, onlays, implants, veneers, and other types of dental restorations. The rest are taking physical impressions and relying on outside laboratories to do CAD/CAM restorations.

The transition to the new dental practices made possible by digital dentistry will be seamless for patients, although they will surely be pleased with the changes they do notice. Rather than coming in for multiple, lengthy visits, they will soon be able to visit GSDM, have their digital radiographs made, their teeth scanned, and their digital impressions made, all within just one or two visits. Instead of from four to five required visits for dentures, two will be enough. Fewer visits means fewer missed appointments, and less money lost for the School. And no one expects patients to complain about coming in less often.



wide shot of the scanner

TRANSFORMING DENTAL EDUCATION

Not only is digital dentistry an enormously beneficial change in the world of dental medicine, it has also transformed dental education. Dental students will soon graduate with the ability to do everything in digital dentistry from inlays to onlays to crowns and even orthodon-tics—current research suggests patients could one day undergo digital orthodontic treatment. Second-year GSDM students attend a series of lectures on dental materials, and they start using CAD/CAM software in the School's computer laboratories by their third year.

In 10 years, we may no longer teach students to make physical impressions. And while that will likely please students, even happier will be the patients who no longer have to sit still with impression material hardening in their mouths.

PAIRING THE PRACTICE SETTING AND TECHNOLOGY

The forthcoming group practice model will be crucial in helping us to integrate digital dentistry.

In March 2012, Drs. Carl McManama and Cataldo Leone convened the Curriculum Summit II, gathering student, faculty, and staff representatives to discuss what the group practice model at GSDM will look like and how it will affect both student education and patient care.

Denise Cavanaugh of the Washington, DC-based consulting firm Cavanaugh, Hagan, Pierson & Mintz facilitated the proceedings. "In a survey given by the Dental School prior to the Summit," she said, "80 percent of graduates said they will go to work in a group practice setting, so I am confident that moving to a group practice model at GSDM will serve to better prepare students."

Also playing an active role in the meeting was the newly appointed Director of the Group Practice Experience and Team Leadership and Clinical Associate Professor of General Dentistry Dr. David Russell (see article, p. 17.) At the time, he was director of doctor relations at Gentle Dental. Dr. Russell is the former associate dean for clinical affairs at Tufts University School of Dental Medicine, which has relied on a group practice model for the last 15 years. Having worked with several institutions to help them set up group practice models, he was able to provide examples and insights into many of the topics discussed during the Summit.



Digital innovations: What's on Dr. Giordano's horizon?

Sirona Smile Design

This software to be released in summer 2013 allows you to import a photo of the patient smiling into the scanning software and show the patient what his or her mouth will look like post-restoration.

Sirona Prep Check

Recently released, this software allows students to compare their preparations to the School's accepted standard. Students scan in their preparations and the software tells them where they need to fix it, add more material, take off less, and so on. "Students get a lesson on their own, digitally," Dr. Giordano says.

VITA digital shade selection

Only about 20% of dentists have digital systems to select tooth shade. "Most dentists are using very old shade guides that don't cover the entire spectrum of natural teeth," Dr. Giordano says. VITA introduced its digital shade device about 10 years ago and is now on its fourth iteration, which will be available at GSDM. The guide automatically tells students the best matching shade. Bleaching shade guides are available too, which help both the patient and the dentist understand how far they're progressing during tooth whitening.

*GSDM is able to be a leader in digital dentistry thanks to strategic corporate partnerships. Nobel Biocare; 3M; VIDENT; Henry Schein; Sirona; and Kavo Kerr Group have all played an active role this year, as GSDM envisions the digital future.

The group's objectives were in support of the GSDM Applied Strategic Plan (ASP) Goal 2, to provide excellence in lifelong dental education and scholarship. The objective were:

1. Create a patient-centered clinical education construct for faculty-guided, student-provided, high-quality care of patients that begins in a centralized diagnostic center and transitions to group practices having designated spaces, staff, faculty, auxiliary professionals, and students.

2. Create integrated groups of oral (pre- and post-doctoral students/residents) and other health care providers supported by dental practice management staff, leading to clinical activity being conducted under a group practice model.

3. Increase the number of patient procedures by 20 percent, with 20 percent of all patients as self/insurance pay by September 2013, in order to provide students with a more comprehensive clinical experience.

So how does all this pave the way for digital dentistry? Dr. Giordano explains. "The idea is that a patient will come in and get digital X-rays of the mouth. That information will be used to do treatment planning in orthodontics, implantology, restorative, and so on. Every department can take a look at that information because it will be stored in a computerized patient record."

Here's a potential scenario: The digital scan shows the patient needs treatment for implants. The patient goes to radiology for a Cone Beam Scan, and that is integrated with the existing patient scan. Treatment planning begins for an implant. Working together, the patient's dentist and "80% of graduates said they will go to work in a group practice setting, so moving to a Group Practice Model at GSDM will serve to better prepare students."

-Denise Cavanaugh

specialists decide what size implant and the type of crown that goes on top. GSDM technicians make nearly all the necessary parts and restorations using an in-house milling center.

"All that will be made possible by going digital," Dr. Giordano says. "But we also need the group practice model to come into effect. Instead of just one CAD/CAM down the hall, the technology is integrated into every single group practice within the School. It's taking digital dentistry to each operatory, chairside."

Students are well on their way to gaining a system of knowledge built to last so that as grads they will be ready for a rapidly changing industry. And, for the future of dentistry.





Task Force on Digital Dentistry

Dr. Giordano, Dean Jeffrey W. Hutter, and other GSDM faculty have recently visited with leading digital dental companies, including Nobel Biocare, Henry Schein, and KAVO Group, in addition to Sirona and VIDENT.

In April 2013, the Dean appointed Dr. Giordano as chair of the Task Force to Implement Digital Dentistry at the Henry M. Goldman School for Dental Medicine. Dr. Giordano is the School's resident expert on digital dentistry, having spent 20 years researching in that area.

Dr. Giordano looks forward to working with Task Force members to determine what each department needs to proceed further into digital dentistry and create a seamless interaction among all departments with respect to digital dentistry.

Task Force members: Mr. Andy Burke Dr. John Cassis Dr. Chao Ho Chien Dr. Richard D'Innocenzo Mr. Evan Donato Mr. Gerard Dorato Dr. Stephen Dulong Dr. Margaret R. Errante Dr. Neal Fleischer Dr. Yael Frydman Dr. Anita Gohel Dr. John Guarente Dr. Fred Hains Dr. Michelle Henshaw Mr. Ibrahim Kachouh Dr. Celeste Kong Dr. Mohamed Masoud Mr. John Reilly Dr. David Russell Dr. Arthur Sun Dr. Jason Zeim Task Force Consultants:

Dr. Serge Dibart Mr. Michael Haddad Dr. Judith Jones Dr. Carl McManama Dr. Ronni Schnell







Alums! How do you go digital?

How do you use digital dentistry in your practice?

We want to hear from you. Send us your comments and photos at sdmalum@bu.edu.



Team leader and alum Christina Thompson calls GSDM students "an asset to the team" in Pedasi, Panama.

SEE STORY PAGE 39

(left) Dr. John Kerwin and Christina Thompson DMD 06 supervise as Melissa Knudsen DMD 13 treats a man in Pedasi

New role for Stacey McNamee • Alpha Omega at Fenway with Wally • 50th Anniversary celebrations

in the

Alumni

news



Message From Alumni Board President Mitch Sabbagh

DEAR FELLOW ALUMNI,

During the early part of my four years as a DMD student, beginning in 1983, I returned home to New York regularly to see my family, have a home-cooked meal, and reconnect with friends who were also making their way toward adulthood. There I found comfort and renewal in surrounding myself with the people and places that had helped shape me up to that point. I had begun my career as a pre-doctoral dental student at the Boston University Henry M. Goldman School of Dental Medicine (GSDM). Some say it takes a village to raise a child, but I believe it takes family—a family of people who care enough to invest their friendship and unwavering support in service to your future aspirations and goals.

Although I had taken student loans to pay for my education, I still received "donations" from my parents in the form of spending money and a Texaco credit card. My sister was great at freezing leftovers for me to take back to Boston and my brother's sense of fashion seemed to find its way into my closet. Friends would visit with tooththemed gifts (which I still receive to this day) that would cheer me on toward becoming "Doc." No one does it alone.

What became apparent during my years at GSDM was that another family was emerging and offering just as much, if not more support, than my own family. It was the administration, faculty, staff, and fellow students here at GSDM who were sharing my journey. The atmosphere created by Dean Frankl that continues today under the leadership of Dean Hutter is one of collegiality, camaraderie, and warmth. This included sharing notes, exchanging ideas, borrowing supplies, carpooling, grabbing coffee, and studying together. It also included valued advice from an instructor, guidance from administration, or having a lost chart returned. We all realized that we were relying on each other in order to reach congruent and divergent goals within our profession. We were all in this together—as a family.

The ease with which we gave of our time and compassion to each other during those days should not end with graduation. As alumni, we are the guiding forces of our extended family and our responsibility does not end with merely giving advice to soon-to-be graduates. Our generous philanthropy is no different that what we received from our own families as we embarked on our careers. We are charged as the professionals we have become to perpetuate the success of GSDM as we celebrate our first 50 years.

I encourage all of you to give back to the GSDM family with your time, your wisdom, and your resources. I also encourage you to turn to your GSDM family when you need assistance with a referral, when you are looking to expand or sell your practice, or simply to reconnect with a long lost classmate.

Family has been central to my success, as I know it has been to each of yours. Now let us all band together as family to ensure the future success of GSDM. ■

Sincerely,

Hobblehragh

Mitchell V. Sabbagh DMD 87 President, Boston University Henry M. Goldman School of Dental Medicine Alumni Association

"Some say it takes a village to raise a child, but I believe it takes family—a family of people who care enough to invest their friendship and unwavering support in service to your future aspirations and goals."

—Mitchell V. Sabbagh DMD 87

STACEY MCNAMEE ASSUMES EXPANDED ROLE

In January 2013, Director of Alumni Relations Stacey McNamee assumed an expanded role within the Office of Development and Alumni Relations. McNamee, a long-term and beloved staff member of the Henry M. Goldman School of Dental Medicine (GSDM), was promoted to Director of Alumni Relations and Annual Giving, and is charged with directing all aspects of departmental fundraising at the School. Working closely with department chairs, faculty, and staff, McNamee ensures that each department and program effectively engages their alumni constituencies at the highest levels of communication and programming, aligning alumni in their efforts to support their respective departments.



The University and GSDM publicly launched Boston University's first ever comprehensive campaign, "Choosing to be Great," in September 2012, which will allow

each School to target all fundraising dollars to their own priorities. The campaign, with an ambitious goal of one billion dollars, is focused on helping each School achieve its highest priorities. GSDM's campaign priorities were selected after an exhaustive yearlong Applied Strategic Planning Project, which included input from every constituency within the GSDM community. McNamee, a member of the Applied Strategic Planning Committee, will now focus on raising funds to support each department's highest priorities identified as critical to help GSDM achieve its goal to become the premier academic dental institution promoting excellence in dental education, research, oral health care, and community service to improve the overall health of the global population.

McNamee states, "Our alumni body is by far the greatest strength of this Institution and I have been so fortunate to count many of them as personal friends during my time at GSDM. Working with them to help achieve and promote the greatness of each one of our departments and programs is a truly exciting opportunity."

McNamee continues her role as primary liaison with the GSDM Alumni Association, working with Alumni Association President, Mitch Sabbagh DMD 87, and the Alumni Board to support their leadership efforts on behalf of the GSDM alumni body. As part of this role, McNamee serves on the 50th Anniversary Celebration Committee, which helped plan the celebration to mark the 50th anniversary of the founding of GSDM by Dr. Henry Goldman in 1963. This yearlong celebration that will include alumni events both nationally and internationally was launched on February 1 at the 2013 Yankee Dental Congress.

In addition, McNamee leads all annual fund activities, partnering with the newly recruited Chair of the GSDM Annual Fund, Dr. Carl McManama. McNamee assumed her new role as part of a top priority of Dean Jeffrey W. Hutter to create a fully-staffed Office of Development and Alumni Relations. She continues to report to Kevin Holland, Assistant Dean of Development and Alumni Relations. Holland says, "In the three years I have worked with Stacey, I have found her to be a tremendous resource to the Office. Given her tenure here, she knows many of our alumni personally and is tireless in helping connect alums to each other, and helping create a closer alumni body."

ALUMNI GATHER IN ARIZONA FOR 50TH ANNIVERSARY CELEBRATION

On March 8, 2013, GSDM alum **Ariel Trujillo DMD 97, PERIO 00** and his wife Alissa Trujillo hosted an alumni reception at the Windgate Ranch in Scottsdale, Arizona, as part of the School's 50th Anniversary Celebration.

Dean Jeffrey W. Hutter joined the gathering of GSDM alumni, staff, family, and friends. He addressed the crowd, beginning by thanking the reception hosts as well as Director of Alumni Relations & Annual Giving Ms. Stacey

(I-r) Dean Jeffrey W. Hutter; Alissa Trujillo; and Ariel Trujillo DMD 97, PERIO 00



McNamee, who was instrumental in organizing the event.

Dean Hutter spoke about the role of Henry M. Goldman School of Dental Medicine alumni in the historic, University-wide One Billion Dollar Campaign as an essential part of funding GSDM's proposed new facility and the establishment of endowed Professorships and Scholarships.

Dean Hutter highlighted GSDM's yearlong celebration of the 50th Anniversary of the founding of the School by Henry M. Goldman in 1963. He said, "This is a very special moment for our School. I know each of you will join me and seize this moment. Together, we can build on the momentum of a legacy of innovation and fund our proposed new facility and build a future that is truly great."

Dean Hutter closed the evening by presenting a video that was produced specifically for the 50th Anniversary Celebration commemorating the past 50 years and highlighting what lies ahead for the School.

ELECTIVE EXTERNSHIP TURNS OVALLES INTO "A WHOLE DIFFERENT DENTIST"

"It blew me away." That's how Fransheska Ovalles DMD 14 sums up her mission to Guatemala with Dentistry for All in February 2013.

Dentistry for All is a nonprofit led by Executive Director and GSDM alum **Brad**

news

"A Whole Different Dentist" continued

Fransheska Ovalles DMD 14 with a local resident

Krusky DMD 97. The organization's vision is to help people in impoverished regions of the world maintain a better quality of life through better dental health. The organization serves the Philippines, Nicaragua, and Guatemala. This particular trip took Ovalles to Comitancillo (aka Comi) and a new site in La Choleña, a town near Guatemala City.

A Whole New World

Ovalles says that, being from a third-world country herself, some aspects of Comi such as the lack of water were no surprise to her. She was, however, surprised by how the residents stuck to their traditions.

"I've never seen anything like it," she says. "They dress in traditional clothing, farm everything, and speak their own dialect. Someone would translate from their dialect to Spanish so I could translate from Spanish to English for the dental team." As a courtesy, the team followed the local tradition of covering their knees and shoulders.

A pleasant surprise was that several patients with special needs came in for treatment, a rare occur-

rence for Dentistry for All that Ovalles described as the highlight of the trip. This was her first experience treating patients with special needs.

She spent three hours working with a team of five people to help one special little girl. "We were just all in it together and basically restored her whole mouth," Ovalles said.

This was Ovalles' first significant chance to treat so many children, and she loved it. Trip director Dr. Shane Fisher thought she was so gifted that he is trying to convince her to change her present postgraduate plans and apply to a program in advanced specialty education in pediatric dentistry.

A Unique Anatomy

Dentistry in Comi is among the most challenging you will find. Many residents there have a condition called osteopetrosis. Literally translating as "stone bone," it is an inherited disorder that causes the bones to harden and become denser.

"They have a completely different anatomy," Ovalles said. "Their bone is like nothing we've ever seen in

Dentistry in Comi is among the most challenging you will find. Many residents there have a condition called osteopetrosis, literally translating as "stone bone." (I-r) Jose Alamo DMD 06, Steve MacHardy DMD 07, Christina Thompson DMD 06, Melissa Knudsen DMD 13, Rachel Lukas DMD 13, Elizabeth Walker COM 98, DMD 06, ORTHO 10 and Frank Casarella DMD 88



the US so extractions there are quite different." As Dr. Fisher told Ovalles, "If you can do extractions in Comi, you can do them anywhere."

Time for Fun



(top) Young patients in Pedasi (bottom) Patients look in as they await their turn to see the dentists

The trip wasn't all work all the time. Trip director Dr. Fisher made sure his team took breaks, even giving them nail polish to paint the local girls' nails, which Ovalles did once.

Ovalles spoke of the team's camaraderie. At nightly dinners, they played a game called Roses and Thorns. A "rose" might be a story of an incredible patient or a complement to a team member. A "thorn" might be simply, "It was hot today!"

After two weeks in Guatemala, Ovalles said, "I felt like a whole different dentist." Indeed, that's a "mission accomplished" for an elective international externship student.

STUDENTS AND ALUMS IMPROVING GLOBAL ORAL HEALTH IN PANAMA

One sign that **Melissa Knudsen DMD 13** and **Rachel Lukas DMD 13** were on a valuable mission in Panama: their emergency contact phone number while there was the Office of the First Lady. The two Boston University Henry M. Goldman School of Dental Medicine (GSDM) students, together with a team of dentists and health workers, provided dental services to more than 600 patients during their visit to the town of Pedasi. GSDM was wellrepresented in the outreach group, which included alumni Jose Alamo DMD 06, Frank Casarella DMD 88, Steve MacHardy DMD 07, Christina Thompson DMD 06, and Elizabeth Walker COM 98, DMD 06, ORTHO 10.

From January 18 to 28, 2013, the GSDM students and alumni joined a mission in Pedasi, Panama, headed by Northeast Volunteer Optometric Services to Humanity (NEVOSH). NEVOSH—originally an organization focused on providing vision care, globally, to those who cannot afford or obtain it—now treats a spectrum

of health conditions in its Central America clinics.

The cultural and clinical situations provided by international externships present unique learning opportunities for dental students. In Pedasi, Knudsen and Lukas saw many people who had never been to a dentist and numerous children whose baby teeth were extensively decayed. They also saw some conditions that they had previously seen only in textbooks, such as extreme calculus buildup. The two became much more confident in their extraction skills, more self-assured in screening decisions, and more efficient overall. Knudsen and Lukas also benefited from both one-on-one mentorship and the chance to work on their own.

Knudsen and Lukas expressed their appreciation for the opportunity to provide their service in Panama. Lukas commented: "Between the people I traveled and worked with, the patients I saw, the dentistry I performed, the beautiful surroundings and accommodations, the amazing cuisine I sampled, my trip to Panama was fantastic." Knudsen had a similarly positive assessment: "It was amazing!" She also cited having great mentors and teachers.

Knudsen and Lukas highly recommend a mission trip for all students as an integral part of their dental education. Both Knudsen and Lukas are eager to join the same mission next year and to continue their service in the future.

Team leader **Christina Thompson DMD 06** commented that Knudsen "did great working with the group and working in uncomfortable conditions" and that Lukas "was an asset to our team." She thanked GSDM for sending two excellent students.

Our 50th Anniversary

50th Anniversary Celebrations make Yankee 2013 an event to remember

Alumni, faculty, students, and staff celebrated the start of GSDM's 50th Anniversary Year throughout the 2013 Yankee Dental Congress and gathered for an historic kick-off reception.



Dean Hutter with Dr. & Mrs. Abol Tehrani PROS 80



Andrew Chase DMD 93, ORTHO 98; Monique Mabry Bamel DMD 90; and Jonathan Bamel DMD 83



(I-r) Aanya Sanghvi DMD 09; Talia Schechter Miller DMD 09, AEGD 10, PEDO 12; Kadambari Rawal AEGD 10; Amir Dadhkah AEGD 10; Beatrice Deca DMD 09, AEGD 10; Rares Deca DMD 09, AEGD 10; and Adriana Baiz AEGD 10, ENDO 13



BU Alumni Association President & Dean's Advisory Board Member Shadi Daher DMD 90, OMFS 94; BU Provost Dr. Jean Morrison; and Dean Jeffrey W. Hutter



Dean Hutter with Dean's Advisory Board member Dr. Ernesto Muller PERIO 61



Alireza Hakimi ENG 86; Nazila Bidibadi CAS 82, DMD 87; and Dean Hutter



GSDM Alumni Board President Mitch Sabbagh DMD 87

(left) Kyle Findly DMD 03, Mitch Sabbagh DMD 87, Harnet Schnitman DMD 86, Director of Alumni Relations & Annual Giving Stacey McNamee, and Assistant Dean of Students Dr. Joseph Calabrese

Celebrating our first 50 years



Laurie Dylis Murphy DMD 91 (left) and Linda Massod DMD 91



GSDM faculty & president of the Massachusetts Dental Society Dr. Paula K. Friedman with Dean Hutter



Dean Hutter, Nadia Malik DMD 13, and Dr. Joseph Calabrese

(above, from left) Nina Oh CAS 05, GMS 08, DMD 12; Amy Mann GMS 08, DMD 12; Courtney Brady DMD 11; and Julia Barbagallo DMD 12



ALPHA OMEGA AT FENWAY: GRAND SLAM FOR DENTISTRY

On December 9, 2012, the billboard over the stands in Boston's historic baseball park read "FENWAY PARK & THE RED SOX WELCOME ALPHA OMEGA INTERNATIONAL DENTAL FRATERNITY." The occasion was a gathering of members of the Alpha Omega organization (AO) at Fenway to exchange knowledge, foster philanthropy, and, of course, to revel in the distinguished history of Fenway Park and the Red Sox.

Approximately 100 AO members from various chapters of the organization attended, including members from the BU alumni and student chapters; and chapters from Tufts and Harvard. The group included visitors from numerous states, including Connecticut, Maryland, Rhode Island, and New York. Children and grandchildren of memb-ers also enjoyed the day at Fenway.

The festivities included a brunch; two guest speakers; a chance to view the 2004 and 2007 World Series Trophies; a "meet and greet" with Wally the Green Monster, the Red Sox mascot; and a tour of Fenway Park.

The two guest speakers were Dr. Charles Steinberg, senior advisor to the Red Sox President Larry Lucchino, and former Red Sox starting pitcher Dr. Jim Lonborg, aka "Gentleman Jim."

Besides baseball, the two speakers have one other thing in common: dentistry.

In addition to being Senior Advisor to the Red Sox President Larry Lucchino, Dr. Steinberg also holds a Doctor of Dental Surgery from the University of Maryland School of Dentistry. His association with baseball and Larry Lucchino began when he was a public relations intern for the Baltimore Orioles. Larry Lucchino was president of the Orioles at that time. As Dr. Steinberg moved up the professional ladder, he followed his mentor Larry Lucchino to San Diego and now to Boston. Dr. Steinberg is a founding and charter member of the Academy for Sports Dentistry. (I-r) Spiro Saati CAS 74, DMD 80; Josephine Pandolfo CAS 74, DMD 79, PERIO 82; Wally the Green Monster; Richard Zavada DMD 14; Murray Miller ORTHO 83; Emrey Moskowitz-Porath SPH 03; and David Dano AEGD 12 at Fenway Park



While Dr. Steinberg's career moved from dentistry to baseball, Dr. Lonborg's career trajectory followed the opposite path. After retiring from baseball, Lonborg studied at Tufts University School of Dental Medicine to earn his Doctor of Dental Medicine. He has worked as a dentist in Hanover, Massachusetts ever since.

The speakers emphasized baseball, dentistry, Alpha Omega, and how they have intersected in their individual experiences. Drs. Lonborg and Steinberg took questions after they spoke.

President of the Boston Alumni Chapter of Alpha Omega International Dental Fraternity **Emrey Moskowitz-Porath SPH 03** said of the day at Fenway:

It was a great event! What a nice opportunity for both active and new Alpha Omega Dental Fraternity Boston Alumni Chapter members to come together to talk about dentistry and baseball as we spent time listening to Dr. Charles Steinberg and Dr. Jim Lonborg. It was fascinating to hear how these two Dentists were able to intermingle one's passion for sports and a career in dentistry. Alpha Omega is a great organization for fostering values in professionalism through learning, mentoring, networking, service to the community, a sense of family, philanthropic endeavors and creating opportunities for dental students.

S. Murray Miller ORTHO 83 served as the AO representative for the Fenway event. Reflecting on the occasion, Dr. Miller said, "Overall, it was a great day. Attendance of this event helps support the educational and charitable work that is the primary concern of the Alpha Omega organization." Dr. Miller encourages continued support of the Red Sox and Alpha Omega.

DR. FARSAI APPOINTED CONSULTANT TO ADA COUNCIL ON SCIENTIFIC AFFAIRS

In March 2013, the American Dental Association (ADA) offered Boston University Henry M. Goldman School of Dental Medicine (GSDM) Associate Professor of General Dentistry and alum **Paul Farsai DMD 94**, **AEGD 95, MPH 97** an appointment as consultant to the Council on Scientific Affairs (CSA). The purpose of the CSA is to provide information and guidance to the dental profession and the public on a wide spectrum of scientific topics. The CSA also administers the ADA Seal of Acceptance Program.

Professionals who are appointed as consultants to the CSA are chosen for their expertise in an area vital to the Council's work. As a consultant to the CSA, Dr. Farsai will be asked to provide his expert advice on scientific matters within his area of expertise.

"Congratulations to Dr. Farsai on his appointment as consultant to the Council on Scientific Affairs," said Dean Jeffrey

W. Hutter. He continued, "I am confident that Dr. Farsai will serve as a valuable resource for the Council."

Since 2008, Dr. Farsai has worked as a

worked as a contracted expert witness consultant to the Commonwealth of Massachusetts Executive Office of Health and Human Services, Department of Public Health Division of Health Professions Licensure/ Board of Registration.

Dr. Farsai received a Doctor of Dental Medicine in 1994 and a Certificate of Advanced Graduate Study in General Dentistry in 1995, both from GSDM. In 1997, Dr. Farsai received a Master of Public Health from Boston University School of Public Health. He also holds a Certificate



of Fellowship from the US Department of Health and Human Services/Bureau of Health Professions after completing a two-year faculty training fellowship in geriatric dentistry.

Dr. Farsai has received numerous honors and awards, including selection for Fellowship in the Pierre Fauchard Academy International Honorary Dental Organization; nomination for the Boston University Metcalf Cup and Prize as well as Metcalf Awards For Excellence in Teaching (University-wide); selection for Fellowship in the American College of Dentists; and honorary faculty membership at the Boston University Lambda Mu Chapter of the Omicron Kappa Upsilon national honor dental society.

Dr. Farsai has published extensively, with a focus on topics in geriatric and special needs dentistry. His professional affiliations include the American Academy of Developmental Medicine and Dentistry, American College of Dentists, American Dental Association, American Dental Education Association, Academy of General Dentistry, American Society for Geriatric Dentistry (Special Care Dentistry), Massachusetts Dental Society, North Shore District Dental Society, Omicron Kappa Upsilon, Lambda Mu Chapter (Boston University School of Dental Medicine), Pierre Fauchard Academy, Joint Commission on National Dental Examinations (ADA-JCNDE), and the Academy of Osseointegration.

Dr. Farsai also maintains a private practice in Swampscott, Massachusetts.

PROMISING RESEARCH ON GENETICALLY ENHANCED ANTIMICROBIAL SALIVARY PROTEINS

Henry M. Goldman Distinguished Scientist, Professor of Periodontology & Oral Biology, and alum **Frank Oppenheim PhD BIOCHEM 74, DMD 76, PERIO 77**—along with co-authors Drs. Eva J. Helmerhorst, Urs Lendenmann, and Gwynneth D. Offner—build on decades of research achievement on the structure and function of salivary proteins in the article "Anticandidal activity of genetically engineered histatin variants with multiple functional domains," published in the December 12, 2012, issue of the online journal PLoS One.

This recent article describes how Dr. Oppenheim and his collaborators genetically engineered variants of a type of human salivary protein that is known to exhibit antifungal and antibacterial activities. Variants of the protein histatin 3 were produced by duplicating functional domains in its amino acid sequence.

The findings are significant in several aspects. First, the study demonstrates that duplicating active domains in histatins can enhance their antifungal properties. This suggests that these peptides can be exploited for clinical purposes.



In addition, the findings may provide an evolutionary explanation for the existence of frequent domain duplication in older salivary proteins.

Leading in the early research of these

histadine-rich salivary proteins, Dr. Oppenheim and his team of researchers were the first to describe the complete amino acid sequences of the proteins, to outline their ability to kill pathogens in the human oral cavity, and to call them histatins.

The hypothesis in Dr. Oppenheim's recently published research that functional domain duplication would lead to amplification of the antifungal properties in histatins comes in part from evolutionary research. In research on proteins found in the saliva of various types of primates, Dr. Edwin A. Azen established that histatins are evolutionarily young—less than 40 million years old—as compared to older salivary proteins like mucins. The conclusion is based on the fact that histatins, while absent in the saliva of New World monkeys, are found in Old World monkeys. The evolution of the two primate groups diverged around 35 to 40 million years ago, after plate tectonics completely separated their habitats by ocean.

A prominent difference between evolutionarily older and younger salivary proteins is that the older proteins show multiple domain duplications in their amino acid sequences. Dr. Oppenheim hypothesizes that, given millions more years of evolution, histatins might duplicate their antimicrobial domains. In a sense, Dr. Oppenheim and his collaborators were able to speed up advantageous evolution by duplicating the antimicrobial domains in histatins in their lab.

"It's a pretty exciting concept to possibly show evolutionary anticipation, but this could also be clinically exploited by making molecules which are more active," said Dr. Oppenheim of the findings.

In fact, histatin preparations have already been shown to be effective in reducing candida infections (thrush) in AIDS patients. Dr. Oppenheim explains that clinical applications could be as simple as an antibacterial and antifungal mouthwash. Clinical applications of genetically enhanced histatins outside of dentistry, such as treatments for skin infections, are also possible.

Using a substance that the body produces naturally has many advantages over common chemical antiseptics like chlorhexidine. Synthetically-produced chemicals always carry the potential to produce allergies or sensitivities in patients, Dr. Oppenheim notes.

There are compelling reasons to move forward with research into large scale clinical production. First, there is the advantage that histatins are naturally occurring substances in the body that will be less susceptible to immune resistance. In addition, resistance to existing antifungal and antibacterial treatments is increasing. According to Dr. Oppenheim, clinical use of genetically enhanced histatins is not far off. So far, bringing down the cost of production is one of the greater obstacles.

Dr. Oppenheim's research in oral biology continues with a quest to understand the mechanism by which histatins are able to kill microorganisms, such as the fungus Candida albicans.

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Alumni

news

AWARDS, PRESENTATIONS, & CELEBRATION AT AADR ANNUAL MEETING

Faculty, staff, and students of Boston University Henry M. Goldman School of Dental Medicine (GSDM) represented the School in full force at the International Association for Dental Research (IADR)/ American Association for Dental Research (AADR)/Canadian Association for Dental Research (CADR) General Session & Exhibition in Seattle, Washington, from March 20 to 23, 2013.

The GSDM community seized the occasion of the AADR General Session to raise the School's profile in education and research. For the first time, GSDM highlighted the School's research with a booth in the exhibition hall. The GSDM booth had many visitors during the conference. The meeting featured 40 presentations by GSDM researchers and several GSDM researchers received awards at the meeting in recognition of their research excellence.

On Thursday evening of the AADR General Session & Exhibition, alumni, staff, faculty, students, and friends of GSDM gathered for a reception at the Sheraton Seattle Hotel to connect, reconnect, and to celebrate the 50th Anniversary of the School's founding.

Awards

Associate Professor of Periodontology & Oral Biology Dr. Eva Helmerhorst won the prestigious Salivary Researcher of the Year award.

Erik Harriman DMD 14 was awarded an AADR Student Research Fellowship sponsored by the IADR Dental Materials Group. Erik carried out his research project under the direction of Dr. Yuki Mochida in the Department of Periodontology and Oral Biology.

Erin Breen, DMD 15, who worked in Dr. Maria Kukuruzinska's laboratory in the Department of Molecular & Cell Biology, was awarded an AADR Travel Grant sponsored by the National Institute of Dental and Craniofacial Research. Said Dean Jeffrey W. Hutter, "On behalf of the entire Henry M. Goldman School of Dental Medicine community, I extend my congratulations to Dr. Helmerhorst, Erik, and Erin on their awards and to all of the research presenters on their accomplishments.

Presenters

Faculty presenters included: Dr. Laisheng Chou; Dr. Serge Dibart; Dr. Russell Giordano; Dr. Robert Gyurko; Dr. Bo Hou; Dr. Eva J. Helmerhorst; Dr. Christopher Hughes; Dr. Judith Jones; Dr. Marianne Jurasic; Dr. Matthew Miner; Dr. Dan Nathanson; Dr. Richard Pober; Dr. Paul Rigali; Dr. Woosung Sohn; Dr. Philip Trackman; Carolyn Wehler; Dr. Guoxian Wei; and Dr. Leslie Will.

Also presenting was alum **Terawat Tosiriwatanapong PROS 15.**

Students presenting their research included: Najla Sulaiman A. Alrejaye ORTHO 16; **Mohammad Assaggaf ORAL BIO 13; Mohamed Bamashmous ORTHO 13; Berokh Bavar DMD 13;** Ella Botchevar DMD14; Erin Breen DMD 15; Sonal Chhanabhai DMD 15; Joshua Gilbert DMD 14; Matthew Green DMD 15; **Ritu Gupta ORTHO 13;** Erik Harriman DMD 14; Debora Heller PERIO 16, ORAL BIO 16; Patrapan Juntavee ORTHO 15; Kelly Labs ORTHO 13; Yang Li ORTHO 13; Yuhe Lu ORTHO 13; Arash Rajaei ORTHO 13; Na Tian PERIO 14; Wyatt Traina DMD 14; Sundharamani Venkitapathi ORAL BIO 14; and Giuseppina Verde DMD 13.

Professor and Chair of Health Policy & Health Services Research and Director of the Northeast Center for Research to Evaluate and Eliminate Dental Disparities (CREEDD) Dr. Raul Garcia served as a panelist for the IADR Global Oral Health Inequalities Research Agenda discussion, "On Oral Health Inequalities—What Directions Should Future Research Take?"

As Oral Session Chair, Associate Professor of Health Policy & Health Services Research and Director of the Advanced Specialty Education Program in Dental Health Dr. Woosung Sohn gave the Oral Session keynote address, "Oral Health in Middle and Older Adulthood."

Said Dean Jeffrey W. Hutter, "It is through efforts like those shown at this conference that We convey to the global community the School's mission to be the premier academic dental institution promoting excellence in dental education, research, oral health care, and community service to improve the overall health of the global population." ■

(I-r) Dr. Gretchen Gibson, Dr. Judith Jones, Dr. Marianne Jurasic, and Dean Jeffrey W. Hutter



class notes



Director of Alumni Relations & Annual Giving Stacey McNamee with classmates Dan Greenberg, Joseph Calabrese AEGD 92, Peter Caviris, Doug Schildhaus PERIO 93, and Joseph DiBenedetto, all DMD 91, at the Greater New York Alumni Club meeting in February

The **Greater New York Alumni Club** has had an exciting 2013 so far! The group meets every 1-2 months at New York City's Cornell Club for dinner, conversation, and CEUs.

Joseph Calabrese DMD 91, AEGD 92 presented on Success and Failure in Clinical Geriatric Dental Medicine on February 6. Burt Langer PERIO 66 discussed Esthetic Disfigurements on Teeth and Implants on March 20. Sandra Morin DMD 89, PERIO 91 spoke on Complications During Implant Therapy May 8.



Vincent Celenza PROS 79, DAB member Dan Budasoff PROS 80, and Burton Langer PERIO 66 at the Greater New York Alumni Club meeting in March

To join the group next time, email sdmalum@ bu.edu.

In January **Bruce Seidberg ENDO 67** was recently honored at a dinner as his term for a successful year as President of the Onondaga County Dental Society (OCDS) ended. OCDS had a full year under his administration with a change of educational seminars, social, and community events. Seidberg was recently appointed to the New York State Board of Dentistry, a governing board that serves at the will of the Board of Regents. The Board administers licensure in the profession, is involved in disciplinary situations, and many other important issues affecting dentistry. Last month he was awarded the Gold Medal from the American College of Dentistry for distinguished service to ACLM on behalf of dentistry and law. It is the highest award presented by the organization. Seidberg successfully ran the 5th Annual Conference on Dental Ethics and Law and will chair the 6th Annual Conference in Dallas next year.

Joseph Gian-Grasso PERIO 73 was elected to the Academy of Osseointegration Board of Directors as President-Elect at the organization's 2013 Annual Meeting in Tampa, Florida.

Michael J. Hunter CAS 82, DMD 86, OMFS 90 was named president of the Massachusetts Society of Oral and Maxillofacial Surgeons. He spent eight years as vice-chair and assistant professor in the Department of Oral & Maxillofacial Surgery and the Director of Pain and Anxiety Control at GSDM.

Brad Krusky

DMD 93 and wife Danni welcomed new son George Nelson Krusky into the world on December 26, 2012; "just a tad early and a smidge shy of 6



George Nelson Krusky

pounds," said his dad, who also reports "both George and mom are working well together, and dad is proud to be teaching him to earn his keep—he's not quite walking yet, but he'll be shovelling snow in no time we're sure!" The Canadian Academy of Endodontics installed **Douglas W. Conn ENDO 95** as President at its Annual General Meeting in Edmonton, Alberta, on October 18, 2012. Dr. Conn has practiced endodontics in Vancouver since 1995. He is a clinical assistant professor with the Faculty of Dentistry at the University of British Columbia.

Monica Anand DMD 10 opened an Aspen Dental practice in Waltham, Massachusetts, in December 2012.

Kiyan Mehdizadeh DMD 12 joined SmileCare Bakersfield in Bakersfield, California, in January 2013.

Puneet Wadhwa DMD 12 opened an Aspen Dental practice in Jackson, Tennessee.

Paul Farsai DMD 94, AEGD 95, MPH
97 and Catherine Sarkis lead the session, "Background Checks and Screenings in Dental Education: Establishing
Professional Standards," at ADEA in
Seattle. Sarkis received the ADEA Council of Sections Award.

Mahadeep Singh (Bobby) Virk ORTHO 06 and wife Helena Skountrianos hosted the GSDM alumni reception at the Columbia Tower Club in Seattle during ADEA.





with the Dean & Development

Ciao, Italia!

Alumni Association welcomed Dean Jeffrey W. Hutter and Director of Development Kimberley Branca to their 14th Annual Symposium. They also celebrated GSDM's 50th anniversary.



BUIA President Tommaso Cantoni PROS 93



Dean Jeffrey W. Hutter, Sergio De Paoli PERIO 81, Kimberley, and Ron Nevins PERIO 67



BUAI Alumni and spouses



Kimberley with past BUIA Presidents: Paolo Vigolo PROS 91 and Emanuele Risciotti PROS 91



Roberto Rossi PERIO 91, cultural secretary of the Boston University Italian Alumni (BUIA)



Fabio Scutella PROS 01 and Gianni Efisio PROS 00



Andrea Chierico PERIO 94, Dean Hutter, and Gianfranco Vignoletti ENDO 82



Sherry Bloomfield ENDO 02, Diego Capri PERIO 01, and Dr. & Mrs. Christiano Fabiani ENDO 93









Giano Ricci PERIO 74, Dean Hutter, and Kimberley



Marisa Bar, BUIA Honorary President **Umberto Bar PERIO 63,** and Dean Hutter



BUIA Board of Directors: Cultural Secretary **Dr. Roberto Rossi,** Dean Hutter, President **Dr. Tommaso Cantoni**, Secretary **Dr. Christiano Fabiani**, and Counselor **Dr. Diego Capri (not pictured:** Counselor **Fabio Scutella)**





Shiro Kamachi PROS 96, DMD 99; Kumi Kamachi AEGD 94, PROS 97, DMD 99; and Luca Landi PERIO 97

with the Dean & Development



Kimberley at the office of Robert Hymes PERIO 78 in San Diego



Ariel Trujillo DMD 97, PERIO 00; Thomas McClammy ENDO 99; Dean Hutter; and Stacey McNamee



Gordon Pattison PERIO 75, Los Angeles



Kimberley and Professor Donald Booth at the "5th Annual Donald F. Booth Education & Return to Residency Day" hosted by Boston University, Department of Oral & Maxillofacial Surgery on April 10, 2013

Development & Alumni Relations:

Kevin Holland Assistant Dean Development & Alumni Relations Boston University Henry M. Goldman School of Dental Medicine 72 E. Concord Street, B-341 Boston, MA 02118 kevinh@bu.edu Office: 617-638-4884 Fax: 617-638-4895 Kimberley Branca Director of Development Boston University Henry M. Goldman School of Dental Medicine 72 E. Concord Street, B-341 Boston, MA 02118 kbranca@bu.edu Office: 617-638-4867 Fax: 617-638-4895 Stacey McNamee Director of Alumni Relations & Annual Giving Boston University Henry M. Goldman School of Dental Medicine 72 E. Concord Street, B-304 Boston, MA 02118 smcnamee@bu.edu Office: 617-638-4778 Fax: 617-638-4895

One Boston...One GSDM... One Family

By the time you receive this Spring 2013 edition of Impressions, the events surrounding the 2013 Boston Marathon will have become an indelible part of Boston's history.

What is usually a joyous day for Boston became a time of unspeakable horror as video and photos were disseminated in real time across the globe. During those days of anxiety, the GSDM family reached out to each other in so many ways: Calls, emails, and texts went back and forth among classmates, students, families, faculty, and staff. From Quincy, Massachusetts, to Abu Dhabi and everywhere in between, our GSDM family members shared their concerns and tried to assure and console each other.

Fortunately, those in our GSDM community escaped serious injury, but the University was deeply affected by the loss of Lu Lingzi, a University graduate student from the People's Republic of China. A scholarship fund was quickly established in her name (for further information please contact GSDM Director of Development, Kimberley Branca at kbranca@bu.edu).

The GSDM family figured large in the events of April 15, Marathon day. GSDM alumni, students, faculty, staff, and family members were among the Marathon runners, the first responders, and the medical teams at the various hospitals treating the wounded. I was, and am, deeply proud of our GSDM family whose compassion and commitment to service were on full display during that terrible week.



David Lustbader CAS 86, DMD 86

So, my message, which was going to be about the importance of

connecting back to your school, is different and yet still very much the same. Some of you spent four or more years here, some only two, but this month and especially during this tragic chapter in Boston's history, you probably realized that your time here made you a true Bostonian. In the same way, your affinity with GSDM made you not only a skilled professional but an alum—an important member of our community. And looking at what is most important to us—family, loved ones, and the profession that we practice every day—I reflect on these things and feel enormous gratitude during these times. I am especially grateful to be in a profession that allows me to serve people one at a time.

I know I wouldn't be where I am professionally without my training at GSDM, and I look forward to serving in my new position as Chair of the Dean's Advisory Board. This year we celebrate the 50th anniversary of the founding of our school. We are also implementing some of the most profound changes in the school's curriculum (which you will read about in these pages), and we're in the midst of some very exciting planning for the GSDM campus of the future. It is a great time to be here and to be involved in the school.

I look forward to being in touch and working with you all.

David Lustbader CAS 86, DMD 86, Chair, Dean's Advisory Board

October 24, 2013

BU Henry M. Goldman School of Dental Medicine

Gerald M. Kramer Symposium on periodontology



Hosted by Dr. Serge Dibart,

Chair of Periodontology & Oral Biology, Director of the Advanced Specialty Education Program in Periodontics

Ron Nevins, DDS, PERIO 67 Burton Langer, DMD, PERIO 66 Michael Stiglitz, DDS, PERIO 72 Richard Lazzara, DMD, PERIO 76 Paul Fugazzotto, DDS, PERIO 81 Sergio DePaoli, MD, DDS, PERIO 81 Thomas Mone, DMD, PERIO 77 Paul Ricchetti, DDS, PERIO 77 Paul Ricchetti, DDS, PERIO 78 Luca Landi, DDS, PERIO 97 Giano Ricci, MD, DDS, PERIO 74 Phil Melnick, DMD, PERIO 81, Moderator Luigi Montesani MD, DMD, Moderator

October 26, 2013

BU Henry M. Goldman School of Dental Medicine

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Eustáquio Araújo, DDS, MDS, Sotiropoulos Professor and Clinic Director, Center for Advanced Dental Education, Orthodontics, Saint Louis University

Jim Boley, DDS, MS, Clinical Associate Professor of Orthodontics, Baylor University College of Dentistry

Lysle Johnston, DDS, MS, PhD, FDSRCS, Professor Emeritus, University of Michigan; Professor Emeritus, Saint Louis University

Roberto Justus, CD, MSD, Professor and Research Director, Intercontinental University, Mexico City; Professor of Undergraduate Orthodontics, Technological University of Mexico; President, World Federation of Orthodontists

Mohamed Masoud, BDS, DMSc, Associate Clinical Professor and Clinic Director, Boston University Henry M. Goldman School of Dental Medicine

Leslie A. Will, DMD, MSD, Anthony A. Gianelly Professor and Chair, Boston University Henry M. Goldman School of Dental Medicine; Adjunct Professor, University of Pennsylvania School of Dental Medicine **Boston University** Henry M. Goldman School of Dental Medicine

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