Dr. Timothy Bromage Receives 2010 Max Planck Research Award

New York University College of Dentistry’s Dr. Timothy Bromage has received the 2010 Max Planck Research Award. Dr. Bromage will collaborate with Dr. Friedemann Schrenk of Frankfurt’s Senckenberg Research Institute to study the microanatomical structure of bones and teeth, and the links between metabolic states, growth rates, life spans, and biological features such as sex and body size.

The award, given by the Max Planck Society and Alexander von Humboldt Foundation, includes a stipend of 750,000 Euros ($1.02 million USD). The 2010 award, given annually to two researchers, was presented during the Annual Meeting of the Max Planck Society on June 17th in Hanover, Germany. This year’s other recipient is psychologist Michael Tomasello, Director of the Max Planck Institute for Evolutionary Anthropology in Leipzig.

In citing Dr. Bromage’s qualifications for receiving the award, the selection committee noted that his research on the microanatomical structure of ancestral human teeth and bones has established the modern fields of human evolution growth, development, and life history—the pace by which an organism grows. Moreover, noted the committee, his research has shown a relationship between bone and tooth microstructure and body size, metabolic rate, age, and other biological features.

Dr. Bromage, a Professor of Biomaterials and Biomimetics and of Basic Science and Craniofacial Biology, was the first researcher to use biologically based principles of craniofacial development to reconstruct early hominid skulls. His computer-generated reconstruction of a 1.9-million-year-old skull originally discovered in Kenya in 1972 by renowned paleontologist and archaeologist Richard Leakey showed that Homo rudolfensis, modern man’s earliest-known close ancestor, looked more ape-like than previously believed. Dr. Bromage’s reconstruction had a surprisingly smaller brain and more distinctly protruding jaw than the reconstruction that Dr. Leakey assembled by hand, suggesting that early humans had features approaching those commonly associated with more ape-like members of the hominin family living as long as four million years ago.

In human evolution fieldwork, Dr. Bromage’s 1992 discovery of a 2.4-million-year-old jaw in Malawi unearthed the oldest known remains of the genus, Homo. The discovery, made in collaboration with Dr. Schrenk, Director of Paleoanthropology at the Senckenberg Research Institute, marked the first time that scientists discovered an early human fossil outside of established early human sites in eastern and southern Africa.

In experimental biology approaches to human evolution research, Dr. Bromage discovered a new biological clock, or long-term rhythm, which controls many metabolic functions. Dr. Bromage discovered the new rhythm while observing incremental growth lines in tooth enamel, which appear much like the annual rings on a tree. He also observed a related pattern of incremental growth in skeletal bone tissue—the first time such an incremental rhythm has ever been observed in bone. The findings suggest that the same biological rhythm that controls incremental tooth and bone growth also affects bone and body size and many metabolic processes, including heart and respiration rates.

“In fact,” Dr. Bromage said, “the rhythm affects an organism’s overall pace of life and its life span. So, a rat that grows teeth and bone in one-eighth the time of a human also lives faster and dies younger.”

“Dr. Bromage has fundamentally altered the field of human evolution by prompting paradigm shifts in morphology, fieldwork, and experimental biology, thereby establishing the modern field of growth, development, and life history in paleoanthropology,” said Dean Bertolomi. A portion of the award will be dedicated to training junior scientists in the United States and Germany to assist on this research. Dr. Bromage has been honored for his academic achievements by the National Science Foundation (2009, 2007), the National Geographic Society (2008), and the National Institutes of Health.

“Dr. Bromage has fundamentally altered the field of human evolution by prompting paradigm shifts in morphology, fieldwork, and experimental biology, thereby establishing the modern field of growth, development, and life history in paleoanthropology.”

Dean Bertolomi
NYU Dental Researchers Publish Findings on Link Between Childhood Malnutrition and Periodontal Disease in Haiti

Teenagers who suffered from protein-energy malnutrition in early childhood may be at an increased risk of developing periodontal disease, according to recent findings published by NYU dental researchers. The researchers’ studies were supported by a $1.6 million grant awarded to Dr. Walter Psoter, an Associate Professor in the Department of Epidemiology & Health Promotion, by the National Institute of Dental and Craniofacial Research, part of the NIH, in 2005, to support the first-ever study of the impact of early childhood protein malnutrition, or ECPEM, on oral health in Haiti, the Western Hemisphere’s poorest country.

Protein-energy malnutrition occurs when there are deficiencies in protein and many other essential nutrients. When the malnutrition occurs in early childhood, it is believed to adversely affect the developing immune system, leading to an increased risk of infection that lasts long past childhood. Over one-third of the world’s children are affected by ECPEM.

Haiti’s childhood malnutrition rates, estimated at 40 to 75 percent, are among the highest in the world. Joining Dr. Psoter on this study were his co-investigators at NYU: Dr. Stefanie Russell, Assistant Professor of Epidemiology & Health Promotion; Dr. Yihong Li, Professor of Basic Science & Craniofacial Biology; Dr. Andrew I. Spielman, Professor of Basic Science & Craniofacial Biology; and Dr. Ralph Katz, Professor and Chair of the Department of Epidemiology & Health Promotion.

The NYU researchers conducted a series of studies comparing the oral health of adolescents with and without a history of ECPEM in more than a dozen rural villages in the Grand’Anse region of southern Haiti. The study subjects were identified from a database of height and weight measurements that the Haitian Health Foundation, a non-profit group providing nutritional programs to the villages, gathered between 1988 and 1993, when the subjects were in their first five years of life.

The researchers traveled to Haiti in 2005 and 2006 to assess the oral health status of 1,017 children and adolescents, identified from the foundation’s database, who still resided in the villages.

One study, led by Dr. Psoter, focused on possible links between ECPEM and the body’s ability to fight oral infections such as caries and periodontal disease. The study sought to determine whether ECPEM might compromise the functioning of glandular systems, such as the salivary glands, which are essential to the healthy functioning of the immune system. Dr. Psoter’s team examined all 1,017 children and adolescents, ages 11 to 19, and found that those who experienced ECPEM had significantly lower levels of both stimulated and unstimulated salivary flow compared to teens with no history of ECPEM.

“The findings suggest that glandular systems may be compromised for extended periods following early childhood malnutrition,” explained Dr. Psoter, “which, in turn, may have important implications for the body’s antimicrobial defenses against oral and systemic infections.” Dr. Psoter published his findings in the March 2008 issue of Archives of Oral Biology. His co-authors included Dr. Andrew I. Spielman, Professor of Basic Science & Craniofacial Biology.

A second study, led by Dr. Russell, assessed whether there was a link between ECPEM and periodontal inflammation in a subgroup of 96 adolescents, ages 12 to 19. Dr. Russell found that those with a history of ECPEM had a higher degree of periodontal inflammation than subjects who were not malnourished as young children, and that ECPEM was significantly and directly related to periodontal treatment needs as measured by the Community Periodontal Index, an epidemiological screening protocol.

“Because ECPEM is likely to affect the developing immune system,” explained Dr. Russell, “a person’s ability to respond to colonization by periodontal pathogens may be adversely affected permanently.” Dr. Russell published her findings in the May 2010 issue of the International Journal of Periodontics & Restorative Dentistry.

A third study, led by Dr. Li, involved an analysis of bacterial samples from the gingiva of the same subgroup of 96 adolescents whom Dr. Russell examined. Dr. Li found that 85 percent of teens with a history of ECPEM had signs of colonization by Aggregatibacter actinomycetemcomitans, one of the bacteria most commonly associated with periodontal disease.

“The high prevalence of this bacterium may serve as a risk indicator for future initiation of periodontal disease in rural Haitian adolescents,” said Dr. Li, who published her findings in the May 6, 2010, online edition of Clinical Oral Investigations.

According to Dr. Psoter, additional research is needed to determine whether the links between ECPEM, salivary flow, and periodontal disease that were observed in the three studies can be generalized to adolescents residing in underdeveloped areas in other parts of the world where malnutrition is common. He added that future research should focus on uncovering possible connections between ECPEM and systemic as well as oral infections.

Meanwhile, the earthquake that struck Haiti last January has complicated efforts by aid groups to address chronic malnutrition in Grand’Anse, the rural region where the NYU researchers collected their samples. It is estimated that 100,000 people migrated to Grand’Anse from Haiti’s quake-ravaged capital, Port-au-Prince, putting a strain on nutritional programs serving residents there. See related story on p. 54.
A collaborative, interdisciplinary group spearheaded by the Department of Orthodontics is using a translational approach to accelerate laboratory discoveries into fully realized, optimal patient therapeutics. The group, known as the Consortium for Translational Orthodontic Research, or CTOR, is directed by Dr. Cristina Teixeira, Associate Professor of Orthodontics and of Basic Science & Craniofacial Biology, and Dr. Mani Alikhani, Assistant Professor of Orthodontics.

In addition to Dr. Teixeira and Dr. Alikhani, faculty participating in CTOR include Dr. Louis Terracio, Vice Dean for Research, Dr. George Casneros, Professor and Chair of the Department of Orthodontics; Dr. Nicola C. Partridge, Professor and Chair of the Department of Basic Science & Craniofacial Biology; Dr. Tim Bromage, Professor of Biomaterials & Biomimetics and of Basic Science & Craniofacial Biology; Dr. Ron Craig, Associate Professor of Basic Science & Craniofacial Biology and member of the PEARL Network Executive Management Team, and Dr. Olivier Nicolay, Clinical Associate Professor of Orthodontics and Director of the Advanced Education Program in Orthodontics. One of the primary goals of CTOR is to actively involve faculty, predoctoral students, postgraduate specialty training students, and MS and PhD candidates in translational research.

For the past three years, Drs. Teixeira and Alikhani have been studying skeletal development and tooth movement in animals to determine how to accelerate tooth remodeling and thereby shorten the length of orthodontic treatment time. The question they asked themselves was: “What is the easiest way to induce a controlled, therapeutic inflammatory response in order to increase the rate of bone remodeling?” The answer they came up with was very simple: osteo-perforation, or the creation of tiny holes through the cortical surface of the bone without the need for gingival flap surgery. Using this technique on animals, they found that bone remodeling accelerates significantly; as a result, teeth moved almost twice as quickly as in traditional methods, and with no side effects. The findings from their study have been accepted for publication by the Journal of Dental Research.

Next, Drs. Teixeira and Alikhani developed the protocol for a study that will allow them to translate these findings into clinical trials on patients. The study, which has received Institutional Review Board (IRB) approval, will use 30 human patients who fit specific clinical trial criteria. Drs. Teixeira and Alikhani are currently recruiting patients for the study.

In the interim, the two investigators have received two patents, one for their osteo-perforation technique and another for a device that uses high-frequency mechanical stimulation to generate bone around teeth. They are currently awaiting FDA approval of the device.

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19 Students Honored at 2010 Research Days

NYUCD’s annual Student Research Day grew significantly in 2010, by covering two days (April 21 and 22) instead of one day, and by showcasing outstanding work by 15 dental students, a nursing student, and, for the first time, a master’s degree candidate from the NYU Polytechnic Institute, plus two undergraduate students from the NYU College of Arts & Science. Twenty-four faculty members judged 113 submissions that spanned from the NYU College of Arts & Science. Twenty-four Polytechnic Institute, plus two undergraduate students first time, a master’s degree candidate from the NYU by 15 dental students, a nursing student, and, for the time, a master’s degree candidate from the NYU Polytechnic Institute, plus two undergraduate students from the NYU College of Arts & Science. Twenty-four faculty members judged 113 submissions that spanned areas of interest ranging from the basic sciences to biomedical engineering. Vice Dean for Research Dr. Louis Terracio presided over the two-day poster presentations and awards presentation.

“All of the awardees have contributed to the knowledge base in the health sciences,” said Dean Bertolami. “Their achievements and their collaborations with faculty mentors exemplify NYUCD’s commitment to research as an integral part of the dental education experience.”

The student winners and their submissions are listed below:

**AADR Research Fellowship**
- Ms. Hans Hsu, DDS '13
  - Organosilicate Complexes Selectively Induce Apoptosis in Malignant Rather Than Normal or Premalignant Oral Epithelial Cells
  - Advisor: Dr. Kathleen Kinnally

**AAAD Research Fellowship; Dean’s Research Award**
- Ms. Robert Range, DDS '12
  - The Role of BAX Translocation and MAC Formation in Mitochondrial Dynamics
  - Advisor: Dr. Kathleen Kinnally

**Student Research Group Award**
- Ms. Yoo Shin, DDS '12
  - Characterization of Satellite Cells from Rats and Expanded in Culture
  - Advisor: Dr. Louis Terracio

**Outstanding Case Presentation by a DDS Student**
- Mr. Andrew Vampolsky, DDS '10
  - Idiopathic Condylar Resorption, Pathophysiology and Treatment
  - Advisor: Dr. Robert Glickman

**ADA/DENTSYLPI Student Research Award**
- Ms. Rebecca Arunasalam, DDS '13
  - Relation of Comeridd Fibromyagia to Pain Threshold and Severity in TMD Patients
  - Advisor: Dr. David Sirois

**Jonathan A. Ship Award for Excellence in Clinical or Translational Research; ADA/DENTSYLPI Student Research Award**
- Ms. Paria Goodarzi, DDS '12
  - Correlation Between Mode of Delivery, S. mutans Colonization, and Early Childhood Caries in Thai Children
  - Advisor: Dr. Yiying Li

**Nursing Research Award**
- Ms. Lori M. Kraljevic, MS in Nursing '10
  - Advisor: Dr. Donna Hallas

**Master of Science Research Award**
- Ms. Xiaoie Ji, MS in Biomedical Engineering '10, NYU Polytechnic Institute
  - Characterization of Bacterial Nucleases in Oral Squamous Cell Carcinoma Tissues
  - Advisor: Dr. Deepak Saxena

**Postdoctoral Research Award; Dean’s Award for Postdoctoral Research**
- Dr. Pablo Peixoto, PG '10
  - In Search of the Structure of MAC in the Mitochondrial Outer Membrane
  - Advisor: Dr. Kathleen Kinnally

**Postdoctoral Research Award**
- Dr. Joohyang Park, PG '10
  - Postdoctoral Research Award in Pediatric Dentistry
  - Advisor: Dr. Christian Stappert

**Excellent Presentation, Dental Hygiene**
- Ms. Amy Soss, AAS '10, and Ms. Ashley Pisani, AAS '10
  - The Effects of Bulimia on the Oral Cavity
  - Advisor: Professor Cheryl Westphal

**Honorable Mention, Postgraduate Resident Research in Implant Dentistry**
- Ms. Paria Goodarzi, DDS '12; Lyra Wright, PG Periodontics, '10
  - The Effect of Sodium Hypochlorite on Porcelain Veneers
  - Advisor: Dr. Sang-Choon Cho

**Postgraduate Resident Research Award in Periodontics**
- Dr. Daniel Tormeti, PG '10
  - A Modified Early Protocol for Implant Placement: A Retrospective Case Series
  - Advisor: Dr. Sang-Choon Cho

**Postgraduate Resident Research Award in Oral Biology**
- Dr. Joohyang Park, PG '10
  - Use of a Multi-Purpose Omnivac Shell for Immediate Loading in the Mandible—A Case Series
  - Advisor: Dr. Sang-Choon Cho

**Undergraduate Recognition**
- Ms. Sabrina Kamer, BA '13, NYU College of Arts & Science
  - Change in the Behavior of Caries in Children
  - Advisor: Dr. Angela Kamer

**Architecture**
- Ms. Shifan V. Shah, BA '13, NYU College of Arts & Science
  - Antibiotic Resistance of Periodontal Bacteria Depends on the ApoE Status
  - Advisor: Dr. Luca Marinosci

NYUCD congratulates all of the awardees on their significant contributions to the knowledge base in the health sciences.
Examined the impact of injecting low, medium, and high doses of dibenz[a]pyrene, a powerful carcinogen in tobacco, into the mouths of 104 mice. The researchers examined 24 of the mice for mutagenesis and 80 for carcinogenesis. After 38 weeks, all of the mice in the high-dose mutagenesis group developed excessive numbers of mutations in their oral tissue, and within one year, 31 percent of the high-dose carcinogenesis group displayed large tumors in their mouths.

"As a result of this study," said Dr. Guttenplan, "we now have a model that is significantly better than past models which relied on synthetic carcinogens. We plan to use this new model in future studies to examine potential agents for cancer prevention."

Although tobacco use is widely understood to be one of the leading causes of oral cancer, research on the prevention of tobacco-related oral cancer in experimental animals has traditionally been limited to examining the impact of synthetic carcinogens manufactured especially for cancer research, rather than on observing the effects of carcinogens that occur in tobacco smoke.

Now, a recently completed study conducted collaboratively by Dr. Joseph Guttenplan, Professor of Basic Science & Craniofacial Biology at the NYU College of Dentistry, and Dr. Karam El-Bayoumy, Professor of Biochemistry and Molecular Biology at Penn State University College of Medicine and Associate Director of Basic Research at the Penn State Cancer Institute, has shown that a powerful carcinogen in tobacco smoke can be used for oral cancer research in experimental animals, thus providing a new, more relevant research model with which to understand the initiation, progression, and ultimately, the prevention of oral cancer.

The two-year study was funded by the National Institute of Dental and Craniofacial Research (NIDCR), part of the NIH (National Institutes of Health).

In a presentation in April 2010 at the annual meeting of the American Association for Cancer Research (AACR) in Washington, DC, Dr. Guttenplan said the findings could ultimately facilitate research aimed at identifying new approaches to oral cancer prevention.

Oral cancer is a devastating disease that can severely and permanently compromise one’s ability to eat, drink, talk, and even kiss. In the United States, about 100 new cases of oral cancer occur each day, and approximately 7,000 people die annually from the disease. Worldwide, over 640,000 new cases of oral cancer occur annually. In addition to tobacco use, alcohol use and exposure to the HPV-16 virus (human papillomavirus version 16) are the leading causes of oral cancer.

The study described in Dr. Guttenplan's presentation
Talking to Patients About Pain:
One PEARL Practitioner-Investigator’s Experience

A surprising number of patients do not understand their dentist’s instructions on managing postoperative pain, a recent review of interim data from the PEARL Network’s Study of Analgesic Use and Effectiveness has found. Importantly, participation in the analgesics study can help dentists communicate more effectively with patients about pain management. So says Dr. James Keenan, who has enrolled 125 subjects from his Queens, New York, practice in the analgesics study since November 2008.

“I’ve become more aware of patients’ pain management needs as a result of my work on the analgesics study,” says Dr. Keenan. “My patients’ responses to questions about postoperative pain have given me a great deal of feedback about their experience with discomfort or pain following root canals, extractions, and other operative procedures; their willingness to follow my instructions for taking pain medication; whether they filled an analgesics prescription or used over-the-counter drugs; and the amount and length of time spent taking pain medication.

“Now, if a patient asks me how much pain he or she should expect to feel postoperatively, I can describe what most patients under similar circumstances have experienced and can recommend a treatment regimen knowing that other patients in similar situations have reported doing well with the same medication.

“The information from the analgesics study has enhanced my ability to assess individual thresholds for pain, and has enabled me to establish a baseline for pain that may require prescription-strength analgesics.

“The bottom line is that participating in this study can facilitate information-sharing about pain management and analgesics, which, in turn, helps me make dental treatment as efficient and painless as possible.”

NYUCD’s presence at major annual research meetings continued to grow in 2010, with NYUCD faculty and students delivering over 70 presentations at the American Dental Education Association (ADEA) and American Association for Dental Research (AADR) meetings in Washington, DC. To view the complete list of presentations, please go to www.nyu.edu/dental/research/adeahandbook.pdf and www.nyu.edu/dental/research/aadrnyucdhandbook.pdf.

In addition, two NYUCD dental students received the highly competitive AADR Student Research Fellowships for 2010. Robert Range, ’12, won a fellowship for his study of the role of BAX translocation in mitochondrial dynamics, and Hans Hsu, ’13, was selected for his research on organogold(III) complexes selectively inducing apoptosis in malignant rather than normal or premalignant oral epithelial cells. Both students were mentored by Dr. Kathleen C. Kinnally, Professor of Basic Science & Craniofacial Biology.

And NYUCD students and faculty made an additional 41 presentations at the July 2010 Annual Meeting of the International Association for Dental Research (IADR) in Barcelona. To view details of the presentations, please go to http://www.nyu.edu/dental/research/iadrnyucdlisting.pdf.

From left: Dr. Louis Terraci with AADR Student Research Fellowship winners Mr. Robert Range, ’12, and Mr. Hans Hsu, ’13.

In 2005, NYUCD received a $26.7 million award from the NIDCR to establish a regional practice-based network, the PEARL (Practitioners Engaged in Applied Research and Learning) Network.
**Recruiting the BEST**

**DR. BRIAN L. SCHMIDT,**
an oral and maxillofacial surgeon specializing in symptom management and care of oral cancer patients, has been named Director of the Bluestone Center for Clinical Research and Professor of Oral and Maxillofacial Surgery.

Dr. Schmidt, who holds an MD degree and a PhD in oral biology, as well as a DDS degree, will bring a medically related focus to the Bluestone Center, which is dedicated to the development, implementation, performance, and analysis of clinical research in an environment that combines academic excellence with industry’s efficiency and speed.

Prior to joining NYU, Dr. Schmidt was at the University of California, San Francisco, as Director of the Oral and Maxillofacial Oncology Fellowship and of the Oral and Maxillofacial Surgery Residency Training Program, and, more recently, as Vice Chair of the Department of Oral and Maxillofacial Surgery.

Dr. Schmidt’s research has been consistently funded by the NIH. Most recently, he was given a gift of more than $3.5 million by an anonymous donor to advance his research in his new position at the NYU College of Dentistry. (See related story on p. 64.)

**DR. JOHN C. DOLAN** has been appointed an Assistant Professor of Orthodontics. Dr. Dolan earned a DDS degree, an MS in Oral & Craniofacial Sciences, and a certificate in orthodontics from the University of California, San Francisco, and an MA in Physical Anthropology from the University of California, Berkeley. Dr. Dolan’s research interests are in orofacial pain and orofacial reconstruction. In 2007, he won the National Inventors Hall of Fame Foundation Collegiate Inventors Competition Graduate Award for a device that quantifies the effectiveness of analgesics in animal models of head and neck cancer.

**DR. VICTORIA H. RAVEIS,** formerly an Associate Professor of Clinical Sociomedical Sciences and Director of the Aging and Public Health Program at Columbia University’s Mailman School of Public Health, has been appointed a Research Professor in Cariology & Comprehensive Care and Director of NYUCD’s newly established Psychosocial Research Unit on Health, Aging, and the Community. Dr. Raveis earned an MA in Sociology from Boston College, a Master of Philosophy degree in Sociology, and a PhD in Sociology from Columbia University. A medical sociologist and social gerontologist, Dr. Raveis is an authority on family-focused disease management for vulnerable and medically underserved communities.

**DR. RODRIGO VIECILLI** has been appointed an Assistant Professor of Orthodontics. Dr. Viecilli, whose educational background initially was in aeronautical engineering, earned both his dental degree and a certificate in orthodontics from Universidade Federal do Rio Grande do Sul in Brazil; a PhD in orthodontic biomechanics from Indiana University School of Dentistry-Purdue University; and a certificate in orthodontics from Indiana University School of Dentistry. In 2009, Dr. Viecilli received the American Association of Orthodontists Milo Hellman Research Award for his work on orthodontic biomechanics.
DR. MARY E. NORTHRIDGE, formerly a Professor of Clinical Sociomedical Sciences (in Dental Medicine) at the Columbia University Mailman School of Public Health, has been appointed an Assistant Professor of Epidemiology & Health Promotion. Dr. Northridge earned an MPH in environmental health from the University of Medicine and Dentistry of New Jersey Robert Wood Johnson Medical School/Rutgers University, and a PhD in Epidemiology from Columbia University. She is currently serving her fourth three-year term as editor-in-chief of the American Journal of Public Health.

MS. KIM MISEVIS, formerly Program Manager for Government Relations and Global Health at the Associated Medical Schools of New York, has been appointed Assistant Director of International Recruitment and Admissions in the Office of International Programs. Ms. Misevis earned an MS in Global Affairs from NYU’s School of Continuing and Professional Studies. In addition to managing admissions and recruitment, Ms. Misevis’s responsibilities include developing new advanced study programs for internationally trained dentists.

DR. FREDERICK NAFTOLIN, formerly a medical consultant to the PEARL Network, has been appointed the PEARL Network’s first Medical Director. As PEARL’s Medical Director, Dr. Naftolin will be responsible for laying the groundwork for extensive new collaborations with medical practice-based research networks.

MS. JENNIFER BUWALA, formerly a financial analyst at the Cleveland Clinic, has been appointed Senior Financial Analyst in the Office of Clinical Affairs. Ms. Buwala’s responsibilities include analyzing revenues and expenses and providing recommendations on enhancing fiscal performance.

NYUCD Extends a Warm Welcome to Its Newest Part-time Faculty

Department of Basic Science & Craniofacial Biology
Dr. Inder J. Singh, Adjunct Professor

Department of Cariology & Comprehensive Care
Dr. Hedieh Samadi Aminzadeh, Instructor
Dr. Omid Arastehmamesh, Instructor
Dr. Roghieh Atapour, Instructor
Dr. Patrick O. Bailey, Instructor
Dr. Sirene S. Billera, Instructor
Dr. David Foriano, Instructor
Dr. Michael J. Genco, Instructor
Dr. Brian Greenspan, Instructor
Dr. Gloria D. Kenney, Instructor
Dr. Chad S. Korach, Adjunct Assistant Professor
Dr. Herrick Lai, Instructor
Dr. Jan Linhart, Instructor
Dr. Maura Maloney, Instructor
Dr. Madalina M. Manea, Instructor
Dr. Layne B. Martin, Instructor
Dr. Herminio Perez, Clinical Assistant Professor
Dr. Eric Arkady Pozynskansky, Instructor
Dr. Sheindy Pretter, Adjunct Assistant Professor
Dr. John F. Rathbauer, Instructor
Dr. Maria P. Rodriguez Cardenas, Instructor
Dr. John A. Salvi, Instructor
Dr. Shahram Shekib, Clinical Assistant Professor
Dr. Elena Tsymbalova, Instructor
Dr. Dana R. Vieru, Instructor

Department of Dental Hygiene
Ms. Christine Hovliaras-Delozier, Adjunct Assistant Professor

Department of Epidemiology & Health Promotion
Dr. Gustavo D. Cruz, Adjunct Associate Professor

Department of Oral & Maxillofacial Pathology, Radiology & Medicine
Dr. Anthony Bossis, Clinical Assistant Professor
Dr. Jeffrey Guss, Clinical Assistant Professor

Department of Oral & Maxillofacial Surgery
Dr. Janet Bodey, Clinical Assistant Professor,
Dr. Stephen S. Gelfman, Clinical Assistant Professor

Department of Orthodontics
Dr. Laura S. Cappetta, Clinical Assistant Professor
Dr. Jack C. Fisher, Clinical Assistant Professor
Dr. Rahul Gulati, Clinical Assistant Professor
Dr. Ankush Khanna, Clinical Assistant Professor
Dr. Mita Parikh, Clinical Assistant Professor
Dr. Dawn Pruzansky, Clinical Assistant Professor
Dr. Brian N. Stearn, Clinical Assistant Professor

Department of Pediatric Dentistry
Dr. Cristina M. Abreu Sosa, Clinical Assistant Professor
Dr. Julie S. Wee, Clinical Assistant Professor

Department of Periodontology & Implant Dentistry
Dr. Cyril Evian, Clinical Associate Professor

Department of Prosthodontics
Dr. Eleanor Lisa Reid, Clinical Assistant Professor
Promoting our Own

**DR. MICHAEL P. O’CONNOR** (top), formerly Executive Associate Dean for Administration & Finance, has been promoted to Vice Dean for Administration & Finance; and **DR. LOUIS TERRACIO** (bottom), formerly Associate Dean for Research, has been promoted to Vice Dean for Research.

The change in both Dr. O’Connor’s and Dr. Terracio’s titles recognizes that their roles go considerably beyond their specific portfolios within the College of Dentistry. In particular, each plays a much broader enterprise-wide role in the combined dentistry-nursing endeavor than their former titles indicated. Each has been called upon to assume additional and protracted school-wide assignments as the need has arisen and a significant part of their time is now invested in the College of Nursing and in providing key administrative linkages between the College of Dentistry and its College of Nursing. Accordingly, their new titles reflect these expanded responsibilities.

“In their respective areas,” said Dean Bertolami, “both Michael O’Connor and Lou Terracio have set new standards for excellence in carrying out the vision and mission of the NYU College of Dentistry and its College of Nursing. Their elevation to Vice Dean is appropriate acknowledgement of their contributions to sustaining and advancing the College’s current stature.”

**DR. ANGELA DE BARTOLO**, Class of 1987, formerly a part-time Clinical Assistant Professor of Cariology & Comprehensive Care, has been appointed a full-time Clinical Assistant Professor of Cariology & Comprehensive Care. Dr. De Bartolo completed a general practice residency at Lutheran Medical Center in Brooklyn, and has been in private practice in Bay Ridge, Brooklyn, for the past 20 years.

**DR. VERA W. L. TANG**, Class of 2000, formerly a part-time Clinical Assistant Professor of Cariology & Comprehensive Care, has been appointed a full-time Clinical Assistant Professor of Cariology & Comprehensive Care. Dr. Tang earned an M.S. in Dental Sciences with a concentration in periodontics and a certificate in periodontics from the University of Florida College of Dentistry in Gainesville.

**MR. DANIEL FERRARO**, formerly a Local Area Network Administrator and Network Manager in the Office of Information Systems, has been promoted to Assistant Director of Systems and Infrastructure Support in the Office of Technology and Informatics Services. Since joining NYUCD in 1997, Mr. Ferraro has managed the information technology infrastructure and prepared it for future growth. His accomplishments include designing and implementing upgrades to support the use of chairside digital radiology and DENTRIX® practice management software.
Ms. Harris, along with other CGNY representatives, developed a media plan for Grenada starting in October 2009. “Every week, announcements about the NYUCD visit were broadcast on Grenadian radio. So when the outreach group finally arrived, the country was excited—the people were ready,” said Ms. Harris.

NYUCD volunteers surveyed 1,075 children at 22 schools throughout the country. In addition to the oral health assessment, the NYU dental team provided free general and emergency dental care—including fluoride varnish, sealants, root canals, fillings, and extractions at the Tivoli Medical Station in St. Andrew’s Parish.

Hundreds of Grenadians lined up at the clinic each morning seeking dental care. In five days, over 500 adults and 200 children were seen, many needing multiple visits. The team focused its efforts on completing treatment for children at a primary school located adjacent to the clinic. Dr. Amr Moursi, Associate Professor and Chair of the Department of Pediatric Dentistry, trained a local dental auxiliary assigned to the area by the Grenada Ministry of Health in the proper method of applying fluoride varnish so that preventive measures could be continued for the children at three-month intervals, until NYUCD’s next outreach to Grenada in January 2011.

The NYUCD team also offered oral health education for parents; spoke to students at a community college about considering dentistry as a profession; and provided continuing education lectures to dentists throughout the island.

Dr. Mark Wolff, Professor and Chair of the Department of Cariology & Comprehensive Care and Associate Dean for Predoctoral Clinical Education, who led the Grenada outreach as Survey Director, said, “We had the generous support of Henry Schein Cares; a wonderful team in the Office of International Affairs & Development—Rachel Hill, Lauren Meyers, and Amanda Messner—who organized the outreach; the enthusiastic Grenadian government, which immediately issued a formal invitation to us; and the Concerned
preliminary numbers, which the team is still in the process of verifying. The high decay rate is tied to a lack of preventive measures and the high consumption of sweets. “We saw candy stores right outside the schools and in the schools themselves,” said Dr. Wolff. “Now add the fact that there are only approximately 14 dentists on the entire island. One is an orthodontist and one is an oral surgeon. Now you’re looking at just 12 people dealing with decay.”

The initial findings of the assessment along with recommendations for the establishment of an oral health model were presented to the Grenadian Ministry of Health in June 2010, and to the International Association for Dental Research in Barcelona, Spain, in July 2010. “We will give the Grenadian government some preliminary results and discuss the possibilities of what can be done in terms of treatment and prevention,” said Dr. Wolff. “That’s where we hope to see some progress made in the future for these kids.” Prevention strategies may include water fluoridation or salt fluoridation, oral health education, and sealants.

“Understand, if there were 1,000 cavities, we saw 6,000 early lesions which hadn’t cavitated yet,” said Dr. Wolff. “If we intercept two-thirds of them with fluoride, we can save 4,000 cavities in the future. That’s pretty dramatic.”

“Every night when I go to sleep I think, ‘My God, I did it. I hit the lotto for my people,’” said Ms. Harris. “It’s a dream come true.”

Dr. Nicole Holland, '10, a member of the Grenada outreach survey team, said, “One of the biggest challenges was getting the consent forms signed—getting the children to take the forms home and explain to their parents that they needed to sign them and then bring them back. That was often tricky.”

The baseline data collected from the study reported alarmingly high caries prevalence at 83.4 percent. The DMFS (Decayed, Missing, or Filled Due to Cavities Score) for 6–8 year olds was 10.1 (SD = 12.1) and the DMFS for 11+ year olds was 5.5 (SD = 6.8). Approximately 25 percent of children interviewed said they do not own a toothbrush and an even greater number had never visited a dentist. Among those who had, most had likely not seen a dentist in more than two years.

“Approximately 1,000 children, we found almost 10,000 cavities,” said Dr. Wolff. “Multiply that by the 26,000 children on the island, and it gives you some idea of the magnitude of decay.”

The tri-nation of Grenada’s entire population is about 108,000.) Dr. Wolff pointed out that these were

Grenadians, who not only raised additional money to support the outreach, but also went down to the island in advance to prepare for our visit. The stars of industry, academia, government, and community aligned beautifully.”

To assess the present oral health status of children and their future needs, the NYU dental volunteers used the World Health Organization (WHO) Basic Oral Health Survey pathfinder methodology and the stratified (age, gender, and location) cluster sampling technique. Children ages 6, 7–8, and 14–15 from the six parishes across the main island, plus the sister island of Carriacou, were examined to determine the caries prevalence and the number of decayed, missing, and filled tooth surfaces. The dental exam consisted of a traditional visual-tactile examination method using a mirror and an explorer with compressed air. Fluoride levels in the water were assessed by collections made at each sampling site.

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In addition to Dr. Wolff, Ms. Harris, Dr. Moursi, Dr. Holland, Ms. Hill, and Ms. Meissner, participants included Dr. Stuart M. Hirsch, Associate Dean for International Affairs and Development; faculty members Dr. Ananda Dasanayake, Professor Jill Fernandez, Dr. Sumitra Gokleri, Dr. Lily Lim, Dr. Lynwood Bennerson, Dr. Heather Baumhardt, Dr. Raid Sadda, Dr. Paul Rosenberg, Dr. Jennifer Frangos, and Dr. Andrea Jordan; pediatric dentistry postdoctoral fellows Dr. Rima Ghazman and Dr. Lin Li; DDS Class of 2010 graduates Drs. Robert Block, Richard Lee, Jeffrey Lo, Guojun Ma, Melissa Nevid, Duc Nguyen, Adam Palmer, and Jenny Weng; Vincent Wong, Dental Hygiene Program ’09; and Ms. Kellie Kennedy and Ms. Amy Soss, both Dental Hygiene Program Class of 2010; Alexis Cohen, DDS/MPH ’11; and DDS Class of 2011 students Heather Anderson, Anil Godipati, Justin Hastings, Suman Kafle, Zachary Linhart; International Comprehensive Dentistry Program students Dr. Marie Roge and Dr. Niyati Panday; and residents Dr. Brianne Hama, Liora Benichou, and Kapila Pragati (pediatric dentistry); and Drs. Wael Oweity and David Vazemiller (postgraduate endodontics).


—STEPHANIE SUSNJARA
A 30-member team of NYUCD faculty and students sponsored by the Henry Schein Cares Global Student Outreach Program traveled in March to Chiquilistagua, Nicaragua, on a weeklong mission to treat 576 children and to implement a program aimed at achieving a sustainable reduction in dental caries. The fifth annual mission to this impoverished rural town of 11,000 was modeled on NYUCD–Henry Schein Cares Global Student Outreach programs underway in underserved areas in the United States and overseas, including Hudson, New York; Ft. Yukon, Alaska; and Santo Domingo, Dominican Republic, where childhood dental caries have been reduced by as much as 40 percent.

In Chiquilistagua, as in other locations where the sustainable care model has been implemented, the outreach team set up a temporary clinic in a local school, where it provided the children with oral health education, screenings, fluoride varnishes, sealants, restorative treatments, and extractions, and trained their teachers to reapply the varnishes at three-month intervals. The NYUCD–Henry Schein Cares Global Student Outreach Program also provides emergency care to adult family members. In Chiquilistagua, 643 adults were treated.

As the children arrived for their screenings on the mission's first day, team members engaged them in a 'Happy Tooth-Sad Tooth' game developed by

Dr. Aura Caldera, ’08, an Instructor in Pediatric Dentistry, and the mission's co-organizer. Team members placed large plastic 'happy' and 'sad' teeth and an array of oversized magnets shaped like fruit, candy, and other natural and artificially sweetened foods at the front of a classroom adjoining the clinic, asked each child to decide whether certain foods made teeth happy or sad, and shed some tears whenever a child chose to place a lollipop or chocolate on the 'happy' tooth.

"It was a great way to teach children about healthy versus unhealthy foods," said outreach co-organizer Ms. Rachel Hill, Program Administrator in the Office of International Affairs & Development.

In addition to Dr. Caldera and Ms. Hill, the outreach team included Dr. Stuart Hirsch, Associate Dean for International Affairs & Development; Dr. K. Michael Ghali, Clinical Associate Professor of Prosthodontics; Dr. James Toppin, Clinical Assistant Professor of Oral & Maxillofacial Pathology, Radiology & Medicine; Dr. Yakir Artega, Instructor in Cariology & Comprehensive Care; Dr. David Walls, Teaching Fellow in Oral & Maxillofacial Surgery; Dr. Denise Foran, Clinical Assistant Professor of Endodontics; Dr. Patrick So, Advanced Education Program in Pediatric Dentistry, '09; and Ms. Amanda Weisner, Program Administrator in the Office of International Affairs & Development.

Additional members of the team included Dr. Wael Owainty, Advanced Education Program in Endodontics, '10; Dr. Eric Appelin, Advanced Education Program in Endodontics, '11; Dr. Joseph Sleilati, Advanced Education Program in Endodontics, '11; Dr. Amy Honig, Advanced Education Program in Pediatric Dentistry, '10; Dr. Joyce Kao, Advanced Education Program in Pediatric Dentistry, '11; Dr. Thanapree Vonghongleur, Advanced Program in Pediatric Dentistry for International Dentists, '10; Dr. Andrea Mastrorosa Agnini, Advanced Program in Comprehensive Dentistry for International Dentists, '10; Dr. James Haabun, Advanced Program in Comprehensive Dentistry for International Dentists, '10; Dr. Brian Bulik, Mr. Anu Dali, Dr. Robert Hogger, Dr. Jackie Korol, Dr. Avi Malkis, Dr. Alicia Sraner, Dr. Ann Slama, Dr. Michael Weisner, Dr. Tina Wu, and Dr. Lilian Wu.
NYU Alum Assists Oral Health Coalition of Haiti in Addressing Post-Earthquake Disaster Relief Needs

In the immediate aftermath of the January 12, 2010, earthquake in Haiti, which killed 220,000 Haitians, chaos and fear on this island nation were tangible. Most severely hit was Haiti’s capital and largest city, Port-au-Prince. Haiti’s president appealed for international aid after dozens of aftershocks ensued, stating, “Parliament has collapsed. The tax office has collapsed. Schools have collapsed. Hospitals have collapsed.”

Although the University of Haiti School of Dentistry did not suffer damage, the Pan-American Health Organization (PAHO) recognized the need to immediately pursue disaster relief activities related to oral health, as well as intermediate-recovery range plans and long-term sustainability plans.

To that end, PAHO’s Regional Advisor for Oral Health, Dr. Saskia Estupiñán-Day, assembled the Oral Health Coalition of Haiti (OHOH) as a PAHO-led group. The coalition included PAHO, the University of Haiti School of Dentistry, the World Health Organization (WHO), the Federation Dentaire Internationale (FDI), the Centers for Disease Control (CDC), the National Institute of Dental and Craniofacial Research (NIDCR), the American Dental Association (ADA), the National Dental Association (NDA), the American Dental Education Association (ADEA), the International Association for Dental Research (IADR), the Latin American Dental Association (FOLA), the Haitian Dental Association, the University of Maryland, and the Kornberg School of Dental Medicine at Temple University, among others.

NYU’s Dr. Walter Pooter, Associate Professor of Epidemiology & Health Promotion, who has spent years investigating the impact of early childhood malnutrition on the development and diseases of the permanent dentition of teenagers in rural Haiti (see related article on p. 32), was chosen to lead the effort of an OHOH subcommittee to produce a written report laying out detailed plans to address post-earthquake disaster relief efforts. Over the course of a long weekend, the subcommittee—consisting of Dr. Pooter; Dr. Jean Lafond, Dean of the University of Haiti School of Dentistry; Dr. Samuel Prophete, President of the Haitian Dental Association, Vice Dean for Research Affairs at the University of Haiti School of Dentistry, and a former Visiting Professor at NYUCD;
Dr. Christina Lafontant, a PAHO consultant in Haiti and a 2008 graduate of NYU’s MPH in Global Public Health Program (oral health concentration); and Dr. Ralph V. Katz, Professor and Chair of NYU’s Department of Epidemiology & Health Promotion, who organized the subcommittee—produced a comprehensive, 29-page report.

Via weekly phone teleconferences, the subcommittee members and all OOH members continue to focus on providing for the short-term, intermediate-term, and long-term sustainability of oral health needs in Port-au-Prince, as well as in the post-earthquake intra-Haiti diaspora, which resulted in 500,000 Haitians leaving Port-au-Prince and returning to their home villages across Haiti, as indicated on the map on p. 55.

Global Health Nexus recently spoke to Dr. Lafontant about her role in the disaster relief efforts. Dr. Lafontant, a native of Haiti, participated in epidemiological research in Haiti under Dr. Psoter’s tutelage. That experience motivated her to apply to NYU’s MPH in Global Public Health Program. Following the earthquake, Dr. Lafontant was appointed by PAHO as their on-site OOH Team Leader.

**Interview with Dr. Christina Lafontant, Oral Health Coalition of Haiti Team Leader**

Global Health Nexus (GHN): When did you become a PAHO consultant?

Dr. Lafontant: I first provided services as a PAHO consultant approximately one year ago, when I was invited to help coordinate Haiti’s participation in the Oral Health Workshop for the Region of the Americas. My task was to design an oral health program for Haitian school children.

Following the terrible earthquake of January 12, 2010, the most powerful to hit Haiti in 200 years, the PAHO oral health program felt the need to contribute to the overall emergency relief efforts in Haiti. At that time, the PAHO Bureau in Haiti had a very limited capacity to evaluate and address the oral health needs of the community. So I was brought back onboard to serve as the Oral Health Coalition of Haiti Team Leader because of my background both as a dentist and a public health specialist who had experience working with PAHO and had an understanding of the community’s oral health needs following the earthquake.

GHN: What are your duties as Oral Health Coalition of Haiti Team Leader?

Dr. Lafontant: Essentially, I am the point person for helping to address oral health needs in post-earthquake Haiti. I assist in planning, implementing, and evaluating OOH activities for aid relief to the oral health community and participate in meetings and discussions with key people on the ground in Haiti who have made an impact on the oral health system or have the potential to do so.

GHN: What are some of the activities outlined in the OOH subcommittee report regarding plans to address post-earthquake disaster relief needs?

Dr. Lafontant: First, let me commend all the members with whom I collaborated to produce the report: Dr. Katz, Dr. Lafond, Dr. Prophete, and Dr. Psoter. Dr. Psoter’s experience in disaster relief was particularly instrumental in devising plans to address the immediate and long-term population needs in oral health care and services in Haiti.

Below are some of the activities we outlined:

- Immediate disaster relief activities, including emergency healthcare provisions for trauma and infections in locations hit by the earthquake, along with plans to quickly expand these activities to areas to which populations have migrated;
- Intermediate-recovery range plans, including recovery and rehabilitation plans such as sealants in the camps, institutional partnerships to strengthen the capacity of non-governmental organizations (NGOs) and other oral health sites to deliver oral health services though the work of volunteers;
- Long-term sustainability plans, including strengthening the University of Haiti School of Dentistry’s curriculum in areas such as emergency and disaster training for dentists and creation of a dental auxiliary training program.

GHN: What is the status of oral health needs assessment in Haiti?

Dr. Lafontant: We have completed a needs assessment for NGOs providing oral health services in Port-au-Prince and will go on to conduct a similar assessment for both public and private dental health facilities in other areas of the country. This is important in order to allocate resources efficiently.

GHN: What are some areas in which you hope to work with NYUCID in the future?

Dr. Lafontant: I hope to be able to work with NYUCID in strengthening Haiti’s ability to update the University of Haiti School of Dentistry’s curriculum, broaden its clinical services provision, and build research capacity in areas including population-based research and social and behavioral research related to oral health.
Finally, on April 19, following a five-day shutdown that left millions of travelers stranded, European officials acted to end the air paralysis caused by the volcanic eruption in Iceland, agreeing to let air traffic resume in designated "caution zones."

Ironically, throughout the eruption and its aftermath, in Reykjavik, 75 miles west of the volcano, the air had remained clear, the sea breezes clean, and life had gone on as normal. Indeed, while air traffic from Reykjavik had been curtailed for most of the week, flights to Reykjavik remained on schedule.

Dr. O’Connor was scheduled to return to Reykjavik on April 21 and was not concerned about getting there, as Reykjavik’s airport remained open. But his return was problematic as new predictions of additional eruptions kept coming.

Ultimately, Dr. O’Connor decided to make the trip. He had an uneventful arrival in Reykjavik and once there, was able to secure a return flight on Saturday, April 25, from Reykjavik to Glasgow, Scotland, and then to New York.

“I am convinced that my family and friends and colleagues at NYU/UCN were more apprehensive about my decision to go forward with the trip than I was,” said Dr. O’Connor. “I had made a commitment and was determined to see it through, though I did have concerns. Being in Reykjavik, quite near to the Eyjafjallajökull glacier, meant that the surrounding areas were alternately flooded by melting glacier water or blanketed by ash, with no one certain about how that might affect the capital. However, I wouldn’t have missed the teaching experience, which was wonderful, and interacting with the students and other Icelanders, who were exceedingly warm and friendly.”

Among the 18 students in Dr. O’Connor’s course were general physicians, surgeons, nurse practitioners, and proprietary owners of allied healthcare agencies.
Virtually all the participants enrolled in the Executive MPH Program had ambitions to become CEOs of hospital systems or high government health officials.

“Such ambitions are not unrealistic,” said Dr. O’Connor, “when you consider how small and homogeneous Iceland is, as a stand-alone, independent country. The entire population of Iceland consists of 320,000 people in an area the size of Kentucky, with 60 percent of the population living in the small capital city of Reykjavik, a remote island, where most healthcare resources are government-controlled and all educators and healthcare providers are unionized.

“On the plus side, this means that access to health care is very good. In fact, Iceland has a lower mortality rate than the US. The educational system is also very good—all students graduate high school by age 16 with a mastery of at least four languages—and all physicians are required to study abroad for at least one year, usually choosing the US, England, Sweden, Switzerland, or Ireland.

“On the downside, Iceland has difficulty retaining its professional class because other countries try to recruit those who are highly educated and because opportunity for professional growth and development is limited.

“For all these reasons,” Dr. O’Connor explained, “the introduction of an Executive MPH Program at Iceland’s major university met with a very enthusiastic response. “The thing that impressed me most,” said Dr. O’Connor, “was the high level of the students’ knowledge, motivation, and commitment to mastering the issues, which are the same issues that we confront in the US, including the importance of public health to the overall health status of the country, health policy regulations and compliance, quality, access, patient rights, and electronic health record systems. Another similarity exists in terms of gender issues, and specifically, the issue of comparable pay for women doing the same jobs as men. Interestingly, the president of Iceland is a woman, who is thoroughly committed to equality. With a woman as president, and exciting new initiatives such as the Executive MPH program, Iceland’s future, in terms of the development of its professional class, is promising. Let’s just hope there are no more volcanoes blowing up for another 189 years.”

NYUCD has hosted more Brazilian PhD candidates and postdoctoral researchers as visiting scholars than most other US dental schools. A principal reason is that Dr. Nelson da Silva and Dr. Paulo Coelho, Assistant Professors of Prosthodontics and of Biomaterials and Biomimetics, and Dr. Simone Duarte, Assistant Professor of Basic Science & Craniofacial Biology, with the support of their respective department chairs, encourage their Brazilian colleagues to identify students to take advantage of research opportunities at NYUCD. Another reason is that the Brazilian government provides grants to assist PhD candidates in studying abroad at dental schools with strong mentorship opportunities and access to innovative research concepts and technology, such as NYUCD, before returning home to defend their dissertations. During the past year, three new Brazilian PhD candidates joined NYUCD as Visiting Scholars. All three received grants from the Brazilian government.

Dr. Myrella L. Castro, a microbiologist and PhD candidate in pharmacology at the University of Campinas Piracicaba Dental School, has been a Visiting Scholar in the Department of Basic Science & Craniofacial Biology. Dr. Castro is being mentored by Dr. Duarte and Dr. Deepak Saxena, Assistant Professors of Basic Science & Craniofacial Biology, on research on the effects of low dose antibiotic therapy for the treatment of periodontal disease. As a Visiting Scholar, Dr. Castro, who earned DDS and MS degrees in pharmacology from the Piracicaba Dental School, is also able to take advantage of the access that NYUCD researchers have to advanced technology in microbiology.

Drs. Guilherme B. Valverde and Amilcar C. Freitas, Jr., are both Visiting Scholars in the Department of Biomaterials & Biomimetics. Dr. Valverde,a PhD candidate in prostodontics at the São Paulo State University, ARAQUARA, BRAZIL. Dr. Freitas, a PhD candidate in prostodontics at the São Paulo State University, is being mentored by Dr. Coelho on the use of finite element analysis in the development of ceramics and alloys for implants and other prosthetic devices. Dr. Freitas earned a DDS degree and an MS degree in prostodontics from the ARAQUARA Dental School in Brazil.

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From left: Dr. Guilherme B. Valverde, Dr. Myrella L. Castro, Dr. Amilcar C. Freitas, Jr.

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Dr. Denise Estafan came to the United States after earning a DDS degree from Cairo University College of Dentistry in 1969, completing a general practice residency at the Royal Victoria Hospital in Northern Ireland in 1971, and practicing general dentistry in Saudi Arabia from 1978 to 1980. After earning a dental degree from NYU in 1982, Dr. Estafan began to practice privately in Port Washington, New York, and joined the NYUCD faculty, where she currently serves as Associate Professor of Cariology & Comprehensive Care and Director of Esthetic Dentistry. In 1995, she also earned a master’s degree in dental materials from NYU. Dr. Estafan is well known for her research on computer-aided design and computer-aided manufacturing, or CAD/CAM, a technology that enables dentists to create a 3D blueprint of a restoration from a photographic image of a tooth. The recipient of numerous awards and distinctions, Dr. Estafan is president of NYUCD’s chapter of the OKU dental honor society and the author of over 40 journal articles on dental materials and esthetic dentistry. She travels regularly to the Middle East and Europe to lecture on the latest dental techniques and technologies.

Dr. Estafan has played a leading role in introducing curricular innovations in esthetic dentistry, such as a preclinical course on CAD/CAM restoration, and training fellow faculty members in these innovations. She has been an inspiration to students, especially those who originally trained overseas to whom she serves as a mentor.

“When I began my clinical training at NYUCD,” Dr. Estafan recalls, “I found it challenging to deal with esthetic cases because the patients were so demanding and had extremely high expectations. But with help from my mentors, I grew more self-confident and met the challenge head-on. Today, I encourage my students to do the same. I believe strongly in Dean Bertolami’s philosophy that everyone has to have a mentor and that everyone has to be a mentor.”

“I’ve enjoyed working with Dr. Estafan because she has given me opportunities I didn’t expect to have as a predoctoral student,” says Dr. Sabina Malla, ’10, who came to NYUCD from Nepal. “Thanks to Dr. Estafan’s guidance, I’ve been able to successfully complete a full-mouth rehabilitation—a case normally reserved for postdoctoral residents.”

“Through hard work and dedication, Dr. Estafan has built a distinguished career in esthetic dentistry in her adopted home,” says Dr. Mark Wolff, Associate Dean for Predoctoral Clinical Education and Professor and Chair of the Department of Cariology & Comprehensive Care. “She is truly an inspiration to the many overseas-trained dentists who come to NYUCD to earn US dental degrees.”

Dr. Bapanaiah Penugonda moved to Belize in Central America to begin dental practice. In Belize, he encountered a frustrating situation, as patients with serious posterior decay were determined to spend their limited funds on flashy gold crowns for anterior aesthetic restorations. Realizing that there was no economical alternative to gold, Dr. Penugonda soon began thinking about developing a second career in materials research, and when he learned that NYUCD offered a master’s degree in dental materials (now known as the master’s degree in biomaterials), he moved to New York in 1980 to enroll in the program, while also earning a dental degree at NYU.

After graduation, Dr. Penugonda opened a private practice in midtown Manhattan, went on to develop an alloy that has since been widely adopted as an economical alternative to gold in dental restorations, and in 1982, joined NYUCD’s faculty, where he currently serves as an Associate Professor of Cariology & Comprehensive Care and Group Practice Director.

“Dr. Penugonda is a perfect example of how far it’s possible to advance when you are ambitious and take advantage of the rich array of educational and research resources available to you,” said Dr. Mark Wolff, Associate Dean for Predoctoral Clinical Education and Professor and Chair of the Department of Cariology & Comprehensive Care. “My professors in the DDS and dental materials programs encouraged me to pursue my career goals and opened my eyes to rewarding opportunities in biomaterials research, teaching, and private practice,” says Dr. Penugonda.

“Today, I maintain a part-time private practice, oversee clinical training for more than 50 students, am involved in developing new tooth-whitening products and composites, and conduct research on the environmental implications of biomaterials disposal. I travel abroad frequently to present my research findings and lecture on advances in cariology and comprehensive care. I also serve as president of the NYUCD chapter of Sigma Xi, an international honor society of research scientists and engineers. It’s a wonderful, multifaceted professional life.”