FOCUS ON Public Health:

• VIPs on Vapes
  The E-Cigarette Phenomenon

• Practicing Consequential Epidemiology

• Alumni Trailblazers
  Two Creative Approaches to Improving Public Health

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For this issue of *Global Health Nexus*, we asked a group of scientific and public health experts for their views on an issue of rapidly growing national concern; namely, the e-cigarette phenomenon.

We lead off with a commentary by Jeff Seyler, president and CEO of the American Lung Association of the Northeast, who offers his thoughts on the evolution of America’s tobacco addiction and how it relates to e-cigarette use among youth and young adults.

Terry Gordon, professor of environmental medicine at the NYU School of Medicine, looks at e-cigarettes and toxic effects and sees a potential new global tobacco threat.

Deepak Saxena and Xin Li, both associate professors of basic science and craniofacial biology at NYU Dentistry, discuss their research on the biological and physiological effects of e-cigarettes’ electronic aerosol mixtures and hypothesize a risk for oral health.

Finally, Cheryl Healton, dean of the NYU College of Global Public Health, and David Abrams, professor of social and behavioral sciences at the NYU College of Global Public Health, discuss the “new battleground” being fought over by those who see e-cigarette use as a threat to tobacco cessation efforts and those who see it as a harm reduction opportunity.

Moving on from the complex issue of e-cigarette use, we look at a new approach to epidemiology, known as “consequential” epidemiology, that is guiding the work of our Department of Epidemiology & Health Promotion as it seeks to deliver on the promise of science to sustainably improve oral health equity locally and globally.

We round out this thematic focus on public health with the stories of two remarkable alumni who graduated decades apart but share an unswerving commitment to improved public health and well-being, Hanmin Liu, ’70, and Steven Lin, ’16.

Other stories highlight discoveries from our laboratories that have the potential to reduce craniofacial malformations, further osteoporosis drug development, effectively treat oral cancer pain, and identify new therapy targets for severe anemia, to name just a few.

This issue of *Global Health Nexus* also features an update on the College’s Strategic Plan, as well as innovative new programs — a collaborative program with the NYU Stern School of Business to offer a new DDS/MBA degree option, and an additional partnership with the NYU College of Global Public Health to offer a DDS/Online Certificate in Public Health.

As always, we also bring you news of the generous philanthropy that is making this such an exciting chapter in our history, and of the professional achievements of our faculty, students, staff, and alumni.

As you read this issue, I hope you will see a theme emerging; specifically, that NYU Dentistry continues to push boundaries in dental education and research, continually innovating better ways to train dentists and better serve our large and culturally diverse patient population.

Enjoy the issue.

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NYU Dentistry Strategic Plan Update

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“In public health, the whole society is your patient.”

— Thomas Frieden, MD, MPH
global health leader and former Centers for Disease Control and Prevention (CDC) Director
There is a major discussion occurring at the national level about e-cigarette use in the US as a means of helping people to quit smoking. Supporters say e-cigarettes appear to be effective. Critics say there are better and safer ways to quit smoking, and that e-cigarette use is a gateway into tobacco smoking among teens.

A lack of definitive evidence about either their efficacy or their long-term health effects has spurred a series of claims and counter claims that can be extremely confusing.

In the following series of articles, we provide the views of the leader of a major advocacy organization working to eliminate tobacco use and tobacco-related disease, scientists who look at e-cigarette use from both an oral health and a systemic health perspective, and two leading public health professionals who specialize in smoking cessation.
VIPs on Vapes

Experts Weigh in on Risks and Benefits of E-Cigarettes
FOR DECADES, advocates, health professionals and forward-thinking elected leaders have been fighting the tobacco industry's assault on public health. Those efforts, largely made up of policy interventions, have had two main objectives: to help current smokers quit their deadly addiction and to prevent another generation from falling victim to a lifetime of disease and eventual death from these products. To that end, we've designed and deployed a range of different tools from taxes on cigarettes, smoke-free public spaces, well-funded state and federal tobacco control programs, and age restrictions at the point of sale, to vast education efforts in communities and schools to help combat the health issues caused by tobacco addiction and addiction itself. The success of those initiatives can be measured by consistently decreasing smoking rates, which in many places are at their lowest levels since smoking became an epidemic in our country. However, despite the wide success of these programs, and historically low smoking rates across the nation, our job is nowhere near finished. As technology, media and industry continue to evolve, so too does Big Tobacco — and so must our tactics to keep Americans healthy.

The 2017 American Lung Association’s Annual State of Tobacco Control report revealed some unsettling facts. Use of tobacco products among high school students has increased, and the national average suggests that one in four high schoolers use some form of tobacco. While less people are smoking traditional cigarettes, more people are taking up other tobacco products. That includes some more dated choices like cigars or spit tobacco, which increase your risk for oral cancer, but it also points to the transition of e-cigarettes from fringe product to mainstream. These new varied flavored, electronic nicotine delivery tools have proven to be a popular choice, especially within this young and often vulnerable demographic.

Researchers at USC confirmed this trend last year through a study that reported that the number of high school seniors using nicotine — either through cigarettes, cigars or e-cigarettes — is on the rise for the first time in a decade. Unfortunately, studies also show that youth e-cigarette users are more likely to advance to become traditional tobacco users.

As the number of young people addicted to tobacco rises, the American Lung Association along with advocates and health professionals are once again battling against the tobacco industry's marketing machine which claims e-cigarettes are “less bad” than traditional cigarettes because they contain less nicotine. They even advertise e-cigarettes as a tool to help those addicted to smoking quit. There is, of course, evidence to the contrary here as well: Studies show that many people who try e-cigarettes as a tool to quit end up increasing their nicotine intake by using a combination of the two types of traditional and electronic cigarettes.

Considering the history of Big Tobacco and their marketing practices, we cannot feign surprise when it comes to their current strategy. It was bad enough when tobacco companies targeted our neighborhoods with colorful ads depicting cigarettes as trendy and cool. Now, they create ad-
recently, e-cigarettes have been largely unregulated. Many products on the marketplace claim to be nicotine-free or containing very low levels of nicotine, but a wide breadth of studies have shown that these claims are largely false. In fact, most products that advertise as nicotine-free do indeed contain nicotine in addition to a range of other chemicals not listed in the packaging, such as formaldehyde and solvents that pose a health risk when inhaled. Studies also show that nicotine disrupts neurotransmitter activity and is highly addictive to the developing teen brain—as making teen addiction to e-cigarettes especially dangerous if parents are unaware of the facts. Until the public has more information on what these products contain, how can we accurately assess their effect on consumers and non-smoking bystanders?

In addition to evaluating needs from a public health standpoint, individual consumers will benefit from this oversight as well. Without it, it has been impossible for students, parents, health professionals or current smokers to start smoking conventional cigarettes, cigars or hookah; if they sustain nicotine addiction for smokers who continue using combusted tobacco products instead of quitting completely; and if they increase the likelihood that former smokers will again become addicted to nicotine and revert to using combusted tobacco products again.

If those are the tell-tale signs that these products are harmful to the American public, then at best, the dangers of e-cigarettes lie hidden beneath a forced hood of ignorance until the newly passed FDA regulations kick into full gear. Until ove the years. E-cigarettes may have a flashier look or a different taste, but their contents may be toxic as ever. This was confirmed in late 2016 by a groundbreaking US Surgeon General’s report — the first ever on e-cigarettes — that specifically highlighted the threat they pose to the health of our nation’s youth, as well as possible health risks due to the aerosol these products emit. It declared that e-cigarettes pose potential risks to the population as a whole if they increase the number of youth and young adults exposed to nicotine; if they lead non-smokers to start smoking conventional cigarettes, cigars or hookah; if they sustain nicotine addiction for smokers who continue using combusted tobacco products instead of quitting completely; and if they increase the likelihood that former smokers will again become addicted to nicotine and revert to using combusted tobacco products again.

If those are the tell-tale signs that these products are harmful to the American public, then at best, the dangers of e-cigarettes lie hidden beneath a forced hood of ignorance until the newly passed FDA regulations kick into full gear. Until advertisements filled with slogans like “Take back your freedom,” and “Rise from the ashes.” E-cigarette advertising targets those who likely wish to avoid traditional tobacco or wish to quit, by offering more false promises and unknown risks. Once again the industry is using cartoon imagery and they offer e-liquids in flavors like cherry, bubble gum, cotton candy, and gummy bear. How can they possibly deny targeting youth as they continue to develop flavors mimicking kids’ snacks?

Flavored or not, the dangers of e-cigarettes are real. Tobacco products have been linked to lung, oral and other cancers in countless studies over the years. E-cigarettes may have a flashier look or a different taste, but their contents may be toxic as ever. This was confirmed in late 2016 by a groundbreaking US Surgeon General’s report — the first ever on e-cigarettes — that specifically highlighted the threat they pose to the health of our nation’s youth, as well as possible health risks due to the aerosol these products emit. It declared that e-cigarettes pose potential risks to the population as a whole if they increase the number of youth and young adults exposed to nicotine; if they lead non-smokers to start smoking conventional cigarettes, cigars or hookah; if they sustain nicotine addiction for smokers who continue using combusted tobacco products instead of quitting completely; and if they increase the likelihood that former smokers will again become addicted to nicotine and revert to using combusted tobacco products again.

If those are the tell-tale signs that these products are harmful to the American public, then at best, the dangers of e-cigarettes lie hidden beneath a forced hood of ignorance until the newly passed FDA regulations kick into full gear. Until recently, e-cigarettes have been largely unregulated. Many products on the marketplace claim to be nicotine-free or containing very low levels of nicotine, but a wide breadth of studies have shown that these claims are largely false. In fact, most products that advertise as nicotine-free do indeed contain nicotine in addition to a range of other chemicals not listed in the packaging, such as formaldehyde and solvents that pose a health risk when inhaled. Studies also show that nicotine disrupts neurotransmitter activity and is highly addictive to the developing teen brain—as making teen addiction to e-cigarettes especially dangerous if parents are unaware of the facts. Until the public has more information on what these products contain, how can we accurately assess their effect on consumers and non-smoking bystanders?

In addition to evaluating needs from a public health standpoint, individual consumers will benefit from this oversight as well. Without it, it has been impossible for students, parents, health professionals or current e-cigarette users to know how to mitigate the dangers these devices pose to the smokers’ health—as well as the health of those around them through secondhand inhalation. Transparency and regulation are important first steps in letting people in on the truth about e-cigarettes and dispelling the dangerous myths surrounding their contents and health effects. Combined with many studies like the one done at USC, I believe we are seeing a new narrative emerge, based on data and truth, instead of marketing ploys and wishful thinking.

Unfortunately, just as the FDA is beginning to assert its regulatory control over electronic cigarettes, there are some who are looking to water down or even completely take away the FDAs ability to regulate these products. Just as they have the opportunity to rein in the misleading health claims, gain an understanding about what these products actually contain, and begin looking at the long-term health effects, some in Washington want to go back to the Wild West of no regulation. For the sake of public health, the American Lung Association will continue to call upon our elected officials to reject any calls to remove FDAs authority over all tobacco products.

As we continue to pursue full implementation of federal regulations, we are also pushing for change on the state level. We have started a nationwide push for Tobacco21 legislation which would prohibit the sale of tobacco products to anyone under the age of 21. The emergence of e-cigarettes cemented the need for these laws to reach beyond cigarettes and include all tobacco products. We know that if we can prevent young people from beginning to use tobacco products before they turn 21 years old, the odds are they will never start using these products. In addition, we are expanding our efforts to ensure that states include e-cigarettes in smoke-free air legislation, meaning that people would be prohibited from using e-cigarettes in public spaces where traditional smoking is banned.

We cannot slide back on all of the progress we’ve made in the fight against the leading cause of preventable death and disease in this country. Early data are showing us that e-cigarettes are not the healthy alternative that some had claimed they would be and it is vital that we continue to pursue research and regulation around them, while strengthening the tools and resources necessary to raise awareness, help smokers quit, and help children avoid tobacco products altogether, in any shape or form.
The number of tobacco products available on the market in the US has rapidly diversified and while for the past 60 years, conventional tobacco cigarette use has declined, the use of new alternative products, such as electronic cigarettes (e-cigarettes), has increased at an alarming pace. E-cigarette use among adults has increased fourfold in the last few years, while in adolescents, e-cigarettes have displaced cigarettes as the most widely used nicotine delivery product with a current use rate of 16.0%. These rising trends in e-cigarette use are occurring in a number of countries, demonstrating the emergence of a potential new global tobacco threat. While the use of e-cigarettes has been shown to be moderately successful in smoking cessation studies, the greatest public health controversy, and fear, centers on the potential for adolescent e-cigarette use to lead to nicotine addiction and function as an entry pathway to the use of traditional tobacco cigarettes. The popularity of e-cigarettes has unfortunately outpaced our medical knowledge about them and assessing the health effects of e-cigarettes requires consideration not only of their intrinsic toxicity, but also their toxicity relative to that of the conventional tobacco cigarettes that they are replacing.

Although the adverse health effects of e-cigarettes are not well understood, research to date suggests that e-cigarettes have the potential to cause harm although they appear to be less harmful than conventional cigarettes. E-cigarette liquids are comprised of a mixture of vegetable glycerin and propylene glycol which, in the aerosol form, act as a vehicle for delivering nicotine and flavor additives to the respiratory tract. By design, the “vaping” aerosols are generally less than 1 µm in diameter and can reach all parts of the respiratory tract, particularly the alveolar region where nicotine is rapidly absorbed. Acute exposure to e-cigarettes can cause both respiratory and cardiovascular effects, but the contribution of nicotine to these effects, either alone or in combination with an array of flavor additives, is not known. The vast majority of e-cigarette aerosols are comprised of glycerin and propylene glycol, which although generally recognized as inert substances, may contribute to adverse health effects. Glycerin, for example, is commonly used to generate theatrical fogs although respiratory irritation has been reported. Nicotine is the main pharmacologically active chemical in e-cigarette aerosols and known to produce a range of cardiovascular effects.
and CNS (central nervous system) effects, and, therefore, is likely to account for a large fraction of the reported acute effects of e-cigarette use. In particular, poison centers throughout the US have reported emergency department visits for young children who consume e-liquids with attractive fruit-flavored additives; nicotine is the likely toxin responsible for accidental e-liquid morbidity and mortality. There are other additives in e-liquids and the number of flavors appears to be enormous. One of the more concerning of these flavors is cinnamaldehyde, which has been measured in over 50% of 39 e-liquids tested. Studies have shown that it is both cytotoxic and genotoxic and research suggests that it is likely the most toxic of the current e-liquid additives. Reportedly, manufacturers have voluntarily discontinued the use of cinnamaldehyde. Another significant additive, diacetyl, is a butter-like flavoring which has been identified in 76% of tested e-liquids, despite it’s well known ability to produce “popcorn workers’ lung” when inhaled. Thus, what little is known about the components of e-liquids suggests that some components are more toxic than others and the use of e-cigarettes as a cessation device can be made safer. Importantly, very little is known about the chronic health effects of e-cigarette use.

**STUDYING THE ACUTE EFFECTS OF E-CIGARETTE AEROSOLS**

Although studying the chronic toxicity of e-cigarettes is the future research focus of my laboratory, I have, in collaboration with a number of researchers at NYU School of Medicine (NYUSOM), Penn State University, and Rutgers, investigated several aspects of the acute effects of e-cigarette aerosols. Using an automated e-cigarette “vaping” machine developed at NYU as part of a master’s thesis, the toxicity of e-cigarette aerosols has been studied in human cell lines and in mouse models. One of the most important factors discovered in these studies was the change in airborne particle composition at different operating voltages used to generate e-cigarette aerosols. (Note that despite the terms “vaping” and e-cigarette vapors, the output of the e-cigarette is actually liquid particles comprised of propylene glycol and glycerin with added nicotine and flavors as well as the unintentional generation of chemicals during the heating process.)

The technology used in e-cigarette vaping is rapidly changing and modern versions of e-cigarettes have departed from resembling traditional cigarettes and become component-based with controls that allow the user to change puffing parameters such as dilution air and the voltage and power supplied to the heating coil. Our studies have shown that increasing the voltage from 3 volts to 5 volts results in a tremendous increase in production of carcinogens, such as formaldehyde and acrolein, to levels similar to those found in a puff of traditional tobacco smoke, thus suggesting that lower operating voltages are safer. In parallel studies of e-liquid composition, Dr. Lung-Chi Chen and I examined the adverse effects of nicotine and diacetyl, two of the most common additives to e-cigarette liquids, in human airway cells. Using NYUSOM’s Genomics Technology Center, RNASeq experiments demonstrated inflammatory changes in a
variety of genes including increases in inflammatory cytokines and chemokines, heat shock proteins, and innate immune genes in the cells exposed to e-cigarette aerosols with either nicotine or diacetyl alone.

**E-CIGARETTE USE IN PREGNANT WOMEN AS AN ALTERNATIVE NICOTINE DELIVERY DEVICE**

In terms of use as a cessation device, e-cigarettes are being used increasingly by pregnant women as a safer alternative to tobacco cigarettes. Because of the total lack of health information regarding potential adverse effects in this susceptible subpopulation, in collaboration with Drs. Judith Zelikoff and Jason Blum, also in the Department of Environmental Medicine, we have examined the effect of in utero and early life exposure to e-cigarette aerosols in a mouse model. Changes in neuro-parameters related to neuroinflammation and neurotrophins were observed in young mice that were offspring of female mice exposed to e-cigarette aerosols during gestation and lactation. As seen in the Figure, even e-cigarette aerosols without nicotine produced increased numbers of immune cells (red staining microglial cells) in the hippocampal region of the brain of offspring.

Both with and without nicotine, e-cigarette exposure caused significant reductions in mRNA expression of key markers of inflammation, including Ngf, Bdnf, IL-1β, IL-2, and IL-6 (Lauterstein, 2016), in the hippocampal region of the brain. Transcriptome alterations in the frontal cortex of the brain were associated with specific neurobehavioral pathways in these male and female offspring. Perhaps most alarming were the observed effects of in utero e-cigarette aerosol exposures on reproductive development. When pregnant mice were exposed to e-cigarette aerosols, sperm numbers and motility were adversely affected in 7-week old male offspring. Thus, our studies suggest that e-cigarette use in pregnant or lactating women may adversely affect infants. Although the lung is a logical target of concern for inhaling e-cigarette aerosols, these NYUSOM studies have demonstrated adverse effects on a variety of extra-pulmonary endpoints in our mouse models, and in collaboration with Dr. Michael Weitzman in the Department of Pediatrics, I have designed studies to investigate the cardiovascular and pulmonary effects in non-smoking members of households where e-cigarettes are used.

**WHERE WE GO FROM HERE**

Many health advocates favor the use of e-cigarettes as a substitute for the more hazardous tobacco-based cigarette. The FDA has recently begun oversight of e-cigarettes under their authority to regulate tobacco products and therefore strict oversight of e-cigarette manufacturers, including the production of e-cigarettes and e-liquids, has begun. Despite this oversight, e-cigarettes appear to have inherent toxic properties and an increasing number of studies suggest that both the e-liquid components and the puff parameters of the e-cigarette device contribute to its toxicity. We predict that the major targets of future research on e-cigarette toxicity will improve our understanding of the relative toxicity of the components of e-cigarette aerosols, the safest operating conditions for “vaping,” and the susceptibility of sensitive individuals to e-cigarettes. As the completion of these toxicology studies will likely (and significantly) lag behind the rapid increase in use of e-cigarettes, health professionals should educate individuals — particularly adolescents and pregnant women, who use e-cigarettes as alternative nicotine delivery devices — on their toxicity.
E-CIGARETTE USE: A Risk for Oral Health?

Electronic cigarettes ("e-cigs"), are battery-operated devices designed to look like regular tobacco cigarettes. Like traditional cigarettes, electronic cigarettes contain nicotine. E-cigs have both their supporters, who believe that the innovation could make conventional cigarettes obsolete, and dissenters, who argue that their increasing popularity heralds a new wave of nicotine dependence among young people. The nicotine density in e-cigs varies from 6–48 mg of nicotine per milliliter of e-liquid.* Regular cigarettes, in contrast, contain approximately 1.2 mg of nicotine in each cigarette, or 24 mg of nicotine per pack (1.2 mg×20 cigarettes). E-cigs contain higher amounts of nicotine because they are not meant to be smoked completely in one sitting.

The amount of nicotine absorbed by the body from e-cig smoking depends on many factors, including the amount of nicotine in e-liquid, the e-cig aerosol mass quantity, smoking frequency and timing, and the smoking inhalation volume. Each nicotine cartridge in an e-cig can provide 200–400 puffs, equivalent to 2–3 packs of cigarettes. Yet manufacturers claim that e-cigs are a safe and healthier alternative to conventional tobacco cigarettes. Although e-cigs are more common among conventional cigarette smokers, a recent study of more than 4,000 students from 8 colleges indicates that 12% of e-cig users had never smoked a conventional cigarette.

Recent reports from the CDC indicate that the percentage of US middle and high school students who use e-cigs more than doubled from 2011 to 2012. This is not surprising since tobacco companies use flavors in e-cigarettes to make them attractive to children, including bubble gum, cotton candy, and gummi bear.

With their increasing popularity, the projected increase in e-cig use over the next few years is of great concern. The e-liquid used in e-cigs contains three components: variable amounts of nicotine, flavor concentrate, and diluents. In May 2009, the US FDA Division of Pharmaceutical Analysis found diethylene glycol, a toxic liquid used in explosives and antifreeze, in one of the cartridges they sampled. They also discovered the cancer-causing agents, tobacco-specific nitro-samines, aldehydes, metals, volatile organic compounds, phenolic compounds, polycyclic aromatic hydrocarbons, flavors, solvent carriers, tobacco alkaloids, and drugs (amino-tadalafil and rimonabant).

*The flavored liquid vaporized by the battery-operated device.
IMMEDIATE ADVERSE EFFECTS OF E-CIGS

Studies have shown that e-cigs have immediate adverse physiologic effects similar to tobacco smoking after short-term use. In one example, the European Respiratory Society reported that e-cig use causes an immediate increase in airway resistance that lasts for 10 minutes and harms the lungs. This prompted the FDA to issue a warning about potential health risks associated with e-cig use. It also underscores the need for additional studies to determine the adverse health consequences of e-cig use, with an emphasis on identifying novel biological and physiological markers that predict their harmful outcomes.

Although a great deal of literature is available on the development and evaluation of conventional tobacco products, very limited data are available on e-cigs. To fill that gap, we are working on both a clinical study and an in vitro study to determine the impact of e-cig use on oral health. The initial host interaction of aerosol mixtures produced by e-cigs occurs largely in the oral cavity, where exposure to aerosolized nicotine and other components is highest. A recent online survey of 543 e-cig users indicated that most negative health effects were observed in the mouth and throat. Saliva is the first body fluid and oral epithelial cells are the first body cells that interact with inhaled aerosol mixtures produced by e-cigs. The human oral microbiome plays an essential role in health, but when disrupted, these same indigenous microbes can cause disease.

The role of oral bacteria in the initiation of periodontitis is well documented. Studies have shown that the oral microbiomes of conventional cigarette smokers usually have more anaerobes and fewer aerobes than those of nonsmokers. Convention-al cigarette smokers have shown significantly greater amounts of the periodontal pathogens P. gingivalis, A. actinomycetemcomitans, and T. forsythia than individuals who have never smoked. Microbial components, especially lipopolysaccharide (LPS), can induce inflammation. Furthermore, these inflammatory mediators promote the degeneration of inflamed periodontal tissues. However, no studies have been done on the effects of e-cig aerosol on the oral microbiome. The oral microbiome is represented not only by the commensal species of the mouth, but also by transient species that use the oral cavity as the point of entry to colonize the respiratory and GI tracts. Significantly, the composition of the oral microbiome indicates disease states not only in the oral cavity but also in the lung, heart, and liver. For example, most bacteria identified in the lung are present in the mouth.

ECAG uses a positive pressure system for aerosol generation, which allows the aerosol to be exhausted directly at the mouthpiece, thereby improving the accuracy of aerosols characterization. Furthermore, the positive pressure system allows the use of clean, dry, particle-free air as the carrier gas, reducing the potential for introducing any artifacts that may be present in the ambient room air into the aerosols’ stream.
The changes in the oral microbiome will influence the health of e-cig users due to nicotine-microbe interactions that could enable other microbes, including pathogens, to proliferate and serve as foci for subsequent infections. Accordingly, the salivary microbiome is also a potential diagnostic indicator of several systemic diseases.

ANALYTICAL METHODOLOGY

Metagenomics analysis will enable us to characterize the entire microbial community and identify specific genes associated with e-cig versus tobacco smoking. Our study will provide information on microbial taxonomy, diversity, and functional microbial genes that are altered by e-cigs. Limited data indicate that nicotine and other components in aerosol mixtures also promote periodontal disease by influencing cytokine levels. Recent studies have demonstrated that e-cig aerosol can produce large amounts of oxidants or reactive oxygen species and could induce oxidative and inflammatory responses. To investigate how e-cig aerosol interacts with oral bacteria and gingival tissue, we have developed a novel approach using an ECAG (Electronic Cigarette Aerosol Generator), in collaboration with Dr. Terry Gordon at the NYU School of Medicine and Kevin Corbett, research and development manager at eAerosols.

Our ECAG has many advantages over typical tobacco cigarette smoking machines (TSMs) that use a negative pressure approach. For instance, the aerosol generated from a TSM would be forced into a series of plumbing and tubing before being exhausted, running the risk of introducing many artifacts and altering the aerosol composition. TSMs also do not accommodate the use of numerous e-cig cartomizers or clearomizers (devices that screw on a battery or power supply to deliver e-liquid in a vapor form), thereby making it impossible to study the effects of push button, user actuated e-cigs such as those found on the tank-style versions. No TSMs can be used to study the effect of voltage variation on aerosol production (one of the most significant determinants of aerosol toxicant output) or permit the use of refillable, tank-style nicotine delivery systems. Using a positive pressure system for aerosol generation allows the aerosol to be exhausted directly at the mouthpiece, improving the accuracy of aerosol characterization. Furthermore, the positive pressure system allows the use of clean, dry, particle-free air as the carrier gas, reducing the potential for introducing any artifacts that may be present in the ambient room air into the aerosol stream.

The ECAG is able to deliver electronically generated aerosols from almost all available electronic nicotine delivery systems. Increasing the voltage increases heating and puff intensity. We recently determined that increasing the e-cig voltage also increases the amount of hazardous carbonyls such as acrolein and formaldehyde. Ohmmeters and pressure gauges built into each channel permit determination of the electrical resistance and pressure drops associated with each cartridge. All parameters that govern each puff profile; e.g., voltage, flow rate, puff volume, and duration, can be adjusted.

We will use a 3-D epigingival co-infection model that uses periodontal pathogens and an ECAG to elucidate the mechanism(s) by which e-cigs affect gingival tissue and modulate inflammatory mediators. Our results will provide critical data on e-cig use to answer six fundamental questions: 1) How does the profile of the oral microbiome in e-cig users change compared with that of tobacco smokers? 2) Does e-cig use alter inflammatory markers in the oral cavity and periodontum? 3) How do oral bacteria respond to aerosol condensate produced by e-cigs? 4) How do epigingival cells respond to different aerosol exposures? 5) Can we identify oral microbial and inflammatory markers that can determine e-cig toxicity? 6) Is e-cigarette use a risk factor for periodontal disease?

Ours is the first comprehensive study designed specifically to identify microbiome and periodontal disease biomarkers for measuring and monitoring the adverse health effects of e-cig aerosol mixtures and ... the potential risks associated with e-cigs.

“Ours is the first comprehensive study designed specifically to identify microbiome and periodontal disease biomarkers for measuring and monitoring the adverse health effects of e-cig aerosol mixtures and ... the potential risks associated with e-cigs.”
Q & A

Smoking Cessation Experts Discuss the Potential Risks and Benefits of E-cigarettes

A Conversation with Dr. Cheryl Healton and Dr. David B. Abrams

Cheryl Healton, PhD, is Dean of the NYU College of Global Public Health, director of the NYU Global Institute of Public Health, and professor of global public health at NYU. Prior to joining NYU, Dr. Healton was the first president and chief executive officer of Legacy, the foundation created by the Master Settlement Agreement between 46 states attorneys general and the tobacco industry. In this role she worked to further the foundation’s mission: to build a world where young people reject tobacco and anyone can quit. Notably, she guided the highly acclaimed, national youth tobacco prevention counter-marketing campaign, truth®, which has been credited in part with reducing youth smoking prevalence to near record lows.

David B. Abrams, PhD, is professor of social and behavioral sciences at the NYU College of Global Public Health. He was previously executive director of the Schroeder Institute for Tobacco Research and Policy Studies at the Truth Initiative, and professor of health, behavior and society at the Bloomberg School of Public Health, Johns Hopkins University. He is currently working to demonstrate that the unrealized potential to reduce tobacco use can be addressed through systems integration of a harm minimization strategy, applying scientific evidence to widespread policy and practice.
Global Health Nexus (GHN):
Dr. Healton, you’ve written and spoken extensively about the e-cigarette debate as the “newest battleground.” Could you please explain what you mean?

Dr. Healton: The introduction of electronic nicotine delivery systems has spawned a heated debate among tobacco control advocates, scientists, clinicians, and public health leaders around the world. It is a debate that is hampered by a pair of critical problems: We have no crystal ball to predict over time how this new technology will evolve, particularly given the role of the tobacco industry in its growth, and we have few high quality, large-scale clinical and real world observational trials demonstrating the relative efficacy of these products in helping smokers to quit. The latter data are sorely needed, and the fact that these trials have not occurred in the US may one day be blamed for a considerable loss of life. However, emerging science is promising as studies begin to show smokers can quit smoking using e-cigarettes.1,2

Another issue is that clinicians often view a potential toxin as a threat to their patient’s health in a “first do not harm” framework, while someone looking at the situation from a public health perspective might say, “first reduce harm” and compare the use of e-cigarettes to continued use of combustibles.

Increasingly, however, clinicians favor offering e-cigs as a cessation option, especially for those who were unsuccessful with conventional cessation aids. It is important to balance the likely minimal risk of e-cigs against the large potential benefit of helping people quit who otherwise would not without e-cigs. We sorely need additional data to quantify the added value e-cigs provide when used for cessation, but accumulating evidence suggests they increase the success of many.

GHN: Dr. Abrams, what are your thoughts on the nature of this debate?

Dr. Abrams: I think that we can frame the debate as essentially between those who see e-cigarettes as a threat because they are a nicotine product that would undermine tobacco control policies and those who see it as a harm reduction opportunity and a means of improving traditional tobacco control policies to save many more lives much more quickly.3

Clinicians need to recognize that nicotine is not the culprit, combustion is, and e-cigs vaping mimics the chemosensory aspects of smoking while avoiding the deadly tar from combustion. So having an alternative nicotine delivery system that is dramatically safer is a valid harm reduction strategy.

GHN: Does that mean that e-cigarettes are harmless?

Dr. Abrams: No product is harmless and e-cigarettes do deliver nicotine in a heated aerosol mist. A common misperception is that nicotine itself causes cancer even in FDA approved nicotine replacement medicine. But for smokers, nicotine itself is relatively safer to use even for a lifetime if that is the only way a smoker can stop smoking deadly cigarettes.

GHN: What is the evidence to support the premise of harm reduction?

Dr. Healton: Public Health En-
gland, an executive agency of the Department of Health in the UK, has concluded that many UK and USA smokers have quit and are quitting with e-cigarettes. A few randomized trials and a number of the credible observational trials have shown e-cigarettes to be as effective as — and more attractive to smokers trying to quit — than nicotine replacement therapy. Indeed, in both the UK and USA, e-cigarettes are more popular as a quit aid than nicotine replacement therapy.

Dr. Abrams: There is almost no doubt that vaping is much less harmful than deadly smoking. The critical issue is how much. The UK Royal College of Physicians recently concluded that e-cigarettes are likely 95% less harmful than cigarettes. Even those who dispute this degree of risk reduction still accept that risks are substantially reduced and recent studies of the biomarkers of harm (e.g., cancer causing chemicals) show that e-cigarettes emit a small fraction of the toxins found in cigarette smoke and, for the toxins vapor does include, the emission levels are much lower, often in trace amounts, than those in cigarette smoke.

GHN: Are either of you concerned about the ways in which e-cigarettes are being marketed, in terms of flavorings such as chocolate, bubble gum, and others, to young people, including children?

Dr. Healton: Understandably, initiation of e-cigarette use among young people — and the marketing strategy in terms of flavorings — is sounding alarms. Marketing appeals to youth should be restricted. We don’t support anything that creates e-cig use among kids, and we do strongly support FDA restrictions on sales to minors, as well as national and state policy prohibiting the sale of all nicotine-containing products to anyone under 21. David can speak to the flavoring issue in terms of adult use.

The important thing is that while e-cigarette use among young people increased between 2011 and 2014, it’s leveled off and dropped significantly in 2016 and while we must remain vigilant, there is no credible evidence that e-cigarette use is a gateway to smoking tobacco cigarettes. In fact, cigarette use among young people has declined more rapidly in recent years, making the fears unsupported by the data so far. Most e-cig use by young people is curiosity and experimental and does not lead to smoking over and above those who would be smoking anyway. It is feasible that e-cigarettes are in part displacing combustibles among youths who would largely have tried combustibles in any event. Drs. Kozlowski and Warner looked at all the evidence to date and came to the conclusion that the impact of e-cigarettes on youth is likely exaggerated and that the benefits to the population as a whole far outweigh the small risk, if a risk exists at all.

Based on this data, e-cigarettes likely represent a substantial order of risk below that of combustible products; they appeal to many consumers; and thus have a high potential to displace combustible tobacco, particularly if smokers are told: (a) Vaping is much lower in harm than smoking; (b) e-cigarettes can help one quit if one persists in finding and using a product that is satisfying on daily basis; (c) and if tobacco control helps with polices like differential taxation (much higher for smoked tobacco than vape) to encourage their use in lieu of combustible products.

Dr. Abrams, what do you think about the flavoring issue? Are there some instances in which flavored e-cigs can help smokers to quit smoking cigarettes?

Dr. Abrams: I agree completely that we don’t want to create e-cigarette use among kids and that we should restrict sales of e-cigs to anyone under 21. But we can both protect kids and help smokers switch or quit without banning flavors by simply enforcing prevention of sales and predatory marketing targeted at anyone under 21. Some flavors for adults can provide a satisfying experience and an effective alternative to smoking. So I do think we can support a range of flavored e-cigs for adults, while keeping them out of reach of kids.

Importantly, there is growing evidence that flavors can help adults to quit cigarettes and use less or even no nicotine in the vape. Typically, adults start using e-cigarettes with tobacco or menthol flavors because they are trying to recreate familiar
cigarette tastes. But within a few weeks they decide to move to another appealing flavor, including fruit flavors, because they want to forget the tobacco taste. Flavors remind them less and less of the taste of tobacco or menthol, which ultimately leads to smoking cessation and use of less nicotine to feel satisfied.

Dr. Abrams: Dual use is very common and some fear it will undermine quitting smoking. There is no credible scientific evidence that it is undermining cessation. In fact, as for youths, adult smoking prevalence has dropped more rapidly to record lows at the same time that e-cigarette use has increased and more smokers are using e-cigarettes to quit than NRT. Dual use for a short period or even for a longer period should be encouraged not discouraged as long as it’s on the way to quitting smoking completely. Dual use is also acceptable with FDA-approved nicotine replacement therapy because quitting smoking is very hard and relapse is very common. Smokers try many times before they finally find products and a pattern of use that can help them succeed.

GHN: Do we have data on the number of people in the US who are dual users?

Dr. Healton: Recently, a global panel convened by Johns Hopkins University and the Robert Wood Johnson Foundation looked at this issue across the globe, and specifically at those jurisdictions that see e-cigarette use as a threat and those that see it as a harm reduction opportunity. The UK clearly sees it as an opportunity; New Zealand has recently legalized e-cigarette use; and Canada is moving ever closer to the UK and New Zealand positions. It’s encouraging that these countries are rethinking their bans or heavy restrictions on e-cigarettes. Equally encouraging is the fact that, thanks to the passage of the World Health Organization’s Framework Convention on Tobacco Control, now ratified by 180 nations — although sadly not the United States — progressive work worldwide is changing policies and truncating the growth in smoking rates.

GHN: What kind of effect do you think e-cigarettes could have on public health in the US, if current trends continue?

Dr. Abrams: E-cigarettes represent a disruptive technology that for the first time in 100 years could displace cigarettes as a public health threat. This is the only path that can avert the loss of a billion lives worldwide and over 500,000 premature American deaths every year in this century.”

— Dr. David B. Abrams
the loss of a billion lives worldwide and over 500,000 premature American deaths every year in this century. Short of an end game that makes all forms of nicotine products illegal (i.e., nicotine prohibition), the end game should now be to make combusted tobacco products obsolete and permit cleaner and satisfying alternative forms of non-combusted delivery to be used by adults. The public must be given truthful and accurate education on the relative harms of each class of nicotine product compared to combusted tobacco smoke to make fully informed choices. Misleading or lying to the public about the exaggerated harms of e-cigarettes is not a good idea, however well meaning. Exaggerating the harms of e-cigarettes may actually help sustain deadly cigarette use by scaring smokers away from complete switching. Heavy taxes and exaggerating harms (rather than differential and much higher taxes on combusted products) are also hurting smaller independent e-cigarette companies and vape shops and preventing them from competing to displace cigarettes. Harm reduction and aligned policy to speed the obsolescence of smoked tobacco can save many more lives much more rapidly than traditional tobacco control has been able to do over the last 50 years. Going forward, we must do more now by enriching traditional tobacco control strategies with a harm reduction framework.

Dr. Healton: The existence of a non-combustible, nonmedicinal alternative to combustible cigarettes could well be the game changer that accelerates the demise of deadly combustible cigarettes, especially if nations have the fortitude to ban combustible tobacco. The battle lines are drawn and what hangs in the balance are tens of millions of lives.

References
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However, for people who are currently addicted to cigarettes, e-cigarettes provide a less dangerous nicotine source, without exposure to tar or most of the poisonous gases in cigarette smoke.

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The year the US Food and Drug Administration (FDA) issued a final rule that gives the agency oversight authority over all tobacco products, including cigars, hookah, and e-cigarettes. This allows the FDA to restrict sales of these products to youth, prohibit flavors, and take other actions to protect public health.

Nicotine doesn’t cause smoking-related diseases, such as cancers and heart disease, but it is addictive.

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Approximate number of lives that have been saved through tobacco control efforts since 1964, including 800,000 lung cancer deaths prevented between 1975 and 2000.

8 MILLION


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Since joining NYU Dentistry four years ago, Dr. Richard Niederman, professor and chair of the Department of Epidemiology & Health Promotion, has been guided by an approach known as “consequential” epidemiology.

This approach calls for departmental members to engage in solving the biggest oral public health problems by shifting from identifying disease risk factors to improving health and health equity. To put it another way, it emphasizes the consequences of what epidemiologists do.
"The department’s vision," says Dr. Niederman, a periodontist and expert in evidence-based medicine and medical informatics, is to “deliver on the promise of science to sustainably improve oral health equity locally and globally.”

Dr. Niederman’s own work provides a good example of consequential epidemiology. Beginning in 2003 he initiated a twice-yearly, evidence-based, comprehensive, school-based, caries prevention program in more than 50 high-need Massachusetts elementary schools. Following almost 5,000 children over five years, the program demonstrated that school-based comprehensive caries prevention can meet health care’s triple aim to: (1) increase access, (2) improve health, and (3) reduce costs of care. The

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WHO Collaborating Center for
Quality Improvement, Evidence-based Dentistry (QED)
program, which was designed to bring care to kids rather than kids to care, took less than 20 minutes per visit; reduced untreated caries by 50 percent; and cost less than $70 per visit. In addition, the program exceeded Healthy People 2020 goals prior to 2010.

The outcomes of this program led to a five-year, $6.6M grant from the NIH/NIMHD (National Institute on Minority Health and Health Disparities) that Dr. Niederman brought with him to the College of Dentistry. “CariedAway,” the name of the program that this grant funds, implements evidence-based, comprehensive, school-based, caries prevention in 100 rural elementary schools in Maine, New Hampshire, Kansas, and Colorado. The goal, once again, is to achieve health care’s triple aim.

Based on the success of CariedAway, Dr. Niederman, together with NYU colleagues Drs. Stuart Hirsch, Amr Moursi, Alexis Cohen, and Cheryl Westphal Thiele, created a new program, “CariedAway NYU,” which is being piloted at two public elementary schools in the Bronx. The pilot is designed to show that by implementing school-based, comprehensive, caries prevention, both oral health and academic performance can be significantly improved. It is a first step toward developing the infrastructure needed to deliver citywide school-based caries prevention to the more than 750,000 underserved school children in New York City.

CariedAway is a collaboration with a number of other groups. With a PhD in Statistics and Evaluation, an MPhil in Education, an MPH in Epidemiology, and experience working in NYC’s Departments of Education and of Health and Mental Hygiene, Dr. Ryan R. Ruff is leading the analytics team. Dr. Ruff, an assistant professor in the Department, initiated an NYC/NYU Dentistry collaboration to create a registry of NYC schoolchildren. The registry will longitudinally track and analyze school-based health and educational outcomes. “This unique registry of NYC schoolchildren has the potential to become the Framingham Study for children’s oral health,” says Dr. Niederman.

In addition, Dr. Ruff and Dr. Mal Janal, a senior research scientist in the Department, are reestablishing a statistics core to assist faculty in meeting new NIH guidelines. The College is also collaborating with the Children’s Health Fund, founded in New York City by singer/songwriter Paul Simon and Dr. Irwin Redlener, director of the Earth Institute and the Program on Child Well-being and Resilience at Columbia University. At the NYC Department of Education and Department of Health and Mental Hygiene, Drs. Roger Platt and Marcelo De Stefano and Ms. Ramneet Kalra are facilitating school access. Henry Schein Cares and Colgate-Palmolive are providing generous program support.

According to Dr. Niederman: “If we can achieve the success levels in New York — the most populous city in the US — that we achieved in rural New Hampshire and Colorado, this approach to oral health equity should be applicable nationwide.”

On a related front, Dr. Mary Northridge, associate professor in the Department, with the help of a
$6M grant from the NIH/NIDCR, is using system science methods to address the needs of New York City’s elderly population. By simultaneously looking at factors at the individual, interpersonal, and community levels that impact health, Dr. Northridge is modeling methods to improve health equity.

Continuing this forward momentum, the Department has recently been designated a World Health Organization Collaborating Center, with Dr. Eugenio Beltran, a pediatric and public health dentist formerly with the Centers for Disease Control and Prevention, and Dr. Niederman leading this effort (see related story on p. 82). This success adds momentum to Dr. Niederman’s goal of fully integrating oral health into global health systems by facilitating frontline oral disease surveillance, implementation of preventive interventions, and translation of this work into public health policy.

Dr. Analia Veitz-Keenan, the Department’s director of evidence-based dentistry, who holds a joint appointment in the Department of Epidemiology & Health Promotion and in the Department of Oral and Maxillofacial Pathology, Radiology and Medicine, and Dr. Stefanie Russell, clinical associate professor of epidemiology and health promotion, are in the process of a curricular redesign to implement “just in time” evidence-based dentistry training across the four-year DDS curriculum. This approach provides brief educational modules that allow learners to access them when and where the learner needs them.

Another program that has undergone a significant redesign is the MS degree program in clinical research. After 15 years under the leadership of Dr. Ananda Dasanayake, the two-year program has been revised and streamlined to become a one-year program. Dr. Ruff has succeeded Dr. Dasanayake as program director.

At the global level, Dr. Habib Benzian, an adjunct professor in the Department, is the coeditor of the 2015 Oral Health Atlas, The Challenge of Oral Disease: A Call for Global Action, published by the FDI. Based in part on this work, Dr. Benzian is working with the World Health Organization to integrate oral health into the United Nation’s Water Sanitation and Hygiene (WASH) program. WASH programs provide clean water, latrines, and hand washing systems in resource poor locales. “Habib’s pioneering work to include oral hygiene in WASH is another step toward the UN’s Sustainable Development Goals. Habib is part of the implementation teams in the Philippines, Laos, Cambodia, and Indonesia, and most recently for war refugees in Jordan,” says Dr. Niederman. Also at the international level, former department chair Dr. Ralph Katz is teaching fall courses at NYU’s College of Arts & Science, and spring courses at NYU Abu Dhabi.

Adjunct instructor Dr. Rodrigo Rego is conducting a periodontal clinical trial in collaboration with Drs. Stefanie Russell, Peter Loomer, and Mark Wolff to enable simple periodontal assessments by general dentists using self-administered patient surveys.

Dr. Bernadette Boden-Albala holds a joint appointment as a professor in the Department of Epidemiology & Health Promotion and as associate dean for research and program development at CGPH. She and her colleagues have developed innovative UNICEF training for Ebola and polio control and a systems approach to food access. They have also developed an intensive, one-year, cross-continental MPH program which combines classroom learning, collaborative implementation research with faculty mentors, and public health experience on three continents.

“Going forward,” says Dr. Niederman, “I envision an increasingly diverse departmental faculty and complex array of departmental activities. We will have a wide range of expertise and will use the tools of epidemiology, statistics, dissemination and implementation, economics, systems improvement, and ethics all focused on improving oral health equity. It’s an exciting time to be at the College of Dentistry, where a global vision is part of the University’s and the College’s DNA.”

THIS JUST IN

Sept. 2017: The Department of Epidemiology & Health Promotion has been approved for a $13 Million research funding award by the Patient-Centered Outcomes Research Institute. The study will focus on Bronx School-based Cavity Prevention Programs (see full story on p. 70).
SUCCESSFUL INTERVENTIONS

include primary prevention (fluoride varnish, sealants) and secondary prevention (interim therapeutic restorations), as well as silver diamine fluoride (SDF) as a new preventive agent. While there is little national data on statistical measurements of effectiveness, what is available indicates that sealants (traditional and therapeutic) and SDF are ~ 80% effective and fluoride varnish is ~ 40% effective.

FACTS & FIGURES

The following statistics are noted in the 2016 CDC Health Report and are for the years 2011–2014:

18.6%
Prevalence of untreated decay in children and adolescents aged 5-19 years in the US.

There are large socioeconomic and demographic disparities in the prevalence of untreated caries:

16.7% prevalence in White (non–Hispanic or Latino) children

21.7% prevalence in Hispanic children

23.4% prevalence in Black children

Children <100% of the poverty level have a prevalence of 24.7%, while children >400% of the poverty line have a caries prevalence of 9.3%.

The following are from the National Center for Health Statistics, 2011–2012:

~37%
Children aged 2-8 years have experienced caries in primary teeth in the US.

Untreated caries prevalence:
14%

~21%
Children aged 6-11 years have experienced caries in permanent teeth in the US.

Untreated caries prevalence:
5.6%
Graduating decades apart, Dr. Hanmin Liu, ’70, and Dr. Steven Lin, ’16, have both made service to grassroots communities the mission of their professional lives.

Both say they were inspired by their NYU Dentistry education to improve the health of communities in distress.

And though they are doing this in different ways — Dr. Liu, a former chair of the Kellogg Foundation’s Board of Trustees, is working to understand how communities make change from within, while Dr. Lin is working in a not-for-profit dental practice in rural Maine — both are innovators whose stories compel our interest, attention, and respect.
Alumni Trailblazers

Two Creative Approaches to Improving Public Health
“My father was a dentist, two of my three uncles were dentists, and my father also taught at the College of Physicians and Surgeons of San Francisco — today’s University of the Pacific Arthur A. Dugoni School of Dentistry — so I came to dentistry naturally,” says Dr. Hanmin Liu, Class of 1970, who changed the spelling of his name, Gerald Harman Low, as he was known in dental school, to become G. Hanmin Liu, the Mandarin version of his name.

The founder of the US-China Educational Institute, a 20-year trustee of the Kellogg Foundation, a former chair of the Kellogg Foundation’s Board of Trustees, and the cofounder and president of Wildflowers Institute, Dr. Liu’s impressive professional journey began at NYU College of Dentistry.

“I feel like NYU launched me,” he says. “My whole life has been directed towards discovering the truth, and for me, it was the truth about communities and how they organize themselves to overcome challenges. And it was my dental education at NYU and my experiences in New York that provided the scientific foundation that has been central to my progress in understanding how communities innately work and how to harness that energy for sustainable change.

I became involved with antipoverty issues when I started dental school, and I began to see the city as a laboratory for global and economic vibrancy,” he says. “I joined with other students and with Dr. Louis Simon and Dr. Sam Dworkin, faculty members in Community Dentistry and Prevention, to figure out how best to help children in underserved communi-
ties. There was an excitement in the air as students and faculty worked together to apply our understanding of social health and dental prevention and of what motivated children to take responsibility for their own oral health. Everyone chipped in to make something better for others in the community.

Dr. Liu spent a good deal of his weekends on the Lower East Side, north of Houston, and as a dental assistant in the evenings at Beth Israel Hospital’s I-Spy Program, developed by Dr. Steven Moss. He was also active in the student-run Dental Health Organization, which held children’s theatre performances on dental prevention in the public schools on the Lower East Side. That experience made him aware of the extent and complexity of healthcare needs in that community, and he began to realize that the pathway to motivate young people must start from where they are and what is important to them. He and others did community work all through dental school, and the broader community took notice: The New York Times did a story about the program he found-ed, and Procter & Gamble provided a $200,000 grant to NYU Dentistry to support the first national dental school conference on community dentistry and prevention.

After graduating in 1970, Dr. Liu accepted an internship at UCLA in hospital dentistry and then joined the US Army Dental Corps as a captain at Fort Ord in Monterey, California, an assignment he feels he received because his leadership activities in dental school had come to the attention of the Dental Corps, Office of the Surgeon General in Washington, DC. During his two-year Army service, he established a dental hygiene oral health program by partnering with the nearby Cabrillo Community College to prepare infantry soldiers before deployment to Viet Nam. He then decided to return to school to earn a PhD in higher education and health care administration. From there he went on to establish a primary health care center in San Francisco’s Chinatown, which provided Western medicine and dentistry, traditional Chinese medicine (acupuncture), and herbal medicine.

In 1978, he expanded his professional horizons by founding the US-China Educational Institute (US-CEI), a nonprofit organization that worked for over 20 years to build exchanges in health and education, professional networks, and cultural understanding between American and Chinese scientific and educational leaders and professionals. “The USCEI exchanged 450 scholars and leaders dedicated to improving health, education, and youth services in the US and China,” he says.

In 1980, Dr. Liu found a powerful ally for his work in the W.K. Kellogg Foundation, when he wrote a letter to its president, Dr. Robert Sparks, to share his vision for advancing knowledge, collaborative research activities, and the development of professional capacity between the US and China. Dr. Sparks wrote back and invited Dr. Liu to meet with him in his office in Battle Creek, Michigan.

“He thought our idea of an international network between China and the United States had great promise and was very much aligned with an international fellowship program he was developing,” says Dr. Liu. He invited me to serve as a consultant to the Kellogg Foundation, where I spent many years organizing visits between leaders of the two countries in order to build a shared understanding about direction and cooperation. “The Kellogg Foundation was interested in investing in achieving long-term benefits in the health care and educational systems in China. With the foundation’s help, the US-CEI built a network of some 21 medical centers, universities, and local governments in the US that partici-
In 1996, Dr. Liu was invited to become a trustee of the Kellogg Foundation, a position he held for 20 years. From 2003 to 2005, he also served as the chair of the Kellogg Foundation’s Board of Trustees.

“That’s the way the Kellogg Foundation works,” he says. “The leaders and program directors gain knowledge of the way an individual performs in various situations and make a determination about future leadership potential.”

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In 1996, Dr. Liu was invited to become a trustee of the Kellogg Foundation, a position he held for 20 years. From 2003 to 2005, he also served as the chair of the Kellogg Foundation’s Board of Trustees. By 1998, however, Dr. Liu had begun to feel frustrated that he wasn’t able to see changes happening on the ground. “What I saw from my work with the USCEI was the advancement of knowledge, the development of research protocols and activities, and the development of further capacity to engage in serious scientific work,” he says. “But what I didn’t see was how people were being affected by all this. Going back a couple of decades, beginning with my time at NYU, I knew that I wanted to think about and look at how change happens on the ground. At the same time, my involvement with the Kellogg Foundation was increasing.”

“Since the Kellogg Foundation’s focus is on primary health care, I thought that this was an opportune time for me to shift from international work to the creation of local community laboratories where I would be able to learn how change happens. I wanted to understand how communities innately organize and work from the inside out and the bottom up, rather than from the outside in, which had been the focus of my international work.

“I had learned that change from the outside in works best with communities that are on the same intellectual level and have the same cultural experiences as the experts who are bringing their knowledge to bear on solving problems,” he explains. “But if there is not a cultural alignment between the community and expertise from the outside, change is at best temporary and not sustainable. In San Francisco’s Chinatown, for example, elders would come to a food bank set up by local government and charities and be given five pounds of butter. A relative who lived in San Francisco’s Chinatown and frequented the food bank would bring the butter to my spouse, Jennifer, and me. The relative would say each time, ‘I have no use for this [butter]. We don’t have cows in China and we don’t eat butter!’ This is what happens when solutions come from the outside. This lack of cultural awareness results in mutual disappointment.”

In response to the need to understand how communities make change from within, the Board of Directors of USCEI unanimously agreed on July 10, 1998, to establish the not-for-profit Wildflowers Institute and to have as its core mission to make sustainable social impact by discovering the informal ways that things get done in a community and the leaders and activities that quietly make a difference. “You can identify the informal leaders in the room by watching where the eyes go,” says Dr. Liu. “These women and men are the backbone of the community.”

Under the rubric of the Wildflowers Institute, USCEI continued to use its name in building a binational network and fostering leadership development for the strengthening of families, organizations, and communities in both the United States and China. But it was decided that this leadership development would be carried out explicitly within a local cultural framework.

Headquartered in San Francisco, Wildflowers Institute offers a three-step approach to discovering the informal ways in which things get done in a community and the informal leaders and activities that quietly make a difference. Wildflowers first invites a com-
munity’s informal leaders to join its Fellowship Program alongside more formal and official leaders and other interested professionals. The Fellowship Program trains the Fellows to volunteer as guides for outsiders and for its work in the community.

Wildflowers then asks community members to follow its patented Wildflowers Model-Building® process of using blocks and figurines to build models of how things work in their lives. These models reveal what community members really mean and value, consciously and unconsciously. They make explicit the community’s North Star and how members of the community are organized to move in this direction. In particular, the Institute uses the Wildflowers Model-Building® process to discern important structures and informal cultural activities that currently are used to solve problems. The synthesis of all these models is distilled into an illustrated map of the community that shows both the formal and informal sides as well as their unified vision for the future.

The third step is the Wildflowers Social Investment Fund, which looks for small business and community projects that would not ordinarily seek out traditional loans or philanthropic investments. These businesses and projects are often found on the informal side of the community and overlooked by outsiders, but the Wildflowers approach gathers the local intelligence to find them.

“We usually don’t have to seek funding,” says Dr. Liu. “Instead, we are invited to apply our approach at the request of philanthropists to communities they are committed to.”

Some of the national foundations supporting the work of Wildflowers Institute, in addition to the Kellogg Foundation, include the Ford Foundation, the Aspen Institute, the Annie E. Casey Foundation, the Dreyfus Health Foundation, the David and Lucille Packard Foundation, the Kalliopeia Foundation, and ArtPlace America, among a long list of other funders.

“ArtPlace America,” says Dr. Liu, “offers a particularly good example of the synergy that occurs between Wildflowers Institute and its funders.”

ArtPlace America is a collaboration among 16 partner foundations, 8 federal agencies, and 6 financial institutions that works to position arts and culture as a core sector of comprehensive community planning and development in order to help strengthen the sociocultural, physical, and economic fabric of communities.

The Wildflowers Institute received funding from ArtPlace America to look at the Tenderloin district in San Francisco, one of the grittiest, most diverse and challenged neighborhoods in the US and one into which a number of technology companies have moved, resulting in a major shift in the culture. “We asked: ‘Who are the resident artists and are they being displaced?’” says Dr. Liu.

What they found was that 650 artists live and work in a very small area in this neighborhood, which has traditionally been affordable for artists. But as the culture changes and becomes more upscale, there are fewer and fewer affordable places for them to live in. “If you combine this population with the different groups of refugees and immigrants who reside in the neighborhood,” says Dr. Liu, “you find that every one of those people has been injured in some way and is in the process of healing. And the artists are creating artworks that provide insights into how that healing happens and what it is about this place that has helped them heal.” What he and his group discovered was that the Tenderloin is a sanctuary for the wounded to heal themselves. “Tens of thousands of residents in the Tenderloin insist on a social and cultural environment that nurtures and protects them from harm. This finding shifts the narrative of the Tenderloin from a negative place to one that people inside and outside can appreciate and work to develop further. This discovery is a very organic process but essential if we are to develop inside-out strategies that leverage the energy of a critical mass of people in the community for sustainable change.”

An organic process” is also the way in which Dr. Liu describes his life’s work. “It’s not been linear,” he says. “Rather, I get involved with a project and get pulled into the gravity of that project’s ecosystem, and as I get pulled in further and further, I find myself uncovering something powerful. This launches me into a new and exciting next phase, just as NYU launched me on the fulfilling professional path that I continue to follow.”

Dr. Hanmin Liu giving a keynote presentation at a town hall meeting in San Francisco, December 7, 2016.
“The best way to find yourself is to lose yourself in the service of others,” says Dr. Steven Lin, ’16, quoting Mahatma Gandhi.

For Dr. Lin, these words have become a life-defining mantra.

Since graduating one year ago, Dr. Lin has embarked on a career that is rooted in community-based dentistry. Currently, he serves as a full-time dentist at Caring Hands of Maine Dental Center, located in Ellsworth, Maine.

This not-for-profit practice, which is supported by partnerships with several dental schools and by Maine Care (Medicaid) reimbursement, provides accessible, high-quality dental services to rural communities in Maine. Along with a staff that includes two other dentists, two dental hygienists, and two dental assistants, Dr. Lin not only provides in-office care, but also practices portable dentistry, traveling by boat to islands in the vicinity of Ellsworth and Acadia National Park, setting up temporary clinics and sometimes treating people in their homes.

Dr. Lin, an adjunct clinical assistant professor in the Community-based Education Program at the University of New England College of Dental Medicine, also teaches senior dental students who are doing externships in clinical dentistry at Caring Hands of Maine.

“I love what I am doing,” says Dr. Lin. “Number one, you get to help people. Number two, you get to learn and gain experience. Number three, you get to teach. Not to mention you get to live in the middle of a national park.”
Dr. Lin, who hails from Taiwan, did not start out on a path headed toward a dental career. At age 13, his family sent him to the United States to attend Van Der Meer Tennis Academy on Hilton Head Island in South Carolina. After three years of training, Dr. Lin concluded that becoming a professional athlete did not suit him. With the aid of the Academy, he obtained a tennis scholarship that enabled him to attend Tusculum College, located in Greeneville, Tennessee. While there he played tennis as a NCAA division II student-athlete.

As an undergraduate, Dr. Lin began to think about a career in health care. Growing up he was surrounded by medical professionals: His father was an internist and his mother a hospital administrator. At Tusculum, he decided to major in biology. After shadowing a few dentists, he felt he had found his calling.

In 2012 Dr. Lin enrolled at NYU Dentistry. Attending a university in a bustling urban environment was a big change of pace after life at a small college in rural Tennessee. However, Dr. Lin was able to embrace the many opportunities offered at NYU Dentistry. He found that participating in a variety of outreach programs, including the NYU Dentistry/Henry Schein Cares Global Student Outreach Program to Kathmandu, Nepal, in 2014, were particularly transformative.

“The Kathmandu trip gave me the foundation for what I wanted to do for the rest of my life,” says Dr. Lin. “Seeing people in need of care who were so appreciative of our efforts, I not only gained a lot of experience but also realized that I wanted to make my own contribution to the underserved.”

“Steve [Dr. Lin] is just so enthusiastic,” says Dr. Aaron Soeprono, clinical instructor in the Department of Cariology and Comprehensive Care, who served as Dr. Lin’s group practice director in his third and fourth years. “He is not cynical. You can really feel that sincerity, and all of his patients just loved him.”

Dr. Lin speaks equally highly of Dr. Soeprono. “He was almost like a father figure for me and really helped me through many challenges — not just how to carry out clinical procedures but how to compose myself around patients,” says Dr. Lin. “Dr. Soeprono also put the job opportunity with Caring Hands of Maine on my radar as he has a relationship with its director Dr. Timothy Oh.”

Founded by Dr. Oh and his wife, Dr. Audree Park, in 2010, Caring Hands of Maine Dental Center provides hosting and support for NYU Dentistry/Henry Schein Cares’ outreach initiatives in Machias, Maine. “In recent years, I have seen tremendous improvement in the oral health of this population, particularly among children,” say Dr. Andrew Spielman, associate dean for academic affairs and professor of basic science and craniofacial biology at NYU Dentistry, who has gone on the past nine outreach trips to Machias, volunteering to mentor students and also providing triage care.

“The [NYU Dentistry/Henry Schein Cares Global Student Outreach Program] Kathmandu trip gave me the foundation for what I wanted to do for the rest of my life,” says Dr. Lin. “Seeing people in need of care who were so appreciative of our efforts, I not only gained a lot of experience but also realized that I wanted to make my own contribution to the underserved.”

— Dr. Steven Lin
In 2009, the College of Dentistry adopted a seven-year strategic plan built on five pillars designed to help us sketch out our future. They were not meant as ends in themselves; rather, they were intended as guideposts to help us discover what we really care about and are willing to commit ourselves to achieve. In 2016, the College approved an update to this plan. The update maintains the five original pillars which have been revised in some cases to more accurately reflect the current context in which we operate. The Strategic Plan update below was approved by the NYU College of Dentistry Executive Management Council on April 4, 2016.

Mission Statement
The mission of the NYU College of Dentistry is to partner with students in achieving academic excellence, providing the best oral health care, and engaging in research, scholarship, and creative endeavors to improve the health of the highly diverse populations in New York City and around the world.

I. Facilitating Interpersonal Relationships and Mentorship
The College of Dentistry is committed to the proposition that everyone needs to have a mentor and that everyone needs to be a mentor. This commitment requires that we place a high value on building and maintaining respectful, productive, supportive, collegial, nurturing relationships, interactions, and collaborations among the members of our community, including students, alumni, faculty, staff, administrators, and patients. In so doing, we will create a synergistic effect that will maximize the quality of education, research, patient care, and community service that we are able to offer. In support of these objectives, we have developed a framework based on data from a “climate survey” of our community that will enable us to:

- Institute additional programs to improve institutional and interpersonal communication and dialogue among all members of our community
- Enhance cultural competence and sensitivity and a recognition of the benefits of diversity and of humanism
- Maintain and strengthen a mentoring program for all
- Continue to repurpose activities to maximize team building
- Maintain and strengthen orientation and training programs for new members of our community
- Maintain and strengthen leadership development programs for students, faculty, and staff.

II. Fostering and Maintaining an Environment for Excellence
While the College of Dentistry has made great strides in recent years, we must recognize that infrastructure needs are ongoing. Unless we provide for these needs, our ability to achieve true excellence will be compromised.

To enable the College to continue to attract the best students, faculty, administrators, and staff; create outstanding educational programs; become increasingly competitive for the national pool of research dollars; and impact healthcare locally, nationally, and internationally, the College must apportion current and newly created assets to:

- Continue to invest in and utilize technologies to enhance student-centered education, research, patient-centered care, and management systems
- Continue to plan comprehensively to more efficiently and effectively utilize resources to match institutional priorities
- Continue to eliminate redundancies in programs and inefficiencies in organizational structure and systems
- Continue to develop and implement plans for ecologic sustainability.

III. Leveraging Partnerships Among Dentistry, Nursing, Dental Hygiene, and Other Healthcare and Healthcare-Related Professions
The paradigm of a College of Nursing within a College of Dentistry was designed to expand the scope of and access to primary care by transforming traditional models of education, research, and healthcare delivery. With the synergies that this partnership created, new opportunities emerged to address several of the most important challenges in health care in the United States and abroad, including the current practices of healthcare delivery, education, and research being conducted in “silos”; workforce shortages; access to evidence-based preventive health care; and health disparities.

The College of Dentistry has committed itself to seizing these opportunities by leveraging expertise across disciplines and partnering with various funding agencies to create and assess new interdisciplinary research and practice models and to develop cross-disciplinary paradigms in the education of our students. Primary goals include:

- Creating innovative models for interdisciplinary research and practice that address healthcare disparities across...
a wide range of healthcare settings and diverse populations

- Refining existing educational programs to incorporate the best practices of multiple disciplines and provide opportunities for interprofessional education and practice for dentistry, nursing, dental hygiene, and other healthcare and healthcare-related professions, including medicine, public health, bioengineering, and social work, both at NYU and beyond

- Communicating locally, nationally, and internationally to facilitate recognition of and appreciation for the underlying principles behind interprofessional partnerships.

IV. Developing Men and Women of Science

A foundational attribute for dentists and dental hygienists as members of learned professions must be sheer intellectual curiosity — a trait as important for the clinician as for the scientist. Indeed, the kind of curiosity that demands and that says, “I must know” and that drives all scientific inquiry is, at its root, identical to the kind of curiosity that underlies clinical practice at its best. To nurture this attribute, research must be part of the daily fabric of the dental education process and must be continually reinforced and utilized in classrooms, clinics, and associated activities, creating an environment that encourages both faculty and students to monitor and embrace the latest science.

Not every graduate has to become a scientist, in the sense of becoming a producer of new knowledge; but a learned profession does require that every graduate be able to think for herself or himself, and be an intelligent user of research, able to critique it, and comfortable with the structure and syntax of modern biomedical science. A priority for the College of Dentistry therefore is to educate all students to become “men and women of science,” or, to put it another way, “sophisticated consumers of research,” who continually seek and incorporate evidence-based philosophies into their practices; are competent to understand and critically evaluate published research findings; and who appropriately utilize their findings to promote quality clinical outcomes. Goals include:

- Continuing to strengthen our vibrant research programs, including translational and clinical research
- Revising our didactic, pre-clinical, and clinical curricula to further promote critical thinking through interactive teaching and learning and to support evidence-based practice and lifelong learning skills
- Continuing to prioritize evidence-based practice as the central component of our faculty development program
- Exposing as many students as possible to research through a high quality hands-on experience.

V. Promoting Global Activity

In keeping with New York University’s stature as a “global network university” with partnerships, joint programs, and campuses worldwide, NYU Dentistry will build upon the strategic advantages we have already achieved as a recognized innovator in healthcare education, research, and dissemination of new information at the global level.

The College currently impacts global health through a wide range of activities, including a Community-based Dental Education Program, advanced study programs for international dentists; a global outreach program designed to provide students the opportunity to practice their clinical skills while providing much-needed health care to underserved populations around the world; the creation of a sustainability program; and the opportunity to earn an MS degree in Oral/Dental Public Health, as part of a unique, all-University Master’s Program in Global Public Health.

To take our commitment to improved global health to the next level, we will:

- Continue to create and assess “mutual learning” models for best practices in underserved areas
- Continue to educate regional providers to improve the health of their communities
- Continue to partner with international academies and government agencies to assess and improve healthcare policies, education, and research
- Continue to educate international dentists who will return to their home countries to teach as well as to practice.

In addition, in order to prepare our students to meet the challenges of a changing demographic, the College will:

- Evaluate and, where appropriate, strengthen the teaching and integration of cultural competency into the College’s curricular offerings and patient care activities
- Provide faculty development programs in cultural competency
- Create additional opportunities for our students and faculty and other partners to study and engage in clinical activities abroad.
The College hosted a research symposium on Tuesday, September 20, 2016, as part of a University-wide series of events leading up to the inauguration of NYU’s 16th President, Andrew D. Hamilton. Titled “Discovery: What Makes Us Human,” the symposium featured presentations by Dr. Rodrigo S. Lacruz, assistant professor of basic science and craniofacial biology; Dr. Elena P. Cunningham, clinical associate professor of basic science and craniofacial biology; and Dr. Timothy Bromage, professor of biomaterials. Following the symposium, a reception featured presentations by representatives from both the NYU Dentistry/Henry Schein Cares Global Student Outreach Program and the Community-based Dental Education Program.

A Visit from Dr. Leo Rouse

Dr. Leo Rouse, chair of the ADEAGies Foundation Board of Trustees and past president of ADEA, visited the College on June 16, 2016, along with Dr. Ellen Barclay, president of the ADEAGies Foundation of the American Dental Education Association.

Health Sciences Symposium: Transforming Whole Person Care through Interprofessional Medical-Dental Collaboration

From September 16-17, 2016, the NYU Interprofessional Research, Education, and Practice Steering Committee, representing the Colleges of Dentistry, Nursing, and Global Public Health, and the School of Medicine brought together thought leaders from diverse health policy, research, education, and clinical practice systems to discuss effective evidence-based national initiatives and models that advance integration of oral health and overall health into emerging person-centered care models. The symposium was co-chaired by Dr. Daniel Malamud, professor of basic science and craniofacial biology and director of the HIV/AIDS Research Program at NYU Dentistry, and professor of infectious disease at the NYU School of Medicine.
More than 100 dental, dental hygiene, and pre-dental students and faculty from NYU, the University of Pennsylvania, Penn State, Columbia, SUNY Buffalo, SUNY Stony Brook, Hostos Hygiene, Hunter, the University of Equador-Quinto, University of Jordan, San Antonio, Rutgers, Tufts, Michigan, and the NYU Tandon School of Engineering and NYU College of Global Public Health, participated in the Students in Public Health Dentistry Conference, “Advocacy: Every Dentist’s Chance to Change the World,” held at the NYU College of Dentistry on February 26, 2017. The event featured keynote presentations by Renee Joskow, DDS, MPH, Captain, US Public Health Service and senior dental advisor, Health Resources and Services Administration, and Mr. John Kemp, president and CEO of the Viscardi Center for children and adults with disabilities, along with group breakout sessions on topics including chairside advocacy, insurance, and personalized care/cultural sensitivity. The event was organized by the NYU Dentistry Department of Cariology and Comprehensive Care.
The 2016 inductees into the NYU Academy of Distinguished Educators are (from left) Dr. Elisabeth N. Lopez, clinical assistant professor of basic science and craniofacial biology; Dr. Cristina Teixeira (Honorary), associate professor of orthodontics; Dr. Anthony Palatta (Honorary), chief learning officer, American Dental Education Association; Dr. Angela De Bartolo, clinical assistant professor of cariology and comprehensive care; Ms. Shirley Birenz, clinical assistant professor of dental hygiene, and Dr. William H. Eidson (Honorary), former director of professional development (not pictured).

“NYU Dentistry takes great pride in the outstanding contributions to dental education, research, and scholarship of these newest members of the Academy,” said Dean Bertolami. “In inducting them, the Academy continues to set very high standards for recognizing excellence in clinical and educational scholarship.”

### Special Guest Dean’s Lecture
**Presented by Dr. Anh D. Le**

Anh D. Le, DDS, PhD, the Norman Vine Endowed Professor of Oral Rehabilitation and chair of the Department of Oral & Maxillofacial Surgery/Pharmacology at the University of Pennsylvania School of Dental Medicine, presented a Special Guest Dean’s Lecture to the faculty on December 16, 2016. Titled “Nerve Regeneration with Orofacial Stem Cells,” the lecture focused on the use of three-dimensional (3D) printing in tissue engineering and regenerative medicine (TE/RM) for the fabrication of tissues and organs to meet unmet clinical needs. She discussed a scaffold-free, 3D bio-printing approach for the generation of neural tissue graft derived from human orofacial stem cells for clinical application to peripheral nerve injury.

### 2017 Service Awards Presented

NYU Dentistry hosted its annual Service Awards Ceremony on May 2, 2017, to pay tribute to faculty, staff, and administrators celebrating 10, 15, 20, 25, 30, 35, 40, and 45 years of continuous service to the College.

“It is a privilege to honor such an outstanding group of individuals,” said Dean Bertolami. “Through your dedication and commitment to the College, you play a pivotal role in making NYU Dentistry the school of choice for our nation’s top students, for distinguished faculty, and for patients seeking quality, affordable dental care. I salute you for your service.”
A delegation of California Dental Association (CDA) officials and California State legislators visited the College on September 23, 2016, marking the fourth consecutive year of CDA visits to participate in an Oral Health Forum hosted by Dean Bertolami. This year’s forum featured 13 NYU dental students from California who have participated in integrated learning and patient-centered care initiatives at the College.

Following welcoming remarks by Dean Bertolami, Vice Dean Stuart Hirsch introduced the student presenters. Drs. Atiya Bahmanyar, Peter Wong, Kendrick Park, and Nicole Haydt, all Class of 2017, spoke about the “Benefits of Collaborative Practice to Improve Patient-Centered Care; Dr. Rola Abduljabar Rabah, ’17, presented an Integrated Case Study; and Dr. Stefan Schneider, ’17, spoke about the benefits of using the College’s electronic health record (EHR). Additional student participants from California included Gene Park, ’20, Jesse Rosete, ’20, Benjamin Estrada, ’19, Nicole Haydt, ’19, Nicole Liu, ’19, Oliva Nguyen, ’19, Azadeh Zadmehr, ’19, and Kevin Fernando, ’18.

The program also featured a presentation by Dr. Courtney Chinn, clinical associate professor and director of the advanced education program in pediatric dentistry, on the caries treatment effectiveness of silver diamine fluoride; a film about the College’s recent outreach to Mexico; and “Jonie,” a documentary film about a severely-medically challenged dental patient produced by Dr. Daniel Lee, Class of 2014, who used narrative storytelling techniques to affirm the importance of dentists seeing and treating the whole person.

The California delegation included Assembly Speaker Emeritus Toni Atkins; Assembly Minority Leader Chad Mayes; Assembly Member Autumn Burke; Assembly Member James Gallagher; Assembly Member Phil Ting; Assembly Member Jim Wood, DDS; Jean L. Creasey, DDS, CDA trustee, chair of the CDA Foundation Board of Directors, and member of the ADA Council on Dental Practice; Robert Hanlon, DMD, chair of the CDA Political Action Committee, and member of the CDA Government Affairs Council; Peter A. DuBois, CDA executive director, interim executive director, CDA Foundation, and vice-chair, CDA Foundation; Carrie Gordon, CDA chief strategy officer; Brianna Pittman, CDA legislative director; and Todd Robertson, CDA public affairs manager.

From August 17–19, 2016, the College welcomed members of the board of the ADA Foundation and thought leaders in the profession from across the country for an ADA-sponsored caries symposium titled “If Caries Is a Preventable Disease, Why Is it Still a Problem?” The event featured welcoming remarks by Dean Bertolami and a presentation by Dr. Richard Niederman, professor and chair of the Department of Epidemiology & Health Promotion.
**Faculty Council Teaching Award Winners**

Each year, the College’s Faculty Council recognizes excellence in teaching and mentoring. The 2016 award recipients were Dr. Linda Rosenberg, associate professor of pediatric dentistry; Dr. Brendan G. O’Connor, clinical assistant professor of oral and maxillofacial surgery; Dr. Allan S. Grayson, clinical professor of cariology and comprehensive care; Dr. Sonal S. Shah, clinical assistant professor of oral and maxillofacial pathology, radiology and medicine; Dr. Joel D. Schiff, associate professor of basic science and craniofacial biology; Dr. Jong S. Lim, adjunct clinical associate professor of cariology and comprehensive care; and Dr. Nicholas Giannuzzi, adjunct clinical assistant professor of cariology and comprehensive care. The winners received their awards at a ceremony held in conjunction with the Welcome Reception for New Faculty in September. The College congratulates these outstanding teachers who reaffirm the importance of teaching to the College and to advancing its mission of providing the best dental education for its students.

**Extraordinary Performance for Class of 2018 on Part 1 of National Boards**

The Class of 2018 scored an amazing 99.7% first-time pass rate on Part 1 of the National Boards. This pass rate continues a remarkable trend that includes a 100% pass rate for the Class of 2017, a 99.6% pass rate for the Class of 2016, and a 100% pass rate for the Class of 2015. This is a tremendous achievement for every individual in the class and for our outstanding faculty, who role model best clinical practices, are available for student tutorials, and have the best interests of students foremost in their minds.

Dean Bertolami hosted a luncheon on February 13, 2017, to welcome new members of the Peer Review Board on Ethics and Professionalism (PRB), and to thank the entire Board for their service. The all-student members of the PRB are responsible for ensuring compliance with the NYU Dentistry Code of Ethics and Professional Conduct.

From left: Drs. O’Connor, Schiff, Shah, Giannuzzi, Grayson, and Lim. Not pictured: Dr. Linda Rosenberg.

Peer Review Board Members Honored at Dean’s Luncheon

From left: Dr. Kendrick Park, ’17, Mr. Mihai Urichianu, ’18, Mr. Anthony Lee, ’19, Ms. Sarah M. Hanna, ’20, Dr. Vandeep Bagga, ’17 (Student Council President and PRB Chair), Mr. Anil Sishta, ’19, Ms. Ilona Zbirun, ’18, Mr. Christopher Poppa, ’18, and Dr. Mallika Murali, ’17 (PRB Rep). Not shown: Ms. Laya Bahrani, ’20.
The College held a gala reception on Thursday, July 20, at the Manhattan Penthouse, to welcome 63 dentists from 30 countries to the Programs for International Dentists, as well as five returning international dentists to the Interdisciplinary Fellowship Program. For more than 30 years, these full-time programs have attracted international dental professionals who plan to practice outside the US. There are currently more than 1,300 alumni from 94 countries.
2017 NYU President’s Service Awards Go to Dr. Zia Verjee, ’17, and Citizen Schools

Dr. Zia Verjee, ’17, and the NYU Dentistry student organization, Citizen Schools, were honored at the 2017 NYU President’s Service Awards for outstanding service to NYU and the broader community. Dr. Verjee (shown at left with NYU President Andrew Hamilton) was recognized as an individual recipient in the Community Service and Civic Engagement category for his commitment to community service and philanthropic advocacy as a student leader at NYU Dentistry. The College’s student-run organization, Citizen Schools (shown below), was recognized in the Community Service and Civic Engagement category for its commitment to fostering future healthcare professionals and for inspiring members of underserved communities to become more involved in the health sciences.

2017 Oral Cancer Walk Raises Over $20,000 on Behalf of the NYU Oral Cancer Center

The 2017 NYU Dentistry student-led oral cancer walk on April 23 drew more than 500 walkers and raised more than $20,000 to help stamp out oral cancer, with all proceeds going to the NYU Oral Cancer Center. Oral cancer survivors and their families joined NYU Dentistry students, faculty, and staff for a walk through the community to raise awareness of oral and pharyngeal cancer, a disease that kills over 8,000 Americans annually. Following the walk, students and faculty hosted a free oral cancer screening at the College for the general public.
Dr. Kimberly MacGregor is 2017 Litvak Fellowship Recipient

Dr. Kimberly MacGregor, a second-year postgraduate student in the Jonathan and Maxine Ferencz Advanced Education Program in Prosthodontics, is the 2017 recipient of the Dr. Harold Litvak Junior Fellowship in Prosthodontics. Each year, the Litvak Fellowship is awarded to the second-year postgraduate student in prosthodontics with the highest academic standing.

“Dr. MacGregor is an exemplary student with demonstrated excellence in academics, patient care, and teaching. Her superb skills, approachability, and engaging smile will serve her well as she pursues a career in teaching and clinical practice,” says Dr. Leila Jahangiri, clinical professor and chair of the Department of Prosthodontics. Dr. MacGregor holds a DDS degree from the Instituto Superior de Ciências da Saúde Egas Moniz, Portugal. She joined NYU in 2013 as a student in the Prosthodontics Program for International Dentists. Upon completion of that program, she was awarded a clinical assistant fellowship in prosthodontics, and she then entered the Jonathan and Maxine Ferencz Advanced Education Program in Prosthodontics.

Dr. MacGregor describes prosthodontics as “an advanced specialty, combining science and art to provide patient-centered care to those who present with congenital or acquired defects that require a multidisciplinary intervention. The Jonathan and Maxine Ferencz Advanced Education Program in Prosthodontics offers exceptional didactic, clinical, and research experiences that have provided me with profound knowledge of the field of prosthodontics.”

The Litvak Fellowship was established in 1999 through a generous grant from Mrs. Adele Block in honor of her dentist, Dr. Harold Litvak, an adjunct clinical professor of prosthodontics and a generous donor to the College. Mrs. Block is a member of the family that owned the Block Drug Company, Inc., a major producer of oral and general healthcare products, which is now a division of GlaxoSmithKline.

College Welcomes 20 D4 Student Visitors from Norway’s University of Bergen

Twenty fourth-year dental students from the University of Bergen in Norway paid a two-day visit to the College on November 3, and 4, 2016. The visit, sponsored by the Department of Cariology and Comprehensive Care, included an overview of the College, campus tours led by members of the Classes of 2017 and 2018, presentations on integrated learning and patient-centered care, and participation in the 15th Annual Implant Alumni Symposium copresented by the Office for International Programs and the Ashman Department of Periodontology & Implant Dentistry.
Courtyard at Interprofessional Building Opens

The L-shaped courtyard at the new, interprofessional College of Dentistry, College of Nursing, and Bioengineering Institute at 433 First Avenue, is now open. The courtyard provides both a garden sanctuary and a pathway connection to the College of Dentistry’s East 25th Street entrance. Tucked between the NYU Parasitology building on the southeast corner and the new building on the north side, the courtyard can be used as a multifunctional space. With two separate seating areas surrounded by lush seasonal landscaping, the courtyard can provide an outdoor venue for small gatherings and events that can be held on the expansive sidewalk, as well as offer an intimate and private place for students, faculty, and staff to enjoy.

Mobile Dental Van Program Launches Senior Care Initiative

Understanding the importance of making access to oral health care convenient for everyone, including older New Yorkers, NYU Dentistry launched a pilot program, Dental Van Senior Citizen Initiative, in Brooklyn last July to provide quality dental care to New York’s underserved elderly residents.

Since 2000, NYU Dentistry’s mobile Dental Van Program, Smiling Faces Going Places, has been an important oral health resource for New York City schoolchildren, providing quality dental care and education to an average of 2,000 children annually at schools all across the city in partnership with the New York City Council.

Under the leadership of Dr. Mark S. Wolff, professor and chair of the Department of Cariology and Comprehensive Care, the Dental Van Program has expanded its care mission to include older adults in NYC. “There are many reasons why our aging population has difficulty receiving the dental care they need,” notes Dr. Wolff. “Many of these reasons include a shortage of dental providers trained and willing to care for an increasingly medically compromised aging America, including those suffering from debilitating and life-threatening illnesses. Many of the difficulties associated with receiving care include problems for aging patients in physically reaching the dentist because of transportation problems or being homebound.”

“More seniors than ever are living in poverty in New York City, with the result that health-related necessities like dental care — including regular cleanings and other preventive care — are well beyond their financial reach,” said NYS Assemblyman Steven Cymbrowitz, chair of the Assembly’s Aging Committee. “I commend the NYU Dental Van initiative for targeting this vulnerable population and offering a service that will have such a positive impact on our seniors’ lives.”
Forty-four DDS, dental hygiene, postgraduate, and international programs students participated in the fourth annual NYU Dentistry/Colgate-Palmolive Student Leadership Retreat held in Norwalk, Connecticut, from July 7-9. The retreat, the culminating event of the College’s yearlong Student Leadership Track, provides students with structured leadership training alongside representatives from Colgate-Palmolive and administrators from NYU.

New York Academy of Medicine Library Welcomes 12 DDS Students for Private Tour of Rare Book Room and Historical Collections

Twelve DDS students, led by Dr. Andrew I. Spielman, associate dean for academic affairs and curator of the College of Dentistry’s Rare Book Collection, enjoyed a private tour of the New York Academy of Medicine’s (NYAM) Rare Book Collection, which contains more than 550,000 rare books, including one — the oldest — from the 8th century. The students were all members of Dr. Spielman’s elective course in the History of Medicine and Dentistry.

The tour included a series of rare books — requested prior to the visit — that were relevant to the subjects taught in the elective course. These were by Avicenna (Ibn Sina), an 11th century Arab scholar; Ambroise Paré, a 16th century barber surgeon; Andreas Vesalius, author of the first anatomy atlas and professor of anatomy at Padua University; William Harvey, who described the systematic circulation of the blood being pumped to the brain and the body by the heart; and artifacts including George Washington’s ivory carved denture made by his favorite dentist, John Greenwood, and President Washington’s last remaining tooth extracted by John Greenwood.

Ms. Arlene Shaner, NYAM Historical Collection Librarian, hosted the two-hour visit at which Dean Spielman presented her with a book cradle, which he had designed.
One hundred and fifty alumni, pre- and postdoctoral dental students, international and MS programs students, and faculty members attended the 15th Annual Implant Alumni Symposium held at the College on November 4, 2016.

Co-hosted by the Office for International Programs and the Ashman Department of Periodontology & Implant Dentistry, the 2016 symposium featured lectures by international alumni from Spain, Italy, the Netherlands, Singapore, Taiwan, Guatemala, and China, and research presentations by current International NYU Dentistry students. According to Dr. Peter M. Loomer, clinical professor and chair of the Ashman Department of Periodontology & Implant Dentistry, “incorporating students’ research presentations into the symposium creates networking opportunities for current students and alumni, and often results in job offers for prospective graduates.”

The symposium was cofounded in 2001 by Drs. Giuseppe Bianco (Italy), Sang-Choon Cho (South Korea/USA), Ziad Jalbout (Lebanon/USA), and Roque Braz de Oliveira (Portugal), all alumni of the Program for International Dentists in Implant Dentistry, who sought to establish a forum through which current students and alumni could showcase their work, share their ideas, and connect with faculty and friends.

“NYU Dentistry welcomes students from around the globe to study the prosthetic and surgical aspects of dental implant therapy. We realized that fostering collaboration among this qualified group of practitioners, trained in the same manner and at the same institution, had the potential to be very valuable for future research,” explains Dr. Bianco, adjunct instructor of periodontology and implant dentistry at NYU. “We could not miss the opportunity to bond this group together for life.” The result was the formation of the international implant alumni association and corresponding Implant Alumni Symposium.

Today, the association consists of nearly 300 members who are responsible for placing approximately 75,000 implants in patients across more than 35 countries each year. “During each annual symposium,” says Dr. Bianco, “students benefit from learning about alumni clinical experiences, while alumni benefit from students’ knowledge of advances in implant therapy education.”
Just over one year ago, the College established a Council on Humanitarianism and Culture Change with the goal of fostering a more compassionate and trusting environment that promotes mutual respect, celebrates diversity, and enhances community engagement.

In announcing the Council’s establishment, Dean Bertolami said, “Every dental school teaches its students the basic and clinical sciences they need to know in order to pass licensure exams. But it is an emphasis on the values by which people lead their lives that offers the best insight into a dental school environment.”

Beginning with 50 members, the Council now embraces 150 enthusiastic faculty and staff members who are energizing the culture in their roles as change agents. These individuals, known as “Ambassadors,” strive to deepen their role and commitment to the College in their everyday work and lives by helping to foster a positive, trusting, highly professional, and inclusive environment and to determine ways to initiate and support programs toward that goal.

The Council sponsors a variety of activities, including monthly Council meetings, biannual Council Retreats, working groups, programs, and social events dedicated to the process of culture change, along with strategies to assess and measure success in the short- and long-term and to anchor the positive shifts in the environment into the culture of the College in lasting ways.

“Compassion, self-reflection, self-care, cultural competence, friendliness, kindness, and respect,” added Dean Bertolami, “are among the core values that describe a humanitarian environment for dental education – values that NYU Dentistry is well positioned to achieve fully.”
2017 Research Scholarship Expo
Highlights Breadth of Research Conducted by Students and Faculty

NYU Dentistry’s Research Scholarship Expo, held from April 19–21, 2017, showcased the research and scholarship of nearly 200 pre- and postdoctoral dental students, dental hygiene students, master’s degree students, research scholars, and clinical faculty, all of whom submitted ePosters, with 33 winning awards.

The event was a collaboration of the Office of Research and the NYU Academy of Distinguished Educators. Keynote speaker Dr. Anna Di Gregorio, associate professor of basic science and craniofacial biology, discussed her research on the evolutionary origins of the backbone, and received the Kathleen C. Kinnally Outstanding Scientific Achievement Award, presented by Vice Dean for Academic Affairs and Research Dr. Louis Terracio.

“Dr. Di Gregorio was selected to receive the Kathleen C. Kinnally Outstanding Scientific Achievement Award in recognition of her success in uncovering molecular switches that turn on gene expression during spine development,” said Dr. Terracio. “Over the past decade, her lab has amassed a collection of 34 fully characterized notochord CMS, or enhancers, the largest in any chordate animal,” he added.

The College congratulates Dr. Di Gregorio and all of the Research Scholarship Expo award recipients, whose names, presentations, and mentors are listed on the following pages. In addition, the College would like to extend a special thank you to Ms. Maria DeAcetis, assistant to the vice dean for academic affairs and research, for her efforts in executing an outstanding 2017 Research Scholarship Expo.

View the entire Research Scholarship Expo photo gallery online at dental.nyu.edu/expo.
OFFICE OF RESEARCH AWARDS

Dean’s Award for Outstanding Presentation
Hannah A. Liss, ’20 (Honors in Research Program)
Consulting the Auricle: A 3D-printed Reconstruction of the Human Auris
Faculty Advisor: Dr. Paulo G. Coelho, Dept. of Biomaterials

Outstanding Presentation in Postdoctoral Research
Florante Ricarte, MS
Abaloparatide: A Unique Regulator of Osteoblastic Genes Compared with PTH and PTHrP
Faculty Advisor: Dr. Nicola C. Partridge, Dept. of Basic Science and Craniofacial Biology

Lukasz Witek, MS, PhD
Three-dimensionally Printed Bioactive Coated Scaffolds for Long Bone Regeneration
Faculty Advisor: Dr. Paulo G. Coelho, Dept. of Biomaterials

Master of Science Research Award
Lahari Bhavishetty
Load Bearing Properties of Lithium Disilicate and Ultra Translucent Zirconia for Minimally Invasive Restorations
Faculty Advisor: Dr. Yu Zhang, Dept. of Biomaterials

Best Presentation by a Research Scholar
Kritika Srinivasan, BDS, MS, Junior Research Scientist
Advanced Quantitative Point-of-Care “Salivary” Monitoring for Drugs of Abuse
Faculty Advisor: Dr. John T. McDevitt, Dept. of Biomaterials

Violight Jonathan A. Ship Award for Translational Research
Olivia Nguyen, ’19 (Honors in Research Program)
Effect of Silver Diamine Fluoride on Caries Lesion of Deciduous Teeth
Faculty Advisor: Dr. Yihong Li, Dept. of Basic Science and Craniofacial Biology

The Racquel Z. LeGeros Research Award in Biomaterial Research
Michelle M. Bowers, ’19 (Honors in Research Program)
Nanomechanical Assessment of Scaffold Regenerated Bone in Segmental Defects
Faculty Advisor: Dr. Paulo G. Coelho, Dept. of Biomaterials

Samuel Raffaelli, ’19 (Honors in Research Program)
Customized 3D Printed Bioactive Ceramic Scaffolds for Bone Defect Regeneration
Faculty Advisor: Dr. Paulo G. Coelho, Dept. of Biomaterials

Dr. Michael C. Alfano OKU Research Award
Zachary Goldsmith, ’19
Role of Neuronal Pentraxin 1 (Nptx1) in Cranial Placodes Development
Faculty Advisor: Dr. Jean-Pierre N. Saint-Jeannet, Dept. of Basic Science and Craniofacial Biology

The NYU College of Dentistry Student Research Group Award for Excellence in Research
Andrew Hopkins, ’20 (Honors in Research Program)
Silver Diamine Fluoride Inhibits Cariogenic Biofilm Formation in Deciduous Carious Lesions
Faculty Advisor: Dr. Yihong Li, Dept. of Basic Science and Craniofacial Biology

Best Basic Science Presentation by a Student in the DDS Program
Zachary Goldsmith, ’19
Role of Neuronal Pentraxin 1 (Nptx1) in Cranial Placodes Development
Faculty Advisor: Dr. Jean-Pierre N. Saint-Jeannet, Dept. of Basic Science and Craniofacial Biology

Best Basic Science Presentation in the Advanced Educational Program – Prosthodontics
Omar Alburawi, BDS
The Effect of a Nano Hydroxyapatite-coated Implant Surface on Gene Expression of Osteogenic Markers
Faculty Advisor: Dr. Seiichi Yamano, Dept. of Prosthodontics

Best Clinical Science Presentation in the Advanced Educational Program – Endodontics
Davide Cuocolo, DDS
Removal Rate of Separated Rotary Files in Molars and Cleaning Efficacy Around and Beyond Separated Rotary Files Using the GentleWave™ System
Faculty Advisor: Dr. Asgeir Sigurdsson, Dr. I.N. & Sally Quartararo Dept. of Endodontics

Best Clinical Science Presentation by a Student in the DDS Program
Jesse Lemoine, ’18
Comparing Sealing Capacity of MTA to Biodentine in Retrograde Obturation of Human Teeth-In Vitro Study
Faculty Advisor: Dr. Klenise S. Paranhos, Dept. of Cariology and Comprehensive Care

Best Clinical Case Study Poster by a Student in the DDS Program
Jessica Yeara, ’17, and Harpit Kanda, ’17 (Special Patient Care Honors Program)
Cerebral Palsy: Literature Review and Case Report
Faculty Advisor: Dr. Marc Henschel, Dept. of Oral and Maxillofacial Pathology, Radiology & Medicine

Ms. Maria DeAcetis

Through the Years ...

When Research Day began in 2001, there were a total of 8 poster presentations by DDS and PG students. Today, that number has risen to 176 and includes electronic poster presentations by DDS, Dental Hygiene, PG, Master’s, and Postdoctoral students, as well as faculty.

Working closely with Dr. Louis Terracio, vice dean for academic affairs and research, Ms. Maria DeAcetis has played a pivotal role in the growth and success of this annual event. “Maria has been the heart and soul of the student research program since its inception,” says Dr. Terracio. “Her leadership, organizational skills, and unwavering commitment to the students have been invaluable. Maria is great!”
Best Presentation by a Dental Hygiene Team
Rebecca Rosario, Shanty Singh, and Rachel Stepanek
Lysis of P. Gingivalis with the Use of Silicon Nitride Bioceramics
Faculty Advisor: Dr. Peter Loomer, Ashman Dept. of Periodontology and Implant Dentistry

Dentsply Sirona Student Clinician Research Award
Student will present poster at the Dentsply Sirona Student Clinician Research Program in Fort Lauderdale, Florida, March 2018
Hannah A. Liss, ’20 (Honors in Research Program)
Consulting the Auricle: A 3D-printed Reconstruction of the Human Aurs
Faculty Advisor: Dr. Paulo G. Coelho, Dept. of Biomaterials

Honorable Mention – Presentation by a Research Scholar
Miriam Eckstein, Assistant Research Scientist
CRAC Channels are Essential for Amelogenesis
Faculty Advisor: Dr. Rodrigo S. lacruz, Dept. of Basic Science and Craniofacial Biology

Honorable Mention – Clinical Science Presentation by a Student in the DDS Program
Bryce Ledner, ’18
Conventional Flossing Versus a Novel Flossing Device: A Randomized Clinical Trial
Faculty Advisor: Dr. Mea Weinberg, Ashman Dept. of Periodontology and Implant Dentistry
Jong Hyung Lee, ’17 (Honors in Research Program)
Oral Squamous Cell Carcinoma and Epithelial Dysplasia in Patients with Metal Allergy
Faculty Advisor: Dr. Alexander Ross Kerr, Dept. of Oral and Maxillofacial Pathology, Radiology & Medicine

Honorable Mention – Basic Science Presentation by a Student in the DDS Program
Lucy Hovanisyan, ’20 (Honors in Research Program)
Cortical Bone Trait Regulation in Bovine Growth Hormone Transgenic Mice by Insulin-like Growth Factor-1
Faculty Advisor: Dr. Shoshana Yakar, Dept. of Basic Science and Craniofacial Biology

Honorable Mention – Basic Science Presentation by a Student in the DDS Program (continued)
Diana Naula, ’18 (Honors in Research Program)
Integration of Zn-Ca-P Coating on Zirconia and Titanium Surfaces
Faculty Advisor: Dr. Yu Zhang, Dept. of Biomaterials
Titus Son, ’19 (Honors in Research Program)
Effect of Zirconia Speed Sintering on the Antagonist Wear
Faculty Advisor: Dr. Yu Zhang, Dept. of Biomaterials

Honorable Mention – Presentation by a Dental Hygiene Team
Christina Alfonso and Pauline Minasian
Forensic Odontology
Faculty Advisor: Ms. Winnie Furnari, Dental Hygiene Programs

Best Educational Scholarship Poster by Faculty
Dianne L. Sefo, RDH, MEd, Dental Hygiene Programs
Multimedia Technologies Used in Pre-clinical Dental Hygiene

Best Clinical Case Study Poster by Faculty
Max Huang, DDS, PhD, Dept. of Oral & Maxillofacial Pathology, Radiology & Medicine; and Leslie Abraham, DDS, Dept. of Oral & Maxillofacial Surgery
Oral Surgical and Dental Considerations in a Patient with Heterotaxy Syndrome

Best Educational Scholarship Presentation by a Resident in the Advanced Education Program – Pediatric Dentistry
Tamarinda Barry Figueroa, DDS
Relating Parental Modeling and Dental Anxiety in the Pediatric Patient
Faculty Advisor: Dr. Neal Herman, Dept. of Pediatric Dentistry

Best Educational Scholarship Presentation by a Student in the DDS Program
Rachelle Wolk, ’19 (Honors in Research Program)
Long-term Spatial Memory in Eulemurs and Effects of Learning Schedules
Faculty Advisor: Dr. Elena P. Cunningham, Dept. of Basic Science and Craniofacial Biology

Best Educational Scholarship Presentation by a Dentist in the Program for International Dentists
Ngozi Chukwudifu, BDS
Optimal Timing of Steroid Administration to Prevent Irreversible Nerve Damage
Faculty Advisor: Dr. Huzefa Talib, Program for International Dentists in Oral Surgery/RCSI

Honorable Mention – Educational Scholarship Presentation by a Dentist in the Program for International Dentists
Ye Shi, BDM, MSc
A Retrospective Study for the Strategic Use of the Nasopalatine Canal for Full Arch Implant Rehabilitation
Faculty Advisor: Dr. Takanori Suzuki, Ashman Dept. of Periodontology and Implant Dentistry
Calcium carbonate, or CaCO₃, comprises more than 4% of the earth's crust. Its most common natural forms are chalk, limestone, and marble, produced by the sedimentation of the shells of small fossilized snails, shellfish, and coral over millions of years.

NYU Dentistry researchers are studying how nature creates three-dimensional CaCO₃ inorganic/organic based materials to form seashells, invertebrate exoskeletons, and vertebrate bone, dentine, and enamel.

John Evans, DMD, PhD, a professor in the Department of Basic Science and Craniofacial Biology, oversees a research group focusing on the study of proteins that modulate the formation of biominerals, which in turn create new composite materials with unique properties, such as increased fracture and puncture resistances.

In a paper recently published in Biochemistry, Gaurav Jain, PhD, a postdoctoral student in Dr. Evans’s lab and coauthor of “A Model Sea Urchin Spicule Matrix Protein, rSpSM50, is a Hydrogelator that Modifies and Organizes the Mineralization Process,” looked at how the CaCO₃ matrix is organized inside a sea urchin spicule (see figure). At first, these spicules are nothing more than chalk, but when combined with sea urchin proteins, they form tiny stacks of “bricks,” creating a structure that provides some of the toughest defense against predators and the harsh ocean conditions.

“Primary mesenchyme cells (PMCs) inside a sea urchin embryo deposits amorphous CaCO₃ within the matrix of spicule proteins where these bricks are shaped into layers of calcium carbonate crystals,” notes Dr. Jain. “However, the functional and assembly capabilities of individual spicule matrix proteins aren’t clear. We are currently investigating one such protein found inside the spicules of a sea urchin embryo to understand what makes these proteins such efficient ‘brick organizers’.”

The researchers looked at SM50, one of the most abundant and well-studied proteins found inside these spicules. They found that a recombinant version of the SM50 protein, rSpSM50, is a highly aggregation-prone protein that forms tiny jelly-like structures called hydrogels in solution. These “jellies” capture tiny mineral nanoparticles and organize them into crystalline “bricks.” Moreover, rSpSM50 causes surface texturing and forms randomly interconnected porous channels within these crystals.

“What is unique about rSpSM50 is that it fosters the formation and organization of two different forms of calcium carbonate - calcite and vaterite within the “jellies” themselves, inducing fracture resistance to the overall structure,” said Dr. Jain.

Researchers used a specific type of titration method that revealed the details about very early events in the spicule formation.

“rSpSM50 turns out to be a really important piece of the puzzle, as it slows the formation kinetics but neither stabilizes nor destabilizes the extremely tiny mineral particles that ultimately form these bricks,” says coauthor Martin Pendola, PhD.

CaCO₃ has always been a man’s favorite construction material to make primitive tools, musical instruments, and craftware since the beginning of civilization. In modern times, CaCO₃ is the most widely used mineral in the paper, plastics, paints, and coatings industries both as a filler — and due to its special white color — as a coating pigment.

“Our current research, funded by the US Department of Energy, will enable scientists to better understand the mineralization and assembly process crucial to spicule formation in sea urchin,” said Dr. Evans. “Our ultimate goal is to determine the molecular properties of these proteins that allow matrices to assemble, mineralize, and participate in the formation of naturally occurring organic/inorganic skeletal structures. The hope is that the comprehensive understanding of spicule proteins will enable the development of tunable fracture resistant materials that one day will find its use in developing lightweight armor and sturdier dental composites.”
Researchers at the College have described a new target that may open the door to developing therapies for preventing bone fractures in people with type 2 diabetes. In a study published in Nature Communications, the investigators report that hyperglycemic mice (or mice with type 2 diabetes) have a 24-fold higher accumulation of succinate, an intermediate metabolite, in the metabolic pathways of their bone marrow stromal cells. In comparison, succinate was barely detectable in the normal mice. An intermediate metabolite is a compound that is both a product of one step in a biochemical pathway or cycle, as well as the substrate for the next step.

In the study, the researchers took samples of bone marrow from hyperglycemic male mice and healthy mice. They studied the bone metabolism at the cellular level of the mice. Using advanced imaging and computational techniques, they identified 142 metabolites that were significantly altered by more than 1.5 times in the diabetic mice. Of 142 metabolites, 126 were upregulated (or increased) and 16 were downregulated (or decreased). Succinate was the first metabolite in the energy pathway and with its more than 20-fold increased concentration, it overwhelmed the energy pathways. Additionally, the diabetic mice had considerably lower spongy bone mass, known as trabecular bone, making it easy to fracture.

“The bottom line is that the high level of succinate combined with the finding of more fragile bone points to a new target to protect bone,” said Yuqi Guo, MD, associate research scientist at NYU Dentistry, and the study’s first author.

Xin Li, PhD, associate professor of basic science and craniofacial biology and the study’s senior investigator, added: “The results are important because diabetics have a significantly higher fracture risk and their healing process is always delayed,” she said. “In our study, the hyperglycemic mice had increased bone resorption [the breakdown and absorption of old bone], which outpaced the formation of new bone. This has implications for bone protection, as well as for the treatment of diabetes-associated collateral bone damage.”

The research is based on a relatively new field of research, metabolomics, which entails examining small molecules, or metabolites, within cells, biofluids, tissue, or organisms, and their interactions within a system, called a metabolome. Metabolomics is an extremely powerful tool because it can depict the underlying biochemical activity and signaling between cells and tissues. It is proving invaluable in identifying biomarkers and pinpointing potential drug targets for many diseases.

This study builds on previous research by Dr. Li’s laboratory that showed, for the first time, significant accumulation of succinate in the bone marrow and serum of hyperglycemic mice. It opens the door to pursuing regulating succinate for protecting bone in diabetics.

Diabetes affects 29.1 million Americans or 9.3 percent of the population in the United States, according to 2012 Centers for Disease Control and Prevention data. Bone complications, such as hip or back fractures, can be devastating. The Women’s Health Initiative found that type 2 diabetes was linked to a 20 percent risk increase in fractures. Other coauthors from NYU include Chengzhi Xie, Jian Yang, Tao Yu, Ruohan Zhang, Tianqing Zhang, and Deepak Saxena.
The Anatomical Record Cover Features Research by
Dr. Johanna Warshaw, Dr. Timothy G. Bromage, and Collaborators

The July 2017 issue of The Anatomical Record: Advances in Integrative Anatomy and Evolutionary Biology, features an image from a collaborative study by Johanna Warshaw, PhD, clinical assistant professor of basic science and craniofacial biology, Timothy G. Bromage, PhD, professor of biomaterials and of basic science and craniofacial biology, and collaborators Carl J. Terranova, PhD, and the late Donald H. Enlow, PhD.

The study, “Collagen Fiber Orientation in Primate Long Bones,” considers the effect of developmental constraints on collagen fiber orientation (CFO), particularly in primary (unremodeled) bone. The researchers used circularly polarized light microscopy to examine patterns of CFO in cross-sections from the mid-shaft femur, humerus, tibia, radius, and ulna in a range of living primate groups with varied body sizes, evolutionary relationships, and locomotor behaviors.

They found that a preponderance of longitudinally-oriented collagen (aligned with the long axis of the bone shaft) is characteristic of both primary and remodeled bone, and that where variation does occur among groups, it is not understood simply via interpretations of mechanical loads, as is often suggested, although adaptations to tension and/or shear are considered. Rather, much of the variation correlates with differences in the kind of primary bone tissue present, and this in turn relates to the rate at which bone is deposited during growth.

The examination of bone microstructure is a powerful tool for paleontologists interested in reconstructing the biology and characteristics of extinct species, as many microscopic features of bone are maintained in fossilized materials. This study makes clear that variation in collagen fiber orientation cannot be considered to be solely a consequence of differences in locomotion, and associated patterns of loading on the bones. Patterns of CFO in fossil bones of extinct primates and other vertebrates must be interpreted in light of the apparent relationship between CFO and bone growth and development at the tissue level.
With support from the NYU Global Seeds Grant for Collaborative Research, two NYU Dentistry faculty members, Peter M. Loomer, DDS, PhD, clinical professor and chair of the Ashman Department of Periodontology & Implant Dentistry, and Dianne L. Sefo, RDH, MEd, clinical instructor in dental hygiene, are collaborating with Mohamed Eid, PhD, assistant professor of electrical and computer engineering at NYU Abu Dhabi, on what they are calling “The Haptodont Project.” The project is designed to improve clinical periodontal education through haptic technology (the science of interactions involving touch). The project focuses on the research, development, and evaluation of a realistic and precise simulator to overcome limitations in training dental and dental hygiene students in periodontal procedures.

The use of a haptic simulator has been proven to increase patient safety and reduce risk associated with human errors by allowing dental and dental hygiene students to develop skills more efficiently in a shorter period of time. However, existing haptic simulation tools have numerous limitations, including less than optimal visualization and tactile sensation, use of a stylus instead of a dental instrument, inability to view positioning of hands in virtual simulation, often only dominant hand used with no training for the non-dominant hand, and inability to practice proper ergonomics and positioning.

Professor Sefo had given a great deal of thought to a possible solution and came up with the concept of using a version of the tool that simulates periodontal procedures both haptically and graphically as a means of increasing learners’ knowledge/experience level in order to perform periodontal procedures on live patients.

“I think that any good invention stems from recognizing a need,” says Professor Sefo. “Traditionally, dental and dental hygiene students begin developing their clinical skills by practicing on teeth models, which are not realistic in terms of human tissues. Recently, there has been a remarkable increase in the use of haptic technology in dental education. However, there is still room for improvement in current haptic tools, which we are addressing through the Haptodont Project. As educators, it is our responsibility to meet the needs of our students so that they can effectively gain the cognitive and psychomotor skills required for periodontal instrumentation expertise.”

Professor Sefo brought her idea to Dr. Loomer, who found the concept intriguing and became her enthusiastic collaborator.

Says Dr. Loomer, “Haptic-based simulators employ a haptic device whereby the learner holds the stylus of the haptic device instead of the real dental instrument, whose virtual representation is shown on the screen, and reproduce tactile sensations in
the hand of the operator. Our idea was to use virtual reality and haptics technologies to create a periodontal simulator which allows learners to acquire tactile skills while performing diagnosis and/or treatment procedures for periodontal diseases. The learner will be able to visualize a 3D virtual human mouth and feel physical tactile sensations as she/he touches the surface of teeth, gingiva, bottom of the periodontal pocket, and calculus in addition to the cheek, tongue, and floor of the mouth via virtual dental instruments.

The next step was to identify someone who could use haptic technology to create this kind of simulator. They found that person in Dr. Eid, who is currently overseeing a team of engineers at NYU Abu Dhabi who are taking hardware that currently exists and customizing it to meet the needs of the software developed at NYU Dentistry. Dr. Loomer and Professor Sefo are also working with a 3D animator from NYU’s Global Learning and Innovation team, who is designing realistic models for the software. Once the simulation model is designed, it will be evaluated by periodontal and dental hygiene faculty at NYU; their feedback will be used to guide further development; and the model will be tested with students soon after.

The NYU Dentistry–NYU Abu Dhabi team has already been able to overcome a number of challenges. They have developed dual devices with custom instrument handling grips, a finger-rest support system, a physical scan to provide more realistic tactile feedback, and multi-region haptic rendering for more realistic interaction and immersive virtual reality.

The College has submitted an application to patent the characteristics of the new haptic learning tool, naming Dr. Loomer, Professor Sefo, and Dr. Eid as the inventors, and the patent is pending. In addition, the three co-inventors have collaborated on an article about an evaluation study that they conducted as part of the development process and will soon submit it to IEEE Access, a peer-reviewed journal for the engineering community.

“Future goals,” says Dr. Loomer, “include partnering with additional institutions as testing sites to evaluate teaching methodologies, using the technology to perform surgical procedures, and enabling long-distance education.”
Dr. Jessica Hilburg, formerly associate professor of dental medicine and associate dean for clinical affairs at the University of New England College of Dental Medicine, has joined the College as associate dean for clinical affairs. Dr. Hilburg spent much of her academic career at Columbia University, where she began on a part-time basis in 2004 and became full-time in 2007. During that period, she served as director of the Third-Year Clinical Program and director of Clinical Systems. Dr. Hilburg received her DDS degree from the State University of New York at Stony Brook School of Dental Medicine, where she also earned an undergraduate degree in biology. In her role as associate dean for clinical affairs, she is responsible for providing leadership and strategic management for all patient-centered care and clinical compliance activities.

Dr. David Arghavani, formerly clinical assistant professor at the University of New England (UNE) College of Dental Medicine, has been appointed clinical assistant professor of cariology and comprehensive care. Dr. Arghavani holds a DDS degree from NYU College of Dentistry and an advanced education certificate in prosthodontics from the University of Medicine and Dentistry of New Jersey (UMDNJ).

Dr. Aditi Bhattacharya has been appointed assistant professor of oral and maxillofacial surgery. Dr. Bhattacharya holds a PhD degree in oral and craniofacial sciences and a certificate in clinical research, both from the University of California San Francisco, where she also completed a postdoctoral fellowship in clinical and translational sciences.

Dr. Lorel Burns has been appointed an instructor in the Dr. I.N. and Sally Quartararo Department of Endodontics. Dr. Burns holds a DDS degree from NYU College of Dentistry and a certificate in endodontics from the University of Pennsylvania School of Dental Medicine.

Dr. Davide Cuocolo has been appointed a clinical assistant professor of endodontics. Dr. Cuocolo earned his dental degree at the University of Naples Federico II in Italy and an advanced education certificate in endodontics from the NYU College of Dentistry, where he also completed the Programs for International Dentists in comprehensive dentistry and in endodontics.

Dr. Lauren M. Feldman, formerly resident instructor for pediatric pre-clinical and clinical sessions at the Harvard School of Dental Medicine, has been appointed a clinical assistant professor of pediatric dentistry. Dr. Feldman holds a DMD degree and an advanced education certificate in pediatric dentistry from the Harvard School of Dental Medicine.

Dr. Robert W. Frare, formerly adjunct clinical assistant professor of restorative dentistry at Rutgers School of Dental Medicine, has been appointed a clinical instructor in the Department of Oral and Maxillofacial Pathology, Radiology and Medicine. Dr. Frare holds a DMD degree from Tufts University School of Dental Medicine and he completed a fellowship in dental care for the developmentally disabled at the State University of New York at Stony Brook School of Dental Medicine.
Dr. Babak Hamidi has been appointed a clinical assistant professor of periodontology and implant dentistry. Dr. Hamidi holds a DDS degree and an advanced education certificate in periodontics from NYU College of Dentistry, and an MPH degree from Loma Linda University.

Dr. Shulamite Huang has been appointed a research instructor in the Department of Epidemiology & Health Promotion. Dr. Huang holds a PhD in managerial sciences and applied economics from the Wharton School at the University of Pennsylvania.

Dr. Chandra Iyer, formerly a clinical assistant professor of removable prosthodontics at the University of California San Francisco, has been appointed a clinical instructor in the Department of Cariology and Comprehensive Care. Dr. Iyer holds a DMD degree from the University of Connecticut School of Dental Medicine, an advanced education certificate in prosthodontics from the Herman Ostrow School of Dentistry at USC, and a certificate in biomaterials from the University of Alabama at Birmingham.

Ms. Samantha Jaser, formerly assistant director of graduate student affairs and admissions for the NYU Rory Meyers College of Nursing, has been appointed assistant director for international admissions and recruitment for the Programs for International Dentists. Ms. Jaser holds an MA degree in international education from NYU Steinhardt and a BA degree in Middle Eastern studies and political science from the NYU College of Arts & Science.

Mr. Steven C. Kohlberg, formerly Upper East Side manager of the East Coast Orthotic & Prosthetic Corporation, has been appointed a clinic manager for the Dental Faculty Practices. Mr. Kohlberg holds an MS degree from Hofstra University and a BS degree from Quinnipiac University.

Dr. Clara Lee has been appointed a clinical instructor in the Department of Oral and Maxillofacial Pathology, Radiology and Medicine. Dr. Lee holds a DDS degree from NYU College of Dentistry.

Mr. Shah Meharaj, formerly financial systems analyst for Omnicom Media Group, has been appointed senior financial analyst for budget planning and strategic initiatives. Mr. Meharaj holds a BBA degree from Pace University.

Ms. Levita Lowe Mitchell, formerly supervisor for business systems configuration at Kaiser Permanente, has been appointed director of scheduling systems management in the Office of Administration, Finance, Clinical and Student Services. Ms. Mitchell holds an MPA degree in health policy and management from NYU.
Dr. Liliana Ortiz Camacho, the recipient of the 2016 Dr. Harold Litvak Junior Fellowship in Prosthodontics, has been appointed clinical assistant professor of prosthodontics. Dr. Ortiz holds a DDS degree from the Universidad del Zulia in Maracaibo, Venezuela, and an advanced education certificate in prosthodontics from NYU College of Dentistry, where she also completed the comprehensive dentistry program for International Dentists.

Dr. Chrystalla Orthodoxou, formerly assistant professor of restorative dentistry and director of the Advanced Education in General Dentistry (AEGD) program at the Maurice H. Kornberg School of Dentistry at Temple University, has been appointed a clinical assistant professor of cariology and comprehensive care. Dr. Orthodoxou holds a DDS degree from NYU College of Dentistry.

Ms. Yae Seul “Jenny” Park, formerly a research consultant for the Population Council, has been appointed program administrator for Global Outreach Programs. Ms. Park holds an MPH degree from Columbia University and a BA degree in public health from the University of California Berkeley.

Dr. Dena Sapanaro, formerly a lecturer in the management of medical emergencies at the University of Pittsburgh School of Dental Medicine, has been appointed a clinical assistant professor of pediatric dentistry. Dr. Sapanaro holds an MS degree in biology from Montclair State University, a DDS degree and an advanced education certificate in pediatric dentistry from NYU College of Dentistry, and a certificate in dental anesthesiology from the University of Pittsburgh School of Dental Medicine.

Dr. Leila Soltani has been appointed a clinical assistant professor of periodontology and implant dentistry. Dr. Soltani holds a DDS degree from Babol University in Babol, Iran, and an advanced education certificate in periodontics from Shahid Beheshti University in Tehran.

Ms. Danielle Bartlett, formerly a practice supervisor at St. Francis Hospital in Roslyn, New York, who has been appointed clinic manager in the Department of Orthodontics.

Welcome also to:

Ms. Sharoya J. Sales, formerly senior financial aid advisor and scholarships/grants coordinating manager for Brooklyn Law School, has been appointed associate director of financial aid and support services for the Office of Student Affairs & Academic Support Services. Ms. Sales holds a BS degree in human services from CUNY.

Global Health Nexus
Mr. Ryan St. Germain, formerly director of campaign and constituent engagement in the New York Regional Office of Northwestern University, has been appointed senior director of development and alumni relations. Mr. St. Germain holds an MBA in finance and master’s and bachelor’s degrees in sociology from Fordham University.

Dr. İlser Turkyilmaz, formerly an assistant professor of prosthodontics and implant clinic director for the Department of Comprehensive Dentistry at the University of Texas Health Science Center at San Antonio, has been appointed a clinical associate professor of prosthodontics. Dr. Turkyilmaz holds a DMD degree from Boston University’s Henry M. Goldman School of Dental Medicine and a DDS degree and a PhD in prosthodontics from Hacettepe University in Turkey. He also completed a fellowship in implant dentistry at Ohio State University.

Dr. Thomas G. Wiedemann, formerly in private practice, has been appointed a clinical associate professor of oral and maxillofacial surgery. Dr. Wiedemann holds MD and DDS degrees from Ludwig-Maximilians-University (LMU) Munich School of Medicine, and a Dr.med.dent degree from RWTH Aachen University in Germany. He also received a certificate in oral and maxillofacial surgery from Ulm University in Germany.

Dr. Chengwu Yang, formerly assistant professor of biostatistics at Pennsylvania State University College of Medicine, has been appointed a research associate professor in the Department of Epidemiology & Health Promotion. Dr. Yang holds a PhD degree in biostatistics from The Medical University of South Carolina, an MS degree in medical statistics from Sun Yat-Sen University of Medical Sciences in Guangzhou, China, and an MD degree from Tongji Medical University in Wuhan, China.

Dr. Dr. Suzette M. Stines, formerly course director and assistant clinical professor of operative dentistry at the University of New England College of Dental Medicine, has been appointed a clinical assistant professor of cariology and comprehensive care. Dr. Stines holds a DDS degree from the University of North Carolina School of Dentistry at Chapel Hill and a certificate in applied biostatistics from the University of Washington School of Public Health.

Dr. Denise A. Trocheset, formerly associate professor of oral biology and pathology and director of oral pathology at Stony Brook University School of Dental Medicine, has been appointed a clinical professor and associate chair of the Department of Oral and Maxillofacial Pathology, Radiology and Medicine. Dr. Trocheset holds a DDS degree from the University of Minnesota.
Joining the Ranks of the Full-time Faculty:

Dr. Leonard Berkowitz, formerly an adjunct clinical assistant professor of cariology and comprehensive care, as a clinical instructor in the Department of Cariology and Comprehensive Care.

Dr. Tara Byrd, formerly an adjunct clinical instructor in the Department of Cariology and Comprehensive Care, as a clinical instructor in the Department of Cariology and Comprehensive Care.

Dr. Donna Catapano, formerly an adjunct assistant professor of dental hygiene, as a clinical assistant professor of dental hygiene.

Dr. Debra K. Fischoff, formerly an adjunct clinical assistant professor of oral and maxillofacial pathology, radiology and medicine, as a clinical assistant professor of oral and maxillofacial pathology, radiology and medicine.

Mr. Harold Jennings, formerly an adjunct clinical instructor in dental hygiene, as a clinical instructor in dental hygiene.

Dr. Michael A. Katz, formerly an adjunct clinical associate professor of orthodontics, as a clinical associate professor of orthodontics.

Dr. Arthi M. Kumar, formerly an adjunct clinical instructor in dental hygiene and in the Department of Oral and Maxillofacial Pathology, Radiology and Medicine, as a clinical instructor in the Department of Oral and Maxillofacial Pathology, Radiology and Medicine.
We Extend a Warm Welcome to Our Newest Adjunct Faculty

Department of Cariology and Comprehensive Care
- Dr. Eric W. Brotman, adjunct clinical instructor
- Dr. Philip Buccigrossi, adjunct clinical instructor
- Dr. Dayna M. Cassandra, adjunct clinical assistant professor
- Dr. Man-Sing Cheung, adjunct clinical instructor
- Dr. Joanna Heynoc-Sinha, adjunct clinical assistant professor
- Dr. Lauren Jain, adjunct instructor
- Dr. Dana Kapparova, adjunct clinical instructor
- Dr. Min Jung Kim, adjunct clinical instructor
- Dr. Migena Kotelli, adjunct clinical assistant professor
- Dr. Ivetta Krolik, adjunct clinical instructor
- Dr. Mark R. Makiling, adjunct instructor
- Dr. Asma Muzaffar, adjunct clinical assistant professor
- Dr. Jarrett A. Pikser, adjunct clinical instructor
- Dr. Lokesh C. Rao, adjunct clinical instructor
- Dr. Bernadette Sawa, adjunct clinical instructor

Dental Hygiene Program
- Ms. Yamile E. Ayala, adjunct clinical instructor
- Mr. Xiao-Qing Q. Fung, adjunct clinical instructor
- Ms. Olga Gnatovych, adjunct clinical instructor
- Ms. Rachel D. Kurlander, adjunct clinical instructor
- Ms. Zoila G. Perez-Mejia, adjunct clinical instructor
- Ms. Joanna Peza-Kulikowski, adjunct clinical instructor
- Ms. Humara Sultan, adjunct instructor
- Ms. Staci A. Violante, adjunct clinical instructor

Department of Epidemiology and Health Promotion
- Dr. Eugenio D. Beltran Aguilar, adjunct professor
- Dr. Rodrigo Rego, adjunct instructor

Department of Orthodontics
- Dr. Nicolas M. Freda, adjunct clinical assistant professor

Department of Pediatric Dentistry
- Dr. Marisa A. Pereira, adjunct clinical assistant professor

Ashman Department of Periodontology and Implant Dentistry
- Dr. Arvin Medi Kadempour, adjunct clinical assistant professor

Department of Prosthodontics
- Dr. Mark S. Andrawis, adjunct clinical assistant professor
- Dr. Christine Chu, adjunct clinical assistant professor
- Dr. Terry Y. Lin, adjunct clinical associate professor
- Dr. Isabel Schablowski, adjunct instructor
- Dr. Paul Zhivago, adjunct clinical assistant professor

Congratulations also to:

Dr. Zahra Bagheri,
formerly an adjunct clinical assistant professor of cariology and comprehensive care, as a clinical assistant professor of cariology and comprehensive care.

Dr. Paul R. Baker,
formerly an adjunct clinical assistant professor of oral and maxillofacial surgery, as a clinical assistant professor of oral and maxillofacial surgery.

Ms. Angelita Leon,
formerly an adjunct clinical instructor in dental hygiene, as a clinical instructor in dental hygiene.

Dr. William H. Lieberman,
formerly an adjunct clinical associate professor of pediatric dentistry, as a clinical associate professor of pediatric dentistry.

Ms. Sharon A. McLaughlin,
formerly an adjunct clinical assistant professor of dental hygiene, as a clinical instructor in dental hygiene.

Dr. Cheryline Pezzullo,
formerly an adjunct instructor in the Department of Cariology and Comprehensive Care, as a clinical instructor in the Department of Cariology and Comprehensive Care.
Mr. Guy Akiva, formerly a senior systems engineer for Technology and Informatics Services (TIS), has been promoted to director of systems and infrastructure for TIS.

Ms. Maya Ardon, formerly associate director of student life and leadership initiatives, has been promoted to director of student affairs.

Mr. Robert Arrasate, formerly an audio/visual technician for Technology and Informatics Services (TIS), has been promoted to team lead for educational media.

Dr. Robert M. Bagoff, formerly adjunct clinical assistant professor of prosthodontics, has been promoted to adjunct clinical associate professor of prosthodontics and comprehensive care.

Ms. Elizabeth Best, formerly outreach program administrator in the Department of Pediatric Dentistry, has been promoted to grants administrator for the department.

Ms. Erin Brent, formerly assistant dean for financial planning, budget, and strategic initiatives, has been promoted to associate dean for financial & academic planning and strategic initiatives.

Dr. Stephen J. Chu, formerly adjunct clinical associate professor of prosthodontics, has been promoted to adjunct clinical professor of prosthodontics.

Dr. Simone Duarte, formerly clinical assistant professor of basic science and craniofacial biology, has been promoted to clinical associate professor of basic science and craniofacial biology.

Ms. Shellie Fizer, formerly program administrator for the Linhart Continuing Dental Education (CDE) Program, has been promoted to assistant director of CDE marketing and recruitment.

Ms. Winnie Furnari, formerly clinical associate professor of dental hygiene, has been promoted to clinical professor of dental hygiene.

Dr. Xin Li, formerly assistant professor of basic science and craniofacial biology, has been promoted to associate professor of basic science and craniofacial biology.

Mr. John D. McIntosh, formerly assistant dean for clinical administration and revenue cycle management, has been promoted to associate dean for clinical administration and revenue cycle management.
Ms. Kim Misevis, formerly assistant director, international admissions and recruitment for the Programs for International Dentists, has been promoted to senior director of the Programs for International Dentists.

Dr. Amr M. Moursi, formerly associate professor of pediatric dentistry, has been promoted to professor of pediatric dentistry.

Dr. Olivier Nicolay, clinical associate professor of orthodontics and former acting chair of the Department of Orthodontics, has been appointed chair of the Department of Orthodontics.

Mr. Cristián Opazo, formerly senior instructional technologist, has been promoted to director of educational technology.

Dr. Nuray Ozu, formerly adjunct clinical instructor in the Department of Cariology and Comprehensive Care, has been promoted to adjunct clinical assistant professor of cariology and comprehensive care.

Ms. Ana Quinche, formerly lead dental assistant, has been promoted to dental hygienist for orthodontics.

Dr. Maria P. Rodriguez Cardenas, formerly a clinical instructor in the Department of Cariology and Comprehensive Care, has been promoted to clinical assistant professor of cariology and comprehensive care.

Mr. Jonathan Serbin, formerly a human resources generalist, has been promoted to human resources manager in the Office of Human Resources and Faculty Services.

Dr. Sonal S. Shah, clinical assistant professor of oral and maxillofacial pathology, radiology and medicine, has been appointed director of the 8W oral medicine clinic.

Ms. Fern S. Shulman-Dembner, formerly adjunct clinical assistant professor of dental hygiene, has been promoted to adjunct clinical associate professor of dental hygiene.

Dr. Seiichi Yamano, formerly assistant professor of prosthodontics, has been promoted to associate professor of prosthodontics.

Ms. Yuet Ming Yuen-Ologan, formerly senior clinic manager, has been promoted to assistant director of patient-centered care services.
Mr. Jeffrey T. Slovin, CEO of Dentsply Sirona, a Fortune 500 company, sat down recently with Dr. Mark Wolff, associate dean for development, to discuss Dentsply Sirona’s philosophy of corporate social responsibility. Their conversation follows.
**Dr. Wolff:** What is Dentsply Sirona’s philosophy of corporate social responsibility?

**Mr. Slovin:** We see our role in the world as being a good corporate citizen in all the communities in which our employees live, work, and serve. As a business, we are committed to innovation and education to drive continual advances in dental care to improve oral health, which ultimately drives overall health and well-being. Our philosophy of corporate social responsibility and philanthropy is consistent with our beliefs and business practices, and targets people and programs engaged in health promotion and disease prevention, education, and improving access to oral health care.

**Dr. Wolff:** How does the company’s vision fit into this philosophy?

**Mr. Slovin:** Our vision, “Delivering innovative dental solutions to improve oral health worldwide,” serves as the foundation for our company mission: “Empowering dental professionals to provide better, safer, faster dental care.”

We know that optimizing oral health can have a profound impact on a person’s overall health, confidence, and economic opportunities. We also know that better dental care is an important component in building strong communities, and many people around the globe do not have access to dental care. By supporting and partnering with professional organizations and philanthropic groups which share our vision for better oral health, we are changing lives for the better.

**Dr. Wolff:** What are some examples of the company’s corporate philanthropy in action?

**Mr. Slovin:** The Dentsply Sirona Foundation, now in its 62nd year, was founded with the principal objectives of improving oral health and access for children and adults, supporting the success of next generation dental professionals, and sustaining healthy communities where we conduct business. Through the Foundation, we are committed to funding programs that build a strong future for improved health.

As part of our social responsibility and Company vision, we provide the largest investment in clinical research and development in the industry with more than 350,000 dental professionals attending our 10,000 courses every year for more than 60 years, in programs that span more than 80 countries. By supporting learning environments, we continuously advance the quality of patient care worldwide.

Meeting the dental needs of a global population requires extensive research and education. To support this, we partner with dental institutions around the globe, including every US dental school, to contribute to the development of next-generation dental professionals. For almost 60 years we have funded the SCADA (Student Competition Advancing Dental Research and Its Application) student clinician research competition engaging talented dental and dental hygiene students involved in university-based oral health research. Since its inception, the program has expanded to include 18 national programs covering 39 countries and more than 7,000 students from around the world. SCADA alums have gone on to have significant academic careers, and others have become leaders in professional organizations and as outstanding clinicians.

Dentsply Sirona supports education programs such as ADEA (American Dental Education Association) and IFDEA (International Federation of Dental Education Association), and we provide grants to schools and universities around the globe. Through our partnerships with all of these programs, we’ve been able to help shape the next generations of dental leaders in their respective communities.

Along with education and research, we support non-governmental organizations working to improve oral health. Dentsply Sirona has supported Oral Health America and its efforts to connect communities with resources to drive access to care, increase health literacy, and advocate for policies that improve health.

Our philanthropy spans the globe, including the recent support and equipment donations to local dental clinics in Cambodia providing treatment to children without basic dental care. Over the course of a three-day mission, the team treated more than 600 patients. I am especially proud of “Project 32,” a worldwide initiative by Dentsply Sirona Endodontics that promotes the advancement of root canal procedures and the importance of maintaining the health of all 32 teeth. With many regions around the world lacking an affordable way to provide root canal treatment, Project 32 provides clinical education for dentists to perform a successful root canal treatment using a single-patient kit. Through the program, practitioners can confidently bring healthy outcomes to patients in their communities.

**Dr. Wolff:** Aside from philanthropy, are there other ways in which Dentsply Sirona embraces its role as a good corporate citizen?

**Mr. Slovin:** We embrace our leadership role in the dental industry through investments in innovation and education. As a leader, we have a larger responsibility to set the standards for others to follow. With 15,000 employees across more than 40 countries, our potential to lead as a good corporate citizen is seen vastly beyond innovation and education.

As a large global employer, we understand the importance of developing a team of employees to create a passionate work environment to
help shape the dental industry. Our employees thrive on collaboration and the opportunity to make a difference. We invest a significant amount of time and resources into employee learning, including external and internal opportunities. In fact, this year we launched our own Dentsply Sirona University to invest in current and next generation leadership through state-of-the-art development programs. Our continued success depends on the effective use of talent and skills from all our employees, leveraging our global diversity and multicultural workforce.

Women are playing an increasingly larger role in dentistry and Dentsply Sirona recognizes the need to support and develop our female colleagues and to provide opportunities for personal and professional growth. Our Women Inspired Network (WIN) program is a critical leadership development tool that quadrupled in size this year and will have a tremendous impact on our ability to continue to grow and be successful as The Dental Solutions Company™.

Dentsply Sirona’s strong commitment to our values sets the behavioral expectations for our employees, business partners, and industry consultants. Ultimately, this proactive approach helps ensure that Dentsply Sirona’s social responsibility across the workplace, environment, and dental industry sustains a future of principled corporate citizenship.

**Dr. Wolff:** Dentsply Sirona and NYU Dentistry have had a long and fruitful relationship, including our most recent partnership on behalf of the creation of the magnificent Dentsply Sirona Endodontic Suite, which opened last fall (see related story on page 68). What have been some of the highlights of that partnership for Dentsply Sirona and for you, personally?

**Mr. Slovin:** NYU and Dentsply Sirona share similar missions of education, research, and innovation with a goal of providing the best in patient care. Supporting universities is a key clinical focus for Dentsply Sirona. From the students to experienced educators, we are motivating one another to drive the industry forward and improve oral health globally.

The recent merger has set us on a path to further empower dental pro-
professionals, like those being educated at the NYU Dentsply Sirona Endodontic Suite, to provide better, safer and faster diagnostic and endodontic therapy. Dentists educated at the NYU program bring their expertise to communities around the world after their graduation. So our partnership will have a global and long-term impact. I am proud of what we accomplished together and could not be happier to support the design and construction of the Suite, in addition to providing state-of-the-art equipment, technology, and software.

Now, NYU has one of the most sophisticated endodontic suites in the nation, ensuring the ability to provide the finest endodontic education and to support the delivery of the highest quality endodontic care. This has been the absolute highlight for me. With the right tools in the hands of such a great institution, NYU will inspire students to create the future of endodontics, instilling an elevated standard of care.

Dr. Wolff: Have any of your own life experiences helped shape Dentsply Sirona’s approach to corporate philanthropy?

Mr. Slovin: I consider myself very lucky to be a part of this wonderful profession. Dental professionals are good, hard working people who truly want the best for their patients. In my 17 years in the dental industry I have witnessed first-hand how dentists change lives. I’ve met so many people whose lives have been improved, and some even saved, due to proper clinical care. It is incredibly powerful, and I want our organization to do everything within our reach to help support this amazing profession. I know that optimizing oral health can have a profound impact on individual confidence, and inadequate oral health can significantly impair a person’s quality of life. For example, dental diseases in children have a negative influence on nutrition, learning, and attaining their full potential. As a father of two young children, the staggering fact that over 51 million school hours are lost each year in the US alone due to dental related illnesses further fuels my core commitment to empower the improvement of better oral health through Dentsply Sirona’s approach to social responsibility.

Dr. Wolff: Thank you, Jeffrey.
On Thursday, November 17, 2016, NYU Dentistry celebrated the culmination of a goal set years earlier with a ribbon cutting ceremony for the opening of the Dentsply Sirona Endodontic Suite. The new clinical suite, which employs the most advanced educational and patient care technologies available, was made possible by a partnership between NYU Dentistry and Dentsply Sirona, the world’s largest manufacturer of professional dental products and technologies.

“Today,” said Dr. Charles N. Bertolami, Herman Robert Fox Dean of NYU Dentistry, “NYU has the most sophisticated endodontic suite in the nation, ensuring our ability to provide the finest endodontic education in an environment that reflects truly patient-centered care. And it could never have happened without Dentsply Sirona.”

Dr. Asgeir Sigurðsson, associate professor and chair of NYU’s Dr. Ignatius N. and Sally Quartararo Department of Endodontics, expressed his appreciation to both Dentsply Sirona and the College’s leadership team for “making possible this outstanding facility.” “For an endodontics department chair,” he added, “it is a dream come true.”

Speaking on behalf of New York University, NYU President Andrew Hamilton said, “Thanks to Dentsply Sirona and its partnership with the College of Dentistry, we have been able to create this beautiful, most advanced facility of its kind. Just one of the new treatment centers would be impressive, that there are 37 of them is remarkable, and that they are all in the same location and interconnected is even more so. NYU thanks Dentsply Sirona from the bottom of our hearts for the remarkable contribution that this new facility makes to the College of Dentistry and to our students’ education. It is wonderful to know that the future endodontists we are training will have a positive impact on the lives of our patients.”
and on our community because of the splendid environment they now have in which to learn.”

Prior to the renovation, NYU’s endodontic dental units were more than 25 years old, and space limitations meant that there were no chairside radiographic units. The new Clinical suite features a fully integrated computer network with best-practice case management software; a fully equipped, state-of-the-art surgical suite with 37 new treatment units; intraoral digital X-ray stations; state-of-the-art endodontic motors; ultrasonic units; intraoral sensors; and a Cone Beam Computerized Tomography (CBCT) scanner, utilizing state-of-the-art scanning technology to produce 3D images of teeth, soft tissue, nerve pathways, and bone in a single scan.

Dean Bertolami expressed both the College’s and his personal appreciation to Bret W. Wise, executive chairman of the board of Dentsply Sirona, noting that when the College approached what was then Dentsply International last spring to propose a partnership on behalf of the renovation, the company was in the midst of a complex, international merger with Sirona Dental Systems. Nevertheless, Dean Bertolami said, Mr. Wise immediately indicated his support and as soon as the merger was completed, renovation of the existing clinic began.

Mr. Wise said, “This was the first project undertaken by the newly merged Dentsply Sirona and represents our commitment to research, product development, and clinical education. Now, one of the best departments of endodontics has the most modern clinical suite. With this new facility, the standard has been set, and together we’ve created an unparalleled environment for research and clinical education. Dentsply Sirona is grateful for this opportunity to collaborate with NYU to advance dentistry and improve oral health.”
MAKING THE GRADE

Drs. Niederman and Ruff Approved for $13M Research Funding Award by the Patient-Centered Outcomes Research Institute

A research team headed by Richard Niederman, DMD, and Ryan Richard Ruff, MPH, PhD has been approved for a $13.3 million funding award by the Patient-Centered Outcomes Research Institute (PCORI) to study cavity prevention, quality of life, and school performance. Drs. Niederman and Ruff will lead the five-year study comparing the effectiveness of two cavity-prevention techniques — a “simple” treatment of topical silver and fluoride, and a “complex” treatment of traditional sealants and fluoride. The study will be conducted in elementary schools in the Bronx, an area with a scarcity of dental care providers and clinics. The prevalence of cavities in the Bronx — the poorest borough in New York City and home to a large Hispanic/Latino population — is almost twice the national average.

Children with dental cavities and associated toothaches face multiple disadvantages, including reduced quality of life, school absences, difficulty paying attention in school, and lower standardized test scores. Unfortunately, traditional office-based dental care presents multiple barriers to treatment, including cost, fear of dentists, and geographic isolation. Bringing care to children instead of children to care eliminates these barriers.

Through prior work in New York, Massachusetts, New Hampshire, Maine, and Colorado, NYU Dentistry researchers determined that “complex” school-based cavity prevention programs are effective in reducing cavities by two-thirds. Preliminary results suggest that “simple” prevention can be equally effective. Discussions and surveys of patients and other partners revealed that school-based care was overwhelmingly preferred over office-based care, and that “simple” care was preferred over “complex” care.

In the PCORI-funded study, 60 high-need elementary schools in the Bronx will be selected at random to receive either the “simple” treatment of silver diamine fluoride and fluoride varnish, or the “complex” treatment of sealants and fluoride varnish. All children will receive the same preventive dental care twice each year. The researchers will assess untreated cavities, quality of life, and student achievement to compare the outcomes of both treatments.

A unique aspect of the study is its collaboration with the NYU Rory Meyers College of Nursing to deliver care, along with NYU dental hygienists. Since there are 3 million nurses in the US, versus 250,000 dental hygienists, the research team will also compare care delivered by nurses and by dental hygienists.

“The overall goal of our proposed research is to improve oral health equity by determining the most effective, patient-centered, and efficient school-based cavity prevention methods,” said Dr. Niederman, professor and chair of the Department Epidemiology & Health Promotion. “Our expectation is that both will be similarly effective in reducing untreated cavities by two-thirds. However, for the same time and cost, hygienists or nurses can treat four times more children with the simpler prevention.”

“This is an unparalleled opportunity to explore the long-term impact of oral health on quality of life and student achievement,” said Dr. Ruff, assistant professor of epidemiology and health promotion.

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<th>The Award:</th>
<th>Research Goal:</th>
<th>The Hope:</th>
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<tr>
<td>$13.3 million Patient-Centered Outcomes Research Institute (PCORI) grant *Pending completion of a business and programmatic review by PCORI staff and issuance of a formal award contract.</td>
<td>To compare the effectiveness of two cavity-prevention techniques — a “simple” treatment of topical silver and fluoride, and a “complex” treatment of traditional sealants and fluoride.</td>
<td>To improve oral health equity by determining the most effective, patient-centered, and efficient school-based cavity prevention methods.</td>
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Dr. Nicola Partridge Awarded $1.9M to Further Osteoporosis Drug Research and Development

Nicola Partridge, PhD, professor and chair of the Department of Basic Science and Craniofacial Biology, has been awarded a five-year, $1.9 million grant from the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) to investigate potential new compounds for the treatment of osteoporosis.

The federally funded grant will support bench research aimed at understanding how the protein hormone parathyroid hormone, a related protein, and a drug analog that mimics the protein called abaloparatide, interact in the surface of a cell in bone and affect bone formation and breakdown.

All three of these hormones are currently being investigated for the treatment of osteoporosis and the latter two are believed to have a wider therapeutic window than teriparatide (short form of parathyroid hormone) injection, commonly used for severe osteoporosis.

Dr. Partridge is an authority on molecular endocrinology and bone and mineral research. “With this grant, we hope to understand the molecular mechanisms, pathways, and interactions at the cellular level that affect bone building and breakdown,” said Dr. Partridge. “Learning how these hormones, related proteins, and its analog work will help us develop new treatments that are better tolerated for osteoporosis.”

Dr. Partridge and her team know that parathyroid hormone is essential for maintaining serum calcium levels. The bench research will investigate specifically how parathyroid hormone functions at the cellular level, compared with the related protein, and the drug analog abaloparatide. In particular, the investigators hope to learn whether the protein and drug analog might provide a better treatment than parathyroid hormone for osteoporosis or teriparatide, as well as other bone and skeletal deteriorative disorders. Previous research suggests that the two latter drugs are superior to teriparatide, resulting in lower bone resorption. Abaloparatide has been shown to yield a greater increase in bone mineral density, especially in the hip.

“Osteoporosis exacts a heavy disease burden at the societal and individual levels,” said Dr. Partridge. “Ours is the only research group in the world that has determined the transcriptional action of parathyroid hormone. We characterized co-activator and co-repressor proteins interacting with bone-specific transcription factors in response to this hormone. We are well positioned to further investigate how these molecules work at the cellular level, thereby providing support for a new osteoporosis drug.”

According to the National Institutes of Health, there are approximately 1.5 million osteoporotic fractures in the United States each year that lead to half a million hospitalizations, over 800,000 emergency room encounters, more than 2,600,000 physician office visits, and the placement of nearly 180,000 individuals in nursing homes. Hip fractures are by far the most devastating type of fracture, accounting for about 300,000 hospitalizations each year. About one in five people sustaining a hip fracture ends up in a nursing home.

The Grant:
$1.9 million National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) grant

Research Goal:
To understand the molecular mechanisms, pathways, and interactions at the cellular level that affect bone building and breakdown.

The Hope:
To support the development of new, more effective osteoporosis drugs.
Dr. Evgeny Pavlov Awarded $1.8M by NIH to Study the Phenomenon Known as the “Mitochondrial Permeability Transition” to Prevent Strokes and Heart Attacks

The National Institutes of Health (NIH) have awarded Evgeny Pavlov, PhD, assistant professor of basic science and craniofacial biology, a $1.8 million, five-year grant to study the phenomenon known as the “Mitochondrial Permeability Transition” to prevent strokes and heart attacks.

Stroke and heart attack affect millions of people worldwide. They occur when blood supply to the tissue is interrupted, and can cause extensive damage leading to permanent injury and/or death. It has been found that at the elementary cellular level, damage to the individual cell is caused by the loss of mitochondrial function — in a phenomenon known as the Permeability Transition. Thus, if the occurrence of Permeability Transition can be blocked, we may be able to protect the affected tissue against damage.

Unfortunately, it is impossible to develop effective treatments without knowing the detailed molecular nature underlying the Permeability Transition. “Mitochondrial Permeability Transition Pore (mPTP) is a large, non-selective channel located in the mitochondrial inner membrane,” explains Dr. Pavlov. “It has been established that prolonged opening of mPTP during stress conditions leads to an increase in permeability of the mitochondrial membrane and a disruption of energy generation (in the form of ATP, the principal molecule for storing and transferring energy in cells), eventually causing cell death. mPTP opening is the central event leading to tissue damage during stroke.”

Dr. Pavlov notes that blocking mPTP by pharmacological agents can be highly protective. However, current knowledge of the channel (“pore”) part of mPTP remains incomplete.

“The ultimate goal of the project,” says Dr. Pavlov, “is to define the core molecular components of the Permeability Transition.”

Toward this end, a sequence of experiments will use electrophysiology to study the activity of the purified mPTP channel, followed by investigating the molecular composition and assembly of mPTP by using a number of analytical approaches. Finally, the researchers will use wild-type and genetically modified cultured neurons and stable cell lines to investigate interactions between C-subunit, polyphosphate, and polyhydroxybutyrate during mPTP activation in living cells.

“In the future,” says Dr. Pavlov, “this new knowledge will lead to opportunities to design novel treatment strategies which will specifically target these non-proteinaceous components of the pore, effectively preventing mPTP opening and protecting against tissue damage that causes heart attack and stroke.”

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Nager syndrome is a rare craniofacial disorder characterized by underdeveloped cheek bones, undersized lower jaw, and cleft palate. These defects frequently cause feeding and breathing problems. Affected individuals also have hearing loss due to defects in the middle ear ossicles, as well as deformed outer ears and variable upper-limb defects. Mutations in the SF3B4 gene were recently identified as a cause of Nager syndrome, accounting for 60 percent of affected individuals. SF3B4 encodes a protein of the spliceosome, the cellular machinery involved in mRNA maturation.

The National Institutes of Health (NIH) has awarded Jean-Pierre Saint-Jeannet, PhD, professor of basic science and craniofacial biology, a five-year, $2 million grant to develop an animal model to characterize the molecular mechanisms underlying the craniofacial defects observed in Nager syndrome patients, and to identify novel candidate genes as potential causes of the disease.

Dr. Saint-Jeannet and his team have generated the first animal model for Nager syndrome by specifically knocking down SF3B4 function in the frog *Xenopus laevis*. These animals have reduced craniofacial structures, reminiscent of the craniofacial defects seen in Nager syndrome patients. “With this tool,” says Professor Saint-Jeannet, “we are in a unique position to understand how mutations in this gene lead to craniofacial malformations.”

Dr. Saint-Jeannet and his team are seeking answers to three specific questions:

1. What are the molecular mechanisms underlying craniofacial defects in Nager syndrome?
2. What are the target genes of SF3B4 pre-mRNA splicing activity?
3. Are other components of the spliceosome implicated in Nager syndrome?

“The answers to these questions,” says Dr. Saint-Jeannet, “will enable us to identify genes important for neural crest and craniofacial development, and will provide novel insights into the etiology and pathogenesis of Nager syndrome. The long term goals are to develop assays for early detection of the disease, and strategies to minimize craniofacial malformations at birth.”

The Grant:

$2 million, 5-year NIH grant

The Hope:

To develop assays for early detection of the disorder, and Ultimately reduce craniofacial malformations at birth.

Research Goal:

To gain novel insights into the pathogenesis of Nager syndrome, a rare craniofacial disorder, and to identify novel candidate genes as potential causes of the disease.
Rodrigo S. Lacruz, PhD, assistant professor of basic science and craniofacial biology, has been awarded a five-year, $1.9 million grant from the National Institute of Dental and Craniofacial Research (NIDCR) to study calcium control in dental enamel to gain a better understanding of the impact of calcium in enamel mineralization and of the physiological processes by which enamel crystals are formed. The ultimate goal is to develop improved strategies for the prevention and treatment of dental caries.

Changes in the concentration of calcium (Ca²⁺) within the cell and the physiological mechanisms by which these changes occur can trigger a number of processes and can result in diseases, including amelogenesis imperfecta, a term that broadly describes types of abnormalities in enamel. These abnormalities can weaken the outer enamel surface and can lead to accumulation of oral bacteria in those weak spots, resulting in caries and other dental disease, including a massive breakdown of the enamel.

Using animal models, Dr. Lacruz is able to look at the cells at different times and in different ways to assess the changes that occur when cells are deprived of calcium. “In our case,” he says, “we are also interested in understanding what occurs when the animal crystals themselves are deprived of calcium.” He also plans to utilize animal models to understand the enamel problems that have been described in Down syndrome (DS) patients, as they have been documented to show a host of enamel deficiencies such as abnormal mineralization and thinner enamel.

The study of how calcium contributes to enamel formation has the potential to lead to the development of clinical techniques that replicate these processes. An added goal is to motivate physicians to involve dental practitioners early on in the treatment of patients with DS because we have established links between these diseases and deficiencies in enamel.

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**ON CARIES PREVENTION**

**Dr. Rodrigo Lacruz Awarded Five-Year, $1.9M NIH Grant to Study Calcium Control in Dental Enamel**

**The Grant:** $1.9 million, 5-year NIDCR grant

**Research Goal:** To study calcium control in dental enamel to gain a better understanding of the impact of calcium in enamel mineralization and of the physiological processes by which enamel crystals are formed.

**The Hope:** To develop improved strategies for the prevention and treatment of dental caries.
The Department of Defense’s (DOD) Congressionally Directed Medical Research Programs (CDMRP) has awarded Despina Sitara, PhD, assistant professor of basic science and craniofacial biology, a three-year, $1.4 million grant to study how an excess of the bone secreted hormone Fibroblast Growth Factor-23 (FGF-23) causes severe anemia. The research aims to understand the role that FGF-23 plays in anemia associated with chronic kidney disease and cardiovascular disease and to discover new therapy targets.

“Our previous research has shown that FGF-23 is an important regulator of phosphate and vitamin D homeostasis and bone mineralization,” said Dr. Sitara, the principal investigator on the study. “In addition, our lab was the first to show that high FGF-23 levels are associated with decreased erythropoiesis, the process of red blood cell formation, while genetic inactivation of FGF-23 leads to increased red blood cell production.”

The researchers’ current hypothesis is that excess FGF-23 impairs erythropoiesis by mechanisms that are mediated by the hormone erythropoietin (Epo), as well as mechanisms that are independent of it, and that by inhibiting FGF-23, they will be able to restore red blood cell production and correct anemia.

“Anemia associated with chronic kidney disease and cardiovascular disease is currently treated with recombinant erythropoietin. However, rEpo is expensive, and often patients develop resistance to it,” Dr. Sitara explained. “Most importantly, many patients on Epo therapy develop thrombosis, embolism, and hypertension, so new therapies are urgently needed for the severe anemia associated with these chronic diseases.”

The NYU research team is the first to investigate FGF-23 as a cause of common anemia. The team is confident that inhibiting excess FGF-23 could effectively stimulate erythropoiesis, and therefore be used as a new targeted therapy in the treatment of cardio-renal anemia.

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<td>$1.4 million, 3-year DOD CDMRP grant</td>
<td>To study how an excess of the bone-secreted hormone FGF-23 causes severe anemia, to understand its role in anemia associated with chronic kidney and cardiovascular disease, and to discover new therapy targets.</td>
<td>To prove that inhibiting excess FGF-23 could effectively stimulate the process of red blood cell formation, and therefore be used as a new targeted therapy in the treatment of cardio-renal anemia.</td>
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Drs. Albertson and Schmidt Awarded NIH Grant for Microbiome Research to Identify Biomarkers for Tongue Cancer

The Bluestone Center’s Donna Albertson, PhD, and Brian Schmidt, DDS, MD, PhD, have been awarded a two-year, $450,000 NIH grant to develop biomarkers for tongue cancer, a subset of oral cancers that often are deadly.

Dr. Albertson, the grant’s co-principal investigator and a professor of oral and maxillofacial surgery, said: “We are investigating the tongue microbiome, the bacterial community on the tongue, where the majority of oral cavity cancers occur. With new knowledge, we hope to be able to learn how to diagnose aggressive cancers earlier, modulate the microbiome, and prevent or slow progression.”

“We believe that oral cavity cancers develop through a multistep process involving progression through precancerous lesions, with increasing numbers of alterations in the genome,” said Dr. Schmidt, co-principal investigator, director of the Bluestone Center for Clinical Research, and professor of oral and maxillofacial surgery.

Drs. Albertson and Schmidt have already done critically important work in this field. Previously, they discovered a marked increase in Fusobacterium in the mucosal bacteria communities in the oral squamous cell cancer tissue of 13 patients. This increase was not seen on the opposite, unaffected side of the tongue, nor was it seen in people who do not have oral cancer.

The team then went on to profile changes in the microbiome associated with more than 50 oral cancers and were able to identify a subset of node positive oral tongue cancers with amplification on chromosome 11 and high abundance of Fusobacterium.

Dr. Albertson explained that “Since we see this amplification of chromosome 11 in some pre-cancers, it may be that these pre-cancer cells interact with Fusobacterium to promote progression to cancer.”

“Going forward,” says Dr. Schmidt, “this research could lead to the development of new, targeted therapies for these cancers.”

The Grant: $450,000, 2-year NIH grant

Research Goal: To investigate the tongue microbiome, the bacterial community on the tongue, where the majority of oral cavity cancers occur.

The Hope: To develop new, targeted therapies for treating oral cancer.
The current challenge facing dental professionals and oral health advocates,” says Courtney Chinn, DDS, MPH, “is to ensure an adequate and appropriately trained dental workforce that can successfully meet the oral health needs of a large and growing US pediatric population. The next generation of dentists and hygienists must be equipped with the knowledge, experience, and confidence that will allow them to successfully provide services and improve access to care for traditionally underserved communities.”

To that end, Dr. Chinn, clinical associate professor of pediatric dentistry and director of the advanced education program in pediatric dentistry, has developed Growing Faculty Success in Community-based Educational Settings (Growing Success), a novel faculty development program, funded by a five-year $1.3 million HRSA grant. The goal of the program is to recruit, develop, and retain faculty who are committed to teaching the delivery of quality, interprofessional, community-based oral health care for underserved pediatric, adolescent, and special needs populations and to inspire trainees to utilize their skills in their future careers.

Growing Success seeks to achieve this goal by establishing a Community-based Educator track for qualified pediatric dentists and dental hygienists who demonstrate sincere interest in teaching students to deliver successful community-based dental services.

The program consists of a core community-based curriculum; pre-selection into one of three community-based concentrations (in school-based oral health, interprofessional education, or community dental hygiene); guided mentorship; and individually-tailored faculty development experiences.

Growing Success leverages an extensive network of community partners, including Head Start, the New York City Department of Education and Department of Health and Mental Hygiene, Bellevue Hospital Center, the NYU Meyers College of Nursing, and the NYU School of Medicine, to place faculty and students in community-based primary care sites throughout New York City.

The Grant:
$1.3 million, 5-year HRSA grant

Program Goal:
To recruit, develop, and retain faculty who are committed to teaching the delivery of quality, interprofessional, community-based oral health care for underserved pediatric, adolescent, and special needs populations and to inspire trainees to utilize their skills in their future careers.

The Hope:
Narrowing the dental workforce gap for traditionally underserved pediatric populations by ensuring an adequate and appropriately trained next generation of dental professionals.
Dr. Lauren Feldman Receives Nearly $1M HRSA Career Development Award

Lauren Feldman, DMD, clinical assistant professor in the Department of Pediatric Dentistry, has received a five-year, nearly $1 million Primary Care Medicine and Dentistry Clinician Educator Career Development Award from the Health Resources and Services Administration (HRSA). The award will enable Dr. Feldman to develop a formal curriculum that will refine pediatric interprofessional education at NYU Dentistry, the most comprehensive oral healthcare center in the US.

The aim of the curriculum is to produce dental students committed to serving vulnerable pediatric populations utilizing patient-centered care and to advance the integration of oral health and primary health care through interprofessional education. Interprofessional education has been endorsed by the Institute of Medicine (IOM) as a mechanism to improve the overall quality of health care and has been recognized as an important step in advancing health professional education.

“No single healthcare profession can tackle the health disparities faced by the nation,” says Dr. Feldman. “The collaborative work of healthcare providers can help close the health disparities gap,” she adds.

Career development for Dr. Feldman will include completion of a Master’s in Public Health degree with a concentration in Public Health Policy, culminating in the enhancement of publically-available tools and resources detailing basic oral health concepts for non-dental professionals.

Amr Moursi, DDS, PhD, professor and chair of the Department of Pediatric Dentistry, said: “Integrative health is the future of health care and with this grant we will be able to build on our collaborations across the University and the community to enhance interprofessional education, thereby preparing our graduates to be among the nation’s leaders in collaborative care.”

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### The Award:

- Nearly $1 million, 5-year Primary Care Medicine and Dentistry Clinician Educator Career Development Award from HRSA

### Program Goal:

- To develop a formal curriculum that will refine pediatric interprofessional education.

### The Hope:

- To advance the integration of oral health care and primary health care and produce dental students committed to serving vulnerable pediatric populations.
Childhood caries is a preventable epidemic,” says Ryan Richard Ruff, MPH, PhD, assistant professor and director of the Biostatistics Core in the Department of Epidemiology & Health Promotion. To help tackle the problem, Dr. Ruff has been awarded a two-year, $317,000 grant from the National Institute of Dental and Craniofacial Research (NIDCR) to conduct a systematic evaluation of comprehensive caries prevention using a longitudinal dataset of students attending Title 1 (low-income) schools.

“There are three primary barriers to the dissemination and implementation of school-based caries prevention,” said Dr. Ruff. “First, while efficacy trials demonstrate success in caries control, there is little evidence of effectiveness in large pragmatic (effectiveness) studies. Second, little is known of the cumulative effects of prevention over time for students of varying ages, so optimization is difficult. Finally, previous studies of longitudinal data from prevention programs did not examine student cohorts who most needed care.”

To overcome these barriers, Dr. Ruff and his team will model nonlinear trends of untreated decay in children receiving the prevention intervention, seeking to determine the causal effects of prevention over time, and thus estimating the predicted probabilities of decay development.

“To optimize care, we need to be focusing on delivery time, targeted care for high-risk groups, and clinically relevant prevention methods,” said Dr. Ruff. “Utilizing novel statistical methods to properly account for the longitudinal research design, we can control for relevant observed and unmeasured confounders, and explore the comparative effects of multiple preventive services simultaneously.”

Dr. Ruff believes that the methods used in this project will be demonstrated to be effective and easily adaptable for use in the analysis of other large effectiveness trials.

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<td>To utilize novel statistical methods to conduct a systematic evaluation of a comprehensive caries prevention program using a longitudinal dataset of students attending Title 1 (low-income) schools.</td>
<td>To serve as a roadmap for the robust analysis of complex, longitudinal datasets in oral health, which in turn will help clinicians and policymakers accomplish the Healthy People 2020 goals of incorporating oral health in education and eradicating oral diseases in children.</td>
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**Dr. Nicole Scheff Receives $120,000-Plus NIDCR F32 Grant to Investigate the Biology of Sex Differences in Oral Cancer Pain**

NICOLE SCHEFF, PhD, a postdoctoral fellow in the laboratory of Brian L. Schmidt, DDS, MD, PhD, director of the NYU Bluestone Center for Clinical Research and the NYU Oral Cancer Center, has received a two-year, $120,000-plus F32 grant from the National Institute of Dental and Craniofacial Research (NIDCR). The grant was awarded to Dr. Scheff to investigate whether immune cells in the oral cancer environment contribute to sex differences in oral cancer pain.

Dr. Scheff is currently the only researcher at NYU Dentistry to receive an F32 grant, which provides postdoctoral research training to individuals to broaden their background and extend their potential for research in specified health-related areas. The F32 grant will allow her to acquire additional training in a clinical setting and to pursue a translational hypothesis that has potential for immediate clinical impact.

“The incidence of oral cancer is increasing, particularly among young people and women,” says Dr. Scheff. “While most patients of both sexes suffer from oral cancer related severe, chronic pain, research conducted at the NYU Oral Cancer Center has demonstrated that women with oral cancer experience more cancer-related pain than men.”

“Complicating matters, the etiology of oral cancer pain is unknown,” says Dr. Schmidt. “And opioid drugs do not effectively alleviate oral cancer pain. Based on her findings, Dr. Scheff hypothesizes that infiltrating neutrophils in the cancer microenvironment contribute to sex difference in oral cancer pain.”

Dr. Scheff’s data suggest that increased neutrophil infiltration is responsible for reduced oral cancer pain. However, a direct relationship between neutrophil infiltration and oral cancer pain has not yet been demonstrated. Dr. Scheff predicts that her studies, focused on the roles of immune cells in the cancer environment in males and females, will aid in discovering a sex-specific mechanism of analgesia that has the potential to be exploited to improve pain management for both sexes.

**The Grant:**

$120,000+, 2-year NIDCR grant

**Research Goal:**

To investigate whether immune cells in the oral cancer environment contribute to sex differences in oral cancer pain.

**The Hope:**

To improve clinicians’ ability to treat and prevent pain in all people by better understanding the biological differences between men and women during cancer progression.
The Osteo Science Foundation has awarded one of two inaugural Philip J. Boyne Junior Faculty Awards to Ismael Khouly, DDS, MS, PhD, clinical assistant professor of oral and maxillofacial surgery and associate director of periodontology and implant dentistry at the Bluestone Center for Clinical Research. This marks the first time that an NYU investigator has been funded by the Osteo Science Foundation, whose mission is to advance hard and soft tissue regeneration, with a focus on oral, cranial, and maxillofacial surgery in the United States and Canada.

The Philip J. Boyne Junior Faculty Awards, each totaling $50,000, are granted for research proposals submitted by junior faculty who seek to address questions in the field of hard and soft tissue regeneration in oral, cranial, and maxillofacial surgery.

Dr. Khouly’s research focuses on the physiological process that may compromise prosthetic restoration or implant placement following tooth extraction. His study, “Effect of Alveolar Ridge Preservation After Tooth Extraction in the Posterior Maxilla: A Randomized Trial,” aims to evaluate post-extraction dimensional changes in the posterior maxilla following ARP using porcine-derived xenograft combined with a collagen membrane versus extraction alone. It will be the first split mouth randomized clinical trial to evaluate alveolar ridge preservation in the posterior maxilla following tooth extraction.

Dr. Khouly hypothesizes that ARP therapies might reduce the dimensional changes in the bone following extraction. “Our goal,” he says, “is to refine the effectiveness of ARP in the posterior maxilla and evaluate these options with scientific rigor.”

“The larger significance,” says Dr. Khouly, “is that our research has the potential to significantly reduce or eliminate post-extraction problems that impair the success of prosthetic restoration and/or implant placement.”

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Dr. Asgeir Sigurdsson has been named the inaugural Presley Elmer Ellsworth Professor of Endodontics. The professorship was established in 1997 through a bequest made by Robert Ellsworth, a Manhattan-based American art dealer in Asian paintings and furniture from the Ming dynasty. The bequest was made in honor of his late father, Dr. Presley Elmer Ellsworth, a dentist who taught for many years at NYU, and who has been called the “father of endodontics.” Mr. Ellsworth died in 2014.

“We are incredibly grateful for this bequest from the estate of Robert Ellsworth that has enabled us to establish the Ellsworth Professorship,” said Dean Bertolami. “Endowed chairs carry prestige and honor for the chair holders and the people and organizations whose names they carry. They help us advance research and provide exceptional patient care by offering stability through consistent funding. We couldn't be more appreciative,” he added.

“It is especially meaningful to all of us at the College to name Asgeir Sigurdsson as the inaugural Ellsworth Professor. He has made tremendous contributions to the field of endodontics and has influenced endodontists around the world,” continued Dean Bertolami.

The World Health Organization (WHO) has designated NYU Dentistry’s Department of Epidemiology & Health Promotion a WHO Collaborating Center for Quality-improvement, Evidence-based Dentistry.

The WHO designation recognizes NYU Dentistry’s expertise and commitment to evidence-based dentistry. WHO Collaborating Centers are designated by the Director-General of WHO as part of an inter-institutional collaborative network of centers worldwide. They are established to provide concrete activities at the national, regional, and global levels in support of the strategic plans specific to WHO areas of work. All WHO Collaborating Centers in the Region of the Americas are known as PAHO/WHO Collaborating Centers since the Pan American Health Organization also serves as a WHO regional office.

The NYU Dentistry WHO Collaborating Center, one of only 10 WHO Dentistry Collaborating Centers in the world, received its designation in December 2016 for a renewable four-year period, guided by the WHO Terms of Reference. Specific teams will support education, research, and scholarly exchange on behalf of three principal aims:

1. To provide technical cooperation in designing novel effective and efficient surveillance systems for oral diseases, conditions and behaviors that measure disease burden, quality of life, and impact of preventive interventions.

2. To develop and disseminate protocols for the prevention and control of oral diseases across the lifespan.

3. To develop educational content for the prevention and control of oral diseases among seniors and the elderly by primary healthcare professionals working in community and health centers.

Through these activities, the Center will also foster competence in global health for pre- and postdoctoral students and faculty at NYU Dentistry.

The Center is codirected by Richard Niederman, DMD, professor and chair of the Department of Epidemiology & Health Promotion, and Eugenio Beltran, DMD, MPH, DrPH, MS, adjunct professor of epidemiology and health promotion.

According to Dr. Niederman: “The WHO Collaborating Center is already working with PAHO in developing their next five-year plan; has carried out an oral health surveillance initiative in Montserrat; and in February will begin building the business case for oral health.”
NYU Dentistry and NYU Stern School of Business Jointly Offer a New DDS/MBA Dual Degree Option

In response to an increasing demand on dentists to manage both patient care and the business of dentistry, NYU’s College of Dentistry and its Stern School of Business have created a dual degree DDS/MBA program. Students can complete both degrees within five years with a flexible format that balances coursework with clinical practice.

“We are extremely pleased to introduce our new DDS/MBA dual degree program, which offers an individualized and extremely relevant learning pathway,” said Dean Bertolami. “There is an ever-expanding need for practicing dentists to fully understand the business side of health care, whether they are in solo practice or corporate owned offices. A more efficiently run practice can translate into better and potentially more affordable service to the public.”

Students enrolled in the dual DDS/MBA program begin at NYU Dentistry on a full-time basis for the first two years. During the third calendar year, students take core MBA courses while continuing to hone their clinical skills eight hours a week at the College of Dentistry. During the fourth and fifth calendar years, NYU Dentistry remains their home as they take their remaining DDS and MBA courses within a flexible format that allows them to move clinical practice time when needed and take business courses when offered.

“In today’s dynamic healthcare environment there are increasing pressures to manage the double bottom line of delivery of quality care with efficiency. Our intent with this new dual degree program is to equip practicing dentists with a business lens that enables them to excel in this setting,” said Dr. Peter Henry, Dean, NYU Stern School of Business.

NYU dental students in their second year may seek entry into the program. The GMAT/GRE requirement will be waived for the DDS/MBA applicants. The program will be limited to five students in its first year.

“This new dual degree program is one of only a handful of such programs that exist in US dental schools,” said Dr. Andrew I. Spielman, NYU Dentistry’s associate dean for academic affairs. “It is one of several steps NYU Dentistry has taken to be at the forefront of transforming dental education in order to best meet the needs of tomorrow’s dentists.”

NYU Colleges of Dentistry and Global Public Health Jointly Offer DDS/Online Certificate in Public Health

Reflecting a societal need for dentists with both excellent clinical skills and a deep understanding of public health issues and challenges, NYU’s College of Dentistry and College of Global Public Health (CGPH) have created a DDS/Online Certificate in Public Health program in which dental students can complete both the DDS degree and the certificate program within four years. This dual program option is one of a very few of its kind in the US.

“We are extremely pleased to introduce our new DDS/CPH program, which offers dental students the opportunity to gain added expertise in providing effective health solutions,” said Dean Bertolami. “The two disciplines, dentistry and public health, are naturally complementary as both seek to improve the health of the public.”

Because courses in the online certificate program are offered every semester, including the summer, DDS students will not require additional time beyond their four-year dental curriculum to graduate with the dual program option. CPH courses include epidemiology, global issues in social and behavioral health, global health policy and management, biostatistics for public health, and global environmental public health.

“With this new program, dental students now have the opportunity to gain essential knowledge and training in core public health concepts that will enhance their ability to develop more efficient healthcare delivery, improve patient outcomes, and make a positive difference in people’s lives in global communities,” added Dean Bertolami.

“This unique online certificate program underscores the multidisciplinary nature of the College of Global Public Health,” said Dr. Cheryl G. Healton, Dean, CGPH. “We’re excited to team up with our partner, NYU Dentistry, to maximize the benefits of sharing resources developed here to be accessible at other NYU schools,” she added.

Dr. Joyce O’Connor, the program’s director at CGPH, agreed. “Because online technology makes this course so accessible for our College of Dentistry students to take, they can gain invaluable public health perspectives developed here at CGPH without the costly burden of doing an extra year to take the course in person.”

The DDS/CPH program is open to prospective dental students who express an interest in public health training and maintain a grade point average of 3.5 or higher. DDS students may begin taking online CPH courses as early as the summer semester of their first year.
A SAMPLING OF RECENT MEDIA COVERAGE

THE NEW YORK TIMES ran a story on access to dental care titled “Our Teeth Are Making Us Sick,” which featured NYU Dentistry’s Urgent Care Clinic, and its director Dr. Laurie Fleisher, clinical assistant professor of endodontics and of cariology and comprehensive care.

THE NEW YORK TIMES interviewed Dr. Richard Niederman, professor and chair of the Department of Epidemiology & Health Promotion, for a story titled “Why A Chemical Banned from Soap is Still in Your Toothpaste.” Dr. Niederman was also interviewed by THE NEW YORK TIMES for a story titled “Dodging the Drill with Cavity-Fighting Liquid: Silver Diamine Fluoride Offers a Faster, Cheaper and Painless Alternative to Filling.”

CBS2 and THE NEW YORK POST also interviewed Dr. Amr M. Moursi, professor and chair of the Department of Pediatric Dentistry, about the benefits of silver diamine fluoride.

PEOPLE interviewed Dr. Niederman for an article titled “Complications from Tooth Infection Lead to California Father’s Death.”

ESPN’S FIVETHIRTYEIGHT quoted Dr. Niederman in an article titled “How More Kids Could Avoid the Dentist’s Drill.”

THE NEW YORK TIMES quoted Dr. Analia Veitz-Keenan, clinical associate professor in the Department of Oral and Maxillofacial Pathology, Radiology and Medicine and director of evidence-based dentistry in the Department of Epidemiology & Health Promotion, in an article titled “Why Does My Dentist Give Me So Many X-rays?”

THE NEW YORK POST interviewed Dr. Todd A. Ross, adjunct clinical assistant professor of cariology and comprehensive care, for an article titled “Lip Service: Open Wide! Looking at Your Mouth Can Uncover Serious Hidden Health Issues.”

MEN’S HEALTH quoted Dr. Brian L. Schmidt, professor of oral and maxillofacial surgery and director of the NYU Bluestone Center for Clinical Research and the NYU Oral Cancer Center, in its “Ask Men’s Health” column about a possible link between frequent use of alcohol-based mouthwash and the risk for oral cancer.

ONCOLOGY LIVE interviewed Dr. Schmidt for an article titled “NYU Expert Says Cancer Pain Varies by Tumor Type.”

DOCTOR RADIO broadcast its seventh annual weeklong series on oral health, “Start Your Summer with a Smile,” in June 2017. The live, call-in radio program, hosted by Dr. Mark Wolff, professor and chair of the Department of Cariology & Comprehensive Care, featured NYU Dentistry faculty experts on a range of topics, including “Esthetically-focused Prosthodontics;” with guest host Dr. Lawrence Brecht, adjunct clinical associate professor of prosthodontics, and faculty expert Dr. Leila Jahangiri, clinical professor and chair of the Department of Prosthodontics; “Why Do Some People Get Decay? Why Do Some Not Get Decay? Can You Become Someone Who Does Not Get Decay?” with Dr. Andrew Schenkel, clinical associate professor of cariology and comprehensive care; “Dental Care for People with Disabilities, Young and Old, Physical and Intellectual,” with Drs. James Keenan and Marc Henshel, both clinical assistant professors of oral and maxillofacial pathology, radiology and medicine; “Periodontal Disease and Dental Implants,” with Dr. Peter M. Loomer, clinical professor and chair of the Ashman Department of Periodontology & Implant Dentistry; and “Advances in Cleft Lip and Palate Treatment,” with Dr. Ronald Kosinski, clinical associate professor of pediatric dentistry.

DOCTOR RADIO also featured interviews with Dr. Michael Bral, professor of periodontology and implant dentistry, on healthy aging; Dr. Robert Glickman, professor and chair of the Department of Oral and Maxillofacial Surgery, on when and where to seek treatment for dental emergencies on the road; Dr. Loomer, on general dental health; Dr. Moursi, on a range of pediatric dentistry issues; Dr. Glenn Rochlen, clinical assistant professor of cariology and comprehensive care, on general and aesthetic dentistry; Dr. Vera Tang, clinical assistant professor of periodontology and implant dentistry, on periodontal disease and on healthy teeth and gums; Dr. Niederman on men’s dental and oral health; and Dr. Jessica Hilburg, associate dean for clinical affairs, on general dental health.
THE HUFFINGTON POST featured Dr. Giuseppe Cicero, a third-year postgraduate student in the Advanced Education Program in Periodontics, in an article titled “Young, Creative, Ambitious - Pushing the Limits of Dentistry in New York City with Italy in His Heart.”

THE HUFFINGTON POST interviewed Dr. Mark Wolff for stories on stress and dental health and on the link between eroded tooth enamel and drinking flavored soft drinks.

CBS NEWS also interviewed Dr. Wolff on the relationship between tooth enamel and drinking flavored drinks.

THE HUFFINGTON POST interviewed Dr. Jessica Hilburg for an article titled “Healthy Living: You’re Probably Forgetting to Brush this Part of Your Teeth - Missed A Spot!”

QUANTA MAGAZINE interviewed Dr. Timothy Bromage, professor of biomaterials, for an article titled “Teeth May Reveal a Multi-Day Biological Clock.”

CBS NEWS interviewed Dr. Wolff in the aftermath of the death of a Minnesota teen following a wisdom tooth extraction.

HEALTH MAGAZINE quoted Dr. Wolff in an article titled “A User’s Manual: Your Smile - Dental Dread is Treatable.”


TIME quoted Dr. Wolff in an article titled “9 Things Your Smile Reveals About Your Health.”

THE WALL STREET JOURNAL quoted Dr. Wolff in an article titled “An Anti-Plaque Dental Gel Excels in Limited Testing.”

READER’S DIGEST quoted Dr. Denise Estafan, associate professor of cariology and comprehensive care, in an article titled “Nine Tips That Will Save Your Teeth from Coffee Stains.” Dr. Estafan was quoted as saying that “You can conquer coffee breath and clean your teeth at the same time by chewing gum, since chewing gum increases the amount of saliva in your mouth and saliva washes away acids and plaque from your teeth.”

UNIVISION SALUD featured NYU Dentistry faculty in the following articles: “A Dentist Can Help Detect Diabetes” (Dr. Debra M. Ferraiolo, clinical assistant professor of oral and maxillofacial pathology, radiology and medicine, and director of patient admissions); “Do We Really Need to Use Dental Floss?” and “Tooth Mobility: How to Know If Your Teeth Are Shifting, and What to Do About It” (Dr. Niederman and Dr. Analia Veitz-Keenan); “Seven Essential Reminders for a Healthier Smile in 2017” and “These Tips Will Help You Eliminate Bad Breath” (Dr. Wolff). UNIVISION also featured Dr. Veitz-Keenan in a profile of “23 Exceptional Healthcare Professionals from 7 Major Hospitals/Institutions Across the Country.”

WOMEN’S HEALTH interviewed Dr. Vera Tang, for an article titled “5 Crazy Things That Happen When You Don’t Brush Your Tongue.” Dr. Tang was quoted as saying, “More than 700 different bacterial species live in the mouth. Not all of these microbes are harmful. But when the bad ones set up shop and multiply in the crevices around the papillae, or small bumps on the surface of the tongue, they can inflict some real damage.”

MACHIAS VALLEY NEWS OBSERVER ran a story marking the 10th annual outreach visit by the NYU Dentistry/Henry Schein Cares Global Student Outreach Program. (See related story on p. 105.)

THE DOCTOR’S BOOK OF NATURAL HEALING REMEDIES interviewed Dr. Andrew Spielman, associate dean for academic affairs, for a chapter on halitosis, and Dr. Gary R. Goldstein, professor of prosthodontics, for a chapter on dentures.
On May 24, 2017, the Class of 2017, including more than 400 candidates for the Doctor of Dental Surgery degree, AAS and BS degrees in dental hygiene, MS degrees in biomaterials and in clinical research, and Advanced Education Program certificates, saw their dreams come true as they received their degrees and certificates before an audience of over 4,500 people in The Theater at Madison Square Garden.

Richard Baum, chief of staff to the president of New York University, brought greetings on behalf of the University. An added highlight of the occasion was the participation of 15 members of the Class of 1967, who were celebrating the 50th anniversary of their graduation.

The David B. Kriser Medal, the highest honor bestowed by the NYU College of Dentistry, was awarded to Dr. Gary Parker, who, for more than 30 years, has served as Chief Medical Officer of Africa Mercy, the world’s largest non-governmental charity ship, where he has dedicated his life to providing free reconstructive surgery to needy people in Africa. Using his professional expertise as an oral and maxillofacial surgeon, and his commitment to the poor, which he has called a “fundamental part” of his faith, he and his medical team have brought life-transforming care to those who have been made to feel worthless as a result of complex congenital deformities not seen in the West. In doing so, he has helped his patients regain not only their health, but also their dignity and their place in society.

Class Representative Erika Marie Pepe spoke on behalf of the dental hygiene programs and Dr. Luke T. Harms represented the DDS program. Alumni Association President Dr. Bill Bongiorno, ’73, brought...
greetings from the Alumni Association, telling the graduates, “We have developed a sense of family and you have created friendships that will last throughout your lives.”

Following the presentation of degrees and certificates, an especially poignant moment occurred when, for the second consecutive year, the 2016 Kriser Medal recipient, Major General Thomas R. Tempel, Jr., Commander, Western Regional Medical Command, and Chief, US Army Dental Corps., officially commissioned newly-minted DDS program graduates – a total of 15 this year – entering the US Armed Forces Dental Corps.

“The NYU College of Dentistry celebrates the achievements of our newest alumni, of the faculty, families, and friends who have guided them to this momentous day, and of our distinguished 2017 Kriser Medal recipient, Dr. Gary Parker, and we thank Major General Tempel for once again officially commissioning our graduates entering the US Armed Forces. “It is my hope that Major General Tempel will return annually to make the commissioning of new officers an especially meaningful tradition at the College,” said Dean Bertolami.

“Getting to this day has taken more than hard work, dedication, and discipline,” Dean Bertolami told the graduates. “It has also taken a commitment to educational excellence, a strong public service orientation, and a growing global perspective, all of which have made this class so special. We wish our graduates great success and happiness in the years ahead.”
Distinguished.
Dr. Elena P. Cunningham, clinical associate professor in the Department of Basic Science and Craniofacial Biology, has received the 2016–2017 NYU Distinguished Teaching Award. The NYU Distinguished Teaching Award recognizes that, along with research, exceptional teaching, both within and outside the classroom, is among NYU’s highest institutional priorities. Dr. Cunningham is one of only six faculty members University-wide to receive the award this year. She is also the second NYU Dentistry faculty member in the past two consecutive years to receive the award. Dr. Analia Veitz-Keenan, clinical associate professor in the Department of Oral and Maxillofacial Pathology, Radiology and Medicine and director of evidence-based dentistry in the Department of Epidemiology & Health Promotion, won the 2015–2016 award.

In his letter nominating Dr. Cunningham for the award, Dean Bertolami wrote, “From the time Dr. Cunningham joined NYU Dentistry in 2004, following a previous appointment at the Albert Einstein College of Medicine, her penetrating intelligence, compelling teaching style, scholarly achievements, and leadership initiatives have brought her campus-wide recognition as a ‘go-to’ person — a scientific expert, a consistently supportive, resourceful mentor, and an accessible, always welcoming colleague. Most recently, she has measurably amplified the value she brings to her students and colleagues by introducing a new online digital technology known as Cerego into the review course in anatomy that she teaches to DDS students preparing to take Part I of the National Board Dental Examination (NBDE).” (See related story on p. 98).

Cerego employs two learning concepts — memory retrieval and spaced practice — and adapts to each student’s learning speed to ensure that he or she remembers the material as it is presented. Cerego interactive learning tool not only affords faculty more time to cover complex review topics in class, it also offers personalized data that make it easy for them to determine and address the basic outline review items that may present a problem for one student or for the entire class.

Dr. Cunningham comes naturally by her interest in the science of cognition. She wrote her PhD thesis in anthropology on “The Use of Memory in Pithecia pithecia’s (White-faced saki monkey’s) Foraging Strategy,” and she is conducting a three-year investigation of lemur foraging cognition at the Lemur Conservation Foundation in Myakka, Florida. Last fall, Dr. Cunningham Awarded NYU’s Highest Teaching Honor

of Oral and Maxillofacial Pathology, Radiology and Medicine and director of evidence-based dentistry in the Department of Epidemiology & Health Promotion, won the 2015–2016 award.

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— Dean Charles Bertolami

also welcomes multimedia content, including photos, sound bites, and video clips. Thanks to Dr. Cunningham’s skill in utilizing this technology to create compelling course content online and to help students maximize the benefits of Cerego to learn faster and remember longer, the Class of 2017 achieved a 100 percent first-attempt pass rate on Part I of the NBDE, and scored 2.6 standard deviations above the national mean in the anatomical sciences.

Without Cerego, the faculty would have had to devote an additional 96 hours of teaching to the Part I NBDE review course. This as part of the Special Presidential Inauguration Week Research Presentations at NYU Dentistry titled “Discovery: What Makes Us Human,” she discussed her research on lemur learning and the evolution of human primate cognition before an overflow crowd. It was clear to everyone present that she was energized by her audience, whose members in turn were enthralled by her presentation.

NYU Dentistry congratulates Dr. Cunningham on receiving this wonderful, well-deserved award in tribute to a master of the art of teaching.
On March 26, 2017, the College introduced a new tradition, a gala Dean’s Honors Day celebration of major professional distinctions earned by our faculty, administrators, and staff during the previous year.

Recipients of Dean’s Honors Day Awards were selected on the basis of exceptional accomplishment in the areas of teaching, research, service to the profession, innovation, and administration, both intra- and extramurally.

In his remarks, Dean Bertolami explained the rationale for the event by saying: “The caliber of our faculty, administrators, and staff is such that each year they earn professional distinctions at a level and of a magnitude that you don’t often see. So it seemed to me that the time was right to introduce a new annual tradition at the College, a ‘Celebration of Excellence.’”

Each honoree received a gift of a medallion paperweight inscribed with the NYU motto, Perstare et praestare — ‘To persevere and to excel’— as, Dean Bertolami said, “an emblem of the professional distinctions that you have earned and which in turn bring great honor to the College.

“As I have said on previous occasions,” he added, “it is those things that differentiate NYU College of Dentistry. And as you look around this room at today’s Celebration of Excellence, and as you read through the program and note all of the distinctive achievements of this esteemed group, I hope you will join me in congratulating our colleagues and in appreciating what a remarkable time it is to be a part of NYU College of Dentistry.”
New Issue of JADE Online Now

A new issue of NYU Dentistry’s online open-access magazine, the Journal of the Academy of Distinguished Educators (JADE) is online now at http://dental.nyu.edu/jade. JADE is the publications component of the NYU Academy of Distinguished Educators. JADE invites experts in higher education to face off on the thorny issues confronting higher education as it endeavors to foster interdisciplinary and interprofessional education.

The theme of the new issue is “Global Oral Health: Its Impact on Dental Education.”

The issue focuses on the challenge of global oral health disparities and the importance of preparing students to address the lived reality of communities in need of dental education and care, both globally and locally.

It features an introduction by Dr. Silvia E. Spivakovsky, clinical associate professor in the Department of Oral and Maxillofacial Pathology, Radiology and Medicine, the 2017 Chair of the NYU Academy of Distinguished Educators, and the JADE editorial board chair; a guest editorial by Ms. Shirley Birenz, clinical assistant professor of dental hygiene; a centerpiece article by Dr. Habib Benzian, adjunct professor in the Department of Epidemiology & Health Promotion; and commentaries by Dr. Peter M. Loomer, clinical professor and chair of the Ashman Department of Periodontology & Implant Dentistry and director, global health for oral health sciences at the NYU College of Global Public Health; and by Dr. Joana Cunha-Cruz, research associate professor in the Department of Oral Health Sciences at the University of Washington School of Dentistry, and Dr. Kirsten D. Senturia, clinical assistant professor in the Department of Health Services at the University of Washington School of Public Health.

Full-Page New York Times Ad

NYU College of Dentistry Faculty

The Sunday, April 23, 2017, national edition of The New York Times carried a full-page ad saluting the members of the NYU College of Dentistry faculty.

In a note that Dean Bertolami sent to the faculty informing them of the ad, he wrote:

“I know that it doesn’t get expressed often enough, but it is important that you know how remarkable and appreciated you are by our students, the College’s administration, and me, personally. In the spirit of this season of renewal, it is therefore a privilege to celebrate publically your excellence in providing the highest-quality education and training for the next generation of dental professionals. Your impressive teaching and research contributions, together with your commitment to patient-centered care, have made NYU Dentistry a magnet for exceptional students and helped to bring it into the top ranks of US dental schools.

Please know how grateful I am to work with all of you and to recognize your achievements. Congratulations!”
For Stephanie Colaiacovo, ’17, knowing what she wanted to be when she grew up was never in question.

“I decided that I wanted to be a dentist when I was about seven years old,” says Stephanie, who was born and raised in Toronto.

At 12, she began seeing an orthodontist, who further influenced her career path.

“I found out that I had an open bite, which means I could not close my front teeth,” she says.

This explained why Stephanie was having difficulty pronouncing certain words. She was also having trouble chewing hamburgers and other foods. She remembers being bullied by other kids because of these issues. Fortunately, she learned from her orthodontist that her condition could be corrected. She underwent treatment which involved orthognathic surgery and she also wore braces for three years.
“As an adolescent I learned just how transformative orthodontics can be,” she says. “My orthodontist changed my life, and I knew I wanted the opportunity to positively shape other people’s lives in the same way.”

Stephanie’s dream to follow in her orthodontist’s footsteps sparked an interest in studying biology. After graduating from McMaster University, in Hamilton, Ontario, where she earned a BS degree in life sciences, she applied to dental school and chose NYU because she felt it offered many possibilities beyond the classroom and clinic.

“One of the best things about the NYU College of Dentistry is all the different doors you can open while here,” she says. “It has really allowed me to seek out what I want and gain as much experience as possible in so many different arenas.”

An honors student at the College, Stephanie graduated in the top 10 percent of her class. Her broad range of interests has encompassed leadership, research, teaching, volunteerism, and other extracurricular activities. During her freshman year, she received an award presented by the Omega Chapter of Omicron Kappa Upsilon for Outstanding Academic Performance. She was also recognized for academic excellence by the College’s Academy of Distinguished Educators. She served as president of the College’s Orthodontic Society, co-curriculum representative on her Class Council, and fundraising chair for Xi Psi Phi International Dental Fraternity-Beta Chapter.

“Stephanie,” says her research mentor, Dr. George J. Cisneros, professor of orthodontics, “is by far the finest and also the nicest student I have ever had the privilege of mentoring. She makes everything easier to accomplish.”

One of Stephanie’s research projects mentored by Dr. Cisneros involved assessing the prevalence and management of white spot lesions in orthodontic patients. It was presented as a poster at the College’s 2016 Research Scholarship Expo, where it was designated “Best Epidemiology & Health Promotion Presentation by a Pre-doctoral Student.” Another research project with Dr. Cisneros involved evaluating the various orthodontic practice-communication models used in doctor-patient relationships. The results of this study were included in a chapter in the textbook, Essentials for Orthodontic Practice.

“Stephanie has already been a co-author on one of our papers and she’s helping us now to put the finishing touches on two more papers,” notes Dr. Cisneros.

While at NYU, Stephanie also developed a strong interest in teaching. She served as a teaching assistant, an admissions ambassador, a peer mentor, an orientation week leader, and a tutor.

Teaching seems to run in Stephanie’s family. “I have an identical twin sister and an older sister who are both elementary school teachers,” she says. “To see someone succeed with your help is very rewarding. Teaching helps put a smile on people’s faces, as does helping those outside of our community.”

She also participated in outreach programs, including the NYU Dentistry/Henry Schein Cares Global Student Outreach Program, which allowed her to provide care in a rural area in Nicaragua; the NYU Dental Student Council’s Flossing Between the Trees Committee’s cleanup and restoration of NYC Parks; Wire-the-Wise Foundation’s intergenerational technology meetups for older adults; and oral health screenings throughout New York City.

Stephanie credits her drive and productivity to her immigrant parents. Her father hails from Italy and her mother from Portugal.

“I really believe in the concept of delayed gratification,” says Stephanie. “By working very hard in the present, you’ll set yourself up for reward later. You need to be patient. And you also need coffee,” she jokes.

“It’s clear to me,” says Dr. Cisneros, “that her family has had a tremendous influence on her, both in terms of her work ethic and her sense of purpose in life.”

Even with her full plate of responsibilities at NYU Dentistry, Stephanie has managed to take advantage of living in New York City. She loves the hustle and bustle and has enjoyed taking breaks in the city’s parks. She has also made a lot of friends at NYU and has relished social activities including happy hours, dinners, and bowling excursions with her Group Practice and Xi Psi Phi dental fraternity peers.

“We’ve all grown close. We’re like a little family here,” says Stephanie.

Stephanie began specialty training in orthodontics at the University of Buffalo School of Dental Medicine in July. Following that three-year program, she plans to join a group practice, ideally in or around Toronto. She would also like to teach and get involved in outreach programs that bring orthodontic care to underserved adolescents.

“SUNY Buffalo is very lucky to have Stephanie as one of their orthodontics specialty training students,” says Dr. Cisneros. “I couldn’t be happier for her or prouder of her accomplishments.”

For her part, Stephanie is ready to greet the future with confidence. “Attending NYU Dentistry gave me the knowledge and skills to fulfill my dream,” she says. “It also brought me out of my shell. I feel totally prepared for whatever comes next.”
“She has incredible discipline and drive,” says Rosemary Hays, clinical associate professor of dental hygiene and assistant director of dental hygiene admissions, in describing Erika Marie Pepe. “She knows what she wants.”

But knowing what she wanted was not always the case for Erika, who graduated in May with a BS degree in dental hygiene.

After attending high school in Tampa, Florida, Erika found herself floundering and enrolled in a community college without any clear direction or idea for a career path. After changing her major several times, she decided on a whim to join the United States Air Force. When asked by a military recruiter what field she was interested in, Erika chose meteorology.

“I thought studying weather would be cool,” says Erika, who was 19 when she enlisted.

“As it turned out, I was good at meteorology,” she says. “I kept getting promoted and gradually moved up the ranks. That’s how I eventually became a regional weather supervisor.”

The military gave Erika the direction and purpose she had been seeking. But her career came to a sudden halt in 2009, when two weeks after her 21st
birthday, she was diagnosed with cancer. Her illness forced her into temporary medical retirement from the military.

Fortunately, Erika won her battle against cancer, but she had another fight ahead of her when the military gave her the option of being discharged from the Air Force with severance pay, or filing an appeal to get her job back.

Erika decided to fight. She hired a lawyer, pled her case, and got her job back. Within one year of re-enlisting, she was promoted to staff sergeant and was accepted into the Airman Leadership School, where she earned the highest GPA and graduated with honors. She then earned further distinctions as Non-Commissioned Officer of the Quarter and Airman of the Year (2011) for her unit. She also earned an associate's degree in meteorology, coordinated three blood drives, dedicated more than 150 hours to community service, helped raise over $81,000 for local and national charities, and in 2014 was again designated Non-Commissioned Officer of the Quarter and Non-Commissioned Officer of the Year.

“After beating cancer, I had a new appreciation for life,” she says. “I was given a second chance and wanted to make the most of it.”

After earning many distinctions within the field of meteorology, Erika felt the need to move on. She wanted to change her career path to enable her to focus more on helping others. A civilian dental assistant friend encouraged her to consider dentistry.

“I had always had an appreciation for dentistry, ever since I was 10 years old and rode a bike down a flight of stairs,” says Erika. “That trip resulted in my getting a dental implant.”

At first, Erika thought she might move from meteorology to dentistry within the military. But since meteorology was understaffed, she was not allowed to make the switch.

So Erika took a major career-changing leap of faith, left the military in 2015, and enrolled in NYU Dentistry’s BS in Dental Hygiene program, a decision she has been happy with ever since.

“I thought I would eventually go to dental school,” says Erika. “But now that I’ve fallen in love with dental hygiene, I do not see myself going to dental school, except perhaps to get a master’s in dental hygiene.”

Erika has approached her time at NYU Dentistry with the same zeal she displayed in the military. In addition to juggling a full-course load and maintaining a high GPA, she has been a teaching assistant, helping hygiene students with their hand skills in Principles of Dental Hygiene II; led prospective student tours; and been involved in several oral health outreaches to underserved communities throughout the New York metropolitan area. At graduation, she had the honor of serving as valedictorian for her class.

“Dental hygiene is not an easy program,” says Professor Hays. “It’s all the sciences, then you enter the clinic, and then you have to take your boards. But Erika is always on top of things and has taken part in all we have to offer at NYU. She does not take the easy way out.”

Erika has particularly liked working with pediatric patients and is doing an internship in the Department of Pediatric Dentistry this summer. Looking toward her professional future, she hopes to work in a pediatric dental office either part-time or full time.

“I really love being with kids,” she says. “That is where I find the most happiness.”

Erika also wants to continue her interest in charity work with a focus on disabled veterans as well as with underserved communities here and abroad. “Charity work and organizing are really passions of mine,” she says. “If I could help provide oral health care to people with limited access, that would also make me very happy.”

“I have been to a lot of different schools, but I did not know what it means to be at a university with a faculty who genuinely care about your success,” she says. “At NYU Dentistry, they want you to do well, and they stick with you through the entire program. I feel that I’ve gotten a great education and am prepared to tackle anything that lies ahead.”
Several years ago, a committee composed of faculty in the Department of Cariology and Comprehensive Care made the decision to expand the existing group practice structure by adding additional academic coordinators to each of the four group practices.

The group practice academic coordinators are responsible for monitoring students’ academic performance and compliance with clinic protocol in each group practice, with a focus on the overall long-term care of their patients. The group practice academic coordinators, or as we like to be known, the “A Team,” are integral to the effective functioning of the predoctoral group practices. Each of us knows that everything we do and say contributes to making us a team, rather than merely a group of individuals. Most recently, our team has assumed the added role of peer facilitators, helping to acclimate first-year students to the clinical environment. Each of us is assigned a group of 12 to 14 first-year students, whom we counsel throughout their four years at the College.

Each of our seven academic coordinators collaborates with two faculty group practice directors, three clinic managers, up to seven staff members, and anywhere from 97 to 120 dental and dental hygiene students on a daily basis. More important is the time and effort each of us puts into making sure that our students are following correct protocol when it comes to clinical education experiences (CEE) and supporting students in meeting their minimum disciplinary requirements (MDR) — the specific procedures each student needs to complete as part of their clinical experiences in order to graduate. All this is accomplished within their assigned group practices.
All of the academic coordinators were selected based on their ability to perform cross-functional management in a high-paced environment, as well as on their prior professional achievements, capabilities, and willingness to help students become successful while maintaining the highest integrity, professionalism, quality assurance, and compliance standards. Our group consists of two associate certified coaches (ACC), a dental assistant, a former program director, an adjunct professor of English, a Toastmaster Public Speaker, several former private practice managers, a former social worker, and one former NYU Dentistry frontline staff member. The “A Team” includes:

- **Ms. Barbara Smith**, 2nd Floor A&B: Group Practices of Dr. Studley and Dr. Brandolin
- **Ms. Maureen Jones**, 3rd Floor A: Group Practices of Dr. Podell and Dr. Gendler
- **Mr. Dayake Bubb**, 3rd Floor B: Group Practices of Dr. Raymond and Dr. Rochlen
- **Ms. Queen Walker**, 4th Floor A: Group Practices of Dr. Resnick and Dr. DePaola Cefola
- **Ms. Judith St. Louis**, 4th Floor B: Group Practices of Dr. Peltz and Dr. Soeprono
- **Mr. Christopher Wilson**, 5th Floor A: Group Practices of Dr. Berkowitz and Dr. Congiusta
- **Mrs. Marion Asafu-Adjaye**, 5th Floor B: Group practices of Dr. De Bartolo and Dr. Penugonda

We are all committed to the idea that a team combines each individual’s dedication and commitment to their students’ success and is reflected in their students’ clinical progress. The academic group practice coordinators all have a “can do” attitude that derives from the professional knowledge and skills they bring to their assignments, and all model excellent communication techniques and key leadership principles that contribute to a strong team environment and the best possible student experiences.

It’s safe to say that if you have a problem, you can always rely on the “A Team” to help solve it.
Innovative Thinking

SXSWedu Conference Features Elena P. Cunningham and Cristián Opazo as Builders of a Culture of Innovation

Dr. Elena P. Cunningham, clinical associate professor of basic science and craniofacial biology, and Mr. Cristián Opazo, director of educational technology, were featured in a panel discussion titled “Building a Culture of Innovation” at the spring 2017 South by Southwest® (SXSWedu) Conference. The annual SXSWedu conference is dedicated to fostering innovation in learning by hosting a diverse and energetic community of stakeholders across a variety of backgrounds.

The panel discussion, sponsored by Cerego, an educational software maker, focused on the introduction of Cerego’s personalized learning technology into the College’s anatomical review course for Part I of the National Board Dental Examination. Based on principles derived from neuro- and cognitive science including knowledge retrieval and distributed practice, the Cerego educational algorithm adapts to the student’s learning progress and calculates what content each individual student needs to review and when. It also provides faculty with comprehensive assessments.

“Twenty-first century educators have an obligation to realize how the brain of the learner actually works,” says Dr. Cunningham, who adds that “this iterative learning technique has led not only to a 100 percent first-attempt pass rate for the Class of 2017 in this discipline on the National Board Dental Examination, but also to the students’ scoring 2.6 standard deviations above the national mean in the anatomical sciences.”

Cerego officials were so excited to have the opportunity to work with NYU Dentistry — their first higher education partner — that they provided their technology to the College at no cost, and they were so pleased with the College’s effective use of Cerego analytic tools, that they are featuring the NYU Dentistry student success story on their website: https://www.cerego.com/partner-stories and their blog: https://www.cerego.com/blog

Mr. Opazo, an instructional designer who was pivotal in implementing the Cerego anatomical review course into the DDS program, also assists other faculty in integrating digital technologies into existing curricula.

An example of a major curricular project that he completed last year is the full redesign of “Building Blocks of Life,” a first-year course in biochemistry, which he and his team converted from a traditional face-to-face lecture format to a full online course, the first of its kind in the DDS program. Mr. Opazo and his team have now implemented 11 additional DDS courses, all of which utilize Cerego, and he also creates adaptive personalized learning modules for the dental hygiene and advanced education programs. These innovations accommodate the needs of students on off-site clinical rotations and outreach programs as well as in classes on campus. Last year, the NYU Provost’s Office recognized the success of the College’s educational technology program by awarding Mr. Opazo $250,000 in matching funds.

“We see ourselves as a little microcosm of innovation,” says Mr. Opazo. “Innovation is having the willingness, curiosity, motivation, and support to do something different,” he adds, “and at NYU Dentistry innovation is woven into the fabric of the culture.”
Five Department of Oral and Maxillofacial Surgery (OMS) faculty members were recognized as “Super Specialists” in the New York Times Magazine’s May 14, 2017, new addition to the annual “New York Super Doctors” supplement. They are: Dr. Lena Al-Sabban, clinical assistant professor; Dr. Kenneth E. Fleisher, clinical associate professor; Dr. Robert S. Glickman, professor and chair; Dr. David L. Hirsch, adjunct clinical assistant professor; and Dr. Marci H. Levine, clinical assistant professor.

The “Super Specialists” were nominated by physician alumni of the annual “New York Super Doctors” list, who were asked to whom they would go or refer their patients and loved ones for care. Congratulations to all our OMS “Super Specialists”!

NYU Nursing Professor Receives International Association for Dental Research Award

NYU Rory Meyers College of Nursing professor Bei Wu has been honored with the 2017 International Association for Dental Research (IADR) Distinguished Scientist Award for Research in Geriatric Oral Health.

The IADR award recognizes Dr. Wu for her research to assess the relationship between cognitive impairment and declining oral health among older adults. In conducting this research, Dr. Wu collaborated with researchers at both the NYU Meyers College of Nursing and the NYU College of Dentistry.

Dr. Wu holds a PhD in gerontology and focuses primarily on trends, trajectories, and disparities of oral health in older adults, and on oral health in relation to both cognitive impairment and diabetes, giving her published work a unique perspective.

For the past 12 years, Dr. Wu’s team has done pioneering work in the areas of dental health population research, cognitive function, and impairment. The relationship between oral health and cognitive impairment — and between oral health and diabetes and the disparities among different ethnic groups in these relationships — is just beginning to be explored in depth.

NYU Dentistry congratulates Dr. Wu on receiving this significant award.

AAoR National Student Research Group Award Goes to NYU Dentistry for “Most New AADoR Student Members” in 2016 and 2017

With 34 new student members combined in 2016 and 2017 — more than any other dental school — NYU Dentistry was recognized with the AADR National Student Research Group award on March 23, 2017, at the AADR National Student Research Group (NSRG) Business Meeting and Awards Ceremony, part of the 2017 IADR/AADR/CADR General Session and Exhibition in San Francisco, California.
Jean-Pierre Saint-Jeannet, PhD, a professor in the Department of Basic Science and Craniofacial Biology, can pinpoint the exact moment when he found his calling as a developmental neurobiologist.

“As a college student I was enrolled in a very small class in experimental embryology,” he says. “We were carrying out very meticulous dissection of different embryonic cell tissues from the larvae of newts, transplanting them to ectopic locations, and looking at the consequences.”

Week after week, Dr. Saint-Jeannet became more and more excited to attend this class at the Université Paul Sabatier, in Toulouse, France. “What fascinated me most,” he says, “was the discovery of those cells committing to becoming a specific organ, and where they were acquiring that specific potential.”

Today Dr. Saint-Jeannet’s passion for his field is even stronger than when he was a young student of developmental biology. In his lab at NYU Dentistry, his work focuses on how craniofacial structures and sensory organs form in the embryo.

“I have been working with these types of cells for over 20 years and they continue to fascinate me,” he says.

Dr. Saint-Jeannet grew up, along with his two brothers, in L’Isle-de-Noé, a small village of about 500 people, in the Midi-Pyrénees in southwestern France. His father ran a small seed business that was started by his grandfather.

“It was essentially a coop,” he says. “My father would buy corn, sunflower seeds, and other crops from different farmers in the area and sell them on a larger scale throughout France and other parts of Europe.”

Growing up in this rural, agriculture-based region of France, Dr. Saint-Jeannet recalls having always had an interest in biology. When he was about 10 years old, he received a microscope as a Christmas present. “I know that sounds cliché, but it’s true” he says. “My mother continues to live in my childhood home, and she still has my old microscope.”

Prior to deciding on what would become his life’s work, Dr. Saint-Jeannet toyed with the idea of becoming an archaeologist and spent several summers going on digs in the south of France and in Israel. “I really enjoyed the research aspect of archaeology — finding things and trying to make sense of them,” he says. “That experience also influenced my interest in biological science.”

After Dr. Saint-Jeannet received his BS degree in developmental biology, he went on to do graduate work at the Université Paul Sabatier, earning a master’s degree in neuroscience and a PhD in developmental neurobiology. He had ambitions to pursue a research career abroad, but that did not immediately work out. Instead, he moved to Paris, where he began postdoctoral studies in the Laboratoire de Physiopathologie du Développement at
the École Normale Superieure. There, he studied embryonic cell division in frogs under the supervision of his advisor, Dr. Jean Paul Thiery.

However, Dr. Saint-Jeannet still dreamed of working overseas. Two years later his dream was realized when he landed a second postdoctoral position in Dr. Igor B. Dawid’s Laboratory of Molecular Genetics at the National Institutes of Health (NIH). While there, Dr. Saint-Jeannet continued to study embryonic cell division in amphibian species, including Xenopus laevis, the South African frog that plays a major role in his NYU Dentistry lab today.

Working at the NIH was an important turning point for Dr. Saint-Jeannet, who had committed originally to three years but ended up staying for five. Afterward, he had the option to return to France and take a position being held for him at a university, but he decided he wanted to stay in the US.

“I was more attracted to the American system where you are really given a chance as an assistant professor to show what you can do in a period of three to five years,” he says. “Going back to France, at least back then, I would not have had the same opportunities.”

Dr. Saint-Jeannet applied for a number of different positions in the US and accepted a post as an assistant professor in the Department of Animal Biology at the School of Veterinary Medicine at the University of Pennsylvania. He continued his research in developmental neurobiology and rose to become a tenured professor.

“After about 15 years, I was at a point where I could have held that position for the rest of my career,” he says. “Or I could make a move.”

Dr. Saint-Jeannet decided to apply for a position in NYU Dentistry’s Department of Basic Science and Craniofacial Biology. After his initial interview with department chair Dr. Nicola C. Partridge, he realized that he would have a lot of synergy with other department members who shared a common interest in craniofacial biology.

In 2011, Dr. Saint-Jeannet, along with four other new researchers involved in craniofacial and bone research, were recruited by Dr. Partridge, bringing the total number at the start of the 2011–2012 academic year to 16 faculty members across six departments, with more than $16 million in combined grants. Their expertise provided the foundation for expanded research activities, leading to the establishment of a Center for Skeletal and Craniofacial Biology, directed by Dr. Partridge.

“It’s always difficult when you make a change, not being able to see exactly what you are getting into,” says Dr. Saint-Jeannet. “That said, coming to NYU Dentistry has been a tremendous opportunity for me.”

In 2016, Dr. Saint-Jeannet was awarded not one, but two five-year $2 million NIH grants to further his research.

With the first award, he is studying the cellular processes responsible for the sensory organs, including the optic lens, the olfactory epithelium (tissue in the nasal cavity that is responsible for smell), and the inner ear. This research looks at the formation of cranial placodes, which are the thickening of the outermost layer of tissue located in the head of the developing embryo. Cranial placodes make important contributions to the paired sensory organs, differentiating into diverse cell types such as sensory organs, lens fibers, and hormone secreting cells. The overarching goals of this study are to identify therapeutic targets to treat congenital malformations in utero and reduce sensory defects at birth.

The second award is enabling Dr. Saint-Jeannet to gain insights into Nager syndrome, a rare craniofacial disorder characterized by underdeveloped cheek bones, undersized jaw, and cleft palate. These defects frequently cause feeding and breathing problems, among other maladies. Mutations in the SF3B4 gene were recently identified as a cause of Nager syndrome.

“Nager syndrome is a rare disease but we are in a unique position that could allow us to understand how mutations in this gene may cause other craniofacial conditions that are more prevalent,” explains Dr. Saint-Jeannet. The long-term goals of the study are to develop tests for early detection of the disease, and strategies to minimize craniofacial malformations at birth (see related story on p. 73).

For Dr. Saint-Jeannet, a typical day means long hours in the lab. When he does have free time, he enjoys taking walks around the city.

“Interestingly, I am from a very small village, but I am very much a city person now, having lived in Paris, Washington, DC, Philadelphia, and New York.”

While the lab is his primary home at NYU Dentistry, Dr. Saint-Jeannet also teaches first-year students in the craniofacial biology, organ systems, and neuroscience course. And he interviews prospective dental students one day a week, a role he enjoys since it helps him better understand the student body and their academic expectations.

His major focus at the moment, though, is on the investigations that his two new grants are supporting. “There are so many unanswered questions. I won’t be able to finish all the work that needs to be done in my lifetime,” he says, “Still it’s exciting to be able to make contributions in one very specific area. After all, that’s what research scientists do.”
A team of 37 pre- and postdoctoral dental students, International Programs students, faculty, staff, and alumni participated in the College’s third outreach to St. George’s, Grenada. The outreach was made possible by the generosity of Henry Schein Cares and Septodont.

A major goal of the global student outreach program is to develop socially responsible healthcare providers who understand the importance of access to care and strive to make helping patients in underserved communities a regular part of their professional careers.

Dr. Dena Sapanaro, DDS ’12, Advanced Education Program in Pediatric Dentistry ’14, and clinical assistant professor of pediatric dentistry, is doing just that. Dr. Sapanaro discovered her passion for global outreach through the “Smile Grenada” program — a model developed for the tri-island nation of Grenada in 2011, with support from Colgate-Palmolive, Henry Schein Cares, and GC America. The three-year program was the most comprehensive oral health assessment and prevention program ever undertaken by the College.

Dr. Sapanaro, who returned to Grenada as an alumni volunteer in the fall, says, “I enjoy teaching the students, interacting with the outreach staff, and providing dental care to children who have access to care issues.” She was joined by five additional NYU Dentistry alumni, also outreach veterans, including Dr. Kostantina Abate, ’14; Dr. Jennifer Frangos, ’09; Dr. Darren Chamberlain, Advanced Education Program in Pediatric Dentistry ’04; Dr. Christina Lane Boyd, BSDH ’09, DDS ’14, Advanced Education Program in Endodontics ’16; and Dr. Yoomi E. Heo, DDS ’15 and Advanced Education Program in Pediatric Dentistry ’17. According to Dr. Abate, “Giving current students the opportunity to work together with alumni who have also been on outreaches not only helps them to gain additional clinical skills, but also motivates many of them to continue to participate in local and global outreaches once they graduate and enter private practice.”
The NYU Dentistry/Henry Schein Cares Global Student Outreach Program provided free oral health instruction and comprehensive care to more than 600 children and adults at the Srongtsen Bhirkuti Boarding High School in November. This outreach — the College’s fourth to Kathmandu — was made possible by the generous support of the Seven Summits Foundation, the Tibet Fund, the Snow Lion Foundation, the Henry Schein Cares Foundation, and Septodont.

“Nepal is one example of the profound effects that issues such as poverty and access to care can have on patients’ lives and oral health,” says Dr. Nabil Khan, ’17, a student leader on the 2016 outreach team.

When NYU Dentistry arrived in Kathmandu in 2013, studies showed an 83 percent prevalence of childhood dental caries. “Several preventive measures taken since then,” says Mr. Christopher Tung, research administrator for the College’s global outreach programs, “have led to a more than 15 percent decrease in the prevalence of tooth decay.” Among these initiatives were the introduction of a daily tooth-brushing regimen in classrooms at the Srongtsen School, the promotion of healthier eating habits, and the annual application of silver diamine fluoride – a low-cost, non-invasive treatment for dental caries – to the affected primary teeth of the schoolchildren. As a result, says Tung, “Approximately 56 percent of the children we’ve treated every year since 2014 return to the clinic each fall with one or more new surfaces of arrested caries.”
The global outreach team traveled to Phnom Penh, Cambodia, from December 6–15, 2016, to establish a school-based oral health prevention program in collaboration with the National University of Singapore (NUS) Faculty of Dentistry and A Call To Share Singapore.

NYU Dentistry faculty and administrators trained NUS faculty on outcomes tracking and implementation of classroom-based preventive measures. Based on the Smile Grenada program, which provided oral health education and prevention to more than 26,000 children from 2011 to 2013, the program will promote caries prevention and oral health awareness among children, teachers, and parents in two underserved schools.

Thirty-three pre- and postdoctoral students, dental hygiene students, international programs students, faculty, staff, and alumni participated in the College’s second outreach to Chalchicomula de Sesma, Mexico.

According to Dr. Heather Camhi, ’17, “The global outreach program offers opportunities for students to educate patients in need, expand their knowledge of clinical dentistry, and promote sustainable changes in underserved communities. Most importantly, it allows students and faculty to touch the lives, and smiles, of the children and families that they treat,” says Dr. Camhi. In 2016, studies showed an 80 percent prevalence of untreated childhood dental caries in Chalchicomula de Sesma. NYU Dentistry is partnering with the local private university, Universidad Popular Autónoma del Estado de Puebla (UPAEP), which will apply silver diamine fluoride to affected primary teeth every three months in order to arrest decay and maintain spaces for each child’s future permanent teeth.

“Having a local partner on-site all year round is essential in ensuring the sustainability of our caries prevention program,” says Ms. Jenny Park, program administrator for the College’s global outreach programs. “Thanks to Dr. Ruth Aguilera Rocha, dental surgeon and professor of pediatric dentistry at UPAEP, and her team, we foresee a significant decrease in the number of decayed surfaces in the years to come.”
Thirty-six pre- and postdoctoral dental students, dental hygiene students, faculty, staff, and alumni participated in the College’s 10th outreach to Machias, Maine, in April. Joining the group were Columbia University College of Dental Medicine’s Dr. Shannon Sullivan, clinical instructor of operative dentistry, and Ms. Jennifer Tsuan, Class of 2018.

“It was a privilege to see NYU Dentistry’s well-organized outreach program in action,” said Dr. Sullivan. “Using what we’ve learned thus far on two outreaches with NYU, we are hoping to expand Columbia’s current outreach offerings to create similar opportunities for students to enhance their practical skills, acquire a better understanding of patient-centered care, and gain insight into access to care issues domestically and internationally.”

Dr. Tara Byrd, clinical instructor of cariology and comprehensive care and a faculty advisor to the NYU Dentistry outreach team since 2016, notes a significant transformation in students who participate in the program. “They return to the comprehensive care clinic with greater confidence, independence, resourcefulness, and awareness of the factors that contribute to oral and systemic health. Most importantly, the students develop a passion for providing access to care in underserved communities.”

Approximately 900 children and adults received comprehensive oral health care and instruction throughout the week-long outreach to Machias, which was made possible by the generous support of the Henry Schein Cares Foundation, the Northeast Delta Dental Foundation, the Washington County Children’s Program, Colgate-Palmolive, and Septodont.
DR. ROLA ABDULJABAR RABAH, ’17, cofounder of the student organization Generation Smile, on being featured in the American Cleft Palate-Craniofacial Association blog post “Student Organization Increases Awareness of Interdisciplinary Care at NYU College of Dentistry.”

DR. TIMOTHY ABRAM, a visiting scholar in the Department of Biomaterials, on coauthoring “Cytology-on-a-chip’ Based Sensors for Monitoring of Potentially Malignant Oral Lesions” for Oral Oncology. Dr. Abram’s coauthors included DR. NICOLAOS CHRISTODOULIDES, a research collaborator in the Department of Biomaterials; DR. A. ROSS KERR, clinical professor of oral and maxillofacial pathology, radiology and medicine; DR. JOAN A. PHELAN, professor emerita of oral and maxillofacial pathology, radiology and medicine; DR. PATRICIA M. CORBY, adjunct clinical associate professor of periodontology and implant dentistry; DR. ISMAEL KHOULY, clinical assistant professor of oral and maxillofacial surgery and associate director of periodontology and implant dentistry for the NYU Bluestone Center for Clinical Research; and DR. JOHN T. MCDENVITT, professor and chair of the Department of Biomaterials.

DR. WILLIAM R. ABRAMS, adjunct professor of basic science and craniofacial biology, on being selected by the National Institutes of Health (NIH) to serve on a Special Emphasis Panel reviewing applications for the R21 exploratory/developmental research grant “Rapid Assessment of Zika Virus Complications;” and on being appointed an academic editor for PLOS ONE.

MR. FRANCISCO ABREU on being appointed a patient service representative.

MS. NADIA AFTAB on being appointed a patient service representative.

MS. CATHERINE AGUIRRE, formerly a patient service representative, on being promoted to dental insurance analyst in the Office of Clinical Administration and Revenue Cycle Management.

MR. ABDULLAH AL MAMUN, formerly a consulting senior Citrix engineer for VDX, Inc., on being appointed senior systems engineer for Technology and Informatics Services (TIS).

MR. JEHAD ALALI on being appointed a dental assistant for the Dr. Ignatius N. and Sally Quartararo Department of Endodontics.

MS. SONIA ALLY on being appointed a dental assistant in the Department of Cariology and Comprehensive Care.

MS. DEANNA AGUALLO RENE on being appointed a dental hygienist for the Department of Orthodontics.

DR. DONNA G. ALBERTSON, professor of oral and maxillofacial surgery, on receiving the 2016 Outstanding Investigator Award presented by the National Cancer Institute (NCI) for her work as chair of four NCI Special Emphasis Panels.

DR. KENNETH L. ALLEN, clinical associate professor and associate chair of the Department of Cariology and Comprehensive Care, on coauthoring “The Impact of Oral-systemic Health on Advancing Interprofessional Education Outcomes” for the Journal of Dental Education.

MS. AMANDA ANDRÉ, ’18, on being awarded first place in the ADEA/Dentsply International Student Poster Awards competition at the March 2017 American Dental Education Association Annual Session & Exhibition. Ms. André, whose winning poster was titled “Health Issues Among Dental Students,” was mentored by DR. MAUREEN McANDREW, clinical professor of cariology and comprehensive care and senior director of professional development.

DR. BRADLEY E. AOUIZERAT, professor of oral and maxillofacial surgery and deputy director of the NYU Bluestone Center for Clinical Research, on being appointed a member of the Nursing and Related Clinical Sciences (NRCS) Study Section of the NIH Center for Scientific Review.
MS. MEGHAN ROSE ARCHER, formerly with the NYU Student Health Center, on being appointed an infection control officer with the Office of Clinical Affairs.

MS. SOFIA ISABEL AVILA on being appointed a transport-er for materials management.

MS. NYASHA BABB on being appointed an administrative aide for the central sterilization unit.

DR. JOÃO MALTA BARBOSA, Advanced Education Program in Prosthodontics ’17, on coauthoring “Scan-layered Reconstructions: A Pilot Study of a Nondestructive Dental Histomorphological Method and Digital Workflow to Create Restorations Driven by Natural Dentin and Enamel Morphology” for the Journal of Esthetic and Restorative Dentistry. Dr. Barbosa’s coauthors included DR. NICK M. TOVAR, ’19; DR. RONALDO HIRATA, clinical assistant professor of biomaterials; DR. MARIAN MOGHADAM, clinical associate professor of prosthodontics; DR. PAULO G. COELHO, professor of biomaterials and Leonard I. Linkow Professor of Implant Dentistry; and DR. LEILA JAHANGIRI, clinical professor and chair of the Department of Prosthodontics.

MS. JENNIFER BATISTA on being appointed a dental assistant for the Linhart Continuing Dental Education Program.

MS. SVETLANA BOGOMOLSKAYA on being appointed a patient service representative.


DR. EUGENE H. BASS, clinical instructor in cariology and comprehensive care, on authoring “Combined Orthodontic and Restorative Approach to Esthetic Treatment of Maxillary Peg Lateral Incisor in Adolescent Female Patient: A Case Report” for the New York State Dental Journal.

DR. HABIB BENZIAN, adjunct professor of epidemiology & health promotion, on presenting the keynote address at the Ninth Global Conference, “Health Promotion in the Sustainable Development Goals,” held in Shanghai, China; on authoring a chapter titled “Promoting Oral Health through Programs in Middle Childhood and Adolescence” for Disease Control Priorities, 3rd edition; and on coauthoring an article titled “Global Dental Education: Going Global - Toward Competency-based Best Practices for Global Health in Dental Education” for the Journal of Dental Education.

DR. GARY S. BERKOWITZ, clinical associate professor of cariology and comprehensive care, on being appointed to the editorial board of the International Journal of Dentistry and Oral Health.

MS. SHIRLEY BIRENZ, clinical assistant professor of dental hygiene, on presenting a continuing education course titled “Growth of Health Communication: The Story of Consumer Power and Medical Innovation” at the Garden State Dental Conference and Expo on May 6, 2017, in Newark, New Jersey.
DR. WILLIAM W. BONGIORNO, clinical instructor in the Department of Cariology and Comprehensive Care, on being appointed to the editorial board of the Journal of Dentistry and Oral Care; on being appointed incoming chair of the Second District Dental Society Greater New York Dental Meeting Organizational Committee; and on being appointed a member of the Second District Dental Society’s Membership and Communications Committee.

MS. MARY JANE BUTAC LIVINGSTON, adjunct clinical instructor in dental hygiene, on authoring “Sealing the Gaps: How Prevention Makes Profit” for Dentaltown.

MS. NELSHAR MARIE CESPEDES on being appointed a dental assistant for the Department of Cariology and Comprehensive Care.

DR. IRYNA BRANETS, clinical instructor in the Department of Cariology and Comprehensive Care, on being appointed to the editorial board of the International Journal of Dentistry and Oral Health.

DR. TIMOTHY G. BROMAGE, professor of biomaterials, on being quoted by The Oklahoman in an article titled “Word Preference Appears to Have Formed Around 1960s-era Concept;” on being featured in the Quanta Magazine article “Teeth May Reveal a Multi-day Biological Clock;” and on co-presenting the keynote lecture at the 2016 International Association for Orthodontics (IAO) Annual Meeting.

MS. CATHERINE BROWN-MARLOWE on being appointed a development associate.

MR. DOUGLAS CASCIO on being appointed a dental assistant for the Department of Cariology and Comprehensive Care.

MS. KATERINA CESPEDES on being appointed a dental assistant for the Department of Oral and Maxillofacial Surgery.

DR. IRYNA BRANETS, clinical instructor in the Department of Cariology and Comprehensive Care, on being appointed to the editorial board of the International Journal of Dentistry and Oral Health.

DR. K.C. CHAN, clinical assistant professor of oral and maxillofacial pathology, radiology and medicine, on receiving the 2015-2016 Wuehrmann Prize presented by the American Academy of Oral and Maxillofacial Radiology (AAOMR) for her coauthored article, “Mandibular Changes on Panoramic Imaging After Head and Neck Radiotherapy,” which was published in Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology (OOOO).

DR. COURTNEY CHINN, clinical associate professor of pediatric dentistry and director of the Advanced Education Program in Pediatric Dentistry, on being appointed a member of the Northeastern Society of Pediatric Dentistry Council on Governmental Affairs.

DR. LAWRENCE E. BRECHT, adjunct clinical associate professor of prosthodontics, on being appointed to the editorial review board of the Journal of Prosthetic Dentistry.


MS. NELSHAR MARIE CESPEDES on being appointed a dental assistant for the Department of Cariology and Comprehensive Care.
MS. ANA G. CHANALATA on being appointed a dental assistant for the Dental Faculty Practice.

MR. KIYOUNG CHO, ’19, on presenting a poster titled “What Can Uber and Airbnb Teach Us About Dental Education?” at the American Dental Education Association (ADEA) Board of Directors Symposium, “Challenges Facing Dental Education: Phase 1 Findings from the Gies Report for the 21st Century,” part of the 2017 ADEA Annual Session & Exhibition held in Long Beach, California.

MR. JONG UK CHUNG, ’18, MS. LUCY HOVANISYAN, ’20, MR. WONKYU SEO, ’19, and MS. IRENE SHUMAN, ’19, on receiving AADR Bloc travel grants in recognition of the originality of their research designs, innovations in technique, and scientific merit.

DR. MARIE A. CONGIUSTA, clinical instructor in cariology and comprehensive care, on authoring “No Differences in Longevity of Direct and Indirect Composite Restorations” for Evidence-Based Dentistry.

MR. ZACHARY CONLEY, ’19, and MS. OLIVIA NGUYEN, ’19, on being elected student research fellows of the American Association for Dental Research (AADR). Mr. Conley, mentored by DR. BRADLEY E. AOUIZERAT, professor of oral and maxillofacial surgery and deputy director of the NYU Bluestone Center for Clinical Research, and DR. BRIAN L. SCHMIDT, professor of oral and maxillofacial surgery and director of the NYU Bluestone Center for Clinical Research and the NYU Oral Cancer Center, was recognized for his poster titled “Translational Bioinformatics: Discovery of Novel Therapeutic Targets in Oral Cancer Pain.” Ms. Nguyen, mentored by DR. YIHONG LI, professor of basic science and craniofacial biology, was recognized for her poster titled “Effect of Silver Diamine Fluoride on Caries Lesion of Human Deciduous Teeth.”


DR. MIJIN CHOI, clinical associate professor of prosthodontics and director of the Jonathan and Maxine Ferencz Advanced Education Program in Prosthodontics, on being appointed to the editorial board of the International Journal of Dentistry and Oral Health, and on being featured in Women in Prosthodontics, an e-book published by the American College of Prosthodontists to celebrate the history of women in that specialty.

DR. GEORGE J. CISNEROS, professor of orthodontics, on being elected president of the Northeastern Society of Pediatric Dentistry; on serving as guest editor of the September 2016 issue of Seminars in Orthodontics - Orthodontics/Pediatric Dentistry: Issues of Common Concern; and on coauthoring articles titled “Intra- & Inter-office Communication: Important in Achieving Optimal Treatment Outcomes and Patient Satisfaction” and “Non-cavitated Dental Radiolucent Lesions: A Challenge for the Dental Healthcare Provider” for the 2016 issue of Seminars in Orthodontics.

MR. MATTHEW CISNEROS, formerly a multimedia technician for Technology and Informatics Services (TIS), on being promoted to applications specialist for TIS.
DR. RONALD G. CRAIG, professor of basic science and craniofacial biology, and DR. ANGELA R. KAMER, associate professor of periodontology and implant dentistry, on serving as coeditors of a Clinician’s Guide to Systemic Effects of Periodontal Diseases, and on coauthoring an article titled “Periodontal Disease’s Contribution to Alzheimer’s Disease Progression in Down Syndrome” for Alzheimer’s & Dementia: Diagnosis, Assessment & Disease Monitoring (DADM). Their coauthors included DR. MALVIN N. JANAL, senior research scientist and adjunct associate professor of epidemiology & health promotion; DR. DEEPAK SAXENA, associate professor of basic science and craniofacial biology; DR. PATRICIA M. CORBY, adjunct clinical associate professor of periodontology and implant dentistry; and DR. MIRIAM R. ROBBINS, adjunct associate professor of oral and maxillofacial pathology, radiology and medicine.

DR. ANANDA P. DASANAYAKE, professor of epidemiology & health promotion, on being invited to serve on three National Institute of Dental and Craniofacial Research (NIDCR) sections: Establishing Behavioral and Social Measures for Causal Pathway Research in Dental, Oral and Craniofacial Health; Centers for Disease Control and Prevention (CDC) Review; and National Institutes of Health (NIH) Review.

DR. ANGELA M. DE BARTOLO, clinical assistant professor of cariology and comprehensive care, on being appointed a member of the Second District Dental Society Oral Health Committee.

DR. GIORGIO T. DIVINCENZO, adjunct clinical assistant professor of periodontology and implant dentistry, on being elected president of the New Jersey Dental Association and secretary of the Northeastern Society of Periodontists.

DR. EDGARD S. EL CHAAR, clinical associate professor of periodontology and implant dentistry, on coauthoring “Maxillary Sinus Grafting with Biphasic Bone Ceramic or Autogenous Bone: Clinical, Histologic, and Histomorphometric Results from a Randomized Controlled Clinical Trial” for Implant Dentistry. Dr. El Chaar’s coauthors included DR. SANG-CHOON CHO, clinical assistant professor of periodontology and implant dentistry; and DR. ISMAEL KHOULY, clinical assistant professor of oral and maxillofacial surgery and associate director of periodontology and implant dentistry for the NYU Bluestone Center for Clinical Research.

DR. NATALIA ELSON, clinical instructor in the Department of Cariology and Comprehensive Care, on being appointed to the editorial boards of the International Journal of Dentistry and Oral Health and the Journal of Dentistry and Oral Care.
DR. STEVEN P. ENGBRETSON, associate professor of periodontology and implant dentistry, on receiving the Advanced Education Program in Periodontics Faculty Appreciation Award from the NYU Ashman Department of Periodontology and Implant Dentistry.

MR. STEVEN ERBECK, ‘20, on being appointed to the 2017-2018 American Student Dental Association (ASDA) National Leadership Board as a legislative coordinator, and on authoring “Analyzing Medicaid Expansion and Dental Benefits” for Mouthing Off: The Blog of the American Student Dental Association.

DR. DEBRA M. FERRAIOLO, clinical assistant professor of oral maxillofacial pathology, radiology and medicine, on being selected to serve on the Advanced Dental Admission Test (ADAT) Construction Committee for Pharmacology and on the ADAT Case Development Committee.

DR. STEVEN K. FISCHOFF, clinical assistant professor of oral and maxillofacial pathology, radiology and medicine, on coauthoring “Little Evidence to Support or Refute Interventions for the Management of Burning Mouth Syndrome” for Evidence-Based Dentistry. Her coauthor was DR. SILVIA SPIVAKOVSKY, clinical associate professor of oral and maxillofacial pathology, radiology and medicine.

DR. DENISE ESTAFAN, associate professor of cariology and comprehensive care, on being featured in the SoForschen editorial, “Dr. Denise Estafan: Spreading Knowledge”; on being appointed to the editorial boards of the Journal of Dentistry and Oral Care, the Journal of Clinical Dentistry, the International Journal of Dentistry and Oral Health, and the Journal of Dentistry and Oral Care Medicine; and on being appointed editor of the Madridge Journal of Dentistry and Oral Surgery.

DR. JOHN S. EVANS, professor of basic science and craniofacial biology, on being appointed a member of the Nanopatterned Organic Matrices in Biological Silica Mineralization (NANOMEE) Study Section of the German Research Foundation, DFG.

DR. DEBRA K. FISCHOFF, clinical assistant professor of oral and maxillofacial pathology, radiology and medicine, on coauthoring “Little Evidence to Support or Refute Interventions for the Management of Burning Mouth Syndrome” for Evidence-Based Dentistry. Her coauthor was DR. SILVIA SPIVAKOVSKY, clinical associate professor of oral and maxillofacial pathology, radiology and medicine.

DR. KENNETH E. FLEISHER, clinical associate professor of oral and maxillofacial surgery, on coediting the AOCMF Journal’s “Anti-resorptive Drug-related Osteonecrosis of the Jaw (ARONJ) Guide to Research,” and on coauthoring an article titled “Imaging Modalities for Antiresorptive Drug-related Osteonecrosis of the Jaw,” also for the AOCMF Journal. Dr. Fleisher’s coauthors included DR. NILOUFAR AMINTAVAKOLI and DR. K.C. CHAN, both clinical assistant professors in the Department of Oral and Maxillofacial Pathology, Radiology and Medicine. Added kudos to Dr. Fleisher on presenting a course titled “Update on Medication-related Osteonecrosis of the Jaw” at the 98th Annual Meeting, Scientific Sessions & Exhibition of the American Association of Oral and Maxillofacial Surgeons (AAOMS), and on moderating a session titled “OSA Module Abstract/How I Do It.”

DR. LAURIE R. FLEISHER, clinical assistant professor of cariology and comprehensive care and endodontics, on coauthoring “The Vipeholm Cariology Study” for Dentista y Paciente. Dr. Fleisher’s coauthor was DR. WILLIAM J. MALONEY, clinical associate professor of cariology and comprehensive care.


MR. RICARDO FERNANDEZ on being appointed a patient service representative.
DR. STUART J. FROUM, adjunct clinical professor of periodontology and implant dentistry, on being quoted by the American Academy of Periodontology in an article titled “Basic Care for Periodontal Disease May Not Be Enough for Patients with Diabetes.”

MS. WINNIE FURNARI, clinical professor of dental hygiene, on being elected president-elect of the American Academy of Dental Hygiene; on being appointed chair of the Community Service Grant Review Committee of the American Dental Hygienists’ Association Institute of Oral Health; and on coauthoring an article titled “Cheiloscopy: Lip Print Inter-rater Reliability” for the Journal of Forensic Sciences. Professor Furnari’s coauthor was DR. MALVIN N. JANAL, senior research scientist and adjunct associate professor of epidemiology & health promotion.

DR. CHANDURPAL P. GEHANI, adjunct clinical associate professor of endodontics, on receiving the Lifetime Achievement Award presented by the Indian Dental Association.

DR. THOMAS S. GIUGLIANO, clinical assistant professor of prosthodontics, on authoring the chapter “Prosthodontics Complications” for Avoiding and Treating Dental Complications: Best Practices in Dentistry, 1st edition.

DR. ROBERT S. GLICKMAN, professor and chair of the Department of Oral and Maxillofacial Surgery, on being quoted in the fall 2016 NYU Alumni Magazine article, “Science from A to Z.”

DR. DAVID GLOTZER, clinical professor of cariology and comprehensive care, on presenting a full-day course on disaster response to the members of the New York City Medical Reserve Corps. Dr. Glotzer’s co-presenters included DR. VICTORIA RAVEIS, research professor in the Department of Cariology and Comprehensive Care; and DR. MIRIAM R. ROBBINS, adjunct associate professor of oral and maxillofacial pathology, radiology and medicine.

DR. BENJAMIN GODDER, clinical associate professor of cariology and comprehensive care, on being appointed to the editorial board of the Journal of Dentistry and Oral Care Medicine.

DR. GARY R. GOLDSTEIN, professor of prosthodontics, on being named an oral health consultant for the United Nations Development Programme; on presenting the keynote address at the 98th Annual Meeting of the Academy of Prosthodontics; on being appointed to the editorial review board of the Journal of Prosthetic Dentistry; on authoring a chapter titled “The State of the Evidence in Implant Prosthodontics” for Evidence-based Implant Treatment Planning and Clinical Protocols; and on coauthoring an article titled “A Survey to Determine Agreement Regarding the Definition of Centric Relation” for the Journal of Prosthetic Dentistry. Dr. Goldstein’s coauthors included DR. MARK S. ANDRAWIS, adjunct clinical assistant professor of prosthodontics; DR. MIJIN CHOI, clinical associate professor of prosthodontics and director of the Jonathan and Maxine Ferencz Advanced Education Program in Prosthodontics; and DR. MALVIN N. JANAL, senior research scientist and adjunct associate professor of epidemiology and health promotion.

MS. ANN MARIE GARRIQUES on being appointed a supply assistant.
MS. ASHLEY C. GRILL, adjunct clinical assistant professor of dental hygiene, on being featured in an ADHA Access Q&A about the new Code on Dental Procedures and Nomenclature (CDT Code); on being appointed a reviewer for the Research Grant Review Committee of the American Dental Hygienists’ Association Institute of Oral Health; and on being quoted by Healthline in an article titled “Does Dental Sealant Protection Outweigh Potential Risks?”

MS. XIAOXI “CHELSEA” GU, formerly a grants administrator for Weill Cornell Medical College at New York-Presbyterian Hospital, on being appointed a grants administrator for the Department of Epidemiology & Health Promotion.

MS. OLGA A.C. IBSEN, adjunct professor of oral and maxillofacial pathology, radiology and medicine, on receiving the 2017 Esther Wilkins Lifetime Achievement Award, presented by Dimensions of Dental Hygiene at the American Dental Hygienists’ Association 94th Annual Session.

MS. JESSICA E. JACKSON, formerly an Institutional Review Board (IRB) coordinator for the NYU University Committee on Activities Involving Human Subjects (UCAIHS), on being appointed program coordinator for the Office of Professional Development.

DR. JOSEPH B. GUTTENPLAN, professor of basic science and craniofacial biology, on coauthoring “Effects of Black Raspberry Extract and Protocatechuic Acid on Carcinogen-DNA Adducts and Mutagenesis” and “Oxidative Stress in Rat and Human Oral Cells” for Cancer Prevention Research. Dr. Guttenplan’s coauthors included DR. WIESLAWA KOSINKA, assistant research scientist in the Department of Basic Science and Craniofacial Biology.

DR. MARC HENSCHEL, clinical assistant professor of oral and maxillofacial pathology, radiology and medicine, on being appointed a special needs expert for the National Board Dental Examination (NBDE) Part II Test Construction Committee for Patient Management.

DR. LEILA JAHANGIRI, clinical professor and chair of the Department of Prosthodontics, on being appointed to the editorial review board of the Journal of Prosthetic Dentistry; and on being featured in Women in Prosthodontics, an e-book published by the American College of Prosthodontists to celebrate the history of women in that specialty.

DR. GAURAV JAIN, a postdoctoral associate in the Department of Basic Science and Craniofacial Biology, on leading a discussion titled “The Next Generation of Functional Biomaterials” at the Gordon Research Conference (GRC) on “Biomimetic Materials,” and on authoring “Take Every Chance to Better Yourself” for the Cell 168 feature, “Leading Edge: Voices - Postdocs, What Would You Tell Your Younger Self?”

MS. ALANA GRAMBUSH on being appointed an administrative aide for the Department of Pediatric Dentistry.
MS. MAUREEN A. JONES, formerly a program administrator for the Columbia University Medical Center Department of Neurosurgery Residency Program and the Neurological Surgery Clerkship Program, on being appointed a group practice academic coordinator for the Department of Cardiology and Comprehensive Care.

DR. MALVIN N. JANAL, senior research scientist and adjunct associate professor of epidemiology & health promotion, on coauthoring “Microcomputed Tomography Evaluation of Volumetric Shrinkage of Bulk-fill Composites in Class II Cavities” for the Journal of Esthetic and Restorative Dentistry. Dr. Janal’s coauthors included DR. PAULO COELHO, professor of biomaterials and Leonard I. Linkow Professor of Implant Dentistry; and DR. RONALDO HIRATA, clinical assistant professor of biomaterials.

DR. JUHEE JEONG, assistant professor of basic science and craniofacial biology, on being appointed a member of the DSR Member Conflict Special Emphasis Panel of the National Institute of Dental and Craniofacial Research (NIDCR).

MR. PETER M. JOHN, formerly an administrative assistant for the Dean of Studies at Barnard College, Columbia University, on being appointed department administrator for the Department of Basic Science and Craniofacial Biology.

MS. MAUREEN A. JONES, formerly a program administrator for the Columbia University Medical Center Department of Neurosurgery Residency Program and the Neurological Surgery Clerkship Program, on being appointed a group practice academic coordinator for the Department of Cardiology and Comprehensive Care.

DR. ANGELA R. KAMER, associate professor of periodontology and implant dentistry, on being appointed to the editorial board of the International Journal of Dentistry and Oral Health.

DR. JAMES R. KEENAN, clinical assistant professor of oral and maxillofacial pathology, radiology and medicine, on being elected president of the New York State Academy of General Dentistry; on receiving a Dental Education in the Care of Persons with Disabilities (DECOD) Fellowship; and on coauthoring “No Evidence that Bonding is Needed for Amalgam Restorations” for Evidence-Based Dentistry. Dr. Keenan’s coauthor was DR. ANALIA VEITZ-KEENAN, clinical associate professor of oral and maxillofacial pathology, radiology and medicine, and director of evidence-based dentistry in the Department of Epidemiology & Health Promotion.

DR. EDMUND KHOO, clinical assistant professor of orthodontics, on being appointed a member of the American Dental Education Association (ADEA) Postdoctoral Application Support Service (PASS) Task Force for a three-year term, beginning March 2017; and on being appointed a Commission on Dental Accreditation (CODA) Site Visitor.

DR. ISMAEL KHOULY, clinical assistant professor of oral and maxillofacial surgery and associate director of periodontology and implant dentistry for the NYU Bluestone Center for Clinical Research, on coauthoring “Human Histologic and Radiographic Evidence of Bone Formation in a Previously Infected Maxillary Sinus Graft Following Debridement Without Regrafting: A Case Report” for the International Journal of Periodontics & Restorative Dentistry. Dr. Khouly’s coauthors included DR. JOAN A. PHELAN, professor emerita of oral and maxillofacial pathology, radiology and medicine; and DR. STUART J. FROUM, adjunct clinical professor of periodontology and implant dentistry.

MR. PETER M. JOHN, formerly an administrative assistant for the Dean of Studies at Barnard College, Columbia University, on being appointed department administrator for the Department of Basic Science and Craniofacial Biology.

DR. JUHEE JEONG, assistant professor of basic science and craniofacial biology, on being appointed a member of the DSR Member Conflict Special Emphasis Panel of the National Institute of Dental and Craniofacial Research (NIDCR).

MS. MAUREEN A. JONES, formerly a program administrator for the Columbia University Medical Center Department of Neurosurgery Residency Program and the Neurological Surgery Clerkship Program, on being appointed a group practice academic coordinator for the Department of Cardiology and Comprehensive Care.

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MS. EUNWHUI “INNY” KIM, formerly a peer advisor for the Teachers College, Columbia University, Program in Higher and Postsecondary Education (HPSE), on being appointed program coordinator for student affairs and academic support services.
DR. RONALD W. KOSINSKI, clinical associate professor of pediatric dentistry, on being appointed a member of the Commission on Dental Accreditation (CODA) Review Committee.

DR. ARTHUR KUBIKIAN, clinical assistant professor of endodontics, on presenting a lecture titled “Wave One Gold Endodontics at NYU - Simple and Safe,” as part of the “Oral Health/Dentistry” session at the 12th Armenian Medical World Congress.

DR. RODRIGO S. LACRUZ, assistant professor of basic science and craniofacial biology, on co-organizing a full-day symposium, “The Evolutionary History of the Human Face,” held in Madrid, Spain, in September 2016; and on co-presenting a lecture titled “Bone Remodeling Provides a Mechanism to Evaluate the Craniofacial Complex,” with DR. TIMOTHY G. BROMAGE, professor of biomaterials, at the symposium. Added kudos to Dr. Lacruz on coauthoring “The First Hominin from the Early Pleistocene Paleocave of Haasgat, South Africa” for PeerJ; “Distinct Growth of the Nasomaxillary Complex in Au. sediba” for Scientific Reports; and “Store-Operated Ca2+ Entry Regulates Ca2+-activated Chloride Channels and Eccrine Sweat Gland Function” for the Journal of Clinical Investigation. Dr. Lacruz’s coauthors included Dr. Bromage; DR. JOHANNA WARSHAW, clinical assistant professor of basic science and craniofacial biology; and DR. MIRIAM ECKSTEIN, assistant research scientist in the Department of Basic Science and Craniofacial Biology.

DR. CLARA LEE, clinical instructor in the Department of Oral and Maxillofacial Pathology, Radiology and Medicine, on authoring monthly columns for two Japanese newspapers, Daily Sun NY and Weekly Biz. The columns aim to make oral health and dentistry appealing to people who might otherwise fear going to the dentist.

MS. DAISY LEE, formerly a private events manager for the Brooklyn Historical Society, on being appointed a development associate for development and alumni affairs.

MS. ANGELITA LEON, clinical instructor in dental hygiene, on being appointed coordinator of the Dental Assisting Certificate Program.

MS. HANNAH NAYUN KIM on being appointed a patient service representative.

MS. JENNY KUPERSHTOKH, formerly a financial analyst associate for Express Scripts, on being appointed a dental insurance analyst.

MS. CLARA T. LEE, ’19, on presenting the International Association for Dental Research/American Association for Dental Research (IADR/AADR) abstract “Mistrust in Health Care Practitioners vs. Mistrust in Medical Researchers and Potential for Impact on Health Care and Survival: Blacks vs. Whites” in March 2017 at the 95th General Session & Exhibition of the IADR/AADR.

MS. SOPHIA LEE on being appointed a patient service representative.
DR. LOUIS M. LIN, professor of endodontics, on coediting “Endodontic Prognosis: Clinical Guide for Optimal Treatment Outcome,” and on authoring four chapters for the book. Additional authors included DR. JENNIFER L. GIBBS, assistant professor of endodontics; DR. MATTHEW MALEK, clinical assistant professor and director of the Advanced Education Program in Endodontics; DR. KATSUSHI OKAZAKI, clinical assistant professor of endodontics; and DR. DAG ØRSTAVIK, a visiting scholar in the Dr. I.N. and Sally Quaraturo Department of Endodontics.

DR. XIN LI, associate professor of basic science and craniofacial biology, on being appointed a member of the Department of Defense Congressionally Directed Medical Research Programs (CDMRP) Peer Review Panel on Prostate Cancer.

DR. YIHONG LI, professor of basic science and craniofacial biology, on being appointed a member of the Special Grants Review Committee of the National Institute of Dental and Craniofacial Research (NIDCR).

DR. KENNETH K. LIAO, adjunct clinical associate professor of endodontics, on presenting the keynote address at the Endodontic Society of the Philippines, Inc., (ESP) 1st Quarterly Scientific Seminar.

DR. MITCHELL J. LIPP, clinical associate professor of orthodontics, on coauthoring an article titled “Types of Feedback in Competency-based Predoctoral Orthodontics: Effects on Students’ Attitudes and Confidence” for the Journal of Dental Education. Dr. Lipp’s coauthors included MR. KIYOUNG CHO, ’19; and DR. HAN SUK KIM, ’16.

DR. HOWARD I.A. LIEB, adjunct clinical associate professor of cariology and comprehensive care, on being invited to serve on the following Second District Dental Society Committees for 2017: Administrative Committee (House Chair); Constitution and Bylaws Committee (Member); Dental Practice Committee (Member); District Claims Committee (Member); Ethics Committee (Member); House Committee (Chair); Membership and Communications Committee (Publications Chair); and Publications Committee (Chair).

MS. ASHLEY LIU on being appointed a patient service representative.

DR. YIHONG LI, professor of basic science and craniofacial biology, on being appointed a member of the Department of Defense Congressionally Directed Medical Research Programs (CDMRP) Peer Review Panel on Prostate Cancer.


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MS. ASHLEY LIU on being appointed a patient service representative.
DR. KENNETH S. MAGID, adjunct clinical associate professor of cariology and comprehensive care, on being quoted in “Anti-age Your...Teeth!” — an article published by Dr. Oz The Good Life about the effectiveness and side effects of teeth whitening; on being interviewed by Dental Products Report for a Q&A titled “The Benefits of A Better Laser: Two Laser-dentistry Experts Share Their Insight as to How Diode Lasers Can be Used for More and With Better Results; and on being interviewed by Dental Lab Products for a Q&A titled “Simplifying the Scanning Workflow: Kenneth Magid, DDS, Explains How Using A Diode Laser for Digital Impressioning Can Provide Optimal Results.”

DR. MATTHEW MALEK, clinical assistant professor of endodontics and director of the Advanced Education Program in Endodontics; DR. LOUIS M. LIN, professor of endodontics; DR. PAUL A. ROSENBERG, professor of endodontics and senior advisor for special projects in the Office of International Initiatives; and DR. ASGEIR SIGURDSSON, Presley Elmer Ellsworth Professor of Endodontics and chair of the Dr. J.N. and Sally Quarataro Department of Endodontics, on coauthoring chapters for Cohen’s Pathways of the Pulp, 11th edition. Added kudos to Dr. Malek, Dr. Sigurdsson, and Dr. Lin on coauthoring “Treatment of Mature Permanent Teeth with Necrotic Pulps and Apical Periodontitis Using Regenerative Endodontic Procedures: A Case Series” for the Journal of Endodontics; and to Dr. Malek on coauthoring the chapter “Treatment Planning and Case Selection” for Ingle’s Endodontics, 7th edition.

DR. RONALD I. MAITLAND, clinical associate professor of cariology and comprehensive care, on coauthoring “Oral Jewelry and Piercing: Risks to Health” for the New York State Dental Journal, and “Unusual Large Stafne Bone Pseudocyst: A Case Report” for the Journal of the Massachusetts Dental Society. Dr. Maitland’s co-authors included DR. JEFFREY S. BLYE, clinical assistant professor of cariology and comprehensive care.


DR. MARTINA MAJSTOROVIC, adjunct associate professor of pediatric dentistry, on being appointed to the editorial board of the Journal of Dentistry and Oral Care Medicine.

DR. DANIEL MALAMUD, professor of basic science and craniofacial biology, on being appointed a member of the National Advisory Dental and Craniofacial Research Council of the National Institute of Dental and Craniofacial Research (NIDCR).

MS. DIANA E. MARTINEZ on being appointed a patient service representative for the NYU Bluestone Center for Clinical Research.

MS. VANESSA MATTHEWS on being appointed executive assistant to Dr. Stuart M. Hirsch, vice dean for international initiatives and continuing dental education.
DR. MAUREEN McANDREW, clinical professor of cariology and comprehensive care and senior director of professional development, on being featured in the American Dental Education Association (ADEA) CCI Liaison Ledger’s “Educator Spotlight”; on authoring a guest editorial, “Faculty Calibration: Much Ado About Something,” for the Journal of Dental Education; and on coauthoring “Characteristics of Effective Simulation (Preclinical) Teachers as Identified by Dental Students: A Qualitative Study,” also for JDE. Dr. McAndrew’s coauthors included DR. LEILA JAHANGIRI, clinical professor and chair of the Department of Prosthodontics; and DR. THOMAS W. MUCCILO, adjunct assistant professor of prosthodontics.

DR. JOHN T. McDEVITT, professor and chair of the Department of Biomaterials, on presenting the Wallace H. Couter Award Lecture at the 68th American Association of Clinical Chemistry (AACC) Annual Scientific Meeting & Clinical Lab Expo.

MS. SHARON A. McLAUGHLIN, clinical instructor in dental hygiene, on authoring a guest editorial titled “The Value of Long-term Employees to Institutions” for ADHA Access.

DR. FABIOLA MILORD, clinical instructor in the Department of Cariology and Comprehensive Care, on being installed as president of the Nassau County Dental Society.

DR. BENOIT MICHOT, a postdoctoral associate in the Dr. I.N. and Sally Quarataro Department of Endodontics, and DR. JENNIFER L. GIBBS, assistant professor of endodontics, on receiving a grant from the American Association of Endodontists for their project titled “Interactions of Neurons and Dental Pulp Stem Cells in Pulpitis: The Role of Calcitonin Gene-related Peptide.”

MS. EVELYN MUNIZ on being appointed a dental radiographer.

MS. LILLIAN M. MORAN, formerly an educational design technologist for NYU IT, on being appointed an instructional technologist.

DR. ELLIOTT MOSKOWITZ, adjunct clinical professor of orthodontics, on being appointed editor-in-chief of Seminars in Orthodontics.

DR. RICHARD NIEDERMAN, professor and chair of the Department of Epidemiology & Health Promotion, on coauthoring “Getting the Incentives Right: Improving Oral Health Equity with Universal School-based Caries Prevention” for the American Journal of Public Health. Dr. Niederman’s coauthors included DR. SHULAMITE HUANG, a research instructor in the Department of Epidemiology & Health Promotion.

DR. OLIVIER NICOLAY, clinical associate professor and chair of the Department of Orthodontics, on being appointed section editor of the online journal Clinical Dentistry Reviewed.

MS. SUZETTE MUWWAKIL, formerly a central sterilization unit technician, on being promoted to supply assistant.
DR. MARY E. NORTHRIDGE, associate professor of epidemiology and health promotion, on authoring a guest editorial titled “Dental Benefits: ‘Because Medicaid Has, How Do You Call It? A Limit’” for the American Journal of Public Health (AJPH); on coauthoring “Views of Dental Providers on Primary Care Coordination at Chairside: A Pilot Study” for the Journal of Dental Hygiene; and on coauthoring “Racial/Ethnic Minority Older Adults’ Perspectives on Proposed Medicaid Reforms’ Effects on Dental Care Access” and “Oral Health Care Receipt and Self-rated Oral Health for Diverse Asian American Subgroups in New York City” for AJPH.

Dr. Northridge’s coauthors included MS. SHIRLEY BIRENZ, clinical assistant professor of dental hygiene; MS. DANNI M. GOMES, adjunct clinical instructor in dental hygiene; DR. ARIEL PORT, an assistant research scientist in the Department of Epidemiology & Health Promotion; MS. DONNA SHELLEY, adjunct clinical associate professor of cariology and comprehensive care; DR. STEFANIE L. RUSSELL, clinical associate professor of epidemiology and health promotion; DR. ERIC SCHRIMSHAW, clinical associate professor of epidemiology and health promotion; and DR. SARA S. METCALF, associate professor of epidemiology and health promotion.

DR. EVGENY PAVLOV, assistant professor of basic science and craniofacial biology, on coediting the textbook Inorganic Polyphosphates in Eukaryotic Cells; and on being appointed a member of the American Heart Association (AHA) Basic Cell - Cell Structure and Survival Review Committee and the Membrane Biology and Protein Processing (MBPP) Study Section of the NIH Center for Scientific Review.

DR. IVY PELTZ, clinical associate professor of cariology and comprehensive care, on authoring an article titled “Finding Your Center with Yoga and Ergonomics” for AGD Impact; and on coauthoring, with DR. ERIC STUDLEY, clinical associate professor of cariology and comprehensive care, “Things We Wish We Had Known After Dental School” for New Dentist Now, a blog sponsored by the American Dental Association; “Personal Accounts on Why You Need Insurance” for Mouthing Off: The Blog of the American Student Dental Association; and “Express Gratitude, Improve Your Well-being: The Benefits of Unplugging to Recharge,” and “Career Development: Advance for Building Confidence as a New Dentist” for AGD Impact.

DR. BAPANAIYAH PENUGONDA, associate professor of cariology and comprehensive care, on presenting a poster titled “Influence of pH Variation on Physical Properties of Composite Resin” at the 2016 International Association for Dental Research (IADR) General Session in Seoul, Korea. Dr. Penugonda’s coauthors included DR. KRITIKA SRINIVASAN, a junior research scientist in the Department of Biomaterials.

MS. JOSANNE CHIVAN NAITRAM on being appointed a dental radiographer.

DR. TERUYO NAKATANI, associate research scientist and adjunct assistant professor in the Department of Basic Science and Craniofacial Biology, on coauthoring “MMP-13 is One of the Critical Mediators of the Effect of HDAC4 Deletion on the Skeleton” for Bone. Dr. Nakatani’s coauthors included DR. NICOLA C. PARTRIDGE, professor and chair of the Department of Basic Science and Craniofacial Biology.

MS. DHIAMNATTIE NARAIN on being appointed a supply assistant.

MS. ELON PARKINSON, formerly a group practice manager, on being promoted to senior clinic manager for the DDS Group Practices.

MS. DIANA PIERRE, formerly talent management coordinator for Kingsbrook Jewish Medical Center, on being appointed a human resources generalist.

DR. KAREN G. RAPHAEL, professor of oral and maxillofacial pathology, radiology and medicine, on coauthoring “Thermal Temporal Summation and Decay of After-sensations in Temporomandibular Myofascial Pain Patients with and without Comorbid Fibromyalgia” for the Journal of Pain Research. Dr. Raphael’s coauthors included DR. MALVIN N. JANAL, senior research scientist and adjunct associate professor in the Department of Epidemiology & Health Promotion; and DR. DAVID SIROIS, associate professor of oral and maxillofacial pathology, radiology and medicine.
DR. VICTORIA H. RAVEIS, research professor in the Department of Cariology and Comprehensive Care, on being awarded fellowship status in the Gerontological Society of America, through the Social Policy and Research Section, in recognition of her outstanding contributions to the field of gerontology. In addition, Dr. Raveis has authored or coauthored a number of articles, including: “Enabling A Resilient Workforce: Attending to Individual Stress, Collective Trauma,” (in press) and “Challenges and Resources for Nurses Participating in a Hurricane Sandy Hospital Evacuation,” both for the Journal of Nursing Scholarship; “Patient Centered Care Early in Chronic Disease Management for Persons with HIV Disease: Protocol Review of Care and Support Access (CASA) Study,” for the Journal of Palliative Care & Medicine; “Health, Coping and Subjective Well-Being: Results of a Longitudinal Study of Elderly Israelis,” for Aging & Mental Health; and “Knowledge, Behavioral Practices, and Experiences of Outdoor Fallers: Implications for Prevention Programs” for Archives of Gerontology and Geriatrics.

DR. P AUL A. ROSENBERG, professor of endodontics and senior advisor for special projects in the Office of International Initiatives, on coauthoring an article titled “Ticagrelor Regulates Osteoblast and Osteoclast Function and Promotes Bone Formation in Vivo Via an Adenosine-dependent Mechanism” for The Federation of American Societies for Experimental Biology (FASEB) Journal. His coauthors included DR. NICKY M. TOVAR, ’19; DR. PAULO G. COELHO, professor of biomaterials and Leonard I. Linkow Professor in Implant Dentistry; and DR. LUKASZ WITEK, assistant research scientist and adjunct instructor in the Department of Biomaterials.

DR. SEUNG-HEE RHEE, adjunct associate professor of oral and maxillofacial pathology, radiology and medicine, on coauthoring an article titled “Recent Recommendations for Management of Human Immunodeficiency Virus-positive Patients” for Dental Clinics of North America; on being appointed a member of the New York State Department of Health AIDS Institute Dental Standards of Care Committee; and on being elected president of The American Academy of Oral Medicine Executive Committee.

DR. MIRIAM R. ROBBINS, adjunct associate professor of oral and maxillofacial pathology, radiology and medicine, on coauthoring an article titled “Recent Recommendations for Management of Human Immunodeficiency Virus-positive Patients” for Dental Clinics of North America; on being appointed a member of the New York State Department of Health AIDS Institute Dental Standards of Care Committee; and on being elected president of The American Academy of Oral Medicine Executive Committee.

DR. STEFANIE L. RUSSELL, clinical associate professor of epidemiology and health promotion, on coauthoring “Addressing Health Disparities via Coordination of Care and Interprofessional Education: Lesbian, Gay, Bisexual, and Transgender Health and Oral Health Care” for Dental Clinics of North America. Dr. Russell’s coauthor was DR. FREDERICK G. MORE, professor of epidemiology and health promotion.

MR. VISHNU S.R. REDDY, ’19, on coauthoring an article titled “Ticagrelor Regulates Osteoblast and Osteoclast Function and Promotes Bone Formation in Vivo Via an Adenosine-dependent Mechanism” for The Federation of American Societies for Experimental Biology (FASEB) Journal. His coauthors included DR. NICKY M. TOVAR, ’19; DR. PAULO G. COELHO, professor of biomaterials and Leonard I. Linkow Professor in Implant Dentistry; and DR. LUKASZ WITEK, assistant research scientist and adjunct instructor in the Department of Biomaterials.

MS. MARIA RUSINAK, formerly a patient service representative, on being promoted to executive assistant for the NYU Bluestone Center for Clinical Research.

MS. BRA D. RAQUEL M. ROSADO, formerly senior human resources representative for Tiffany & Co., on being appointed a human resources generalist.

DR. ARASH SAFAVERDI, Advanced Education Program in Endodontics, ’17, on placing fourth in the table clinics awards category at the American Association of Endodontists 2017 Annual Session. Dr. Safaverdi’s presentation, “Chronic Post-surgical Pain in Endodontics,” was coauthored by DR. RIYADH M. ALROOMY, Advanced Education Program in Endodontics, ’18; and by DR. JENNIFER L. GIBBS, assistant professor of endodontics.

MS. BRITTNEY REID on being appointed a patient service representative.

MS. RAQUEL M. ROSADO, formerly senior human resources representative for Tiffany & Co., on being appointed a human resources generalist.

DR. ARASH SAFAVERDI, Advanced Education Program in Endodontics, ’17, on placing fourth in the table clinics awards category at the American Association of Endodontists 2017 Annual Session. Dr. Safaverdi’s presentation, “Chronic Post-surgical Pain in Endodontics,” was coauthored by DR. RIYADH M. ALROOMY, Advanced Education Program in Endodontics, ’18; and by DR. JENNIFER L. GIBBS, assistant professor of endodontics.

MS. MICHELLE SALGUERO on being appointed a dental hygienist for the Department of Orthodontics.
MS. JACQUELINE SANTIAGO on being appointed a dental assistant for patient care services.

MR. JOSEPH SAVINO, formerly a senior admissions fellow for The George Washington University Office of Undergraduate Admissions, on being appointed an admissions representative for the dental hygiene programs.

DR. DEEPAK SAXENA, associate professor of basic science and craniofacial biology, on being appointed chair of the International Association for Dental Research (IADR) Innovation in Oral Care Awards Committee. Added kudos to Dr. Saxena on being invited to serve on the IADR’s Innovation in Oral Care Awards Committee, 2019, and Nominating Committee, 2019; and on being invited to serve on the American Association for Dental Research (AADR) Edward H. Hatton Awards Committee, 2019.

DR. ANDREW B. SCHENKEL, clinical associate professor of cariology and comprehensive care, on coauthoring “Development of a Core Curriculum Framework in Cariology for US Dental Schools” for the Journal of Dental Education, and “Dental Cavity Liners for Class I and Class II Resin-based Composite Restorations” for the Cochrane Database of Systematic Reviews. Dr. Schenkel’s coauthors included DR. KENNETH L. ALLEN, clinical associate professor and associate chair of the Department of Cariology and Comprehensive Care; DR. MARK S. WOLFF, professor and chair of the Department of Cariology and Comprehensive Care and associate dean for predoctoral clinical education and for development; DR. IVY PELTZ, clinical associate professor of cariology and comprehensive care; and DR. ANALIA VEITZ-KEENAN, clinical associate professor of oral and maxillofacial pathology, radiology and medicine, and director of evidence-based dentistry in the Department of Epidemiology & Health Promotion.

DR. BRIAN L. SCHMIDT, professor of oral and maxillofacial surgery and director of the NYU Bluestone Center for Clinical Research and the NYU Oral Cancer Center, on receiving a 10-year Certificate of Added Qualifications in Head and Neck Oncologic and Reconstruction Surgery, as a result of having passed the 2016 American Board of Oral and Maxillofacial Surgery (ABOMS) Examination; on presenting keynote lectures at the A.T. Still Research Institute Center for Oral Health Research and Arizona Chapter of the American Association for Dental Research Scientific Symposium, and at UCLA School of Dentistry’s Inaugural Research Day in March 2017.

DR. ANDREA S. SCHREIBER, associate dean for graduate and postgraduate programs and clinical professor of oral and maxillofacial surgery, on serving as a moderator at the 98th Annual Meeting, Scientific Sessions & Exhibition of the American Association of Oral and Maxillofacial Surgeons (AAOMS).

MS. TANAYA SANTIAGO on being appointed a dental assistant for the Department of Cariology and Comprehensive Care.

DR. ALEXANDER J. SCHLOSS, adjunct clinical associate professor of periodontology and implant dentistry, on coauthoring a guest editorial titled “The Era of Personalized Dentistry Is upon Us: It’s Time to Include It in Dental Curricula,” for the Journal of Dental Education. Dr. Schloss’ coauthors included DR. ZIA VERJEE, ’17; and DR. ANDREW I. SPIELMAN, associate dean for academic affairs and professor of basic science and craniofacial biology.

DR. GAIL E. SCHUPAK, adjunct clinical assistant professor of orthodontics, on co-chairing the Essays and Scientific Poster Session Committee of the 2016 Greater New York Dental Meeting.
DR. STUART L. SEGELNICK, adjunct clinical associate professor of periodontology and implant dentistry, on receiving the 2016 Silver Scroll Journalism Award for Most Improved Publication, presented by the International College of Dentists for his work as editor of the Second District Dental Society (SDDS) Bulletin; on being named to the board of directors of the Northeastern Society of Periodontists for 2017; and on being appointed to the editorial staff of the Publications Committee of the Second District Dental Society. Added kudos to Dr. Segelnick on coauthoring “Basic Pharmacology: Part I – Pharmacodynamic and Pharmacokinetic Principles” and “Basic Pharmacology: Part II – Pharmacotherapeutic Issues, Drug Regulations, and Prescription Writing” for dentalcare.com; and on coauthoring an article titled “Periodontal Management of a Patient Undergoing Liver Transplantation” for the International Journal of Periodontics & Restorative Dentistry. His coauthors included DR. MEA A. WEINBERG, clinical professor of periodontology and implant dentistry.

MS. ROZAfA SHANJA on being appointed a dental assistant for the Department of Cariology and Comprehensive Care.

DR. ASGEIR SIGURDSSON, Presley Elmer Ellsworth Professor of Endodontics and chair of the Dr. I.N. and Sally Quartararo Department of Endodontics, on being elected treasurer of the American Board of Endodontics for 2017-2019.

DR. AMY M. SLEP, professor of cariology and comprehensive care, on co-presenting a lecture titled “Translating Behavioral Science into Improved Oral Health” at the International Conference on Novel Anticaries and Remineralizing Agents 3. Dr. Slep’s co-presenters included DR. RICHARD E. HEYMAN, professor of cariology and comprehensive care.

DR. LESLIE F. SMITHEY, senior director for quality assurance and patient care and adjunct assistant professor of epidemiology and health promotion, on being appointed a Commission on Dental Accreditation (CODA) Site Visitor.

DR. JOSEPH K. SPECTOR, adjunct clinical associate professor of endodontics, on receiving the 2017-2018 Part-time Educator Award presented by the American Association of Endodontists.

DR. ASGEIR SIGURDSSON, Presley Elmer Ellsworth Professor of Endodontics and chair of the Dr. I.N. and Sally Quartararo Department of Endodontics; and DR. LOUIS M. LIN, professor of endodontics.

MS. SHANNON SPAULDING on being appointed a dental assistant for the Department of Cariology and Comprehensive Care.

MS. LAURA SERRANO on being appointed a dental assistant for the Department of Cariology and Comprehensive Care.

DR. INDER SINGH, professor emeritus of basic science and craniofacial biology, on coauthoring “An Algorithmic Approach to Biliary Cannulation Using Double Wire-guided Technique in Difficult ERCP” and “Double Wire-guided Technique Improves Biliary Cannulation Rates in Difficult ERCP: 3-Year Experience” for the American Journal of Gastroenterology.

MR. ZACHARY SLAVUTSKY, formerly a staff auditor for WithumSmith+Brown, PC, on being appointed a dental insurance analyst.

DR. ASHOK SONI, associate professor and associate chair of the Department of Prosthodontics, on being selected as a Top Dentist/Prosthodontist by Westchester Magazine for the past three years. These selections are made by peers and are not advertisements or self-nominations.

DR. KAMOLTHIP SONGTRAKUL, Advanced Education Program in Endodontics, ‘17, on placing third in the poster presentation awards category at the American Association of Endodontists 2017 Annual Session. Dr. Songtrakul’s poster, “Continued Root Development of Immature Permanent Teeth with Persistent Apical Periodontitis after Regenerative Endodontic Therapy,” was coauthored with DR. YOUNGHYUP “JOE” BYUN, Advanced Education Program in Endodontics, ‘18; DR. KATSUSHI OKAZAKI, clinical assistant professor of endodontics; DR. JENNIFER L. GIBBS, assistant professor of endodontics; DR. MATTHEW MALEK, clinical assistant professor of endodontics and director of the Advanced Education Program in Endodontics; DR. ASGEIR SIGURDSSON, Presley Elmer Ellsworth Professor of Endodontics and chair of the Dr. I.N. and Sally Quartararo Department of Endodontics; and DR. LOUIS M. LIN, professor of endodontics.

DR. STUART L. SEGELNICK, adjunct clinical associate professor of periodontology and implant dentistry, on receiving the 2016 Silver Scroll Journalism Award for Most Improved Publication, presented by the International College of Dentists for his work as editor of the Second District Dental Society (SDDS) Bulletin; on being named to the board of directors of the Northeastern Society of Periodontists for 2017; and on being appointed to the editorial staff of the Publications Committee of the Second District Dental Society. Added kudos to Dr. Segelnick on coauthoring “Basic Pharmacology: Part I – Pharmacodynamic and Pharmacokinetic Principles” and “Basic Pharmacology: Part II – Pharmacotherapeutic Issues, Drug Regulations, and Prescription Writing” for dentalcare.com; and on coauthoring an article titled “Periodontal Management of a Patient Undergoing Liver Transplantation” for the International Journal of Periodontics & Restorative Dentistry. His coauthors included DR. MEA A. WEINBERG, clinical professor of periodontology and implant dentistry.

CONGRATULATIONS TO ...
DR. CRISTIAN STEFAN, clinical professor of basic science and craniofacial biology, on coauthoring “An Overview of the Models in Reporting School Data on Dental Credentialing Examinations” for the Journal of Dental Education, and a guest editorial titled “Is Tasting Innate?” for Oral Diseases: Leading in Oral, Maxillofacial, Head & Neck Medicine; and on being appointed advisory editor for Oral Diseases: Leading in Oral, Maxillofacial, Head & Neck Medicine. Added kudos to Dr. Spielman on being appointed a member of the Committee for an Integrated Exam (CIE) of the Joint Commission on National Dental Examinations (JCNDE); on presenting “Taste and Smell Disorders — A Practical Guide for Clinicians” at the annual meeting of the Portuguese Dental Association and at the University of Toronto Faculty of Dentistry; and on presenting a lecture titled “The Birth of the Most Important 18th Century Dental Text: Pierre Fauchard’s Le Chirurgien Dentiste” at The New York Academy of Medicine’s Seventh Annual History of Medicine and Public Health Night.

DR. ANDREW I. SPIELMAN, associate dean for academic affairs and professor of basic science and craniofacial biology, on coauthoring “An Overview of the Models in Reporting School Data on Dental Credentialing Examinations” for the Journal of Dental Education, and a guest editorial titled “Is Tasting Innate?” for Oral Diseases: Leading in Oral, Maxillofacial, Head & Neck Medicine; and on being appointed advisory editor for Oral Diseases: Leading in Oral, Maxillofacial, Head & Neck Medicine. Added kudos to Dr. Spielman on being appointed a member of the Committee for an Integrated Exam (CIE) of the Joint Commission on National Dental Examinations (JCNDE); on presenting “Taste and Smell Disorders — A Practical Guide for Clinicians” at the annual meeting of the Portuguese Dental Association and at the University of Toronto Faculty of Dentistry; and on presenting a lecture titled “The Birth of the Most Important 18th Century Dental Text: Pierre Fauchard’s Le Chirurgien Dentiste” at The New York Academy of Medicine’s Seventh Annual History of Medicine and Public Health Night.

DR. SILVIA SPIVAKOVSKY, clinical associate professor of oral and maxillofacial pathology, radiology and medicine, on being selected to serve on the National Board Dental Examination (NBDE) Part II Test Construction Committees for Pharmacology and for the Advanced Dental Admission Test (ADAT); on being elected vice president of the Evidence-based Dentistry Network of the International Association for Dental Research (IADR); and on authoring “Treatment for Bisphosphonate-related Osteonecrosis of the Jaw” for Evidence-Based Dentistry.

DR. VERA WL TANG, clinical assistant professor of periodontology and implant dentistry, on being elected vice president of the Northeastern Society of Periodontists.

DR. JOHN SUNG, adjunct clinical instructor in the Department of Cariology and Comprehensive Care, on presenting a case study titled “Reduced Vertical Dimension” as part of the “Dental Pearls from the AGD Masters and Fellows” lecture at the 2016 Academy of General Dentistry (AGD) Meeting.

MR. STEPHEN SWENSON, formerly a senior VMware engineer for Dunnhumby, on being appointed senior systems administrator for Technology and Informatics Services (TIS).

MS. ROSALLY TORRES on being appointed a patient service representative for the Department of Pediatric Dentistry.

DR. DEAN C. VAFIADIS, adjunct clinical associate professor of periodontology and implant dentistry, on authoring “Creating a Productive Digital Dental Practice” for Sidekick Dental Magazine; and on coauthoring “Immediate Implant Placement of a Single Center Incisor Using a CAD/CAM Crown-root Form Technique: Provisional to Final Restoration” for the Journal of Esthetic and Restorative Dentistry. Dr. Vafiadis’ coauthors included DR. GARY R. GOLSTEIN, professor of prosthodontics.

DR. CHI TONGLIEN VIET, a teaching fellow in the Department of Oral and Maxillofacial Surgery, on co-presenting an abstract titled “Gene Signature to Predict Nodal Status in Oral Cavity Squamous Cell Carcinoma” at the 98th Annual Meeting, Scientific Sessions & Exhibition of the American Association of Oral and Maxillofacial Surgeons (AAOMS). Dr. Viet’s co-presenters included DR. BRIAN L. SCHMIDT, professor of oral and maxillofacial surgery and director of the NYU Bluestone Center for Clinical Research and the NYU Oral Cancer Center.

MS. SARAH TOROSYAN on being appointed an administrative aide for the Office of Clinical Affairs.

MS. TIFFANY TRAN on being appointed a dental hygienist for the Department of Orthodontics.

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DR. ROGER N. WARREN, adjunct clinical associate professor of periodontology and implant dentistry, on being named to the board of directors of the Northeastern Society of Periodontists for 2017.

DR. ANALIA VEITZ-KEENAN, clinical associate professor of oral and maxillofacial pathology, radiology and medicine, and director of evidence-based dentistry in the Department of Epidemiology & Health Promotion, on facilitating a workshop titled “Teaching Evidence-based Dentistry” for the Association for Dental Education in Europe (ADEE) meeting; on receiving the Cochrane Oral Health Group’s 20th Anniversary Competition Prize; and on coauthoring “No Evidence Available on Best Therapies for Postextraction Hemorrhage” for Evidence-Based Dentistry. Dr. Veitz-Keenan’s coauthor was DR. JAMES R. KEENAN, clinical assistant professor of oral and maxillofacial pathology, radiology and medicine.

DR. FARHAD VAHIDI, associate professor of prosthodontics, on coauthoring “Pre-impression Troughing with the Diode Laser: A Preliminary Study” for the Journal of Prosthetic Dentistry.

DR. BURTON S. WASSERMAN, adjunct clinical associate professor of cariology and comprehensive care, on being appointed editor of the July 2016 issue of Dental Clinics of North America, “Special Care Dentistry.”

DR. CHERYL M. WESTPHAL THEILE, clinical professor of dental hygiene and assistant dean for Allied Health Programs, on coauthoring “What Happens When Other Associations Speak for Dental Hygiene?” for the International Journal of Evidence-based Practice for the Dental Hygienist; on being appointed a member of the editorial review boards of the Journal of Dental Education and the Journal of Dental Hygiene; and on coauthoring an article titled “The Oral Health Care Manager in a Patient-centered Health Facility” for the Journal of Evidence-Based Dental Practice. Dr. Westphal Theile’s coauthors included DR. MARY E. NORTHRIIDGE, associate professor of epidemiology and health promotion; and MS. SHIRLEY BIRENZ, clinical assistant professor of dental hygiene.

DR. CHERYL M. WESTPHAL THEILE, clinical professor of dental hygiene and assistant dean for Allied Health Programs, on coauthoring “What Happens When Other Associations Speak for Dental Hygiene?” for the International Journal of Evidence-based Practice for the Dental Hygienist; on being appointed a member of the editorial review boards of the Journal of Dental Education and the Journal of Dental Hygiene; and on coauthoring an article titled “The Oral Health Care Manager in a Patient-centered Health Facility” for the Journal of Evidence-Based Dental Practice. Dr. Westphal Theile’s coauthors included DR. MARY E. NORTHRIIDGE, associate professor of epidemiology and health promotion; and MS. SHIRLEY BIRENZ, clinical assistant professor of dental hygiene.

MS. QUEEN WALKER, group practice academic coordinator for the Department of Cariology and Comprehensive Care, on presenting an award-winning essay titled “Mindfulness in Action: Daily Calm” at the NYU Toastmasters International Area 51, 54 and 55 Speech & Evaluation Contest, “Rise and Reach.”

DR. ROGER N. WARREN, adjunct clinical associate professor of periodontology and implant dentistry, on being named to the board of directors of the Northeastern Society of Periodontists for 2017.

MS. ASHLEY MARIE VANZILEN on being appointed a dental assistant in the NYU Dental Faculty Practices.

MS. SARA IVETTE VALENTIN on being appointed a patient service representative.

MS. YOMAYRA VILLA on being appointed a dental assistant for the Department of Pediatric Dentistry.

DR. SAYAMOL VORARAGSA, adjunct clinical instructor in the Department of Cariology and Comprehensive Care, on coauthoring an article titled “Conservative Management of Dental Caries Using Silver Nitrate and Atraumatic Restorative Treatment in Remote Rural Setting: A Reduction to Practice” for the New York State Dental Journal. Dr. Voraragsa’s coauthors included DR. RALPH P. CUNNINGHAM, clinical associate professor of cariology and comprehensive care.
DR. SEICHI YAMANO, associate professor of prosthodontics, on being appointed a reviewing editor for *Oral Diseases: Leading in Oral, Maxillofacial, Head & Neck Medicine.*

DR. YI YE, assistant professor of oral and maxillofacial surgery and associate director for the NYU Bluestone Center for Clinical Research, on coauthoring an article titled “Alterations in Opioid Inhibition Cause Widespread Nociception but Do Not Affect Anxiety-like Behavior in Oral Cancer Mice.” Dr. Ye’s coauthors included DR. ELIZABETH SALVO, a postdoctoral associate in the NYU Bluestone Center for Clinical Research; DR. CHI TONGLIEN VIET, a teaching fellow in the Department of Oral and Maxillofacial Surgery; DR. JOHN C. DOLAN, research assistant professor of oral and maxillofacial surgery and associate director of research development for the NYU Bluestone Center for Clinical Research; DR. MALVIN N. JANAL, senior research scientist and adjunct associate professor of epidemiology & health promotion; DR. BRADLEY E. AOUIZERAT, professor of oral and maxillofacial surgery and deputy director of the NYU Bluestone Center for Clinical Research; and DR. BRIAN L. SCHMIDT, professor of oral and maxillofacial surgery and director of the NYU Bluestone Center for Clinical Research and the NYU Oral Cancer Center.

DR. YU ZHANG, associate professor of biomaterials, on presenting the keynote address, “Bonding between Porcelain Veneer, Zirconia Framework, and Resin Cement: Challenges and Opportunities,” for the International Association for Dental Research (IADR) General Session in Seoul, South Korea.

DR. PAUL ZHIVAGO, DDS ’11, Jonathan & Maxine Ferencz Advanced Education Program in Prosthodontics ’14, and adjunct clinical assistant professor of prosthodontics, on being awarded the 2017 Edison Award, honoring the top products and most impressive advances in dentistry. Dr. Zhivago’s Open Platform Workflow system employs a software program originally used by filmmakers to vastly improve the quality of digital impressions on patients’ mouths.

DR. IRA D. ZINNER, adjunct clinical professor of prosthodontics, on being appointed to the editorial board of the *Journal of Dentistry and Oral Care Medicine.*
Aesthetic Dentistry Pioneer Dr. Irwin Smigel, ’50, Dies at 92

Dr. Irwin Smigel, Class of 1950, a pioneer in the field of aesthetic dentistry, passed away in October 2016.

Working from his office on Madison Avenue, Dr. Smigel, a second-generation dentist, advanced two techniques that transformed the appearance of teeth in countless patients beginning in the 1970s. One was laser whitening, in which a laser beam activates a chemical bleaching agent applied to the teeth; Dr. Smigel helped to develop and popularize it. The other was a bonding technique, which had been used for fillings; he applied it to dental imperfections using layers of laminates and veneers.

Dr. Smigel attracted patients from around the world including a host of celebrities, and taught students across the globe the techniques of aesthetic dentistry that he had pioneered. He continued to practice until about two years ago. He and his wife, Lucia Smigel, who survives him, also developed a whitening toothpaste called Supersmile.

“The eyes may be the soul of the face, but the mouth is the first thing people look at,” Dr. Smigel told New York magazine in 1981. “Now, bonding has given us the possibility of instant transformation, since it can be done in a matter of hours, not days and years.”

He added, “Nothing will have the emotional impact on the public that bonding will.”

Dr. Smigel founded the American Society for Dental Aesthetics in 1977. Two years later, he wrote a book titled Dental Health, Dental Beauty.

In 2000, NYU Dentistry established the Irwin Smigel Prize in Aesthetic Dentistry in recognition of the great honor that Dr. Smigel brought to his alma mater and the profession, and the greatly improved appearance and well-being of his patients.

The Smigel Prize continues to be presented by the College to individuals who advance the field of aesthetic dentistry pioneered by Dr. Smigel.

Implant Dentistry Innovator
Dr. Leonard I. Linkow, ’52, Dies at 90

Dr. Leonard I. Linkow, Class of 1952, considered by many to be the “father of American implant dentistry,” passed away at the age of 90 on January 26, 2017. He was a clinical professor of implant dentistry at his alma mater at the time of his death.

Dr. Linkow, who was once offered a contract by the New York Giants to play for their minor league team, declined in order to pursue a career as a dentist.

Four months after graduating from NYU, Dr. Linkow placed his first implant. In more than 50 years of practice, he treated more than 100,000 patients. A prolific author, he published 22 books which were translated into seven languages and over 100 journal articles. He also held 36 patents for dental implants.

In 1984, he developed the mandibular tripodel subperiosteal implant, indicated for edentulous patients with advanced mandibular atrophy who cannot be successfully treated by conventional root form implants without significant bone grafting and reconstruction. He was also the first dentist to use titanium blade implants.

Dr. Linkow served as president of the American Academy of Implant Dentistry (AAID) in 1974, and was an honored fellow of the AAID. He was a Diplomate of the American Board of Oral Implantology, serving as its president in 1993.

The AAID Foundation honored him with the Isaih Lew Memorial Research Award in 1990, and the AAID saluted him with a lifetime achievement award in 2015. He received the Aaron Gershkoff/Norman Goldberg Award in 1974, and three institutes around the world are named for him: The Linkow International Institute of Oral Implantology in Bari, Italy; the Linkow International Institute of Oral Implantology in St. Petersburg, Russia; and the Linkow Implant Institute-Caribbean, in Kingston, Jamaica.

He has a street named after him in Koppel-Graffenhausen, Germany.

In 1992, the College created the Leonard I. Linkow Professorship in Implant Dentistry in recognition of a generous gift from Dr. Linkow to advance in perpetuity the field that he had pioneered.
Alumni in the Spotlight

'40s
DR. BRUCE L. DOUGLAS, Class of 1948, on returning to the University of Illinois College of Dentistry as professor of oral medicine and diagnostic sciences, after a 40-year absence, to help students to understand the scientific impact of aging on the practice of dentistry.

'50s

'70s
DR. LARRY W. ROSENTHAL, Class of 1972, on authoring the book, Open Wide(R): A Guide to Smile and Facial Aesthetics to Enhance Your Confidence, Appearance, and Overall Health.

DR. HOWARD S. GLAZER, Class of 1975, on being featured in an AGD Impact Q&A titled “Member Spotlight: Behind the Product Review with Dr. Howard S. Glazer.”

'80s
DR. GABRIEL DANTE ARIOLA, Class of 1980, on being elected president of the Second District Dental Society.

DR. MARIA C. MARANGA, DDS '88, Advanced Education Program in Endodontics '91, on receiving the 2016 Bernard P. Tills Award for excellence in writing presented by the NYSDA Council on Membership and Communications for her essay titled “The Lion Sleeps Tonight, But Can We?,” which was published in the fall 2015 Suffolk County Dental Society Bulletin.

DR. IVAN A. VAZQUEZ-SANTIAGO, Class of 1989, on being elected president of the Suffolk County Dental Society.

'90s
DR. LUIS T. MAULEON, JR., Class of 1992, on being elected president of the Sixth District Dental Society, the local component of the New York State Dental Association (NYSDA) and the American Dental Association, representing the New York State counties of Broome, Chenango, Chemung, Cortland, Delaware, Otsego, Schuyler, Tioga, and Tompkins.

DR. AMARILIS A. JACOBO, Class of 1994, on being elected president of the Bronx County Dental Society.

DR. JIAN "JJ" HUANG, Class of 1996, on being elected president-elect of the Tennessee Academy of General Dentistry.

'00s
DR. CRISTI FREINBERG-TRUFAS, Class of 2002, on receiving the Fellowship Award of the Academy of General Dentistry.

DR. MICHAEL A. APA, Class of 2003, on authoring the article titled “A Multidisciplinary Anterior Trauma Case: It Takes A Team!” for Dentistry Today.

'10s
DR. ANN SLAMA, Class of 2010, on receiving the Fellowship Award of the Academy of General Dentistry.

DR. POORIA FALLAH ABED, Advanced Education Program in Periodontics ’15, on coauthoring “The Treatment of Recurrent Oral Lichen Planus Lesions Utilizing Free Soft Tissue Autografts: A Case Series” for the International Journal of Advanced Biotechnology and Research (UBR). Dr. Fallah Abed’s coauthors included DR. LEILA SOLTANI, Class of 2016, clinical assistant professor of periodontology and implant dentistry; and DR. ROGER N. WARREN, Class of 1968, adjunct clinical associate professor of periodontology and implant dentistry.

DR. PAUL LAZARI, Class of 2013, on receiving the 2017 Milo Hellman Award for his research on secretory microRNA-29 in gingival crevicular fluid during canine retraction. This is the highest honor bestowed by the American Association of Orthodontists.

IN REMEMBRANCE

Dr. Ernest I. Arnow, Class of 1952
Dr. Robert Aslanian, Class of 1968; adjunct clinical assistant professor of oral and maxillofacial surgery
Dr. John A. Augello, Class of 1962
Dr. Lawrence Barnett, Class of 1949
Dr. Herbert Bressman, Class of 1958
Dr. Nathan Felix Bryks, Class of 1963
Dr. Paul S. Cohen, Class of 1960
Dr. Frederick A. Curro, adjunct clinical professor of oral and maxillofacial pathology, radiology & medicine
Dr. Sheldon B. Estrin, Class of 1957
Dr. Cyril Evian, former clinical associate professor of periodontology & implant dentistry
Dr. James Andrew Fleck, Class of 1967
Dr. Bert D. Gaster, Class of 1950; associate professor of prosthodontics
Dr. Samuel N. Grundfast, Class of 1950
Dr. Frank Rudolph Hopf, Class of 1953
Dr. Joel F. Holubar, Class of 1957
Dr. Warren Hulnick, Class of 1967
Dr. George A. Jackrel, Class of 1972
Dr. Richard Kulwin, Class of 1966
Dr. Benjamin B. Levine, Class of 1950
Dr. Seymour W. Levine, Class of 1944
Dr. Leonard I. Linkow, Class of 1952
Dr. Laurie S. Litwin, Class of 1997
Dr. Leonard Nadel, Class of 1948
Dr. George L. Nadler, Class of 1963
Dr. Milton Palat, Class of 1972, Advanced Education in Periodontics; former professor and chair of the Ashman Dept. of Periodontology & Implant Dentistry
Dr. Mortimer Herbert Perr, Class of 1954
Dr. Lawrence Salman, Class of 1952
Dr. Leonard V. Settembrini, Class of 1988; former associate professor of operative dentistry
Dr. Harold Singer, Class of 1950
Dr. Irwin Smigel, Class of 1950
Dr. David E. Vazemiller, DDS Class of 2005; Advanced Education Program in Endodontics Class of 2010; clinical assistant professor of endodontics
Dr. Joshua Verona, Class of 1963
Dr. John Walsh, Class of 1960
Dr. Richard M. Weledniger, Class of 1972; adjunct assistant professor of cariology & comprehensive care
WE THANK OUR BENEFACTORS

Alumni, faculty, friends, corporations, foundations, and organizations — for their generous support of the college. We are proud to recognize your gifts of cash, pledge payments, planned gifts, gifts-in-kind, and pledges over $25,000, which were made between September 1, 2015 and August 31, 2016.

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"As the global dental technology and innovation leader, Dentsply Sirona is committed to advancing dentistry to develop next generation solutions, built upon continual research and education. We are proud to support NYU College of Dentistry and their students who are essential in the acceleration of better, safer, faster dental care. By sharing our knowledge and passion, we will fuel the future of dental care."

— Jeffrey T. Slovin
CEO, Dentsply Sirona

Read more about Dentsply Sirona’s corporate philanthropy on page 64, “How Our Industry Partners Are Advancing the Profession and the Public Good: A Conversation with Jeffrey T. Slovin.”