



Transforming Lives for Cleft Patients

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EASTMAN

INSTITUTE FOR ORAL HEALTH

Over the last century, we have made a significant impact around the world in research and clinical training, and continue to proudly carry on George Eastman's legacy by helping the underserved and people with special needs.

We have begun planning a 100th anniversary celebration of when Eastman Dental Dispensary's doors first opened in 1917, and look forward to working with our alumni, faculty, staff, Board members and friends to make it especially memorable.

We are in the processes of establishing new preceptorship and fellowship programs that will allow dentists from all over the world to be exposed to our programs, but will not replace the comprehensive residency programs. These programs offer valuable time in the clinic, lab and classroom, for those who would like to enhance their knowledge in the various disciplines.

I have enjoyed meeting so many EIOH alumni at the specialty meetings and alumni receptions. My first impressions have been affirmed about the intense pride EIOH graduates share, and am inspired by the shared commitment and concern for Eastman's future and our educational programs.

We are delighted to have six new talented and enthusiastic professionals with diverse backgrounds join our Foundation Board to help shape our strategic planning. We look forward to working closely with the Board to position EIOH for a successful future.



EIOH continues the legacy of George Eastman.

On the Cover

Jacob Almeida shortly after birth (inset) and at 10 months old.

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Outstanding new alumni have joined our faculty. Drs. Alexis Ghanem, Adina Jucan, Jingyuan Fan, Jin Xiao, Xiuxin Liu, Shaima Malik, and Tal Rapoport have all been recognized for their exceptional skills and leadership, and will join our General Dentistry, Periodontology and Orthodontics departments. Drs. Fan, Xiao and Liu will spend half of their time in the Center for Oral Biology doing research. A committee of experienced researchers, led by Dr. Robert Quivey, will mentor them and help them develop independent research.

On behalf of the EIOH family, I'd like to thank Bill Richardson for his 17 years of service on the Eastman Dental Foundation Board. His thoughtful contributions have led to important and positive changes over the years.

Lastly, we want to keep in touch more frequently with our alumni and friends, which is why we'll be introducing the new digital *Maintaining Momentum* in the next few months. If we don't have it, please send Karen Black your current email address if you'd like to receive it and keep abreast of EIOH news. She can be reached at karen_black@urmc.




EDC Foundation Chair Dr. Bill Calnon and Dr. Eli Eliav presented William Richardson a parting gift to thank him for his contributions as a Board member.



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Transforming Lives for Cleft Patients

Cleft lip and palate is a very common birth defect – about 1 in 700 babies are born with it. While advances in treating patients with cleft lip and palate have evolved, one thing remains the same. People born with cleft are resilient and downright tough.

Take Peyton Manning, one of the most skilled and talented NFL quarterbacks, or Australian soccer star Ljubo Milicevic. Other widely known people with cleft include dentist and gunfighter Doc Holliday, civil rights activist Jesse Jackson, newsman Tom Brokaw, and many more athletes, politicians, authors, artists and actors.

The Pediatric Cleft and Craniofacial Anomalies Center, part of the Golisano Children’s

Hospital, is a team of specialists from pediatric and plastic surgery, pediatric medicine, dentistry, audiology, and speech and language and social work to address and treat patients’ needs. For babies born with cleft lip and/or palate, the Center partners with Eastman Dental during the early stages and then later for orthodontics.

In the beginning, cleft babies often struggle to thrive because feeding is difficult. They undergo painful surgeries as infants, children and teens, and work hard to overcome big challenges with hearing, speech and their dentition. Perhaps these experiences have helped shape their strong determination and fortitude throughout life.

In 1950, a young couple had a baby boy with cleft lip and palate. The baby’s father was an aspiring oral surgeon and his mother becoming an English teacher. But due to their son’s condition, they decided to switch their careers to accommodate his needs.

Instead, the baby’s mother Joanne became a speech pathologist and the baby’s father, J. Daniel Subtelny, DDS, became an orthodontist after studying at the University of Illinois, known for its reputable program and cleft palate team. He later joined the faculty there, and served on the cleft team, treating dozens of kids with cleft lip and palate before starting the orthodontic program at Eastman Dental Dispensary in 1955.

Businessman Dan Lane, 42, was one of those kids treated at Eastman Dental on Main Street, and still has vivid memories.



Dan Lane, 42, was treated for his cleft and orthodontics at SMH and Eastman Dental Dispensary on Main Street.

Lane's mother, Kathleen O'Connell, said Dan was a pretty good patient, so he was frequently chosen to help educate the residents.

"It felt like 100 doctors looking at me," he said, laughing. "I remember all of these doctors opening my mouth and every year getting a new dentist, and thinking how long am I going to have to wear these braces?"

O'Connell remembers the numerous surgeries, with his lip repair occurring at 5 months old and palate closure at age 1. "They had to put his arms in braces because he tore some stitches with his hands on the second surgery. Throughout the years, the experience at Strong and Eastman were wonderful," she said.

Lane ended up wearing braces for 10 long years, but it was the social aspect of having a cleft lip that was the hardest for him. He remembers avoiding other kids with cleft. "Even at Eastman Dental, when we would go for appointments and see other kids with cleft," he said, "we would look at each other and quickly put our heads down."

And then there were the school bullies, who always found the kid who looks a little different, whether it was a bad haircut or a scarred lip.

"Being a good athlete helped a lot," said Lane, who is a sales manager for American Products, and coaches his daughter's soccer team. "If I didn't work harder and get better in sports, I knew I'd be forgotten about"

Subtly agreed, and encouraged his son Gregory to excel in sports to help build his self-esteem and confidence. "He became an outstanding soccer player, swimmer and broke high school cross country records," he said about Greg, who today enjoys practicing general dentistry in Ithaca.

"I think cleft kids definitely develop a thicker skin," Lane continued, "and it just makes them stronger. For me, things just don't affect me as much. When you have something so visual, it gives you some humility and sensitivity, and it makes you kinder."

So when he noticed Marina DelVecchio, who played in the same soccer league, he



Cleft lip patients Marina DelVecchio and Dan Lane participate in the same soccer league.

was happy to reach out. They first met a couple years ago at a mutual friends' cookout, and they both knew right away they shared a commonality.

"I knew that Mr. Lane had a cleft because of the way he looked a little different," said Marina, who is now 12. "His lip wasn't repaired as well as mine so it stood out a little more."

Marina is on her fourth year of braces, with no end in sight. "She rarely complains," said her mother, Tara. Marina was born with a unilateral cleft lip and palate and had her lip and palate repair done by plastic surgeon Joseph Losee, MD. They would visit with the cleft team once a year until Marina was 6, and then see John Giroto, MD who replaced Losee, as needed.

"Before her first surgery, I was dreading having her smile change – my husband had to convince me that she had to have the surgery!" Tara said. Breastfeeding attempts failed, and as a toddler she developed a lot of eating issues and food aversions, which she eventually outgrew. "But she is very tough physically and has come through her last few surgeries surprisingly well," Tara added. "Codeine is almost always prescribed and she takes only one dose, if that. She gets

a soccer ball in the face and rarely wants to come out of the game. She usually has a fever of 103 before I even know she is sick."

Other than one friend asking her if she broke her nose, Marina has never been asked a lot about her cleft.

"My friends usually don't ask questions and I usually don't share information," Marina said. "The times I am most uncomfortable are when I have a surgery and I have to be excused from gym. Then everybody knows and starts asking questions."

Despite her discomfort, Marina chose clefts for her 6th grade school project that involves research and a call to action that can positively impact the world.

"I chose cleft for my topic because it is personal and it relates to me," explained Marina, who interviewed Dan Lane as part of her research. "I also wanted to make people aware of this defect and give them a way to help through my action, which was to create a website that people can go on and donate to the organization Operation Smile."

Marina not only surpassed her fund raising goal, but doubled it to allow two children

Continues ➔

living in a third world country to undergo lip and palate surgery. Her presentation was so well received, that Marina was the only student selected in the 6th grade to present her project to the whole school.

Another patient, Jim Nowakowski, 25, had a very different experience.

“I was always comfortable talking about my palate when I was younger and growing up,” he said. “My friends would ask me about

my surgeries, because they were interested. And I would always enjoy educating them about it. I am fortunate my experience was never really bad, but I do remember kids making remarks because I had braces at such a young age, but kids saying things about braces was always common anyway.”

Since Nowakowski’s first surgery at 5 ½ months old, he’s been back to Strong and Eastman Dental countless times for procedures and surgeries. Like most cleft patients, he had bone removed from his hip to fill in the gap on his upper jaw, which wasn’t growing properly. But his lower jaw was growing on schedule, resulting in a severe under bite that wouldn’t allow his teeth to meet.

Joseph Fantuzzo, DDS, MD, chair, EIOH Oral and Maxillofacial Surgery Division performed his jaw surgery in 2006, leaving his mouth wired for 5 weeks, unable to eat anything that wouldn’t fit through a straw.



Photo by Amitaya Sarkar. © Houston Ballet.

Acclaimed ballet dancer Jim Nowakowski has been an Eastman Dental/UR Medicine patient for 25 years undergoing cleft repair, bone grafts, orthodontics, oral and maxillofacial surgery and plastic surgery.



Nowakowski underwent plastic surgery at URM for nose and scar repair.

“When you start at such a young age, all the appointments and surgeries become part of your life,” he said. “Everyone always made it very easy and comfortable. I have warm memories of that time.”

After 13 years, he finally got his braces removed and moved to Texas to join the Houston Ballet at age 18. Nowakowski began his formal training locally, performed with the Rochester City Ballet, and was promoted last year to demi soloist. He has earned many awards for his performances, including the National Foundation for Advancement in the Arts Gold Award in Dance, which was presented to him by Mikhail Baryshnikov. An interview with Nowakowski on YouTube has nearly 107,000 views.

Nowakowski said he rarely sees anyone with a cleft, but recently met a friend’s 7 year old nephew with a bilateral cleft and they have since become pen pals.

“I’m happy to connect with him, and be a role model if he needs it,” he said. A couple years ago, Nowakowski returned to Rochester to have additional work on his nose and scar from Dr. Girotto. “I’m very happy with the result,” he said.

When Nowakowski’s dance career is over (late 30’s for most dancers), he wants to transition into coordinating galas and dance performances that benefit charities, including helping people with cleft lip and palate.



Introducing the NAM

Considered by many as a cutting edge for presurgical treatment for infants with cleft, the Nasoalveolar molding technique (NAM) was pioneered in the late 1980’s by Barry H. Grayson, DDS, clinical associate professor at NYU’s Langone Medical Center. The NAM looks somewhat like a retainer, and over time, it helps align the baby’s bone and gums where the teeth will grow in, as well as help create a more natural looking nose. By reducing the size of the cleft, there is less tension created at the surgery site, helping improve the surgical result and reducing the number of surgeries needed.

Eastman Dental did a little work with the NAM in the late ‘90’s but it wasn’t until early 2006 that an organized effort began when Jeffrey Karp, DDS, the previous EIOH Pediatric Dentistry program director, went to NYU to train with Grayson.

To be successful, the NAM takes a huge commitment and a lot of work from the parents. That didn’t deter Lindsay Kolk, who knew she wanted her newborn daughter Sierra to undergo the NAM treatment. Sierra was one of Eastman Dental’s first patients to use the NAM, beginning treatment at 10 days old by getting an impression of her mouth and nose.

Lindsay and Sierra drove two hours from Elmira to Eastman Dental every week to have Sierra’s NAM adjusted. At home, taking care of a cleft baby and managing the NAM can be labor intensive. As a result, Lindsay quit her job; but, she says, it was well worth it.

Sierra’s gap closed from its original 17mm at birth to 4 mm before her first surgery at 5 months.

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Today, at age five, Kolk says Sierra is adventurous and creative. “And ridiculously tough,” added Kolk, who wrote a blog, *Looking for Strawberries*, about her experiences with the cleft and the NAM. “She’s never cried getting a shot in the doctor’s office, and is always the first one jumping off of things and doing flips. She’s definitely not the cautious child!”

Sierra, whose speech has been affected with the cleft, underwent surgery last summer which took a flap of skin in the back of her throat and attached it to the soft palate. The flap forms a bridge to close the gap between the back of the throat

and soft palate, therefore correcting her hypernasal speech.

“So far, the surgery has helped with her nasality,” Kolk said. “It’ll take time to see how good it gets, but Sierra works very hard for her speech, and gets therapy daily.”

Lindsay and Sierra continue to meet with the Cleft and Craniofacial Anomalies Center, led by Dr. Giroto who has recently taken a new position in Grand Rapids, Michigan. Clinton Morrison, MD, who is finishing a fellowship in Craniofacial Surgery from Seattle Children’s Hospital, will replace him.

“We see around 20-30 new cleft patients per year,” said Melisande J. McCheyne, RN, MS, CPNP, team coordinator and nurse practitioner for the team. “We are certainly utilizing NAM a lot more than we have in the past, and both Dr. Giroto and Dr. Morrison agree that the device optimizes their surgical results, especially in patients with a bilateral cleft lip/palate.”

McCheyne said they have many families that travel quite a distance to come to Eastman for NAM, with no regrets. “I think most families will do whatever is best for their child, and if we recommend NAM, then they are willing to make the commitment.”

The NAM procedure is done at Eastman by Erin Shope, DDS, who first heard about the procedure when she was in dental school at the University of Pittsburgh. “I heard an amazing lecture by the orthodontist,” Shope said. “The changes she was able to help create with the NAM were incredible and truly inspiring. Her lecture made me realize that being involved with NAM and craniofacial team care was a way to make a lasting difference in a patient’s life.”

In fact, Shope chose EIOH’s Pediatric Dentistry program because of the unique opportunities to be involved with craniofacial care and NAM, the only place in the state outside of NYC to provide it. She, too, studied under Grayson at NYU and then



Sierra Kolk, age 5, gave her stuffed parrot a NAM. Her mom Lindsay says Sierra likes to frequently look at photos of herself during that time.



Karp at Eastman Dental to learn the basic techniques; she also learned new techniques from other providers at national American Cleft Palate Craniofacial Association meetings. Shope became the sole provider of NAM at Eastman Dental in 2012.

“Our partnership with Eastman is wonderful!” said McCheyne, who said treating cleft patients is the best part of her job. “We are very lucky to have a dental/orthodontic center right next door to the hospital. The faculty and residents all do an excellent job with our cleft and craniofacial kids, as well as the administrators and social workers. I love meeting the patients as newborns and watching them develop through the first year of their life.”

In the meantime, Kolk, who is close to earning her bachelor’s degree, has offered to have her phone number at the nurse’s station at their local hospital. “A few times a year, I’ll go in to talk to parents who just had a baby with a cleft and share

my experiences and provide support. Sometimes it’s easy to get caught up in the ‘why me’s?’ and you forget to embrace the wonderfulness of this person who’s been brought into your life.

“It’s been an amazing journey with Sierra,” added Kolk, “and I’m sure it will continue to get even more amazing.”

Today’s Youngest Patients

An ultrasound revealed that Orlando and Julie Almeida’s son Jacob would have a cleft lip, so they met with Dr. Giroto long before he was born to get better educated about what to expect.

“We were told using the NAM was optional, but we never



Orlando, Julie and Jacob Almeida with Dr. Shope.

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Pediatric Cleft and Craniofacial Anomalies Team. Seated (l to r) Lenora A. Colaruotolo, Social Worker | Mary Therese Biltucci, Dental Coordinator | Dr. Molly Lopez-Cepero, Dental Resident | Claire Beers, Audiologist | Dr. Erin Shope, Dentist. Standing (l to r) Erin Lagoe, Genetic Counselor | Jennifer C. West, Psychologist | Shayna Tokar, Audiologist | Merideth Rao, Speech-Language Pathologist | Dr. John Giroto, previous Director | Jenni Maggi, Secretary | Melisande J. McCheyne, Coordinator | Not pictured, Dr. Renee Lynn Roland, Orthodontist

questioned it, after learning it would make his lip correction and palate correction 10 times better,” said Julie. “At first, we didn’t really know what was going to happen. But Dr. Girotto talked about it like it was no big deal – his demeanor was really awesome, so from then on we accepted it as no big deal.”

Thirty weeks into her pregnancy, Almeida decided to change obstetricians so Jake could be born at Strong. “It was the best decision for us, having immediate

access to all these experts who care for cleft babies and Strong’s NICU,” she said.

“I was really impressed right after Jake was born, because Mel and the speech pathologist came and taught us how to feed him with a special bottle,” recalled Julie, who also wrote a blog, *Kinda Pregnant*, sharing her experience throughout the pregnancy, Jake’s NAM, and his surgeries.

“Jacob’s cleft was about 15mm in width before starting the NAM,” said Shope. “Jacob adapted wonderfully to the NAM and he would even use it as a pacifier. Orlando and Julie were incredible advocates for Jacob and picked up the taping and insertion of NAM readily.”

For three to five months, babies are seen once a week at Eastman to adjust the NAM until their first lip closure surgery.

Together, Shope and the Almeidas gradually made changes to the NAM over the course of four months to bring the alveolar segments and lips closer together. At birth, Jacob’s nose on the side of the cleft was very flat. Using a nasal stent attached to the NAM, they were able to elevate the tip

of his nose, as well as make the nose more dome-like and symmetrical.

“Jacob had excellent results. At the time of his lip closure surgery, the cleft was reduced to about 4mm, and his nose was far more symmetrical,” Shope said.

“Dr. Shope was amazing,” Julie said. “She understood a lot of the responsibility was on us, which was very overwhelming and stressful at times.”

“She was always so helpful,” added Orlando, “and was really good about problem solving different issues that would come up.”

Shope even gave the Almeidas her personal cell if they had questions or scheduling problems.

“Overall, it’s been a great experience,” Julie said. “I love that the residents watched his molding and NAM adjustments. The more people who can learn how to do it, the better! We love the unity at Eastman.”

Orlando and Julie are very grateful they have a team of experts in the same town they live. “Dr. Shope can be his dentist, because she understands his needs,” said Julie. “The cleft team has been the most supportive group; we’re so thankful for all the support we’ve had throughout this process, you can’t even know.”

Cleft patients develop a unique partnership between parents and providers. It’s built on a trust and mutual commitment so huge, the relationship many times transcends beyond that of a typical doctor-patient. “Dr. Shope and I are now Facebook friends, that’s how comfortable I feel with her,” said Julie. “I don’t want it be that I never see her again – I really like her.”

At just four days old, Chase Freberg traveled 1.5 hours to get his first consultation, whose parents first found out he had cleft when he was delivered via an emergency C-section.

“It was a very emotional time,” remembered Jesse Freberg. “But with information accessible so quickly from smart phones, we began researching immediately about cleft.”



Jacob’s left nostril beginning to take shape by using the NAM.



Dr. Shope examines Chase Freberg.

During their research, Jesse and wife Erin, who live 1 ½ hours from Eastman Dental, learned about the NAM.

“No matter how many trips we had to make, we were going to do the NAM, because in the long run, it could eliminate surgeries and it was the best approach for him,” Erin said.

But for the Frebergs, and other families who drive to Eastman Dental each week from as far as Pennsylvania, the cost of gas and parking adds up quickly, not to mention time off work. EIOH Social Work stepped in to help.

“We had applied to a couple organizations that help children financially and were successful in securing gas cards that helped defray the cost of travel significantly,” said Lenora Colaruotolo, EIOH social worker.

“Chase’s cleft was about 15mm in width at the start of treatment,” explained Shope, who treats about eight cases a year. “Chase did well with the NAM until about two weeks before his surgery. He figured out how to dislodge the appliance with his tongue, so we had difficulty keeping the appliance in place. We still had very good results with his cleft at about 5mm.”

“Dr. Shope and Dr. Girotto are amazing, and what they do is amazing,” said Erin, who is initiating fund raising to benefit other families who will one day walk in their shoes and need help. “We so appreciate the wonderful care we received at Eastman and through the cleft team.”



Dr. Shope holds Chase (right) and poses with his mother Erin, brother Weston, and father Jesse.



Chase Freberg a few weeks after lip closure surgery.

“I love that the residents watched his molding and NAM adjustments. The more people who can learn how to do it, the better! We love the unity at Eastman.” ~ Julie Almeida

Dr. Hsu's Diverse Research Attracts Major Funding

Center for
Oral Biology





Wei Hsu, PhD, is surrounded by the two things he loves most. Dozens of photos of his wife and two daughters - from school portraits to smiling poses in tutus-- adorn every wall in his small office amidst the many piles of scientific journals, lab reports, paper reviews and textbooks that completely cover his desk.

Most of the piles are related to the five major projects Hsu and his team of seven are managing. Very simply, Hsu's lab focuses mainly on the role of cells--the signals they send and the paths they take --that cause bone development and disease.

"Basically, we study the genes whose products-- the proteins-- control signal transduction pathways," he said. "We are particularly interested in how these pathways control normal processes of mammalian development, from a single fertilized egg into a multi-organ organism--and how these pathways go amiss to cause human disease.

Hsu, whose work has attracted significant funding through the last 12 years when he first joined COB, has primary appointments in Center for Oral Biology and Biomedical Genetics, and a secondary appointment in the Wilmot Cancer Center. He is also a member of the UR Stem Cell and Regenerative Medicine Institute.

His interest in skull development first began as a young man in high school who enjoyed chemistry, and thought he would study it further in college. But the first two years of college-level chemistry in his native Taiwan was nothing like he experienced in high school. "I felt like I didn't know chemistry anymore," he remembered. "It felt very artificial and it didn't make a lot of sense to me."

Feeling depressed and unsure about his future, it wasn't until his third year in college that things began to look brighter. "I took biochemistry and it changed my life," he said. "The chemical reactions that naturally happen within the body were fascinating to me, and that class was a turning point in my life and the beginning of my career path."

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His interest in molecular biology and genetics landed him a full fellowship to Mt. Sinai Medical Center in NYC, where he earned his Master's and PhD in Biomedical Sciences. Hsu did his post doc at Columbia for three years where he worked on mammalian genetics and development biology before he was promoted to research faculty. In 2002, URM's Center for Oral Biology recruited him for the work he did with characterization of key signaling regulators in mammalian development and cancer.

Some of his research at Columbia included studying a gene that has the same signaling pathway known to be very prominent in cancer. During his work in this area, he made a surprising discovery that the same gene also plays a role in craniofacial development and disease, which then started his current research program.

"COB was the one place I found that embraces an interdisciplinary approach," said Hsu. "Our center has people from various disciplines, including microbiology, genetics, biochemistry, pharmacology and physiology, which creates a diverse and stimulating environment."

He recently landed a three-year, \$1.06 million grant from the New York State Stem Cell Board (NYSTEM) to continue his work related to the stem cell's role in skull deformity. (Hsu is one of six UR School of Medicine and Dentistry scientists awarded \$3.5 million in NYSTEM funding). Another grant, originally funded by NIH's NIDCR in 2006, was competitively renewed

for another five years in 2012 for \$1.9 million, focusing on how the signaling pathways orchestrate to form normal or abnormal development during infancy.

He published findings in 2010 that provided a new explanation for the earliest stages of congenital skull deformity in newborns, known as craniosynostosis. Abnormal head shape due to craniosynostosis, affecting one in 2,500, can restrict normal brain growth and result in neurodevelopment delays and elevated intracranial pressure. The chief cause is a defect in osteoblasts, the type of cells most important for making bone.

"We found that when a certain type of stem cell goes awry, it leads to a new mechanism for craniosynostosis," Hsu explained, whose study was published as the cover story in *Science Signaling*, and showed a new mechanism for craniosynostosis, a result of a disruption among the earliest forms of cells.

Initially, the bones that make up the cranium are individual plates of skull bone, and are separated by gaps called sutures. In humans the bone plates gradually fuse together, starting at birth and ending at about age 30. Two different types of bone formation processes take place during the first 18 months of life that are critical to the proper bone formation. The first type is responsible for final development of the skull bones, jaw bones and collar bones. The second type controls development of the long bones in the body. During the first event, a type of stem cell – the mesenchymal cell – must transform into bone forming osteoblast cells, which

deposit the bone matrix. The majority of bone is made after the matrix hardens and entraps the osteoblasts.

Hsu's group discovered when the signaling pathways that determine the fate of the mesenchymal stem cell are altered, they change to the second type of bone forming process, resulting in the skull sutures closing prematurely.

Since then, and now with the NYSTEM grant's support, Hsu and his team have been working to identify and isolate this stem cell population and characterize it, and investigate how these stem cells contribute to craniofacial bone development and craniosynostosis.

The mesenchymal cell based therapy is a very big field, and scientists for the past 30 years have been trying to implement it in other areas of the body. "In the past, it has shown functional improvement, but unfortunately only short term or very limited," Hsu explained. "They don't survive and we think the wrong type of cells was used. Our hope is to find the cell that can replace the damaged tissue and directly regenerate new bone."

If Hsu and his team are successful in identifying the right cell, it could have positive implications to improve conditions that affect the aging population, such as osteoporosis and bone fractures.

Hsu's research strategies are also apply similar strategies in stem cell and signal pathways. Apply research strategies in other areas, including breast cancer, neurodevelopment and degeneration diseases such as Alzheimer's and Parkinson's.

Dr. Hsu has received distinction by receiving funding through many sources, including National Kidney Foundation fellowship award, the Northeast Regional Developmental Biology award, the PHS grant awards from the National Institutes of Health, an Idea award from the Department of Defense, the Basil O'Connor award from March of Dimes Foundation, and New York State Stem Cell Science awards.

He serves on grant/external review panels for NIH, Dept of Defense, Alzheimer's Assoc., Florida Dept. of Health, among others. He is invited to lecture at international conferences and leading research institutions, and serves on the editorial board for several scientific journals.

Dr. Hsu's other projects include:

Breast Development and Tumorigenesis

The main focus is to investigate cellular signaling in normal development and neoplastic transformation of the mammary gland. We are particularly interested in roles of mammary stem cells and parity-induced mammary progenitors in these processes.

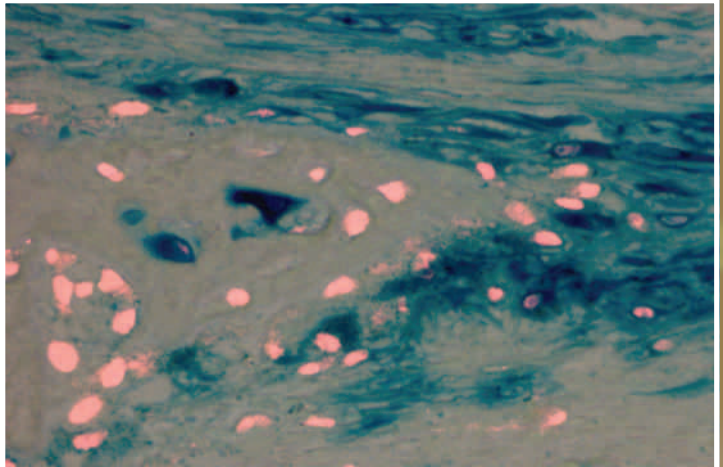
Stem Cell Biology

This is an integral part of our projects studying the genetic control of cellular signals and signal transduction mechanisms underlying development of lineage-specific stem cells and niches in skeletal, reproductive, skin and nerve systems.

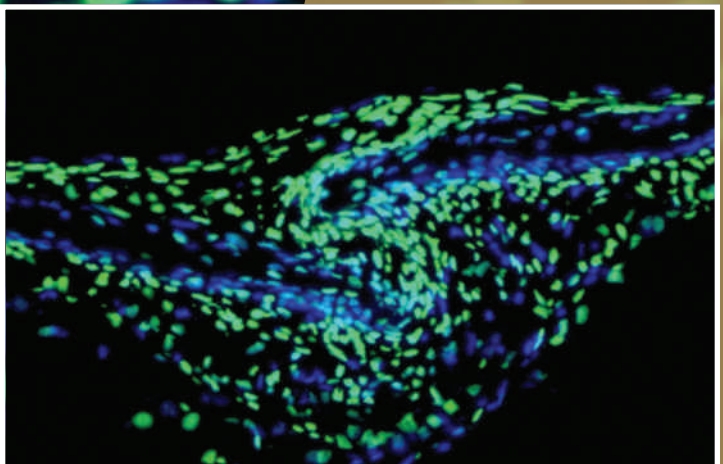
Ubiquitin-like Modifiers

A multidisciplinary approach has been initiated to study SUMO modification in mammalian development and disease. Studies include SUMO-mediated regulation in embryonic and extraembryonic development, cardiovascular, skeletal and neurological disorders, and cancers.

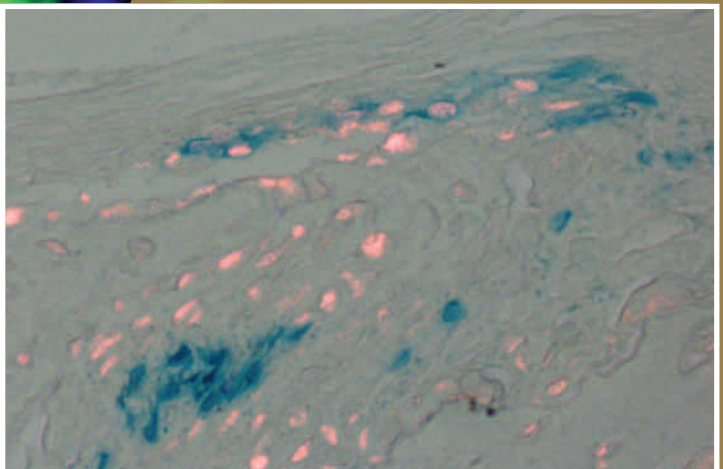
His project deciphers the regulatory mechanism underlying the making of Wnt and its signaling effects in signal-producing and signal-receiving cells. Our current focus is to investigate the reciprocal regulation of Wnt and Gpr177/mouse Wntless in development of various organs as well as pathogenesis of human diseases.



Undifferentiated mesenchymal cells are stained by beta-gal in blue. Red fluorescence is osteoblast cells identified by a specific marker. The blue cells (mesenchymal cells) will differentiate into the red fluorescence positive cells (osteoblast cells/bone forming cells) in this image.



Green fluorescence is GFP staining of undifferentiated mesenchymal cells within the skeletogenic mesenchyme. Blue fluorescence is DAPI counter staining to identify all cells.



Similar to the image above, the blue represents the mesenchymal cells and will differentiate into the red positive osteoblast or bone forming cells.

EDC Foundation Board Welcomes New Members



John Buttrill

John Buttrill, who is likely most recognized for his role with the American Red Cross, brings a wide range of skills and experience to the Eastman Dental Foundation Board room. After earning his BA in Economics from Princeton University and his MBA at University of Rochester's Simon School of Business, Buttrill spent much of his early career in banking and later becoming President and CEO of the Rochester Finger Lakes Banking Division of the Chase Manhattan Bank. As Chief Financial Officer of E.J. Del Monte Corp., he led the restructuring of its debt and capital. After several years

assisting NY companies and banks in financial restructurings, he formed his own company Buttrill & Associates, helping private companies with buy outs and acquisitions. In 2004, Buttrill began a new career in the not-for-profit world, serving as CEO of the Greater Rochester Chapter of the American Red Cross, and then its Regional CEO for the Finger Lakes Region before retiring last year.

His community involvement is extensive, having served on numerous local boards including Boy Scouts, SeniorsFirst, ABVI Goodwill, and Pathway Houses, and the Meals on Wheels Advisory Council.

Buttrill said he and his wife have always admired George Eastman and the institutions he created in Rochester, including EIOH. "And like most things Eastman started or supported, EIOH has done a lot of great work in our community and around the world," Buttrill said. "I was excited to be offered the opportunity to join the board and help continue that great work through fundraising, strategic planning and any other way I can."

Your favorite healthy food:

Broccoli

One thing you can't live without:

It's hard to live without good bourbon.

Something you know for sure:

I do know that someday I will die and before I do, I will have paid more NY taxes than I wanted to.

Proudest Professional Achievement:

To have been associated with high quality professionals throughout my career. Any personal achievements which stick out most in my mind came about as a result of being surrounded by a great team of professionals.

Three Words to Describe Yourself:

Honest, Friendly and Introspective

Favorite Healthy Food:

I enjoy fresh fish far more than meat these days.

The one thing you can't live without:

My wife and family – they have always been my greatest source of joy.

One thing you know for sure:

There is no sure thing. I've seen too many changes and improvements in my lifetime.



Bill Passolt

Bill Passolt felt honored when Bill Calnon, DDS, EDC Foundation Board president, invited him to serve. As President and CEO of Fortress Insurance Company, Passolt first met Calnon through the Seventh District Dental Society of NY, which endorses Fortress’s professional liability insurance products for dentists.

“Since Fortress is owned and operated by dentists, we actively seek ways to give back to the dental profession,” explained Passolt, who graduated Cum Laude from Drake University with a bachelor’s degree in Accounting. “EDC’s rich tradition was also a very good fit with Fortress’ core purpose to enhance the dental profession’s ability to provide the highest quality dental care.”

Ira Lamster

As a new Foundation Board member, **Ira Lamster**, DDS, MMSc , considers it an honor to be affiliated with Eastman. “I admire what has been accomplished at Eastman, including advances in research and the education of leaders in dental education and practice. The clinical programs are a model for the provision of dental services to the underserved. This is a critical time for the dental profession. We have to make decisions today that will determine the future of the profession, most importantly how we will interact with the larger healthcare world. Eastman needs to continue to play a leading role in that planning, and I am happy to contribute in any way that is needed.”

Lamster earned his DDS from SUNY Stony Brook, his MMSc and Periodontology certificate from the Harvard School of Dental Medicine. He served as Dean of Columbia University College of Dental Medicine from 2001 to



2012, as well as Sr. Vice President of Columbia University Medical Center from 2006 to 2012. Today, the widely published Lamster is a professor in the Department of Health Policy and Management, Mailman School of Public Health. His extensive research has focused on various aspects of periodontal disease, older adults’ oral health, and the future of dental education and practice.

Proudest Professional Achievement:
Being named dean, and continuing to maintain an active research program.

Three words to describe yourself:
Inclusive, thoughtful, serious.

Favorite Healthy Food:
I love all fruit, but especially bananas!

The one thing I can't live without:
My family, including my wife of 42 years, our two daughters and their children.

Three things I know for sure:
1) To be an effective leader, you need to fully believe in, and feel passionately about, your institution, its mission and its people 2) there is life after being dean 3) I do not play golf as well as Cyril Meyerowitz.

Multi-Cultural Perspectives Given at First EIOH Oral Medicine Conference

For Aharon Ernan, DMD (GenDen '05, GPR '05), who is seeing an increase in cancer patients in his general dentistry practice, the first EIOH Oral Medicine Conference provided valuable insight and education.

“The emphasis of supporting care to cancer patients was of special interest to me,” he said. “I also learned how to help my patients who are suffering from chronic pain, and better understand their needs and challenges.”

The conference, which focused on oral medicine, featured speakers from the U.S., China, Israel and Canada, who shared their unique backgrounds and perspectives on diseases and chronic syndromes of the oral and maxillofacial tissues.

The 100 participants learned about advances in managing oral complications in oncology patients, using traditional Chinese medicine and acupuncture specifically for oral diseases and oral pain syndromes and dental treatment planning for various

groups of medically complex patients.

The scientific program also covered oral manifestations of cutaneous diseases in the oral cavity, and radiologic manifestations of systemic bone diseases.

“This conference conveyed the true spirit of EIOH,” Ernan added, “by integrating a variety of multi-cultural dental education at the highest level.”

Sharon Elad, DMD, EIOH professor and Oral Medicine chair, is looking forward to hosting future conferences, and increasing awareness about oral medicine to the dental and medical community.

Featured speakers included Hong Hua, DMD, PhD and Zhimin Yan, DMD, PhD from Peking University School of Stomatology, Beijing, China; Chen Nadler, DMD, PhD, Hadassah-Hebrew University School of Dental Medicine, Jerusalem, Israel and University of Toronto, Canada; Noam Yarom, DMD, Sheba Medical Center, Tel-Hashomer and School of Dental Medicine Tel-Aviv University in Israel, Yehuda Zadik, DMD, MHA, Hadassah-Hebrew University School of Dental Medicine, Jerusalem, Israel, Sharon Elad, DMD, MSc, and Eli Eliav, DMD, MSc, PhD, from Eastman Institute for Oral Health at the University of Rochester Medical Center.



The conference, which focused on oral medicine, featured speakers for the U.S., China, Israel and Canada.



Hands-on Training Benefits OMFS Residents

Four residents from the EIOH Oral and Maxillofacial Surgery Program recently joined about 200 practicing New York oral and maxillofacial surgeons, to participate in an anesthesia emergency simulation training at Weill Cornell Medical Center in New York City, sponsored by the New York State Society of Oral and Maxillofacial Surgeons.

“Participating in the scenarios allowed us to put ourselves in real life emergency situations that could happen to us one day in our future practices,” said Heather Chance, DDS, of Montreal, Quebec. “We were able to practice using the actual skills needed, while incorporating the team approach to emergencies which I think is an important, but sometimes forgotten, part of dealing with in-office emergencies.”

Teamwork is especially important to Chance, and is one reason why she chose the EIOH Oral & Maxillofacial Surgery program. “I felt that the residents and faculty seemed cohesive and there seemed to be a high level of respect and communication that made for a much better team atmosphere than many of the other programs I visited and interviewed at,” she said.

“The simulations were created from a list of the most common errors that lead to catastrophes,” said Joseph Fantuzzo, DDS, MD, chair, EIOH Oral and Maxillofacial Surgery program. “The training really helps maintain skill in recognizing, and managing office-based anesthesia emergencies.”

“It was definitely an eye-opening experience and was a great environment for us to discuss, simulate and learn from these cases, with experienced faculty, and NYSSOMS members,” added Mike Barber, DDS, of Lilburn, Georgia, who chose EIOH oral and maxillofacial surgery to gain experience in the full scope of OMFS. “I also wanted to train with some of the best OMFS attendings.”

“Participating in the scenarios allowed us to put ourselves in real life emergency situations that could happen to us one day in our future practices.”

~ Heather Chance, DDS



(L to r) OMFS residents Drs. Michael Barber, Mark Sorensen, Heather Chance and Andrew Langston.



Joseph Fantuzzo, DDS, MD
Chair, EIOH Oral and
Maxillofacial Surgery.



Jin Xiao, DDS, PhD (GenDen '13, GPR '14)

Born in Chengdu, China, Xiao earned her DDS at the West China College of Stomatology, part of Sichuan University. She is participating in a joint PhD program between the University of Rochester and Sichuan University. She won the American Association for Dental Research Hatton Award in 2011. As Xiao finishes her second residency at EIOH, she reflects on the past and shares her hope for the future.

Why did you choose EIOH for your residencies?

EIOH is a worldwide known oral health institute for clinic training and dental research. The most pre-eminent and distinguished dental clinicians and researchers gather at EIOH.

You've published 17 papers in reputable microbiology and oral biology journals, and presented at several major conferences. Describe your research work.

I was a Center for Oral Biology research fellow during my AEGD program. With Dr. Hyun Koo as my mentor, I conducted research on cariogenic oral biofilm, which investigated how the exopolysaccharide matrix modulates the interaction between three-dimensional architecture and virulence of oral biofilm. The discoveries brought a new insight of how the functional biofilm structure influences the biofilm virulence. I also conducted clinical research during my AEGD and GPR residencies, investigating under Dr. Malmström's supervision, the success rate of oral implants placed in edentulous mandible by a general dentist.

What is your ideal job?

My ideal job is a combination of clinic practice, translational research and teaching

in academic institute. My ultimate goal is to develop a career of bridging basic and translational sciences together while applying the emerged resolution to clinical reality, and design innovative strategies targeting biofilm-related infectious diseases, such as caries, periodontal and peri-implant infectious disease.

In what ways have you benefitted from your education at EIOH?

EIOH has great clinical and research mentors, I have enhanced my clinic skills through AEGD and GPR training, and also benefitted from the phenomenal research resources provided by EIOH. My AEGD program was blended with 30% research and 70% clinic time, which allowed me to continue my research during residency.

Last time you challenged yourself?

I am challenging myself everyday to be a better dentist. In the GPR residency, we treat many medical complex patients, which requires us to deliver comprehensive dental treatment with thorough consideration of patients' medical background and that is a great training and challenge for me.

Favorite thing you do in your spare time.

Swimming.

A person who has inspired you.

Dr. Hans Malmström and Dr. Hyun Koo who supervised me to conduct dental research are the people who inspired me to develop an academic career. Their dedication to dental research, teaching and clinical practice are the driving power for me to pursue my career dream.

Sung-Woo Kang, DDS (AEGD '14)

Born and raised in South Korea, Kang's parents dropped him off at a boarding school in Virginia when he turned 15, despite his very little knowledge of English. He went on to earn his bachelor's at Johns Hopkins University and his DDS from Columbia University College of Dental Medicine, before returning to South Korea to fulfill his mandatory military service duty before he started the AEGD program.

Why EIOH?

I initially applied to Eastman AEGD program because of its clinical reputation. Not many AEGD programs in the nation will give you a chance to get heavily involved in surgical and complex cases. During my interview, however, I learned that Eastman Institute was also a major research powerhouse. Because I always had a desire to pursue a formal research project and be exposed to the true scenery of academia, Eastman quickly became my number one choice.

Are you involved in research?

I am currently doing research on ATP-mediated pain signaling mechanism in human teeth in Dr. Ren's lab. It is also my Master's in Dental Science thesis project.

In what ways have you benefitted from your education at EIOH?

I don't think I have ever been and will ever be surrounded by as many talented and intelligent teachers and researchers as I am seeing here at EIOH. The faculty members at EIOH are truly exceptional people. They are all great teachers, clinicians and researchers. I did not know what "evidence-based dentistry" really meant until I came here. Throughout numerous lectures and

clinical sessions held by Dr. Malmström and other faculty, and literature and topical review sessions by Dr. Ren, I have learned what it really means to study evidence-based dentistry and apply the concept to my daily patient care.

Describe your perfect career.

I will join the endodontics residency program at Harvard School of Dental Medicine. Thus, my perfect career would be a working endodontist. I am also interested in pursuing a career in academia, as well. I find research aspects of dentistry so intriguing and want to be involved in educating future generations of dentists about evidence-based dentistry.

Last time you challenged yourself?

I think I challenged myself enough when I chose to face the Rochester winter weather this year. I've never seen this much snow in one single calendar year in my life!

Favorite thing you do in your spare time.

Listening to electronic music and watching the Baltimore Orioles and Ravens games.

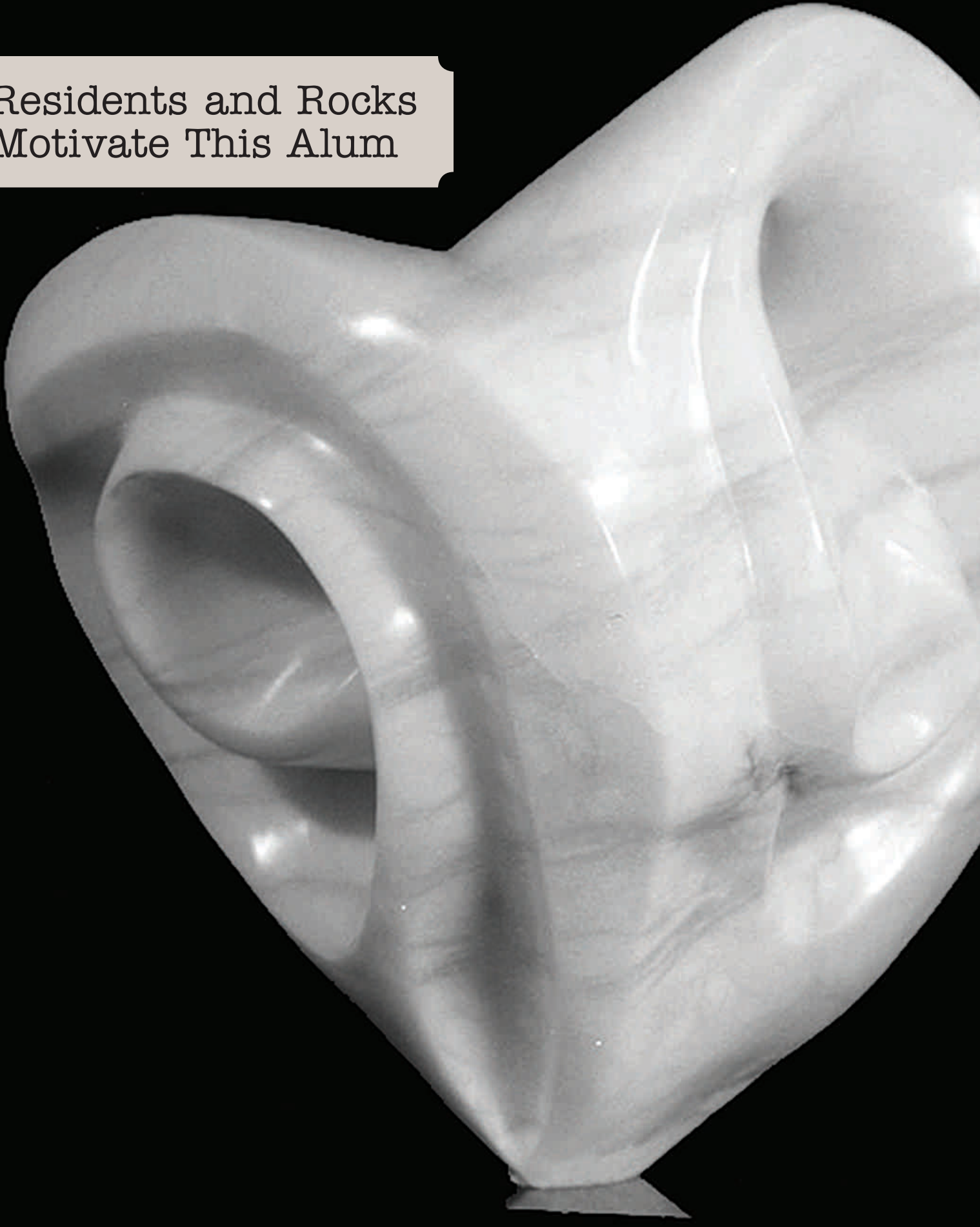
A person who has inspired you.

It has to be my parents. The fact they bravely decided to send me to America for better education and future has always awed me. I don't think I can even mimic the sacrifices they have made for me and my younger sister, who also received education here in the States. I am forever indebted to their unconditional love, and it has always inspired me to work harder.

Dr. Kang was recently given the Handelman Award, demonstrating excellence in clinical skills, leadership, initiative, ethics, communications skills and an interest in enhancing other residents' educational experience.



Residents and Rocks Motivate This Alum



Len Fishman is kind and unassuming, and almost always wears a broad, contagious smile. “I love this phase of my life,” he said matter of factly. “I live simply and want for nothing.” His life is full because it has everything he loves – his family and friends, his work as an orthodontics professor and as a professional sculptor.

“I love coming to Eastman to teach and assist residents with their research,” said Fishman, 81, who drives an hour and a half from his Skaneateles home three days a week. “I get very close to the residents and value and respect their friendship. There’s something in our department that bonds all of us together. We have very bright, highly motivated residents who love to learn. Why *wouldn’t* I do this? We are all so lucky!”

Fishman decided he wanted to be an orthodontist after taking a one-week course in it during his two-year service in the U.S. Army as a dentist. He spent a year in the Eastman Dental Center Pediatric Dentistry program before he was accepted into the Orthodontic program.

“While in school, my wife and I were living in an attic and I managed to do some general dentistry Friday nights and Saturdays to help pay our expenses,” he said.

When he finished the program (Pedo ’59, Ortho ’61), he and his wife Mimi decided to set up an orthodontic practice in Syracuse which would allow him to establish a cleft palate team at the Upstate

Medical Center. But not knowing anybody in Syracuse, it was a challenge to start a private practice.

“I managed to borrow \$3,000 from a bank and rented a very small third floor office,” Fishman recalled. “With some waiting room furniture bought at a tent sale, two beauty parlor chairs and an x-ray machine, I was in business – and I only spent half of the borrowed money!”

When he finally had three patients, Fishman scheduled them all at the same time so it looked like he was a busy orthodontist.

“I loved every day I could practice orthodontics,” Fishman said. “I couldn’t wait to get into my office.” In 1963, Dr. Subtelny asked him to teach one day a week. “It has been 51 years of teaching and I hope I can continue for a long time,” Fishman said, who closed his private practice in 1996. “Through the years, Dr. Subtelny encouraged me and gave me the confidence to

rise to the occasion and reach goals I wouldn’t have otherwise.”

Equal to his love for teaching orthodontics, Fishman is passionate about sculpting stone. Throughout his childhood, he would always gravitate to making something, like model airplanes. But the level of his talent and skill wasn’t revealed until he took a required aptitude test for dental school. “That test showed complex line drawings of three dimensional objects, and asked what it would look like if you turned it 90 degrees in different directions,” Fishman said. “They also gave me a large piece of chalk and a knife to carve what a given diagram was indicating.” Fishman performed so well on that test, the dental school insisted he be admitted right away, skipping his last two years of undergraduate study.

He and Mimi and their three children lived three blocks from Syracuse University,

Continues ➔



“Actually, there are a lot of similarities between designing a sculpture and designing an occlusion and face.”

– Len Fishman

where he took all the evening art classes they had to offer, and sculpting stone soon became his favorite medium. That was more than 30 years ago, and he has been a professional stone sculptor ever since, acquiring additional training along the way from the Castle Hill School of Art in Truro, MA, and the Vermont Professional Sculpture Workshops.

Fishman has won many professional ribbons, has exhibited in several galleries and has sold numerous pieces. He works primarily with alabaster stone for the abstract sculptures he makes and uses marble or wood for the bases.

“I prefer to have the stone progressively dictate the design of the final sculpture rather than having a preconceived idea of the final form before starting,” he said, explaining his creative process. “This leads to many discoveries and is a far more exciting approach. I want the stone to reveal to me the form that it wants to be. Working in this manner allows me to repeatedly modify and become more excited with the creative design.”

Fishman starts with a rock that weighs about 60 pounds imported from different countries. “I often position and reposition the rock and don’t start carving for days,” he said. “It is very important that the design comes from the rock itself rather than forcing it.”

Fishman said he prefers to work with abstract designs so he can establish a desired visual effect that also conveys appropriate

feelings. “Detaching the viewer’s eye from reality often provides an opportunity to experience the visual experience on a more emotional level,” he explained. “A finished piece is not successful unless both objectives are achieved. People will interpret a work of abstract art very differently, but it is important to the artist to feel personally attached and satisfied with the result.”

Fishman enjoys working with stone as a medium because it is inherently three-dimensional. “Actually, there are a lot of similarities between designing a sculpture and designing an occlusion and face,” he said. “Three dimensional design is more complex and challenging to deal with as all surfaces need to integrate with each other. The eye must travel around the stone in order to produce the energy and movement required for a successful design. I very often ‘open up’ the stone by carving within and through it, thereby further enhancing and integrating the three dimensional design with both negative and positive spaces.”

One of his favorite pieces was a consignment piece to be purchased and given as a wedding present for a couple he knew quite well and knew they loved music. “The stone was quite large, and had a beautiful translucent quality about it,” Fishman described. “The sculpture represented a lot of musical energy, togetherness, and sensuality.” (page 22)

No matter how tired Fishman can be, once he enters his barn studio, he is energized and usually ends up spending several hours in there. The studio is on his property in Skaneateles, where he’s lived since Mimi passed away some 15 years ago.

When he’s not sculpting or teaching, Fishman enjoys his three children. His eldest son Jon, who is the drummer for the rock band Phish, his wife Briar and their five children live in Maine; David attended art school and now runs Mimi’s Guest House in Puerto Rico, named after their mother; and Julie, who has a professional culinary school background, manages a Williams Sonoma store in the Syracuse area.



Dr. Jeffrey P. Feingold's (GenDen'72) time as a resident at the Eastman Institute for Oral Health was the turning point in a career that has distinguished him as leader in providing quality oral healthcare for those most in need.

Dr. Feingold volunteered his time in the evenings providing dental care at Eastman Dental to a large population of migrant farm workers, who would otherwise suffer from untreated oral disease in silence. The experience of treating these people, of learning about their lives, and of seeing the gratitude and joy on their faces after helping them inspired him to pursue a future defined by sincere and compassionate care.

As a resident, Feingold was further inspired from working with such leaders in the field as Dr. Michael Buonocore and Dr. Basil G. Bibby who developed dental sealants and pioneered research on fluoride therapy, respectively. He found his work in the program led by Dr. Stanley Handelman and other leaders like Dr. Louis Ripa, then the Chairman of Pediatric Dentistry, challenging but gratifying.

After completing his one-year AEGD residency at Eastman, Feingold continued his post-graduate education at the Fairleigh Dickinson University Dental School, receiving his certificate in Periodontology and a Master of Science in Dentistry (Periodontology) before being named a Diplomate of the American Board of Periodontology. He then moved to Florida to build his own dental practice, the likes of which simply did not exist there at the time. He founded The Dentaland Organization in 1979, based upon the principles of quality care at affordable fees.

Dr. Feingold has since opened numerous rural Florida locations, creating an extensive specialty group practice with a general dental component. He brought vital dental care to people

who otherwise would have not received care. Today, he continues to serve as president and CEO of The Dentaland Organization, comprised of seven comprehensive dental healthcare facilities from Aventura to Melbourne, Florida.

In 1992, he established MCNA Insurance Company, which has grown to contract with multiple states, including a recent contract in Louisiana, making his company the state's sole Medicaid, Child Health Insurance Program Dental Program Benefits Manager. To date, the company administers dental benefits for 4 million Medicaid, Medicare, and CHIP enrollees nationwide. Dr. Feingold is a proponent of making dental benefits a separate entity from other medical health benefits in all state Medicaid programs as they expand under the Affordable Care Act.

Education is also of great importance to Dr. Feingold. He has consistently devoted countless hours throughout his career to provide leadership for many schools and professional organizations through various advisory and leadership roles. He is a former member of both the NYU Dean's Advisory Board for the College of Dentistry and the NYU Stern School of Business Steering Committee, and was a member of the Tulane Associates Board for Tulane University.

As a member of the Board of Trustees at Florida Atlantic University, he now serves as Vice Chair of the Community



The time spent as a resident at Eastman Dental was inspiring and life changing for Dr. Feingold, seen here just before taking a holiday.

and Governmental Relations Committee. He previously served as Vice Chair of the Strategic Planning and Development Committee. The Board honored his contributions and his recent \$250,000 donation to the university by naming their boardroom The Dr. Jeffrey P. & Barbara S. Feingold Board Room.



Recognizing donors who have made a gift, of any amount, to any University of Rochester annual fund - including those which support the Eastman Institute for Oral Health - for two or more consecutive years.

FOR MORE INFORMATION, PLEASE VISIT:

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All gifts count toward *The Meliora Challenge*, a University-wide fundraising campaign that was launched in October 2011 and runs through June 30, 2016.



Building an Unprecedented Knowledge Base

More than 100 dentists and other oral health care providers from the northeast U.S. gathered in Rochester, NY, to learn and share information about conducting research with practical impact on care, paying special attention to topics that lack good evidence.

One such topic is treating cracked teeth – where members collect data for more than four years to identify a wide variety of characteristics associated with initial symptoms, treatments and outcomes. The National Dental PBRN, funded by a \$67 million National Institutes of Health/National Institute of Dental and Craniofacial Research grant, will create a registry of information resulting from dozens of studies like these, where providers around the world will be able to access them and can apply the knowledge in their own practices.

EIOH houses one of the national network's six U.S. regional centers and is responsible for research activities in the northeast. At the recent meeting, practitioners presented results of previous



practice-based studies, and others shared topics that have approved protocol or that they would like to see studied. “These include dentin hypersensitivity treatment and common practices of head and neck exams for oral cancer in dental offices,” explained Cyril Meyerowitz, DDS, MS,

principal investigator for the northeast region. Topics under development in the northeast include diagnosis and treatment of salivary dysfunction in dental offices, impact of new anticoagulants on bleeding in dental offices, and dental hygienists approach to oral disease prevention, among others.

“Being a member of the network has expanded my view of dental care,” said Allan J. Horowitz, DDS, a member of the practitioner advisory group who practices in King of Prussia, PA. “It brings fresh insight into what I do on a daily basis. It has enhanced the excitement that my staff brings to work every day, and our patients appreciate and want to be a part of the vision of improving dentistry into the future.”

EIOH International Partners Increase



EIOH recently hosted visitors from Saudi Arabia's Dammam University (from left: EIOH AEGD Chair Dr. Hans Malmstrom, Dammam Associate Dean Dr. Sulaiman Alagl, EIOH Director Dr. Eli Eliav, and Dammam Dean Dr. Fahad Al-Harbi.

Eastman Institute for Oral Health is expanding its global impact through new partnerships with Universities in Kuwait and Saudi Arabia to establish an advanced general dentistry faculty development and training program.

Two dentists from both Kuwait University and Dammam University will travel to Rochester and participate in a four to five- year program which requires 1) completing the two-year Advanced Education in General Dentistry program, 2) earning a Master of Science or Master of Public Health degree, 3) passing the American Board of General Dentistry exam and 4) engaging in at least two years of part-time teaching. Participants will also be enrolled in graduate courses in education at the Warner School of Education.

“We’re very excited about this unique program to educate the future educators,” said Hans Malmström, DDS, professor and chair, General Dentistry and AEGD program director. “This initiative fits

perfectly with our mission for faculty development and training in clinical-translational research, clinical care and teaching. It also fits their need for highly trained faculty to accommodate the several dental schools they are opening in both countries.”

Serious discussions began a couple years ago when visitors from Kuwait University visited EIOH to learn more about the AEGD program and a master’s degree to prepare them for an academic career.

Shortly thereafter, Malmström was invited to lecture at Dammam University in neighboring Saudi Arabia about esthetic and implant dentistry, where he had the opportunity to discuss the possibility of this program with the administration there. Like

Kuwait University, the School of Dentistry at the University of Dammam is expanding and also has an increasing need for qualified faculty members.

“There are numerous mutual benefits for establishing a closer collaboration with our colleagues in Kuwait and Saudi Arabia,” said EIOH Director Eli Eliav, DMD, PhD, who plans to establish similar partnerships with other international universities. “Unlike traditional study abroad programs, our curriculum will include significant training in clinical and didactic teaching, both through coursework and practice. Trainees will also get substantial involvement in research including clinical trials, teaching and practicing dentistry. The result will be comprehensive preparation for a successful career in academia.”



FUTURE DENTISTS

Host Awareness Event



UR student acapella group The Ramblers, posed as tooth fairies delivering goodie bags to unsuspecting recipients.

Public health advocates and aspiring dentists Brandon McDonald (UR '13) and Yasmin Mattar (UR '14), lobbied university administration last year to begin an annual Dental Awareness Week on campus. They gathered supporting students' signatures, produced a video, met with the Dean of Students, and even made a giant gold tooth sculpture to bring attention to oral health disparities in the nation, as well as raise awareness to students' own oral health.

Their efforts paid off, and this year they enjoyed a successful first weeklong event, including lectures from Eastman Institute for Oral Health (EIOH) resident Virginia Fontenla-Yanez, DDS, who talked about decay prevention and the link between

oral health and systemic diseases including diabetes, heart disease and oral cancer.

A meet and greet with local dentists and EIOH dental residents helped people better understand the various aspects of a career in dentistry; they hosted a Health Fair and provided outreach and education to a local day care, and arranged for singing tooth fairies, otherwise known as one of the UR student acapella groups, the Ramblers, to deliver goodie bags to students.

"From finding sponsors and lecturers to advertising and set-up, this experience

came with several challenges, but we felt a sense of accomplishment in making an impact on the campus community," said McDonald, who is executing a pilot study on the effects of e-cigarettes on periodontal health under Sangeeta Gajendra, DDS, MPH, clinical chief for EIOH's Community Dentistry and Oral Disease Prevention.





Dr. Ronald J. Billings

Dr. Ronald J. Billings received his DDS and MSD in preventive dentistry from Indiana University and completed a National Institute of Health postdoctoral training program in cariology at the University of Minnesota. He was a member of the faculty of Indiana University, the University of Minnesota and the University of Texas in Houston before coming to Eastman Dental Center in 1984 as the assistant chairman in the Department of Community Dentistry.

Billings was the director of the Smilemobile program, a single mobile unit that provided dental care to children in the inner city. It was not long before he recognized that this program needed to expand to meet the dental needs of children in the underserved areas. He actively solicited funding and conducted its first Phone-A-Thon.

Under Billings' leadership, the Smilemobile program was able to secure funding for a second mobile unit and was able to provide dental care to an additional 1,800 needy children.

As the associate director for Clinical Affairs, (1989-93), Billings recognized that to better serve our patient population, we needed to understand and address the psychosocial and environmental factors that contribute to poor oral health.

He was instrumental in developing and implementing the Center's current social work program, which has helped improve identification and treatment of victims of domestic violence, enhanced care providers' skills in utilizing bio-psycho-social approach to patient care, and assists patients and their families with issues that inhibit access to care. As the fourth director of the Eastman Dental Center, Billings played an active role in the Center's merger with the University of Rochester.

He later worked with the University's Health Affairs Division and development office, while continuing to teach and conduct research.

Reflections from a few colleagues

I've enjoyed meeting the past directors and greatly value their contributions over the years. Dr. Billings' contributions are quite notable, particularly his vision and leadership expanding our community outreach program. This area is the foundation for which Eastman Institute for Oral Health is built, and without Dr. Billings' achievements in this area, we would not be the Institution we are today.

- **Eli Eliav, DMD, PhD**
*EIOH Director & Vice Dean for Oral Health,
University of Rochester Medical Center*

Ron Billings assumed leadership of Eastman at a very difficult time, and proved instrumental in helping set the stage for the merger into the University. He's always been very engaged as a mentor and a teacher to numerous junior faculty, who have become successful investigators in our community. His strong interest in oral health disparities drove his public health approach to provision of care. Of his many accomplishments, his outstanding work growing the community dentistry program is among the top. I wish him all the best in his retirement.

- **Cyril Meyerowitz, DDS**
EIOH Director Emeritus

I have known Dr. Ron Billings as a mentor, colleague and a dear friend. In my view, Ron is one of the most thoughtful persons I have known. I was very fortunate to have Ron as my mentor. His meticulous working style, a positive, yet accurate attitude towards the best approach when working on the research project or teaching our residents always brings great outcomes. Ron has a gift to embrace new research ideas and move things forward. Since his retirement, Ron has been kind to serve as a consultant on several research projects and I am fortunate that I am still able to get his advice, suggestions and a constructive critique when needed.

~ **Dorota Kopycka-Kedzierawski, DDS, MPH**
EIOH Associate Professor

Ron is a modest, caring, giving individual who brings quality, professionalism and expertise to the tasks at hand whether it is in research, writing health care policy, teaching, mentoring or patient care. He is an individual who believes in teamwork and that we are all part of a dental family. He leads by example not only in the Board room but as a volunteer dentist at community health fairs. Throughout his career he worked to improve the health of people locally, nationally and internationally and to enhance educational and research programs at all levels. To paraphrase Maya Angelou: At our best level of existence we are part of a family and at our highest level of achievement we work to keep the family alive and well. Dr. Billings has had a very positive and meaningful effect on all of the members of the dental family, and I for one am very grateful for his leadership, mentoring, and friendship during his tenure at EIOH.

~ **Clare Shaffer, RDH, MS**
Office for Quality Improvement and Compliance



Marilyn Foy, EIOH Residency Coordinator Marilyn Foy started working at Eastman Dental in early 1981 in Community Dentistry. She switched to General Dentistry in 1988 and worked as the department secretary, working for Drs. Handelman, Jensen and Brunette until 1996, when the registrar's position became available. When Eastman Dental Center merged with the University of Rochester in 1997, the title of the position changed from registrar to residency coordinator.

What did you love most about your job?

I stayed at Eastman for 33 years because I enjoyed working with the students and residents, and the staff. Eastman was the right fit – not too large, not too small. Staff and faculty are friends. I have enjoyed working with great people.

What will you miss the most?

I will miss most the wonderful people I have worked with, and the bright young men and women who have come from all over the world as Eastman students/residents. There was really not much not to like about the Residency Coordinator position. Great exposure to all programs.

What is your biggest wish for Eastman's future?

To continue the reputation as a great postgraduate dental institution.

How will you spend the next year as you adjust to not working every day?

No big plans at the present. But, I will enjoy the flexibility of being able to visit family and friends more often.



June Rouse, Operating Room Coordinator, EIOH Pediatric Dentistry. Rouse started in working as the Pediatric Dentistry secretary in 1992, after working on River Campus for 11 years in various roles, before additional faculty and increased OR time required a full time OR coordinator.

What will you miss the least?

20 minute walk from new parking lot and my intense workday

What is your wish for Eastman?

To keep working on changing the image and presence in the surrounding counties.

How will you spend your first year in retirement?

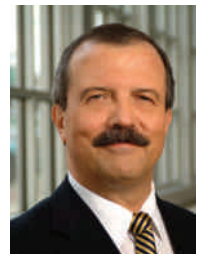
I'm occupied every day from January through October with the vegetable/flower farm that we market in North Chili. My husband and I are planning motorcycle trips, and I'm looking forward to enjoying the company of friends, relatives and my two dogs and two cats.



J. Daniel Subtelny, DDS, chair, EIOH Orthodontics has published an autobiography, *Hot Seat*. Copies are available as a thank you for a donation to the department. Contact Lisa Grasta at Lisa_Grasta@urmc.rochester.edu.

Matthew Rogers, DDS (Ortho '09) is Chief of Orthodontics at Joint Base Anacostia-Bolling in Washington, D.C. with the U.S. Air Force and recently became a Diplomate of the American Board of Orthodontics.

The dental clinic at Highland Hospital is now managed by EIOH, and is called **Eastman Dental at Highland**. Faculty members and residents will continue to serve patients at this site, providing a full range of general dentistry services.



The American Dental Education Association installed **Huw F. Thomas, BDS, MS, PhD** (Pedo '78, MS '78), as Chair-elect of the ADEA Board Directors. Thomas is Dean of the School of Dental Medicine and Professor of Pediatric Dentistry at Tufts University. "As dental educators, we have a unique opportunity to help shape the future of our profession; we should be passionate and bold and embrace that opportunity," said Thomas.



Eastman Dental has been selected to take part in a New York State Quality Improvement Initiative. As part of the state's Early Childhood Learning Collaborative, the project aims to successfully adopt and spread the practices and protocols of disease management for early childhood caries, including risk assessment, risk-based recall, fluoride use, self-managed goal setting, and restorative treatments. **Sangeeta Gajendra, DDS, MPH, MS**, clinical chief for EIOH's Community Dentistry and Oral Disease Prevention, is the principal investigator. Pediatric dentists **Erin Shope, DDS**, and **Cynthia Wong, DDS**, are co-investigators. **Bruce Haskell, DMD, PhD** (Ortho '75) was named President of the Louisville Dental Society.



(l to r) Cyril Meyerowitz, DDS, brought Kathleen and Patrick Barrett, DDS (MS '75), of Ireland, and Caro Lawrenson, wife of the late Arthur John Lawrenson, DDS (GenDen '74) of England, to meet Eli Eliav, DMD, PhD, visit friends and see how Eastman Dental has changed over the last 40 years.



MEDICINE of THE HIGHEST ORDER

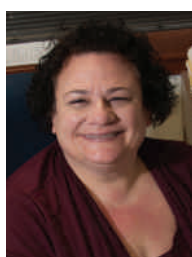
UR Medicine is the new name for University of Rochester's health care system. It includes Strong Memorial Hospital (and its inpatient and outpatient components such as Golisano Children's Hospital, Wilmot Cancer Center, and Flaum Eye Institute), University of Rochester Medical Faculty Group, Highland Hospital, Thompson Health, Eastman Dental, University Dental Faculty Group, The Highlands at Brighton, The Highlands Living Center, Visiting Nurse Service, and a range of clinical programs serving patients across western New York.

Michael Spoon, DDS (Ortho '91) was invited to speak at the prestigious Moyers Presymposium at the University of Michigan. His talk dealt with how tensegrity, mechanotransduction, and regional accelerator phenomenon (RAP) are being exploited to enhance bone remodeling and subsequent tooth movement.



Ross Tallents, DDS, (GenDen '73, Prosthodontics '79) presented 'The Effect of Condylar Degeneration on Mandibular

Growth' in an open meeting by the American, European and British societies of TMJ Surgeons in Chicago, Illinois.



Rose Welscher, senior administrator for EIOH's Central Billing Office, won the University of Rochester Medical Center's Board

Excellence Award, given for her leadership and efforts that have greatly improved efficiencies.

EIOH Director **Eli Eliav, DMD, MSc, PhD** presented 'Evidence Based Strategies: How Do We Know?' at the American Academy of Orofacial Pain's 38th Scientific Meeting in Las Vegas, NV.



Adina Jucan, DDS, (GenDen '11, GPR '12) the EIOH Geriatric Dentistry Fellow, was designated a Hartford Scholar

through the Hartford Center of Excellence (COE) at the University of Rochester, which recognizes outstanding advanced trainees and junior faculty to support academic career development for clinicians and support their work in geriatrics and aging. Jucan is the first dentist nationally to receive a Hartford Scholar, funded by the John A. Hartford Foundation; traditionally the scholars have been clinicians from geriatric medicine and psychiatry. Jucan recently presented her research, 'A model for delivering oral care in long term care facilities,' at the annual sessions of the Special Care Dentistry Association and American Geriatrics Society.



J. Antonio Bello, DDS, (Prosthodontics '84) was elected president of the American Prosthodontic Society.

Pediatric Dentistry Assistant Professor **Lisa DeLucia, DDS**, received the 2014 Dr. David Satcher Community Health Improvement Award for her significant contributions to community health through her work addressing oral health disparities among people with developmental disabilities.

Ira Kamp, DDS, won the Part-time Faculty Award of Excellence.



Keith Bullis, EIOH Media Services Manager, here with his wife Barb, won the Shaffer-Devries Award.

Continues ➔



Mona Fine, AEGD Program Secretary, won the Shaffer-Devries Award.



Thomas DeRosa, DDS, (GPR '83), pictured with his wife Amy Mason, won the Iranpour Award for excellence in clinical education.



Leandro Carneiro, DDS, a periodontics resident won the Basil G. Bibby Award for outstanding scientific merit by non-degree candidates.



Vineela Redla, BDS, (center), (GenDen '14) and **Prachi Hanwatkar, DDS**, (GenDen '14) won the New York State Dental Foundation Dean's Award.



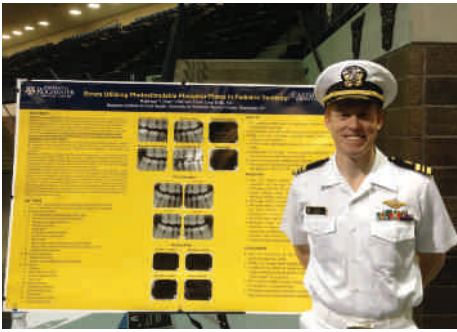
Alejandro Aviles-Reyes, a Microbiology and Immunology graduate student, won the Michael G. Buonocore Award for outstanding scientific merit by degree candidates. Post docs **Marit Aure, PhD**, and **Brendaliz Santiago, PhD** (left) won the W.H. Bowen Award for their poster and oral presentations. **Vanessa Munoz** (right), a COB Prep student, also won a Basil G. Bibby Award.



Gene Watson, DDS, PhD, received a \$30K pilot grant from UR's Environmental Health Sciences Center to study "Exposure to Bisphenol-A in the Seychelles Child Development Nutrition Cohort."



Center for Oral Biology Postdoctoral associate **Marit Aure, PhD**, tied for first place at the highly-competitive International Association for Dental Research/Johnson & Johnson Hatton Awards Competition held recently in Cape Town, South Africa. She and Korea's Joo-young Park, PhD, surpassed 36 other researchers from around the world. Aure's presentation, "Mechanisms of Acinar Cell Maintenance in the Adult Murine Salivary Gland," revealed that replacement of cells in the salivary gland depends primarily on the duplication of the secretory cells, rather than on stem cells. This means that the repair of damaged salivary glands may be accomplished by using healthy salivary gland cells for transplant therapy. This is the first time in IADR history that two first place winners were named, with no second place winner.



Naval Reservist **Robinson Kiser, DMD** (Pedo '14) won third place for his research poster at the Federal Services National Capital Region Dental Continuing Education Symposium at the Naval Academy in Annapolis, MD.



Catherine Ovitt, PhD, was awarded a \$50K James P. Wilmot Cancer Center's Basic Research Pilot award to develop a

model that can be used for the molecular investigation of adenoid cystic carcinoma of the salivary gland.

Lisa DeLucia, DDS, was given the Educational Achievement Award and **Vineela Redla, BDS, MPH** (GenDen '14) was given the Future Leader Baton Award at the 2014 American Academy of Developmental Medicine and Dentistry Annual Conference.



Eastman Dental, The Golisano Foundation and Special Olympics continue their collaborative efforts to improve access for oral health care for people with developmental disabilities. Thirty EIOH residents, faculty and staff volunteered their time to treat Special Olympics athletes in the area's first Day for Special Smiles.

WHY I GIVE



No amount of money can demonstrate how much Dr. Caton has meant to me. Contributing to his fellowship is an honor.

- Dr. Dan Weitz (Perio '13)

In Sympathy

The Eastman Institute for Oral Health expresses sympathy to the loved ones of our deceased alumni and friends

Robert E. Marquis, PhD, past chair of the Department of Microbiology and Immunology at the University of Rochester School of Medicine and Dentistry and a beloved teacher to many students who trained at the medical school and at the university's College of Arts and

Sciences, died in January at the age of 80. He began his career at the university in 1963 as a senior instructor in Microbiology and was continuously funded by the National Institutes of Health until his retirement as a professor in the Center for Oral Biology in 2012.

Continues 

2014 Graduation Celebration







Recent EIOH Publications

Adami, GR, Yeung, AC, Stucki, G, Kolokythas, A, Sroussi, HY, Cabay, RJ, Kuzin, ., Schwartz, JL. (2014). Gene expression based evidence of innate immune response activation in the epithelium with oral lichen planus. *Archives of Oral Biology*

Buckley, AA, Faustoferri, RC, & Quivey, RG, Jr. (2014). Beta-phosphoglucomutase contributes to aciduricity in streptococcus mutans. *Microbiology (Reading, England)*

Falsetta, ML, Klein, MI, Colonne, PM, Scott-Anne, K, Gregoire, S, Pai, CH, Gonzalez-Begne, M, Watson, G, Krysan, D, Bowen, W, Koo, H. (2014). Symbiotic relationship between streptococcus mutans and candida albicans synergizes virulence of plaque biofilms in vivo. *Infection and Immunity*

Fantuzzo, J J, Roger, JM, Barroner, MD, & Karp, JM (2014). Self-mutilation of the lower lip in a child with dystonia secondary to megalencephalic leukoencephalopathy treated with botox injections: A case report. *Journal of Oral and Maxillofacial Surgery : Official Journal of the American Association of Oral and Maxillofacial Surgeons*

Geminiani, A, Abdel-Azim, T, Ercoli, C, Feng, C, Meirelles, L, & Massironi, D (2014). Influence of oscillating and rotary cutting instruments with electric and turbine handpieces on tooth preparation surfaces. *The Journal of Prosthetic Dentistry*

Geminiani, A, Ercoli, C, Feng, C, & Caton, JG (2014). Bibliometrics study on authorship trends in periodontal literature from 1995 to 2010. *Journal of Periodontology*

Haskell, JA, Haskell, BS, Spoon, ME, Feng, C, The relationship of vertical skeletofacial morphology to oropharyngeal airway shape using cone beam computed tomography: Possible implications for airway restriction, *Angle Orthodontist 2014*

Javed, F, Ramalingam, S, Ahmed, HB, Gupta, B, Sundar, C, Qadri, T, Al-Hezaimi, K, Romanos, GE (2014). Oral manifestations in patients with neurofibromatosis type-1: A comprehensive literature review. *Critical Reviews in oncology/ hematology*

Kalladka, M, Quek, S, Heir, G, Eliav, E, Mupparapu, M, & Viswanath, A (2014). Temporomandibular joint osteoarthritis: Diagnosis and long-term conservative management: A topic review. *Journal of Indian Prosthodontic Society*

Koike, K, Shinozaki, T, Hara, K, Noma, N, Okada-Ogawa, A, Asano, M Shinoda, M, Eliav, E, Gracely, RH, Iwata, K, Imamura, Y. (2014). Immune and endocrine function in patients with burning mouth syndrome. *The Clinical Journal of Pain*

Lalla, RV, Bowen, J, Barasch, A, Elting, L, Epstein, J, Keefe, D M, McGuire, DB, Migliorati, C, Nicolatou-Galitis, O, Petereson, DE, Raber-Durlacher, JE, Sonis, ST, Elad, S. The Mucositis Guidelines Leadership Group of the Multinational Association of Supportive Care in Cancer and International Society of Oral Oncology (MASCC/ISOO). (2014). MASCC/ ISOO clinical practice guidelines for the management of mucositis secondary to cancer therapy. *Cancer*

Mints, D, Elias, C, Funkenbusch, P, & Meirelles, L (2014). Integrity of implant surface modifications after insertion. *The International Journal of Oral & Maxillofacial Implants*

Odashima, Y, Nakamura, K, Ikai, H, Kanno, T, Meirelles, L, Sasaki, K, & Niwano, Y (2014). Postantibiotic effect of disinfection treatment by photolysis of hydrogen peroxide. *Journal of Chemotherapy (Florence, Italy)*

Papadimitriou DE, Chochlidakis KM, Weitz DS, Wazirian B, Ercoli C, Surgical and prosthetic management of ridge deficiency for an implant-supported restoration in the esthetic zone. *Journal Prosthetic Dent. (2014)*

Romanos, GE, Basha-Hijazi, A, Gupta, B, Ren, YF, & Malmström, H (2014). Role of clinician's experience and implant design on implant stability, an ex vivo study in artificial soft bones. *Clinical Implant Dentistry and Related Research*

Romanos, GE, Ciornei, G, Jucan, A, Malmström, H, & Gupta, B (2014). In vitro assessment of primary stability of straumann(R) implant designs. *Clinical Implant Dentistry and Related Research*

Romanos, GE, Gupta, B, Gaertner, K, & Nentwig, GH (2014). Distal cantilever in full-arch prostheses and immediate loading: A retrospective clinical study. *The International Journal of Oral & Maxillofacial Implants*

Romanos, GE, Papadimitriou, DE, Hoyo, MJ, & Caton, JG (2014). Loss of pulp vitality after maxillary sinus augmentation: A surgical and endodontic approach. *Journal of Periodontology*

Rotella, M, Ercoli, C, Funkenbusch, PD, Russell, S, & Feng, C (2014). Performance of single-use and multiuse diamond rotary cutting instruments with turbine and electric handpieces. *The Journal of Prosthetic Dentistry*

Schroth, RJ, Lavelle, C, Tate, R, Bruce, S, Billings, RJ, & Moffatt, M E (2014). Prenatal vitamin D and dental caries in infants. *Pediatrics*

van Wijngaarden, E, Harrington, D, Kobrosly, R, Thurston, SW, O'Hara, T, McSorley, EM, Myers, GJ, Watson, GE, Shamlaye, CF, Strain, JJ, Davidson, PW (2014). Prenatal exposure to methylmercury and LCPUFA in relation to birth weight. *Annals of Epidemiology*

Weitz, DS, Geminiani, A, Papadimitriou, DE, Ercoli, C, & Caton, JG (2014). The incidence of membrane perforation during sinus floor elevation using sonic instruments: A series of 40 cases. *The International Journal of Periodontics & Restorative Dentistry*

Zadik, Y, Nakdimon, I, Meyerowitz, C, Shapira, MY, & Elad, S (2014). Topical budesonide for severe oral chronic graft-versus-host disease. *American Journal of Health-System Pharmacy: AJHP : Official Journal of the American Society of Health-System Pharmacists*

2013

Abdel-Azim, T., Fantuzzo, J, Batalocco, G, Cho, S, Ercoli, C, & Morton, D (2013). Oral rehabilitation of an edentulous patient using two-segment le fort I repositioning and implant-supported fixed prostheses. *The International Journal of Oral & Maxillofacial Implants*

Al-Dasooqi, N, Sonis, ST, Bowen, JM, Bateman, E, Blijlevens, N, Gibson, R J, Logan, RM, Nair, RG, Stringer, A, Yazbeck, R, Elad, S, Lalla, R, Mucositis Study Group of the Multinational Association of Supportive Care in Cancer/International Society of Oral Oncology (MASCC/ISOO). (2013). Emerging evidence on the pathobiology of mucositis. *Supportive Care in Cancer: Official Journal of the Multinational Association of Supportive Care in Cancer*

Benoliel, R, & Eliav, E (2013). Primary headache disorders. *Dental Clinics of North America*

Chen, IF, Khan, J, Noma, N, Hadlaq, E, Teich, S, Benoliel, R, & Eliav, E (2013). Antinociceptive effect of IL-12p40 in a rat model of neuropathic pain. *Cytokine*

Elad, S, Meidan, I, Sellam, G, Simaan, S, Zeevi, I, Waldman, E, Weintraub, MR, Revel-Vilk, S. (2013). Topical curcumin for the prevention of oral mucositis in pediatric patients: Case series. *Alternative Therapies in Health and Medicine*

Findler, M, Elad, S, Kaufman, E, & Garfunkel, AA (2013). Dental treatment for

high-risk patients with refractory heart failure: A retrospective observational comparison study. *Quintessence International (Berlin, Germany: 1985)*

Geminiani, A, Weitz, DS, Ercoli, C, Feng, C, Caton, JG, & Papadimitriou, DE (2013). A comparative study of the incidence of schneiderian membrane perforations during maxillary sinus augmentation with a sonic oscillating handpiece versus a conventional turbine handpiece. *Clinical Implant Dentistry and Related Research*

Gibson, RJ, Keefe, DM., Lalla, RV, Bateman, E, Blijlevens, N, Fijlstra, M, King, E, Stringer, A, van der Velden, W, Yazbeck, R, Elad, S, Bowen, J, Mucositis Study Group of the Multinational Association of Supportive Care in Cancer/International Society of Oral Oncology (MASCC/ISOO). (2013). Systematic review of agents for the management of gastrointestinal mucositis in cancer patients. *Supportive Care in Cancer: Official Journal of the Multinational Association of Supportive Care in Cancer*

Gilbert, GH, Williams, OD, Korelitz, JJ, Fellows, JL, Gordan, VV, Makhija, SK, Meyerowitz, C, Oates, T, Rindal, D, Benjamin, P, Foy, P, National Dental PBRN Collaborative Group. (2013). Purpose, structure, and function of the united states national dental practice-based research network. *Journal of Dentistry*

Haribabu, PK, Eliav, E, & Heir, GM (2013). Topical medications for the effective management of neuropathic orofacial pain. *Journal of the American Dental Association (1939)*

He, S, Khan, J, Gleason, J, Eliav, E, Fik-Rymarkiewicz, E, Herzberg, U, Albert, V, Hariri, R. (2013). Placenta-derived adherent cells attenuate hyperalgesia and neuroinflammatory response associated with perineural inflammation in rats. *Brain, Behavior, and Immunity*

Jensen, SB, Jarvis, V, Zadik, Y, Barasch, A, Ariyawardana, A, Hovan, A, Yarom, N, Lalla, RV, Bowen, J, Elad, S, Mucositis Study Group of the Multinational Association of Supportive Care in Cancer/International Society of

Oral Oncology (MASCC/ISOO). (2013). Systematic review of miscellaneous agents for the management of oral mucositis in cancer patients. *Supportive Care in Cancer: Official Journal of the Multinational Association of Supportive Care in Cancer*

Kashi, A, & Saha, S (2013). Evidence-based techniques to assess the performance of dental implants. *The Journal of Oral Implantology*

Khan, J, Heir, G, Benoliel, R, & Eliav, E (2013). Complex regional pain syndrome following trigeminal nerve injury: Report of 2 cases. *Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology*

Koo, H, Falsetta, ML, & Klein, MI (2013). The exopolysaccharide matrix: A virulence determinant of cariogenic biofilm. *Journal of Dental Research*

Romanos, G E, Gupta, B, Yunker, M, Romanos, EB, & Malmström, H (2013). Lasers use in dental implantology. *Implant Dentistry*

van Wijngaarden, E, Davidson, PW, Smith, TH, Evans, K, Yost, K, Love, T, Thurston, SW, Watson, GE, Zareba, G, Burns, CM, Shamlaye, CF, Myers, G. J. (2013). Autism spectrum disorder phenotypes and prenatal exposure to methylmercury. *Epidemiology (Cambridge, Mass.)*

Zadik, Y, Yarom, N, & Elad, S (2013). Medicolegal considerations in bisphosphonate-related osteonecrosis of the jaw. *Oral Diseases*

Heir, G., Nasri-Heir, C., Thomas, D. Puchimada, BP, Khan, J. Eliav, E. Benoliel, R. Complex Regional Pain Syndrome (CRPS) Following Trigeminal Nerve Injury: Report of Two Cases. *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology*

Shanti, R, Khan, J, Eliav, E., Ziccardi, V. Is There a Role for a Collagen Conduit and Anti-Inflammatory Agent in the Management of Partial Peripheral Nerve Injuries? *Journal of Oral and Maxillofacial Surgery, Oral Maxillofacial Surgery.*



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Upcoming Events

American Academy of Periodontology

September 19-22, 2014

Alumni & Friends Dinner (TBD)

San Francisco, CA

Barbara_Coccia@urmc.rochester.edu

87th Annual Meeting of the American Prosthodontic Society (APS)

February 26-27, 2015

Alumni & Friends Reception

Chicago, IL

Barbara_Coccia@urmc.rochester.edu

585.275.5043

44th Annual Meeting of the American Association for Dental Research (AADR)

March 11-14, 2015

Alumni & Friends Reception

Boston, Mass

ehernandez@admin.rochester.edu

588.276.5171

Annual Meeting of the American Association of Orthodontists (AAO)

May 15-19, 2015

Alumni & Friends Reception

Moscone Center

747 Howard Street

San Francisco, Ca 94103

Linda_Ferruzza@urmc.rochester.edu

585.273.3340

21st Annual Handelman Conference & Dinner

Spring 2015

AEGD/GPR Alumni, students

and residents

Doubletree Hotel

1111 Jefferson Road

Rochester, NY 14623

Mona_Fine@urmc.rochester.edu

585.275.5087

68th Annual Meeting of the American Academy of Pediatric Dentistry (AAPD)

May 21-24, 2015

Alumni & Friends Reception

Seattle, Washington

ehernandez@admin.rochester.edu

585.276.5171

37th Allen A Brewer Conference & Dinner

June 2015

Prosthodontic Alumni, residents, student

DoubleTree Hotel

111 Jefferson Rd

Rochester, NY 14623

Barbara_Coccia@urmc.rochester.edu

585.275.5043

Convocation 2015

June 26, 2015

EIOH Faculty, staff, residents, students, families

Class of '62 Auditorium/Flaum Auditorium

Paulasheppard@urmc.rochester.edu

585.275.9214

Save the Date!