As The Dental Link goes to press, we are in the midst of the rapidly escalating coronavirus pandemic. Safety is our first priority. The escalation since the disease was first reported in Seattle in January has transformed our society in ways none of us have seen before. The Governor has declared a state of emergency and the University has significantly reduced operations with teaching going online. The ADA recommended dentists discontinue elective procedures. We are seeing only selected emergency patients. Dental offices are closing. The long-term impact is impossible to predict. The situation is changing by the day and even by the hour. The College of Dentistry and University teams have been outstanding, working long hours to deal with this unprecedented situation. We are not sure where we will be at the next Dental Link, but it will be a place we cannot predict now. With safety first and staying together emotionally (with NO contact!) we will get through this.

Very best and stay safe,
David Johnsen, Dean

Profiles of Women in Research

The College of Dentistry has many prominent, successful women researchers who are making a difference for our community and world. Starting on page two are a few short vignettes of their exciting work.

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“Health professionals have an obligation to provide low-income and underprivileged patients the same access to care as more affluent patients.”

KARIN WEBER-GASPARONI

Low-income children are an underserved group in dentistry. For this reason, Dr. Karin Weber-Gasparoni (’99 MS, ’03 PhD) and Dr. Michael Kanellis (’79 DDS, ’82 MS, ’95 MS) founded an Infant Oral Health Program two decades ago in collaboration with the local Special Supplemental Food Program for Women, Infants and Children (WIC) through the Johnson County Department of Public Health designed to provide care to this group. In the program, University of Iowa dental students, pediatric dentistry residents, and pediatric medicine residents provide free dental screenings, preventive care, and education to low-income children up to age three every Thursday.

“Health professionals have an obligation to provide low-income and underprivileged patients the same access to care as more affluent patients,” Weber-Gasparoni said.

Weber-Gasparoni’s research team has used this program to study how it can improve oral health for children. Although the American Academy of Pediatric Dentistry recommends that infants see a dentist before the age of one, only a small percentage of infants see a dentist by this time. On the other hand, most infants visit their pediatrician several times during their first year of life. As a result, training pediatricians to provide basic infant oral screenings and education, and to identify risks for childhood caries is a promising avenue for improving preventive oral health care in early childhood.
Dr. Susan McKernan ('09 MS, '12 PhD) was awarded a $300,000, two-year grant from the National Institutes of Health in June. This project will build on her prior work with her colleagues at the Public Policy Center developing a holistic picture of oral health care preventive service needs in Iowa. They have found a number of structural and public-policy barriers that limit access to routine preventive care, particularly for children. Cost is the number one barrier to dental care and this is particularly challenging in Iowa with recent changes to Iowa’s state-provided dental insurance plans that have made it unclear who and what is covered, but lack of transportation and being unable to find a dentist that will accept state-provided dental insurance are also critical barriers.

In addition to these structural barriers, McKernan and her colleagues are exploring how clinical treatment patterns and the use of preventive care vary widely among dentists. For example, some dentists rarely follow American Dental Association (ADA) recommendations regarding the use of sealants and fluoride, which are known to significantly reduce tooth decay, and this can be especially problematic for low-income children and patients with special health care needs.

Dr. Cristina Vidal was awarded a career-development award as part of the KL2 Scholars Program designed to identify and train outstanding junior faculty at Iowa in clinical and translational research. Vidal’s mentoring team at the college includes Drs. Jeffrey Banas, David Drake, Kim Brogden, and Jin Xie ('98 MS, ’01 MS), and Dr. Bruno Cavalcanti is a collaborator on the project. This three-year award is for almost $400,000.

Her project examines how the oral microbiome affects tooth breakdown and the progression of caries lesions. In particular, this project explores how matrix metalloproteases interact with and can be manipulated to slow dentin degradation and repair dentin tissue.

This research could fundamentally change the traditional concept of caries etiology and open new possibilities for dental research and patient care. Dr. Vidal’s long-term goal is to develop novel therapies based on selective inhibition of damaging endogenous mechanisms and promotion of endogenous repair pathways that would fundamentally change the way caries are managed and surgically treated.
Adjunct Faculty Invaluable to our Mission

Our College has over 200 adjunct faculty members. Some teach a day a week, some a day a month, and some from far away spend a day with advanced students. Our adjunct faculty are invaluable to our mission!! Full stop! Our adjunct faculty are a terrific compliment to terrific full time faculty and bring a “real world” perspective to our students. The purpose of this column is to say THANK YOU to these pillars of our College! Some adjunct faculty have been out of dental school a long time and some are recent graduates. The experience spectrum has been great; this spectrum gives students and full time faculty a valuable insight to generational changes in dental practice. Students give rave reviews. Many are in the specialty departments. Every department head tells me how valuable our adjunct faculty are and how well they mix with full time faculty, students, and staff. And they do it all in fulfilling our aspirations for our graduates: knowledge, technical, critical thinking, ethical/professional values, practice management, function in a collegial professional setting and social responsibility! Many of these characteristics are imparted from our adjunct faculty by direct instruction – and many are imparted by role modeling. The students know: watch what the best dentists do and emulate that activity. We hear repeatedly from our adjunct faculty what satisfaction they get from influencing the lives of future colleagues for the next thirty years. Hats off to our adjunct faculty!!

FROM THE DEAN

ADA President Chad Gehani Visits Iowa

In October 2019, the American Dental Association (ADA) President Chad Gehani visited the University of Iowa College of Dentistry and Dental Clinics. He spent time talking with our students about ADA membership, and he also spoke with our esteemed faculty about our Geriatric and Special Needs program, professional policies and standards for dentistry and its specialties, research support, and the opioids crisis.

UI College of Dentistry graduates are involved in community projects and professional organizations, including the ADA. Iowa has an excellent ranking in terms of the percentage of Iowa graduates who join the ADA.

Iowa has the best geriatric and special needs program in the country, which supports the mobile unit, advanced program, and leadership and research in the field. Older patients with special needs are a critical underserved population, and Iowa is at the forefront of coming up with better strategies for meeting those needs.

With national leaders in all recognized specialties, Iowa is a leader in setting the professional policies and standards for each of the specialties and for dentistry as a whole.

ABOVE: Dr. Jennifer Hartshorn (‘12 DDS), Dean David Johnsen and ADA President Dr. Chad Gehani in the Geriatrics and Special Needs Clinic.

LEFT: College of Dentistry Executive Committee with ADA President Dr. Chad Gehani.
Young Alumna Makes a Difference in Iowa and Beyond

Dr. Sara Stuefen ('10 DDS) grew up in Fort Madison, Iowa and is now a practicing dentist in Vinton, the 5,000 person county seat of Benton County, Iowa. Stuefen has been a model of giving back to the college, to the dental profession, and to Vinton.

Stuefen is a Hawkeye through and through; but for her, it isn’t about sports. “I’m a Hawkeye because of the dental education available at Iowa—we really know how to train future dentists. Your degree from Iowa immediately earns you respect in the field,” Stuefen said. What sets Iowa-trained dentists apart is their clinical training. “When I graduated I felt I had a solid foundation to start my career. I knew other dentists that didn’t get the same experiences that we did in school.”

After graduation, Stuefen wanted to practice dentistry in a small town where she could develop the deep and long-lasting relationships with her patients that she had seen in her own small town environment. It just so happened that Dr. Alan Woodhouse ('69 DDS), a dentist in Vinton, was selling his practice and it was the perfect opportunity for Stuefen.

Even when she was just starting her practice, Stuefen believed it was important to give back to the college that had trained her. She began teaching each Thursday as an adjunct faculty member in the UI Department of Family Dentistry. For fourth-year dental students, adjunct faculty like Stuefen oversee their education as they go from timid clinical beginners to competent and independent clinicians.

Stuefen’s own experiences as a young dentist teaching dental students gave her a deep appreciation for the challenges that new dentists face. In 2015, she started and chaired the New Dentist Committee for the Iowa Dental Association (IDA).

That same year, she was awarded the New Dentist of the Year Award by the IDA, and she now serves on the American Dental Association’s New Dentist Committee as a representative for much of the Midwest region. As such, Stuefen takes seriously the role of advocating on behalf of new dentists, whether it involves talking about the current concerns of new dentists,
LEGACIES

FIRST-YEARS CONTINUE FAMILY DENTAL TRADITION

Kayla Carothers
Dr. Kara Speltz '05 DDS (Aunt)

Jennifer Greif
Dr. Steven Greif '86 DDS (Father)

Larkin Jacobson
Ms. Debbie Fedotenko '83 DH (Mother)

Joseph Kayl
Dr. Dawn Frein '07 DDS (Cousin)

Jamie Liu
Dr. Jack Liu '01 DDS (Father)

Dr. Chris Liu '18 DDS (Sibling)

Reed Maiers
Dr. William Maiers '86 DDS (Father)
Thomas Marho  
Dr. Peter Marho  '17 DDS (Sibling)  
Mr. Christopher Marho  '21 DDS (Sibling)

Michaela Mathews  
Dr. Michael Mathews  '00 DDS (Father)  
Mr. Alec Mathews  '21 DDS (Sibling)

Hannah Mumm  
Dr. Breanne Mumm-Reed  '16 DDS (Cousin)

Margaret Rizor  
Dr. Madeline Swenson  '18 DDS (Sibling)

Daniel Wilhelmi  
Dr. Adam Halbur  '16 DDS (Cousin)  
Dr. Robert Dunscombe  '97 DDS (Cousin)

Amanda Sahm  
Dr. Brett Kilburg  '03 DDS (Uncle)
like the amount of student loan debt, or improvements in dental education. But she is also particularly passionate about promoting the issues that are important for new dentists serving in rural areas and small towns, a key demographic in her region.

“New dentists often miss what's beautiful about practicing in a small town. It's great to forge close relationships with your patients, and you'll be able to promote your new practice using just word of mouth.”

DR. SARA STUEFEN ('10 DDS), BELOW RIGHT

“This is a big issue, and new dentists often miss what's beautiful about practicing in a small town. It’s great to forge close relationships with your patients, and you'll be able to promote your new practice using just word of mouth,” Stuefen said. “Small communities have a lot to offer for dentists who want to make a difference—whether in the local schools, sports, or other activities.”

And Stuefen has been making a difference. In 2017, she served as the chair of the Iowa Mission of Mercy, a large-scale two-day free dental clinic that serves thousands of patients across Iowa each year. That same year, she was also appointed as a Fellow of the International College of Dentists in recognition of her “outstanding professional achievement, meritorious service and dedication to the continued progress of dentistry for the benefit of humankind.” She also served on the board of the University District Dental Society from 2012–2017, and she served as president during her last year. She also served as a liaison to the ADA Council on Ethics, Bylaws, and Judicial Affairs.

Despite her work on behalf of the dental profession in Iowa and across the country, she also finds time to give back to her local community in Vinton. In February, she continued her annual tradition of having children from the local elementary school visit her clinic for Children's Dental Health Month. She also serves as a board member for Virginia Gay Hospital, is past President of the Lions Club, and participates in several local health fairs. You will also regularly see local students shadowing her or her dental assistants and hygienists as they are exploring various dental careers.

Since she graduated with her dental degree in 2010, Stuefen has made a positive impact—in Vinton, in Iowa, and in the dental profession.
A bout 200 University of Iowa College of Dentistry students, faculty, and alumni participated in the Iowa Mission of Mercy dental clinic in Davenport in September, providing free care to people without dental insurance. The event provides Iowa students with the sort of experience they can’t always get in a collegiate clinic.

The little boy had never heard of the tooth fairy, so Kelsey Edwards thought she’d fill him in.

“The boy was Amish,” says Edwards, a second-year dental student in the UI College of Dentistry who had helped pull a tooth that needed extracting, “I held it up to him, but he’d never heard of the tooth fairy. I told him the story about when I was a little girl and I’d leave a note to the tooth fairy on the kitchen table and hope for a quarter in the morning.”

Edwards helped treat the boy while participating in the Iowa Mission of Mercy (IMOM) dental clinic in Davenport Sept. 21. IMOM is an annual free dental clinic where dental professionals volunteer their time to provide free oral health care to people who cannot otherwise afford it or who don’t have dental insurance. About 200 students and faculty from the College of Dentistry spent the day in Davenport providing free care to anyone who needed it, including many Amish families like the boy’s.

UI co-sponsors the clinic each year and has sent teams of volunteers to every one that’s been held since 2008, providing more than 14,000 patients with dental care worth more than $9.4 million. The two-day clinic overseen by the Iowa Dental Association rotates around the state each year and UI volunteers work at each, including recent clinics in Dubuque, Waterloo, Sioux City, Cedar Rapids, and Council Bluffs.

The UI contingent was by far the largest of the many private practitioners that filled Davenport’s sprawling RiverCenter convention hall on the second day of the clinic. The room might have appeared chaotic, but the many parts came together like a well-oiled machine, as hundreds of people waited patiently for services from hundreds more dentists, hygienists, assistants, and students waiting at rows of dental chairs.

Carrie McKnight ’98 DDS, a College of Dentistry faculty member who’s participated in five IMOM clinics and now organizes the college’s participation, says the setting is an important part of the learning experience for the students. It requires them to focus on their patients amid the distractions, while treating oral health issues many of them haven’t seen before.
Exceptional Leaders in Operative Dentistry

Jim Fuller, DDS (62DDS, 72MS) and Jerry Denehy, DDS (70MS), are two beloved professors emeriti from the Department of Operative Dentistry, and they exemplify the level of quality and excellence that has become synonymous with operative dentistry at Iowa. Their contributions throughout 78 years of combined service to the department are too numerous to count. In 2015, in spite of their modest discomfort toward recognition, they humbly agreed to allow us to begin fundraising for a new endowed professorship in their honor.

Drs. Fuller and Denehy recognize that the single most effective way to keep current, outstanding faculty—and to recruit the next generation of operative educators—is to endow faculty positions in the department. This will strengthen the entire department by freeing resources for program development and innovation.

Our goal is to raise a minimum of $750,000 for this important fund. We have now raised nearly $630,000, including an exceedingly generous $350,000 in proceeds from Dr. Fuller and Dr. Denehy’s widely-taught textbook, “Concise Dental Anatomy and Morphology”. With this inspiring gift, we are at 84 percent of our goal.

Every gift will help. You are welcome to make a multi-year pledge, a one-time gift, or even a gift of stock. There are numerous and customizable options available to meet your philanthropic and financial goals.

Please consider supporting the future of operative dentistry at Iowa with a gift to the James L. Fuller and Gerald E. Denehy Professorship Fund.
Dan Kegler (’75 DDS) graduated from the University of Iowa College of Dentistry in 1975. Dentistry is a family affair for Dr. Kegler, who served the dentistry needs of Independence, Iowa for 43 years until his retirement in 2019. He started practicing alongside his father, and his youngest son later joined the practice after graduating from the UI College of Dentistry in 2010. Dr. Kegler and his wife, Vicki Kegler, are a model of giving back to their local community, the UI College of Dentistry, and Hawkeye athletics. In 2004, they generously established the Kegler Family Excellence Fund, which is used to purchase needed equipment for UI College of Dentistry faculty and students. The Kegler family has funded this account through outright gifts, but they recently decided to add an estate gift in order to strengthen their UI College of Dentistry legacy.

Richard “Dick” Hynes (’64 DDS) and Vera Hynes have deep roots in northern Iowa. They both grew up in the area, and they continue to live in Forest City after Dr. Hynes practiced dentistry there for over 35 years. They have both been longtime supporters of the UI College of Dentistry and are an example of what it means to give back to their community and the college. They are building on their philanthropic legacy with a gift to establish a scholarship fund for dentistry students, and bolstering that scholarship with an estate gift. The Hynes family is excited to see students benefit from this scholarship during their lifetimes.

Daniel Hall (’59 DDS, ’74 MS, ’74 PROSS) and Geri Hall (’88 MA, ’98 PhD) are alumni who have built a significant legacy at the University of Iowa. Both served as faculty members of the UI College of Dentistry and the UI College of Nursing, respectively. They have a long history of supporting both colleges and have recently made the decision to increase their existing estate gift. The estate gift to the UI College of Dentistry will be used to establish the Daniel and Geri Hall Endowment Fund, which will provide resources to the areas of greatest need within the college.
In May, the Mu Chapter of Omicron Kappa Upsilon (OKU) inducted a faculty member, Dr. Chris Barwacz (’07 DDS), and an honorary member, Dr. Jeff Banas, into the honor society.

The National Institutes of Health awarded Dr. Richard Smith (Carver College of Medicine) a 5-year grant for over $3.1 million for his team’s project, “Non-Syndromic Hearing Loss - A Collaborative Study.” Dr. Azeez Butali is a co-investigator for the project.

The University of Iowa International Programs awarded Dr. Azeez Butali and Dr. Maria Marcela Hernandez (’01 MS) a Global Research Partnership Award. This award of up to $10,000 was given to help strengthen the ongoing research partnership between the University of Iowa and the University of Lagos in Nigeria.

The National Institutes of Health awarded Dr. Huojun Cao a 2-year grant for his project, “Computational Method for Identification of Master Transcription Factors in Craniofacial Tissues.”

Dr. Bruno Cavalcanti was elected to a two-year term as vice president of the IADR’s Pulp Biology and Regeneration Group.

The National Institute of Nursing Research awarded Dr. Xi Chen a two-year R21 grant totaling over $426K for his project “Functionally-tailored Oral Care Intervention for Community-dwelling Older Adults with Dementia and Their Caregivers.”

Dr. David Drake was Santa Claus at Coral Ridge Mall in Coralville this past holiday season.

Dr. Sandra Guzman-Armstrong (’99 MS) was one of four editors for the 2019 Caries Management Issue of the Dental Clinics of North America. The volume will play an important role in the field of cariology, and includes contributions from several other UI faculty members, including, Dean David Johnsen, Dr. Teresa Marshall, Dr. Leonardo Marchini, Ms. Kristen Flick, and Dr. Ron Ettinger.

Dr. Liu Hong was awarded a $45K subcontract from the National Institutes of Health via the company NaturemriR for a research project that is part of an overall series of projects intended to validate and commercialize a PMIS-infused collagen sponge for use in clinical dentistry.

Dr. Georgia Johnson (’81 DDS, ’83 PERIS, ’83 MS) received the ADEA William J. Gies Award at the 2019 American Academy of Periodontology (AAP) Annual Meeting. The award is given in recognition of the recipient’s outstanding teaching and mentoring in periodontics, excellence in scientific and clinical research, and service to the AAP and the field of periodontology.

Dr. Emily Lanzel (’12 DDS, ’15 MS) received a $25K grant from the Sjögren’s Syndrome Foundation for her project, “Salivary biomarkers for diagnosis of childhood Sjögren syndrome.”

The National Institute of Dental and Craniofacial Research has funded a new 2-year contract totaling over $650K to Dr. Steven Levy and colleagues at the University of Iowa. The project is designed to manage and share the 28 years of data previously collected as part of the Iowa Fluoride Study and the Iowa Bone Development Study.

The Borrow Foundation held an international workshop in November to review birth cohort investigations with the aim of developing the best practices for future oral health birth cohort studies. Dr. Teresa Marshall participated in the workshop representing the Iowa Fluoride Study with expertise in nutrition.

Dr. Susan McKernan (’09 MS, ’12 PhD) was recognized for her promise in health disparities research. In July, she was one of 50 investigators selected to participate in the annual Health Disparities Research Institute held on campus at the National Institutes of Health based on their research ideas and potential. In August, she also received a $35,000 NIH Loan Repayment Program award for Health Disparities Research.

Dr. Aline Petrin received a 5-year career-development grant from the NIH/ NIDCR totaling almost $700,000 for her project, “A Twin Approach for Genome-Wide Differential DNA Methylation in Orofacial Clefting.” Dr. Lina Moreno-Uribé (’05 PhD, ’08 ORTHS) is Dr. Petrin’s mentor on the project.

The American Association of Orthodontists Foundation awarded Dr. Kyungsup Shin (’15 ORTHS, ’15 MS) a $20K grant for his project “Fracture Energy Assessment Using CBCT: a pilot study for predicting risk of Post-Traumatic Craniofacial deformities.”

At the All-College Conference on Monday, August 19, Cathy Skotowski (’81 DH, ’91 MS) was awarded the 2019 Collegiate Teaching Award. The award is given to a faculty member who exhibits an “outstanding contribution to dental students’, graduate students’ or residents’ intellectual and professional development.”

Dr. William Synan was recognized with the 2019 Daniel M. Laskin Award for Outstanding Predoctoral Educator in Oral and Maxillofacial Surgery at the American Association of Oral and Maxillofacial Surgeons 2019 Annual Meeting.

The International Team of Implantology awarded Dr. Shankar Rengasamy Venugopalan, Dr. Satheesh Elangovan, and Dr. Erliang Zeng $50,000 to study the epigenetic mechanisms leading to peri-implantitis.
The National Institute of Dental and Craniofacial Research awarded Dr. Eric Van Otterloo a three-year grant for his project, “Understanding the interaction of Memo1 and Runx2 in craniodental mineralization.”

Dr. Shankar Rengasamy Venugopalan has been elected as vice president of the International Association of Dental Research Craniofacial Biology Group. This group consists of extraordinary researchers in the field of craniofacial development and genetics from all around the world.

The International Statistical Institute is a worldwide non-profit, non-governmental organization that provides leadership and expertise in statistical science to improve the common good. The organization has been a consultant for the Economic and Social Council of the United Nation since 1949. Dr. Xian Jin Xie (’98 MS, ’01 MS) was selected for Elected Membership in the organization. Elected Membership is for individuals who are established in their careers and have made significant contributions to the statistical profession.

Barwacz Receives McLeran Award

Known as an outstanding clinical teacher and lecturer who is a role model for both predoctoral and graduate students in the college, Dr. Chris Barwacz (’07 DDS) has been teaching at the college for the past ten years. Dr. Barwacz completed both his undergraduate degree and D.D.S. at Iowa, and then he completed a residency in Advanced Education in General Dentistry at the Baylor College of Dentistry in Dallas, Texas before returning to Iowa as a research fellow in oral implantology and clinical research. He is now an associate professor in the Department of Family Dentistry.

Dr. Barwacz teaches first-year and fourth-year dental students, and he also teaches at the graduate level. He is also actively involved in mentoring student researchers, and in 2015, he was recognized by the Student Research Group as the Mentor of the Year.

Dr. Barwacz receives the most joy and satisfaction in observing fourth-year dental students grow and develop over the course of their last year of study and training.

“It is remarkable to see their progress over the course of the year, and it is particularly telling when you see the progress in reverse—seeing how skilled our graduates are by late spring, and then just weeks later seeing the incoming class start that process anew for themselves,” Dr. Barwacz explained.

Because of his excellence as an educator and his commitment to patient-centered care, Dr. Chris Barwacz was awarded the 2019 James H. and Hermine E. McLeran Faculty Award.

Teixeira Named New Operative DEO

The College of Dentistry and Dental Clinics is pleased to announce the appointment of Dr. Erica Teixeira (’18 MS) as the new DEO for the Department of Operative Dentistry. Dr. Teixeira brings an array of experiences and talents to the position to build on the many strengths of the department for the future. Operative is a leader in caries management, has a unique advanced program, and has substantial teaching responsibilities in our predoctoral program. The department interfaces with other areas of the college in the following active and evolving collaborations: digital dentistry, instruction in materials, etc.

Dean David Johnsen said, “I look forward to working with Dr. Teixeira in her roles as a department leader and as a collegiate leader.”

Dr. Teixeira brings to the position a strong combination of teaching, research, patient care, and national perspectives. She received her DDS in 2000 and MS in Operative Dentistry in 2002 from the University of Campinas, Sao Paulo, Brazil, a PhD in Applied Materials Science in 2008 from the University of North Carolina, a Certificate in Public Health in 2013 from the University of Texas-Health Science Center, and an MS in Dental Public Health in 2018 from the University of Iowa. She was at the University of North Carolina from 2002 to 2007, served on the faculty of the University of Texas Health Science Center, and an MS in Dental Public Health in 2018 from the University of Iowa. She was at the University of North Carolina from 2002 to 2007, served on the faculty of the University of Texas Health Science Center at San Antonio from 2008 to 2014, and has served on our faculty from 2014 to the present.

The college thanks Dr. Steve Armstrong (’87 DDS, ’98 PhD) for his leadership for many years, which brought the department to the high level it now enjoys. Dr. John Hellstein (’91 MS) led the search while Michelle Zubcic provided staff support.
Dr. Isabelle Denry is an internationally-recognized expert whose research focuses on developing, characterizing, and understanding the relationship between structure and clinical performance of ceramics for use in dentistry.

At the 2019 International Association for Dental Research (IADR) annual meeting in Vancouver, she received the Wilmer Souder Award—an IADR Distinguished Scientist Award—recognizing excellence in the field of Dental Materials.

“Looking at the list of past award recipients, I felt very honored to receive this award and to have my name added to this list of highly regarded researchers,” Denry stated.

“So, what sets Denry apart from others? As their careers develop, many scientists slowly part from the research program of their mentor as they develop their own research profile through a series of incremental improvements within that research general direction.

Denry’s methodology, however, is more exploratory and entrepreneurial. She’s always looking for new angles and possibilities, potential applications of novel materials, as well as innovative experimental approaches.

“I like to think outside the box and I am excited to try high risk/high reward experiments. Often the results are inconclusive; but scientists need to explore new possibilities—I was trained to be rigorous but audacious at the University of Paris and that’s really what science is about,” Denry said.

Ceramics are an important material used in dental restorations. For dental restorations, ceramics closely mimic the aesthetics of teeth in terms of shade and translucency. Ceramics are also chemically inert and biocompatible, and thus, they don’t have some of the drawbacks associated with the use of metals.

Unfortunately, ceramics are brittle, and can be less reliable. Denry has studied ways to predict the performance of ceramics based on both their chemical and structural properties. The information has been used to find materials that have the optimum balance of strength and reliability for dental restorations.

Although this line of research is important in its own right, her research also opened up a new area of exploration: bone regeneration. Using her prior research on the chemical and structural properties of ceramics, Denry began to invent new kinds of ceramic scaffolds that can promote bone growth. For these scaffolds, the relative amount of calcium and phosphate and their physical architecture determined how effective the scaffold was. Whereas strength and reliability were important for dental restorations, these ceramics needed to be resorbable so that they could break down and be absorbed to most effectively promote bone growth.

But perhaps the best example of Denry’s exploratory approach is when she discovered a self-assembled gallo-silicate microsphere material with some unique properties. Presently, there are a number of emergency blood clotting agents, but...
they all have significant drawbacks. Some produce strong exothermic reactions that cause serious burns, others are made from shellfish and can cause allergic reactions, still others leave behind residue that can be harmful.

Denry, however, invented an effective blood clotting agent that has none of these drawbacks. Although initially designed to stop oral bleeding, this discovery has been so revolutionary that several companies are interested in developing it for triage and emergency situations, as a replacement for current blood clotting agents. Because of these possible applications, the University of Iowa has applied for international and US patents on the technology.

Since 2011, Iowa has been privileged to have Denry’s unique scientific expertise. Already an excellent researcher and recognized leader in the field when she arrived, the UI College of Dentistry’s former Associate Dean for Research, Dr. Clark Stanford (’87 DDS, ’92 PROSS), recruited Denry from The Ohio State University.

“Iowa had the technology and infrastructure that I needed to conduct my research, and I was excited for the opportunity,” Denry said. “It’s important that we maintain and reinvest in our infrastructure so that we can continue conducting innovative and important research,” she added.

As Denry continues conducting her own research, she also sees how important it is to pass along what she’s learned. And that’s why her exploratory approach to science is an essential part of her mentoring and teaching.

“I want my students to be rigorous but also come up with new ideas and try new things. I train my students in the same way I was taught.”

DR. ISABELLE DENRY
As a part of the Student National Dental Association’s (SNDA) national initiative to promote diversity within dentistry and combat oral health disparities, SNDA members presented a career development and oral hygiene instruction presentation for third-grade students at Kirkwood Elementary School in September. The participating SNDA members included Chichi Adeleke (D2), Pia Alonso (D2), Kareem Gayar (D2), Nathan McMillon (D2) and Makinzee Thomas (D2).

In November, members of the Pediatric Dentistry Student Group volunteered at the UIHC Teddy Bear Clinic held at the Iowa River Landing. In cooperation with the College of Medicine, the College of Dentistry has participated the past few years by setting up a dental booth along with other stations from the College of Medicine. Dental students Jillian Belieu (D1), Katie Giles (D3), Kelsey Edwards (D2), Ryan Hemsley (D3), Luke Farley (D1) and Liz Skotowski (D3) participated in the event.

In the Fall, the Hispanic Dental Association Student Chapter, led by Kali Disterhoft (D3), held four events including its annual Dunk Tank to help fund the mission trip to Xicotepec, Mexico. Dr. Ahmed Mahrous (’16 PROSS, ’17 MS), Dr. John Hellstein (’91 MS), Hunter Paddle (D1), Kobi Voshell (D2), Jasmine Butler (D3), and Donte Nesbit (D4) all graciously took a dunk in the tank. The association also offered a Spanish class taught by Melanie Stoss (D2), and led two outreach events to provide dental screenings at St. Patrick’s Church and at Terry Trueblood.

At the annual meeting of the American Society of Human Genetics in 2019, Bethany Doolittle (D1) attended and presented her research project, “Phenotypic and molecular characterization of orofacial development of Mecom loss-of-function mutants.”

The Pediatric Dentistry Student Group participated in the Johnson County STEM festival at the Kirkwood Regional Center in Coralville. The dental students who volunteered at the event included Muna Hakim (D3), Alex Hsieh (D1), Ben Olson (D2) and McKenna Woodward (D2). Pre-dental student helpers included Jessica Grundmeyer, Michael Pyevich, Loren Jackson and Annabelle Dibert. The group’s faculty advisor, Cathy Skotowski (’81 DH, ’91 MS), also helped with the event.

Jake Lensing (D1) was named the AADR National Student Research Group (NSRG) Regional Representative of the Midwest Region for the 2019-2020 school year.

The American Association of Endodontists Foundation awarded a grant to Dr. Kelsie Pittel. For her project, she and her team will use gold nanoparticles to render dental pulp stem cells visible using X-rays. Dr. Bruno Cavalcanti is her mentor for the project, and Dr. Carolina Cucco is a co-advisor and Dr. Tadkamol Krongbaramee is a collaborator.

In May, the Mu Chapter of Omicron Kappa Upsilon (OKU) presented the William S. Kramer Award of Excellence Adam Woroniecki (D3).
Briar Voy never wanted to be anything other than a dentist. The University of Iowa third-year dental student feels her educational and leadership opportunities are preparing her to jump right into the profession and confidently care for patients.

Briar Voy knew she wanted to be a dentist when she was 3. By 5, she was sitting in the corner of her father’s dentist office watching him work—with patients’ approval, of course. “They thought it was adorable,” says the University of Iowa third-year dentistry student from Great Falls, Montana. “Dad would come home and talk about his job. He loves being

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a dentist and he loves his patients. So, growing up, I thought being a dentist was the best job ever.”

Her father, Scott Voy (88 DDS), graduated from the University of Iowa, but he encouraged his daughter to explore multiple schools to find the best fit for her. Voy says she asked fourth-year students at each school if they felt prepared for the real world. The answers weren’t always entirely positive.

At the UI College of Dentistry, though, the overwhelming consensus was “yes.”

Voy appreciates numerous aspects of Iowa’s program. One is that clinical experience starts in year one; students at some programs don’t get into the clinic until year three. Another is that Iowa students don’t have to schedule their own patients.

“I have friends in other programs who have gone out to farmers markets to hand out cards,” Voy says. “I don’t have to worry about that. I can focus on learning and being a dentist. Iowa is very patient-centered, and I couldn’t be happier I chose to come here.”

Alongside her studies, Voy has taken on several leadership positions while on campus, including with the Graduate and Professional Student Government and the Iowa chapter of the Hispanic Dental Association. Voy says she appreciates having a good support system across disciplines.

“We focus on interprofessional care,” Voy says. “Being able to meet our fellow students in pharmacy, ask questions, and see what they are going through is helpful. I like to help foster that.”

Along with being involved in the American Dental Student Association and recently being appointed for a national position on the Associated American Dental Schools Application Service (AADSAS) Advisory Board, Voy also is working to help start a campus American Dental Education Association (ADEA) Chapter for Students, Residents, and Fellows. The group’s mission is to promote student interest in education and foster a sense of community among faculty and students.

Her work with ADEA has inspired Voy to consider teaching in her future, at least on a part-time basis or as a visiting professor—hopefully at Iowa at some point.

“I really value the education I’ve gotten here,” Voy says. “It would be rewarding to give back to future students.”

An ADEA fellowship allowed Voy to design and present lectures to first-year dental students, help in the simulation clinic, and research whether students find working on artificial teeth with simulated caries (cavities) helps them prepare to remove decay in human teeth. Voy says there are pros and cons—as well
“Iowa values students getting these opportunities,” Voy says. “It can be expensive, but they put money aside for students to attend.”

Voy also says she appreciates the time that faculty spend with students, particularly outside of class.

“You expect them to have office hours, but they are always so willing to help,” Voy says. “They come in on weekends to help us prep for practicals. You don’t realize how important that is until you’re in that situation. They truly care about their students and want them to succeed.”

Voy says she knows firsthand that even after she graduates, faculty will be there for her when she has a question.

“My dad still calls the dental school when he has complex cases or wants an opinion on a new medication on the market,” Voy says.

Voy is also looking ahead to the sort of dental care she wants to provide: A sculpture class in high school led to a love of art and working with her hands—and an interest in pursuing aesthetic dentistry after graduation.

“Being able to help someone with their self-confidence, that can completely change someone’s perspective, outlook, job opportunities—a lot more than you would think,” Voy says. “I think dentistry is the perfect combination because you get to help people and you have the artistic portion of it, which is pretty unique to this field.”

And the days of spending time with her dad in his dental office may not be over.

“We’ve talked about working together someday,” Voy says. “I’m hoping that happens.”

Meanwhile, if a future dental student asks her if she feels ready for the real world, Voy says she feels confident in her answer: yes.
Edward Karl ('62 DDS) co-authored “A Case Report of Pharmacovigilance in Supporting Dentists and Participation in a Drug-Safety Program” has been selected by NIH to be in their library.

James Wishart ('73 DDS) retired after 23 years with the Colorado Department of Corrections.

Jim Woods ('80 MS, '80 ORTHS) received from the Kentucky Dental Association its annual Fellowship Award for 2019. The award is given to a dentist who has made an outstanding contribution to dentistry in Kentucky. Dr. Woods maintains a private practice with his daughter McKenzie Woods, specializing in Orthodontics in Paducah, Kentucky.

Bruce Justman ('83 DDS, '90 ENDOS) emeritus faculty from the department of Endodontics; was appointed Interim Dean of the University of Minnesota School of Dentistry. The term is expected to last two years. Dr. Mays’ appointment brings the total number of Iowa-affiliated dental deans to 10 and the Big Ten dental deans to 5.

Three alumni participated in a health science recruitment trip to Northwest Iowa along with Dean of Students Dr. Sherry Timmons ('95 DDS, '01 ORALS, '01 PhD) and Director of Dental Student Admissions Rachael Kowbel. Dr. Richard Hettinger ('79 DDS) discussed health science careers at the Sioux City Career Academy in November. Dr. Chris Hansen ('08 DDS) promoted Iowa’s DDS program in Storm Lake and offered to allow students to shadow at his practice.

In Fort Dodge, Dr. Shaun O’Neill ('17 DDS) spoke about the many reasons students should consider a career in health science and the impact of technology on the profession.

Ryan Henrichsen ('99 DDS) received the 2019 Jim Pride Leadership Award. It was presented by Spear Practice Solutions.

In May, the Mu Chapter of Omicron Kappa Upsilon (OKU) inducted the following into the honor society: Drs. Ben Alpen ('19 DDS), Brooke Brown ('19 DDS), Kelsey Dierikx ('19 DDS), Blake Louscher ('19 DDS), Grant McCaulley ('19 DDS), Amanda Piche ('19 DDS), Dillon Schloerb ('19 DDS), Kyndra Weber ('19 DDS), and Andrew Welling ('19 DDS).

Kathy Kell ('79 DDS) received an Honorary Membership from the International Association for Dental Research at the March meeting in Washington D.C.

Dr. Keith Mays ('93 PROSS, '94 MS) was elected and installed as the Supreme Grand Master (President) of the Delta Sigma Delta International Dental Fraternity during the 135th annual meeting in conjunction with the ADA annual meeting in San Francisco, CA, September 7, 2019. Dr. Justman is the first Iowa Chapter member to be elected to the board and to the presidency. Delta Sigma Delta Dental Fraternity is an international dental fraternity formed in 1882. The Iowa chapter, Gamma Gamma, was chartered in 1914. There are currently 36 dental school undergraduate chapters, and 42 alumni chapters with international chapters in Europe, Canada, Australia and New Zealand.


Dr. Richard Hettinger ('79 DDS) discussed health science careers at the Sioux City Career Academy in November. Dr. Chris Hansen ('08 DDS) promoted Iowa’s DDS program in Storm Lake and offered to allow students to shadow at his practice.

Searching for University of Iowa Alumni-Owned Businesses.

The University of Iowa Center for Advancement Alumni Engagement team would like to recognize the entrepreneurial spirit of Hawkeyes by sending out free “Iowa Alumni, Alumni-Owned Business” decals. If you are interested in receiving a decal to display in your business, please complete the following survey: https://bit.ly/2Ku1YcE.
FOR CLASS YEARS ENDING IN 0’S AND 5’S, SPECIAL EVENTS INCLUDE:

- Tour of the College
- CE programs
- Reunion Banquet
- Pregame Social
- Football Game against Michigan State
- Class Dinners

TO MAKE HOTEL RESERVATIONS, CALL:

Radisson Hotel Coralville
319-351-5049 (formerly the Holiday Inn and Conference Center)
Code: UI Dentistry Reunion/University

Hampton Inn
319-351-6600
Code: UI Dentistry Reunion/University

Rooms are only available until August 31, 2020
Dental alumni and friends gathered together in Chicago in February for a reception during the Mid-Winter meeting.

2019 Alumni Reunion Game Watch Party—Dental alumni from class years ending in 4’s and 9’s gathered at the Radisson in Coralville to watch the Iowa Hawkeye football game against Middle Tennessee, where the Hawkeyes were victorious.

Hundreds of College of Dentistry alumni and friends gathered at the College last fall before various Hawkeye football games. They traveled from near and far to reminisce, share stories and enjoy Hawkeye camaraderie. *Save the dates for our Fall 2020 Pre-Game Tailgates: September 12, October 3 and October 24. These tailgates will start three hours prior to game time.*

Austin Steil (’19 DDS) and his bride, Maria (McNurlen) Steil were married on August 3, 2019. Between their wedding and the reception, they decided to swing by the DSB to see if they could get in. This photo, taken inside the Dental College, is a favorite among their friends and family.

Dean David Johnsen flanked by recent Dental graduates during the January Alumni Reception held in Denver, Colorado during the Rocky Mountain Dental Convention.
IN MEMORIAM

DH 1961: Janice Hubbard of Scottsbluff, NE, died December 14, 2019.
DDS 1984: Bradford Stiles of Iowa City, IA, died November 2, 2019.

EMERITUS FACULTY:
Howard Field of Iowa City, IA, died December 3, 2019.

The Periodontics Department of the University of Iowa College of Dentistry and Dental Clinics mourns the passing of Dr. Paula L. Weistroffer (’02 DDS, ’07 PERIS, ’07 MS), on Monday, July 1, 2019 in the loving arms of her family and the compassionate care of staff at The Bird House, Hospice Home of Johnson County after a long battle with cancer. She was only 44.

She was born in Aurora, Illinois on November 5, 1974; graduated from Annunciation Elementary School, Rosary High School in Aurora, Cornell College, and the University of Iowa College of Dentistry. Paula worked as a Clinical Associate Professor at the University and maintained a private dental practice within the college since 2007. She held a Masters in Oral Science. Dr. Weistroffer was a member of the American Academy of Periodontology, the Midwest Society of Periodontology, and the Iowa Society of Periodontology. She also held memberships in the American Dental Association, the Iowa Dental Association, the American Dental Society of Anesthesiology, and was a faculty advisor and member of the American Academy of Women Dentists. She recently joined the Academy of Osseointegration and was a Diplomate, American Board of Periodontology.

She taught in the Undergraduate Periodontal Clinic, the Department of Family Dentistry Undergraduate Clinic Comprehensive Care Program, and the Periodontal Resident Clinics and lectured in the periodontal curriculum for D1 through D4 students.

She had such empathy for others, especially her dental patients, because of her own health experience. As a final act of sharing, her body was donated for medical science study.

Paula loved photography and watching the Food Network, enjoyed growing her own fresh garden herbs and was an excellent cook. She also traveled widely including nearly every State in the union plus Canada, Mexico, Costa Rica, Alaska, Hawaii, Spain and Italy.

She is survived by her husband, Cory L. Borsheim of Coralville, IA; her parents, Leon & Nancy (Hettinger) Weistroffer of Aurora, IL; her sister, Lisa (Derrick) Lynd of Batavia IL; her brother, John J. Weistroffer of Houston TX; her mother-in-law, Janet (Blockhus) Borsheim of Decorah, IA; her brothers-in-law, Chad E. (Tammi) Borsheim of Huxley, IA and Jason M. Borsheim of Decorah, IA; many aunts, uncles, nieces, nephews, cousins; and her most precious little furry friend and companion, Kobi. She was preceded in death by her grandparents, Joseph and Theresa (Meyer) Weistroffer, Paul and Corinne (Clements) Hettinger, both of Illinois, and her father-in-law, Elton “Al” Borsheim of Iowa.

A memorial service celebrating her life was held at the University of Iowa Dental College in Iowa City on Thursday, August 15, 2019. Memorial donations may be made to The Bird House, Hospice Home of Johnson County, or the University of Iowa Foundation; Holden Comprehensive Cancer Center.
Frontier Dentistry in Iowa: Establishing a Dental Society

In 1861, Iowa's frontier dentistry was mostly performed by doctors, quacks, and inadequately trained “dentists.” Because there were no dental schools west of the Mississippi, an Iowa City barber, Henry Nicking, for example, also extracted teeth (and performed bloodletting and setting of leeches).

Dentists sometimes traveled 60-70 miles by horse and buggy over unfenced prairie to see patients, even in snow and extreme cold. They were sometimes paid with money and more often received groceries, dry goods, or animals for payment.

In 1861, a Lyons dentist first suggested the benefits of an Iowa dental society. In 1863, Dr. Henry S. Chase, an Independence dentist, advertised that the first dental society meeting would be held in Muscatine. Although the 1860 federal census listed 154 dentists in Iowa, only eight dentists and one dental apprentice attended the meeting because of difficulties with travel, expense, and a reluctance to share knowledge earned through hard work and outlay. It was held in July so the Wapsie River would be low enough for Dr. Chase to ford. Traveling by horse and buggy over two days to Wilton, he then continued by train to Muscatine.

In establishing the Iowa State Dental Society (ISDS, later the Iowa Dental Association or IDA), Dr. Chase recalled, “I elected myself president and the 'other fellas' took whatever they could get.”

Two years later, there were 100 ISDS members. Today, the IDA’s membership is 1,700.