Dean’s Message

During my first six months in the dean’s position, the School of Dentistry has moved forward into our second century of dental education at a quickened pace. One day after the anniversary of our first century of dental education, we unveiled the Strategic Pathways Initiative. The Pathways Initiative is a process designed to collectively determine the curricular directions, or pathways, that will reinforce our position as a national resource in dental education. Those academic pathways will then be used to advance the needed changes in facilities, infrastructure and technology.

There is no doubt that technology, clinic space and the basic infrastructure will play a critical role in our future. Indeed, whenever you start a conversation about bricks, mortar and computers, it is tempting to focus exclusively on those areas. At the same time, it is important to remember that Creighton’s most critical assets are the people who assure that we remain an outstanding educational program.

Creighton’s School of Dentistry is blessed abundantly with great people. I encourage you to read about and appreciate the thread of influence that Creighton’s faculty, staff, students and alumni weave into the fabric of the School of Dentistry and the profession.

This newsletter contains stories of the people who are Creighton’s School of Dentistry. They include faculty receiving major grants for cutting-edge research and the latest technology to improve care. It acknowledges an administrator and staff member who were honored for their dedicated service. We learn of students who are becoming full members of the

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Dr. Cerutis Receives Prestigious NIH Grant

D. Roselyn Cerutis, Ph.D., Associate Professor of Oral Biology, has received a three-year, $213,750 grant from the National Institutes of Health (NIH) to study the role of lysophosphatidic acid, or LPA, a lipid growth factor, in regulating periodontal wound healing. Preliminary studies have been promising.

“One of the vexing problems facing the adult population is tooth loss,” Dr. Cerutis said. “The goal of periodontal treatment is to stop the disease progression and restore those structures lost as a result of periodontal disease. Investigators have been and continue to look for an agent that will aid in this effort.”

Dr. Cerutis’ research has provided the first evidence that LPA enhances the regenerative responses of human platelet growth factors, which have been shown to play a major role in wound healing. She presented her research at the first Technology Transfer Conference sponsored by the NIH/NIDCR (National Institute of Dental and Craniofacial Research) in November 2005.

“The interest in the use of growth factors in conjunction with periodontal regeneration has steadily increased in the past years,” said Dr. John Mattson, Professor and Chair of the Department of Periodontics. “Thus far, the search for the holy grail of periodontal regeneration has not proven fruitful. The apparent potential of several growth initiatives has been investigated, most with variable results.”

But he added: “LPA is of lipid origin and the in vitro investigations have been promising. It has a potentiating effect on both gingival and periodontal ligament fibroblast proliferation, which are instrumental in the process of periodontal regeneration. If current investigations continue to be promising, the in vivo use of LPA will be the next step in the investigatory process. The use of the lipid mediator LPA may open new avenues for the periodontist in the process of periodontal regeneration.”

Dr. Cerutis was the lead author of a groundbreaking manuscript that appeared in the February 2004 issue of the Journal of Periodontology. “It was the first paper in the dental literature about the effects of LPA on human oral fibroblasts,” she said.

In conducting her research, Dr. Cerutis has collaborated with colleagues in the departments of Periodontics (Drs. Mattson, Mansoor Jabro, and Larry Parrish), Oral/Maxillofacial Surgery (Drs. Timothy McVaney and Gene Huebner) and General Dentistry (Dr. Laura Romito), as well as students who held summer research fellowships sponsored by the Nebraska Society of Periodontology (Franco Cordini, DDS’01; Andrew Dreyer, DDS’03; Jake Fimple, DDS’05), and Joshua King, who did a rotation in Dr. Cerutis’ lab while studying biotechnology at the University of Nebraska-Omaha.

Receiving NIH funding is a major honor. Dr. Cerutis is the first dental school faculty member to receive an NIH grant in more than 25 years.

Student collaborators ... recent graduates (top, from left) Franco Cordini, Andrew Dreyer and Jake Fimple worked in Dr. Cerutis’ lab while students at Creighton. Joshua King, right, assisted while studying at UNO.
Dental Student Makes a Life-Saving Discovery for Patient

On Jan. 6, Kenneth Bingel arrived at the Creighton dental clinic for his routine appointment. He had just celebrated his 68th birthday two days earlier and was feeling fine.

During his exam, fourth-year dental student Kari Peterson discovered something in his X-ray: His carotid arteries were severely blocked – from 90 to 100 percent.

He was a “walking time bomb” his wife, Beverly Bingel, wrote in an emotional letter to Dean Steven Friedrichsen.

Four days later, he underwent successful quadruple by-pass surgery and, within another three days, was at home recovering with his family by his side.

“We are so thankful for Kari Peterson and the education she has received at Creighton’s School of Dentistry. If she hadn’t detected the blockage in my husband’s carotid arteries, the other blockages may not have been discovered on time. We believe she helped save his life and want to let you know how appreciative we all are.

“We hope throughout Kari’s life, she remembers the impact she has had on our lives and can feel rewarded for it. She will always be included in our prayers.”

Imaging Center Debuts New i-Cat

In December 2005, Creighton’s School of Dentistry became the first institution in the region to acquire a CBCT unit i-Cat through a grant from the Health Future Foundation.

The i-Cat captures images of the base of the skull, orbits, TMJ, paranasal sinuses, pharynx, upper cervical spine and hyoid regions.

The unit provides life-size cross-sectional images of mandible and maxilla to assess the quality and quantity of bone, and spatial orientation of critical anatomical structures for pre- and post-insertion of implant fixtures.

Acquired images can be collated to generate either computerized three-dimensional models or plastic duplicates through streolithography. The cost to the patient may vary from $100 to $300 based on the extent of imaging and radiographic interpretation.

The recent introduction of volumetric computed tomography (CBCT) in the dental profession has alleviated some of the inherent problems with traditional CT scanning.

CBCT provides three-dimensional imaging of the maxillofacial structures by employing a fan-shaped, highly collimated X-ray beam that rotates 360 degrees around the patient’s head in a specified time – which may vary from 10 to 40 seconds. A flat panel or CCD receptor is used to capture the attenuated beam from each degree of projection to aid in computation of a three-dimensional rendition of the desired anatomical region.

CBCT uses 10 times less radiation to image maxillofacial regions than traditional CT units, and generates images with a resolution 10 times greater than that of CT scanners.

Dean’s Message

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profession not only engaging in research and providing outstanding patient care but also tangible evidence that they live the mission we expect of a Creighton professional through their giving and service. We also reflect on alumni who create a lasting legacy for the profession.

As dental professionals, we are constantly able to impact people’s lives. We prevent disease, relieve pain, improve function, craft a new smile and – as one of our stories in this issue tells – occasionally save a life.

This letter is filled with the compassion, agility and ingenuity of the people who make us what we are. Yes, the School of Dentistry must look at facilities, technology and infrastructure that will support our future. But buildings and infrastructure are simply tools that will unfetter the minds of people and enable their ability to teach, learn, provide care, discover new knowledge and give back to the profession.

Join me in reading about some of the many people who make Creighton a great place to learn dentistry.

Steven W. Friedrichsen, DDS
Dean, School of Dentistry
Dr. Ayers Honored with St. Ignatius Award

Dr. Frank Ayers, Associate Dean for Student Affairs and Director of Admissions, received the prestigious St. Ignatius Award during the University’s Founders Week Mass at St. John’s Church on Feb. 5.

The award is presented annually by the Deglman Center for Ignatian Spirituality and recognizes Creighton employees “who attempt to live out the spirituality and mission of St. Ignatius and his followers.”

The award identifies individuals who are seen consciously striving to live out the Ignatian ideals through their work; their involvement with students; their commitments to family, friends and church; their volunteer efforts; and their personal spirituality.

Anthony Receives Distinguished Staff Award

Geraldine “Geri” Anthony received the Distinguished Staff Service Award at the University’s annual Christmas luncheon in December. Anthony came to the School of Dentistry in 1989 and currently serves as the dental clinic floor staff supervisor – responsible for all dental assistants on the clinic floor, as well as the patient reception area, sterilization and dispensary.

“Leading and living by example, Geri helps advance Creighton’s mission day after day, year in and year out,” said Dr. Tom Cavel, Chair of the Department of General Dentistry. “She has served the School of Dentistry with both a strong work ethic and a warm, caring spirit.”

Smile Miles Raises $1,800 for Charity

The “Smile Miles” run/walk, organized by the Creighton chapter of the American Student Dental Association, was held Saturday, April 8, on the Keystone Trail in Omaha. The event had 107 participants and raised $1,800 to offset dental fees for patients from OneWorld Community Health Center. Third-year student Kevin Smith finished first and the sophomore class won doughnuts for having the most entries.

Mark Your Calendars

What: ADA Reception
When: Wednesday, Oct. 18
Where: Luxor Hotel, Las Vegas

Dr. Barkmeier Named Dean Emeritus

Dr. Wayne Barkmeier was promoted to Dean Emeritus of the School of Dentistry at Creighton University’s President’s Convocation on Feb. 7. Dr. Willis Gray, Adjunct Associate Professor of Endodontics, and Dr. Terry Wilwerding, Associate Professor of Prosthodontics, were presented 25-year service awards.

Champions of Hope

Creighton alumni Rich Fitzgerald, DDS’70, and Frank Driscoll, DDS’59, along with Dr. Gregory Samuelson, Adjunct Assistant Professor of Pediatric Dentistry and Orthodontics, were named 2006 Champions of Hope by the Hope Medical Outreach Coalition for their work with the underserved and uninsured. They were presented the award during a March 30 dinner in Omaha.

Five Students Earn United Concordia Scholarships

Students Antony Odhiambo, Zachary Adkins, Olaitan Okediji, Aaron Murray and Aniika Jackson are each recipients of $1,000 scholarships from the United Concordia Company. These scholarships are awarded to under-represented minority dental students on the basis of academic excellence.

Mentioned in Congress

During a speech on the floor of Congress, Rep. Neil Abercrombie (D-Hawaii) applauded the service work that students in the Creighton University-Iowa Western Community College dental hygiene program performed at the Winnebago Dental Clinic in 2005.

“The group conducted the first Children’s Dental Sealant Project at the Winnebago Dental Clinic (in Winnebago, Neb.),” Rep. Abercrombie said. “As part of the project, they performed dental examinations, sealant placements and fluoride treatments for students at the Winnebago Public School and St. Augustine School.

“During the project, 320 children were examined and 1,300 sealants were placed. Most of the children also received a fluoride treatment. Parents were alerted to the need for further dental care for those students who were found to need follow-up dental care.”
Dr. Neil Norton, Associate Professor of Oral Biology, was selected as one of only 17 dental faculty members nationwide to participate in the prestigious ADEA Leadership Institute. The institute is a yearlong program aimed at developing the nation's most promising dental and allied dental faculty into future leaders in dental and higher education. The program is designed to allow fellows to engage in activities and assignments that guide and enhance their professional development. Leadership theory, team building, communications, managing change, public policy, educational policy, legal issues, research, budgeting, and financial management are part of the four-phase curriculum.

Dr. Knowles Selected for Leadership Institute

Dr. Kenneth Knowles, Chair and Associate Professor of Endodontics, was a keynote speaker at the 59th annual Indian Dental Association National Meeting in Ludhiana, Punjab, India, held Jan. 27-29. He also conducted a full-day, pre-conference, hands-on LightSpeed rotary instrumentation course. Following the course, Dr. Knowles was inducted as a Fellow of the International Academy of Rotary Endodontics (IARE). The participation by Dr. Knowles in the prestigious Indian Dental Association annual meeting illustrates the involvement of Creighton's School of Dentistry in international dental activities.

Dr. Knowles Speaks at Meeting in India

Dr. Beena (Ravi) Goel presents Dr. Knowles with the International Academy for Rotary Endodontics (IARE) plaque in Ludhiana, India.

Creighton Remembers Dr. Zapp

The Creighton School of Dentistry mourns the loss of alumnus John Zapp, DDS'61, former executive director of the American Dental Association (1993-2001), who died Oct. 12 after a battle with cancer. He was 73 years old and is survived by his widow, Nancy, three daughters and one son. Dr. Zapp was one of the founding members of the Friends of the NIDCR (National Institute of Dental and Craniofacial Research) and served as the organization's president from 2001-2003.

Youth Explore Dentistry

Fifteen faculty members and two dental students participated in this year’s Exploring Program in Dentistry, which exposes high school students to careers in dentistry.

Participating faculty members were Dr. Laura Barritt, Dr. Stephen Biggs, Dr. Thomas Cavel, Dr. Scott Di Lorenzo, Dr. Margaret Jergenson, Dr. Timothy McVaney, Dr. Thomas Meng, Dr. Carol Murdock, Dr. Neil Norton, Dr. Tarnjit Saini, Dr. James Sheets (co-coordinator), Dr. Jared Smith, Dr. Terry Wilwerding, Mr. Raymond Zdan and Dr. Gary Westerman (coordinator).

Creighton dental students who participated in the program were Ryan Dobbs and Katie Gerken. During the nine-week program, the School weekly hosted 15 to 25 high school students who had an interest in dentistry.

Dr. Norton Selected for Leadership Institute

Dr. Neil Norton, Associate Professor of Oral Biology, was selected as one of only 17 dental faculty members nationwide to participate in the prestigious ADEA Leadership Institute. The institute is a yearlong program aimed at developing the nation’s most promising dental and allied dental faculty into future leaders in dental and higher education. The program is designed to allow fellows to engage in activities and assignments that guide and enhance their professional development. Leadership theory, team building, communications, managing change, public policy, educational policy, legal issues, research, budgeting, and financial management are part of the four-phase curriculum.

Smiles Abound at Give Kids a Smile

More than 60 Creighton dental students, 36 dental hygiene students from Iowa Western, 10 dental assistants from Metropolitan Community College and faculty members participated in the American Dental Association’s “Give Kids a Smile” access-to-care campaign in January. About 55 children received care at Creighton’s clinic through the outreach effort. Faculty who assisted with the event included Dr. Anne Aiello, Dr. Stephen Hess, Dr. Dennis Higginbotham, Dr. Nick Levering, Dr. Luke Matranga, Dr. James O’Meara, Dr. Terry Wilwerding, Dr. James Howard, Dr. Gary Westerman, and dental hygienists Dorothy Polan and Lisa Kucera.
Gary Westerman, DDS’66, Professor and Chairman of the Department of Community and Preventive Dentistry at Creighton, and David Hoover, DDS’59, a member of the Creighton faculty from 1959 to 1973, were inducted into the Nebraska Dental Association (NDA) Hall of Fame during the NDA’s 2006 Annual Session in March.

In addition, Creighton alumni Keith Thomas, DDS’56, Bernard Bogatz, DDS’56, and William Kozal, DDS’56, were recognized for 50 years of service to the association. Alumni Marvin Dvorak, DDS’64, Paul Shyken, DDS’66, and James Smith, DDS’64, were recognized as lifetime members.

Fourth-year students William Kelsey and Andrew Reed were acknowledged for their induction into the American College of Dentists and the International College of Dentists, respectively. Dr. Carolyn Taggart-Burns, who teaches general dentistry at Creighton, was named the Outstanding Young Professional.

Catherine Flaitz, DDS’78, Dean of the University of Texas Dental Branch at Houston, was named the 2005 Texas Dentist of the Year by the Texas Academy of General Dentistry. In January, Dr. Flaitz and a colleague spent two weeks caring for HIV-infected children in Uganda.

Dr. Neil Norton, Associate Professor of Oral Biology, was elected President of the University Faculty in a University-wide election this spring. He will serve a two-year term starting in the fall. Dr. Norton is the first faculty member from the School of Dentistry to be elected to this position since the late Dr. Richard Blankenau, who served as faculty president in the 1980s.

Students Present at NDA Annual Session

Creighton dental students presented five table posters at the Nebraska Dental Association Annual Session in March. The students and the titles of their presentations are listed below.

- Elena Alexander, Nazila Alimohammadi, Nicole Berger, Kari Bolen, Holly Bourek, Josh Breding; “A study of dental health and medications in a pediatric patient population”; Mentor: Dr. Anne Aiello.
- Carrie Orn, Denise Mui, Deepak Neduvelil, Peter Nelson, Tennille Penn, Janette Nieblas, Antony Odhiambo; “Appropriate use of American Heart Association antibiotic prophylaxis for adult patients seen at Creighton University School of Dentistry”; Mentor: Dr. Larry Parrish.
- Linda Ho, Guy Haney, Jeff Harris, Sarah Hirsch, Derik Hoerner, Birva Joshi, Matt Kathan; “Bonding strengths of provisional cements”; Mentor: Dr. Terry Wilwerding.

The Creighton chapter of Omicron Kappa Upsilon (OKU), the national dental honor society, will present junior dental student Katherine Gerken with the Dr. William S. Kramer Award of Excellence during its annual banquet in May.

Gerken was chosen for the Kramer Award based on her demonstrated scholarship, character and her potential promise for the advancement of dentistry and service to humanity.

In addition to Gerken’s award, several senior students and faculty members will be inducted into OKU.

Selected from the senior class were Jared Brown, Brooke Baker, Ryan Dobbs, Laura Low, Travis Olson, Steven Osmond, Andrew Reed and James Stephenson.

The faculty members elected for membership were Dr. Jeffry Cherek, Dr. Steven Friedrichsen, Dr. Stephen Hess, Dr. Nicole Kimmes, Dr. David Millea, Dr. Frank Sleder.

Third-year dental student Philip Howard is the recipient of the $1,000 scholarship from the Dr. Sebastian Frank “Subby” Stella Memorial Endowed Scholarship. This scholarship is awarded to a dental student on the basis of academic excellence in prosthodontics.

Promotion and Tenure

Congratulations to Dr. Lucinda Carroll, Associate Professor of General Dentistry, who recently earned promotion and tenure, and to Dr. Terry Wilwerding, who was promoted to Professor of Prosthodontics. The changes are effective July 1.
Faculty Publications


Presentations

Several faculty and students presented their work at the joint meeting of the American Dental Education Association and the American Association for Dental Research. The meeting was held March 8-11 in Orlando, Fla. Listed below are the names of the participants and the titles of their project.

- Kimmes, Shaddy, O'Meara, Saini, Barritt, Scanlon and Scott, Sensitivity and Specificity of DIAGNOdent in Oclusal Caries Diagnosis.
- Barkmeier, Latta, Erickson, Wilwerding, Simulated Wear Rates of Resin Composites and Clinical Relationships.
- Latta, Barkmeier, Kimmes, O'Meara. Failure Resistance of Post/Core Assemblies.
- Latta, Barkmeier, Murdock, Laboratory Evaluation of Localized Wear of Selected Composite Restoratives.
- Erickson, Effect of Pre-etching Enamel on Fatigue of Self-etch Adhesive.
- Latta, Important Factors in Conducting Clinical Trials of Dental Materials.
- Latta, Bond Strength of Ceramic to Dentin Following “Pre-hybridization” with Resin.
- Westernow, Powell, Flaitz, Enamel Caries Formation: Comparison of Two Fluence Levels with LED.
- O'Meara, Latta, Wilwerding, Bond Strength of Composite Simulating Clinical Repair.
- Olson, Kimmes, Shaddy, Latta, Sands, Viscostat and Viscostat Plus Effect on Composite Shear Bond Strength.
- Naughton, Latta, Bond Strength of Composite Using Self-etching Adhesive Systems.
- Parrish, Mattson, Cerutis, A Comparison of Guided Tissue Regeneration Outcomes: Class-2 Furcation Involvements.

Creighton dental student Aniika Jackson presents a ceremonial check for more than $2,880 to an official at Louisiana State University in December. Creighton students in the American Student Dental Association held a casual attire day to raise money to assist fellow dental students at LSU displaced by Hurricane Katrina.

Student Represents Creighton at Clinician Program

Junior dental student Nicholas Freuen presented his research project at the ADA/Dentsply Student Clinician Program. This was the 46th meeting of the forum and was held in conjunction with the 146th Annual Session of the American Dental Association in Philadelphia, Pa., Oct. 6-9, 2005.

To be eligible to participate in the ADA/Dentsply Student Clinician Program, a student must have been recognized for his or her research at the local or national level. In addition, only one student is allowed to represent an institution. At this forum, only 52 students were invited to present their research projects. Freuen’s project, which represented Creighton School of Dentistry, was titled “A cadaveric investigation of dental induced Bell’s Palsy using long and short needles.” His research had been recognized previously on two occasions:

- Locally at the 36th Midwest Student Biomedical Research Forum in Omaha, where he received fourth place in the Medical/Dental Student Poster presentation category, and nationally he won an American Association of Anatomists Student Award. His research was supported by Dr. Neil Norton from the Department of Oral Biology, who also served as the faculty mentor on the project.

Beehner Honored

Teena Beehner, R.D.H., Assistant Professor of General Dentistry, was installed as the president of the Nebraska Dental Hygienists Association at its Annual Session in March.