

MOMENTUM

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News & Viewpoints
for Eastman Dental Center
Alumni & Friends

EDC

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Research



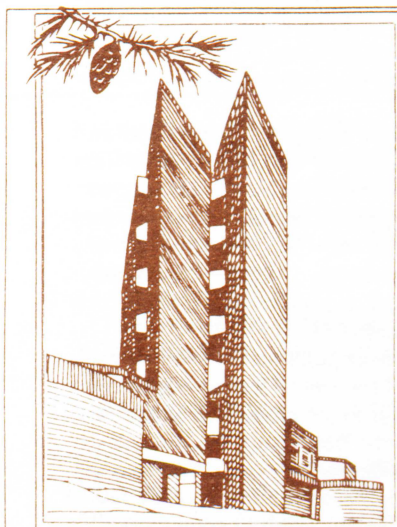
John D.B. Featherstone, Ph.D., is directing a research project whose goal is to develop an understanding of what happens dentally to patients who have undergone radiation therapy and concurrently to create a simple clinical regime for such patients to alleviate their oral discomfort.

John Featherstone came to EDC in 1980 as senior research associate in the Department of Caries Research. He is a New Zealander and took his B.Sc. with a joint major in mathematics and chemistry at Wellington, then studied in Manchester, England, for an M.Sc. in chemistry, and returned to Wellington for a Ph.D. in the chemistry of dental decay.

After Dr. Featherstone had worked in industry for nine years, he "traveled to Europe and England for a holiday, stayed for three years, and made a conscious choice to return to academia." He finds he works as many hours as an academic as he did in industry, but is "able to spend a lot of time working at home, rather than in the factory." His wife, his son, and his daughter "feel better about that!"

Before John Featherstone came to the Center, he had collaborated on research projects with Martin Curzon, chairman of the Department of Caries Research, "through correspondence and discussions at international meetings." One of the current research projects of the Department of

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Season's Greetings

Best Wishes
for
the
New Year

Bill McHugh.

From the Director's Chair

As the holiday season approaches, thoughts frequently turn toward family, friends, and tradition. I would like to take this opportunity to send my good wishes to you and yours for a joyous holiday season and a healthy, happy, and peaceful new year.

During the past two years, the Center's senior staff have been extensively involved in developing strategic plans for the Center's future. The first phase was completed in September 1982 with the submission to the Board of Trustees of a plan and supporting documentation. Proposals for implementation of the plans have recently been completed and have also been presented to the Board.

A distinguished review committee will visit the Center on December 13 and 14, 1982, to discuss the plan and implementation proposals and offer objective advice on their appropriateness and on alternatives that might be considered. The committee will consist of Dr. James E. Mulvihill, Vice President for Health Affairs at the University of Connecticut, Dr. Richard C. Oliver, Dean of the School of Dentistry at the University of Minnesota, and Dr. Burton Press, President of the American Dental Association.

Research . . .

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Caries Research under his direction shows great promise for cancer patients who have undergone radiation therapy.

Cancer Therapy and Caries Risk

John Featherstone and Cyril Meyerowitz (GenDen '74, M.S. '79), clinical instructor in the Department of General Dentistry and associate professor of clinical dentistry at the University of Rochester School of Medicine and Dentistry, together with José Castaneda, a postdoctoral pedodontic student, who has embarked on a Master of Science degree, are evaluating a new regime to alleviate the dental problems of cancer patients. Their research follows a pilot study done last year by Harold Kolodney (GenDen '81), who is now practicing in New York City and also continuing research on cancer patients.

Cancer patients who have had radiation to the head and neck suffer from severely impaired salivary action. This gives rise to xerostomia, or constant dry mouth. In addition to their difficulties from cancer, many of them develop rapid and severe dental decay. If the decay is not treated early enough, their teeth can be destroyed almost completely. The situation clearly illustrates the efficiency with which saliva normally protects the teeth.

The dental regime many cancer patients observe may differ according to the hospital of treatment, but at the University of Rochester's Strong Memorial Hospital, cancer patients are encouraged to come frequently for dental examinations. In an attempt to decrease decay, patients are asked to apply daily a one percent sodium fluoride gel to their teeth by custom fitted trays. Dr. Featherstone says, "It's a messy procedure and cancer patients, who have so many other regimes to follow, don't really like doing it.

"In addition," he continues, "nobody really knows the long-term side effects of high fluoride exposure and, apart from a patient's annoyance with the procedure, there is a concern about the possible high fluoride intake. Our research is concerned firstly with the fundamental understanding of what goes on with these patients in terms of dental decay. Secondly, we want to come up with a simpler clinical regime."



Jose Castaneda, D.D.S., postdoctoral pedo student, whose Master of Science research will involve cancer therapy and caries risk.

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Cyril Meyerowitz, D.D.S., M.S., is overseeing the clinical aspects of the study.

Dr. Featherstone explains the experiment. "Most of the patients already have a partial prosthesis. In Phase One of the study, we make them another, identical to the original, except that it can hold a piece of enamel. We cut enamel blocks from caries-free teeth and keep one part of each tooth as a control or unattacked reference. We study the normal demineralization that goes on in that enamel block for two weeks.

"If a person who had had no irradiation wore a prosthesis, the enamel block would not exhibit demineralization under similar circumstances as his saliva would be good enough to protect the enamel and replace any mineral lost by bacterial action. The cancer patient has too small an amount of saliva for it to do its job properly."

Dr. Featherstone continued, "In Phase Two, we have the patient treat another part of the same enamel in the prosthesis with the sodium fluoride gel as he does the regular teeth. During Phase Three, the patient actually dips the appliance with the enamel block into a test remineralizing solution daily for two weeks. That solution has about 10 ppm fluoride, instead of the presently used 5,000 ppm fluoride. The solution also contains the trace elements strontium and zinc, as well as other ingredients.

"The patient dips the appliance externally once a day and then puts it back into his mouth. That is just like using a mouth rinse. So far we have found that if we take these pieces of enamel and determine their amount of demineralization, we find the sodium fluoride treatment together with the reduced amount of saliva prevents mineral loss, or, in fact, decay."

As an in vivo control, there is an untreated piece of enamel that is demineralized for each patient. Dr. Featherstone says that while in all patients so far the high level of fluoride has prevented mineral loss, they find that "the low level fluoride remineralizing system has also prevented mineral loss."

He adds, "Although the four patients studied are not a large number, there is a tremendous amount of laboratory work involved." The research group is aiming for a total of ten patients by the end of 1983.

Dr. Featherstone mentioned that a group in Texas has been studying the clinical effectiveness of sodium fluoride treatments for a number of years, but that no other group

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One-Year Assistants' Program

An Update

On Thursday, June 10, 1982, eight young women received certificates marking completion of their studies as the first class of the new EDC one-year training program for dental assistants. The program is unique in the Rochester area.

According to Phyllis Brunette, assistant director of the program and clinical administrator in the Department of General Dentistry, the program is very successful, and its graduates are in demand. "I hired three of the young women for the General Dentistry clinic and placed the other five locally. The dentists are pleased with the training the

assistants have received. Word has gotten around the dental community and doctors have phoned me to express an interest in interviewing students in our current class when they graduate."

The schedule is demanding. Mrs. Brunette said, "We had accepted nine students for the first class, but asked one to withdraw as she proved to be academically deficient. The students spend from July to mid-September in classroom work and learning laboratory techniques like pouring models. From then till the end of the year, they spend half their time in class, the other half 'hands-on' in the General Dentistry clinic. In January they start rotations through the Ortho, Prostho, Perio, and Pedo clinics. At Strong Memorial Hospital they learn to work with the medically compromised patient. At Monroe Community Hospital they

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Development

EDC has launched its first Annual Giving Campaign and is soliciting funds from trustees, local corporations, alumni, teaching faculty and senior staff. Generously volunteering their time and energy to lead the 1982 Annual Giving are Paul W. Briggs, James C. Henderson, Basil G. Bibby, Gerald N. Graser, and Stanley L. Handelman.

Mr. Briggs, EDC Board president and chairman and chief executive officer of Rochester Gas and Electric Corporation, is steering trustee giving. Mr. Henderson, EDC trustee and president of Rochester Telephone Corporation, is directing corporate giving. Dr. Bibby, the Center's director from 1947 to 1970 and since then a hard-working senior scientist at the Center, is chairing alumni giving. Dr. Graser, chairman

of the Department of Prosthodontics, and Dr. Handelman, chairman of the Department of General Dentistry, are overseeing teaching faculty and senior staff giving.

The monies realized from the 1982 campaign will be used to enhance the Basil G. Bibby Library and current departmental programs.

Malinda Fischer, EDC's director of development, says, "The primary objectives of this initial campaign are to utilize volunteer leadership and participation, to support specific funding needs, and to encourage the importance of realizing full participation—however modest the gift—from all those contacted. The understanding that in-house people have shown about annual giving and their enthusiastic support leads me to anticipate that we will make our goal of 100% participation by teaching faculty and senior staff."

Most readers of MOMENTUM have probably received letters about this inaugural campaign. A flyer, included with the letter, explains not only what EDC's mission is and what services the institution offers, but also describes the diversity of the current research interests.

In the event your reply card has strayed, or been mislaid, a copy is reprinted below.



Eastman Dental Center 1982-83 Annual Giving Campaign

Name _____
First Initial Last

Address _____
Number and Street City State or Country Zip

☐ Trustee

☐ Friend

☐ Alumnus

☐ EDC Staff

Department _____

Class _____

My total gift will be \$ _____ to be paid as shown:

☐ I am enclosing total gift

☐ I enclose initial payment of \$ _____ and plan to send the balance as follows by April 30, 1983 _____

☐ I am sending securities. Name of Company _____ Number of Shares _____

Please designate gift ☐ Institutional Programs

Amount \$ _____

Specify Department, if desired _____

☐ Basil G. Bibby Library

Amount \$ _____

Please make checks payable to Eastman Dental Center 1982-83 Annual Giving Campaign and return with this pledge card.

Gifts are deductible for income tax purposes.

Signature of donor

Research . . .

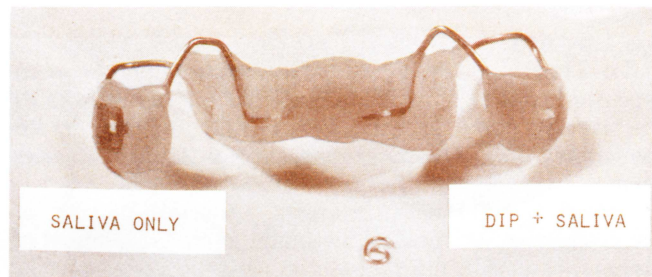
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has ever quantified the mineral loss with inserted enamel pieces in cancer patients. He spoke as well of Erling Johansen's use of high concentrations of calcium and phosphate in two solutions which work symbiotically. "But," he says, "although it is apparently effective, it is too complicated a regime for people to follow conscientiously for a long time."

"Our approach is to develop an understanding of what is going on, as well as a possible improvement in clinical therapeutic regime as soon as we can."

He anticipates that the study will continue for a number of years and that it may take a year or two to obtain Food and Drug Administration (FDA) approval for commercial use of the mouth rinses. He says, "The individual ingredients are non-toxic at the concentrations we use, but we still have to satisfy the FDA of the solution's lack of toxicity and of its effectiveness in animal studies."

Dr. Featherstone also said he and his colleagues were introducing a "microbiological research to the study to monitor the activity of plaque which is just as important as the remineralization. We believe that the reason some of these people don't demineralize their teeth right now is that



An appliance similar to those used by Dr. Featherstone's research group.

their plaque has been inactivated by fluoride. That is an interesting phenomenon in itself."

Dr. Featherstone concluded, "Our work is applicable not only to xerostomia patients, but to the public as a whole, particularly those who are caries-active."

The work on cancer therapy and caries risk is supported in part by a grant from the United Cancer Council.

Assistant's program . . .

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deal with geriatric and chronically ill patients. They are trained to work with handicapped patients from the Al Sigl Center (a local shelter for many rehabilitation agencies) in the General Dentistry clinic and do a surgery rotation under the guidance of Dr. Arthur Feldsott, a clinical associate in our department.

"They are trained in practice management and work the desk booking patients, filling out insurance forms, making collections, and answering the telephone. The last eight weeks of the course, they work full-time in the clinic of their choice."

The curriculum is designed to prepare the students to take the national examination for certification. The students all took the exam graduation day. "Only one," Mrs. Brunette said ruefully, "will have to sit the exam again. Unfortunately, she freezes at tests."

Enith Brandt is educational coordinator for the program. Mrs. Brandt, who holds a certificate in dental hygiene, a bachelor's in dental auxiliary education, and a Master's in allied health education, has designed and revised the curriculum, and teaches some of the subjects. Judith Chanler, a certified dental assistant, teaches all preclinical and clinical aspects. Jean Baric, who earned a bachelor's in health related professions with an emphasis on education and a Master's in dental public health, teaches ethics and working with the special patient. Mrs. Brunette teaches psychology and practice management. EDC's dental faculty often guest lecture.

Twelve students were enrolled in the class of 1983. One did not maintain academic standards and eleven young women expect to receive certificates in June.



Phyllis Brunette, GenDen clinic administrator and assistant director of the one-year dental assistant program.



Janet Brunette (left), laboratory assistant in GenDen, has just demonstrated how to make a custom tray. Judy Chanler (center) will now instruct Sand LaRock, one of the students in the dental assisting program, to draw a line to show how far down to trim the tray.



MEMBER PUBLICATION
AMERICAN ASSOCIATION OF DENTAL EDITORS

Staff News

Robert W. Baker, senior clinical associate in the Department of Orthodontics, was inducted into the Fellowship of the American College of Dentists. Dr. Baker was also recently elected to the board of trustees of Ithaca College, in Ithaca, New York.

J. Daniel Subtelny was inducted as a Fellow of the International College of Dentists.

Alumni News

Abraham Kobren (Intern '43) has been appointed assistant dean for admissions at New York University College of Dentistry.

Larry Harte (Ortho '62) has been appointed director of the New Jersey Center for Cranial Facial Pain, a full service center with services in nutrition, TMJ pain, physical therapy, ENT neurology, neurosurgery, rheumatology, and psychology.

Bart Levenson (Ortho '63) has been appointed by the Lafayette College board of trustees to a two-year term on the college's 35-member national council. Council members advise the board of trustees, represent the college at special functions, and help promote the mission of the college in various other ways.

Robert Slusar (Intern '66, Ortho '70) mentioned that hearing Handel's "Messiah" led him to think about Stan Handelman and the fact that Stan urged him to pursue his interest in orthodontics.

Buddhi Shrestha

(GenDen '68, Pedo '70, M.S. '70, Ph.D. '80), who is now director of the division of nutrition and cariology at Fairleigh Dickinson University Oral Health Research Center, visited the Center in August. He has also been appointed as adjunct associate professor of pathology, and represents Fairleigh Dickinson as a member of the advisory council on nutrition education in professional schools at the New York Academy of Medicine.



David Kozloff (Pedo '72) has been elected president of the Mount Royal Dental Society and Montreal Alumni Chapter of Alpha Omega fraternity for 1982-1983.

Bruce Haskell (Ortho '75) writes from Kentucky, "I have been recently promoted to clinical associate professor at the University of Louisville Department of Orthodontics. I have also begun a postdoctoral research program with the Department of Anthropology at the University of Pittsburgh. We now have a third little girl, Jennifer Ann, born in July. The practice is going well."

Robert G. Jennings (GenDen '77) has been promoted to the rank of lieutenant colonel in the United States Air Force. He is presently assigned at Wright-Patterson Air Force Base, Ohio, and is assistant director of the General Dentistry Residency Program.

Robert H. Fischer (GenDen '80) and Denise Dacosta were married in New York City on June 8.

Eduardo Izaguirre (GenDen '80, M.S. '82) in a letter to Martin Curzon says, "I will be in Erlangen, Germany from November 1982 to August 1983 and will work with Profs. Distler and Kronke. **Hannes Greger** (GenDen '82) and I expect to be able to do some work together."

Tom Dietrich (Ortho '80) and Karen announce the birth of Joseph Stephen on August 27, 1982.

EDC GIFT CATALOGUE

I'd like to tie one on!

EDC poly/silk ties, \$16.50 each, postpaid. Your choice of a navy blue or red background, figured with a shield bearing a caduceus

\$16.50 each

Quantity _____

Color _____

Subtotal _____



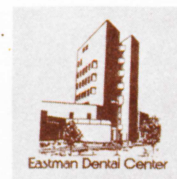
I'd like to coaster!

EDC Coasters, \$5.50 each, postpaid. White tile with red design.

\$5.50 each

Quantity _____

Subtotal _____



I'd like to be pinned!

EDC pins, \$15.00 each, postpaid. Gold filled, tie-tack back, 3/4".

\$15.00 each

Quantity _____

Subtotal _____



TOTAL ENCLOSED

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Deadline for Alumni News Notes: January 20!

Name _____ Dept. _____ Year _____

New Home Address _____

New Business Address _____ New Title or Position _____

Other News _____

What features would you be interested in seeing in MOMENTUM? _____

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