

# MOMENTUM

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News & Viewpoints  
for Eastman Dental Center  
Alumni & Friends

EDC

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William D. McHugh, D.D.S., Director  
Jo Helfer, Editor

## Trustee Profile

*Like most of the Center's trustees, Bob Berg is a very busy person, energetically involved in a rich variety of community and professional activities. Yet he has found time to be a great supporter of Eastman Dental Center. His wise counsel on many issues and especially on the development of collaborative programs with the University of Rochester has been of immense value and is deeply appreciated.*

— W.D.M.

Robert L. Berg, M.D., is Kaiser Professor and Chairman of the Department of Preventive, Family and Rehabilitation Medicine at the University of Rochester School of Medicine and Dentistry. His first association with EDC occurred when he was asked to join a committee formed to develop stronger relationships between the Center and the University.

In 1970 he was elected to the Center's Board. He served as president from 1975 to 1978, the exciting years when the new facility was built and dedicated.

Dr. Berg says the move from Main Street to Elmwood Avenue "has achieved what we all hoped it would, much more easy contact between the Center and the University." As an example he mentions that "the development of our graduate program in community health started when the Center was still downtown and that was a tremendous hassle. Now it's very simple indeed to walk over and back for classes as necessary. I think that's developed a more facile and productive arrangement."

Dennis Leverett, chairman of EDC's Department of Community Dentistry, has a secondary appointment in Berg's department. "Dennis helps us teach graduate students as well as medical students in epidemiology so we see a fair amount of him. That happens now at every level and joint teaching and research programs are a lot easier than they were before.

"There are also a number of areas where one can look to see considerable advance in the future—the whole issue of general dentistry, for instance. I think Stan Handelman (chairman of the Department of General Dentistry) is such a vigorous, imaginative guy. General dentistry is more like family medicine than any other thing, and we have seen quite a bit of interaction between those two components.

Currently, there is a project pending with the Kellogg Foundation to create a special teaching program for general dentists in a family medicine cycle. It speaks to the issue of not only being concerned with science and teaching, but also about the distribution of dental services in a whole region. Such a program would encourage a thoughtfulness for how dental care should be given with EDC becoming, perhaps, the tertiary dental center for our whole region, just as Strong Memorial Hospital is for medical problems.

"To my mind, the people at the Center make it the obvious referral center. The only thing that makes it a little less obvious is that dentists by and large, at least as I read it, are less inclined to accept the need for help that physicians accept but I think that will grow and develop. I think there will always be some town/gown problem vis-à-vis the Dental Center. It will probably go through the same changes that the hospital has gone through. There is still some residual town/gown feeling, but there is less of it than there used to be. Maybe it's about as low as it can be."

Berg works actively within health care planning agencies and is now chairman of the board of Access, an innovative organization that offers supportive services to older people to allow them to remain in their own homes. He is sensitive and sympathetic to the needs of the elderly. "About four or five years ago there was a beginning effort made as an outreach program for older patients that, to be successful, needs some kind of underwriting subsidy. I believe the federal government will see the importance ultimately of providing some kind of subsidy for that. That would be in keeping with the notion that the Dental Center will gradually emerge as not only the tertiary referral center, but also the organizing focus for thinking about dental services



Robert L. Berg, M.D., speaking at the dedication of the new building.



# Trustee Profile . . .

Continued from page 1

throughout the region. It's just beginning to move in that direction.

"We get quite a lot of referrals from elsewhere, but not in the same proportion as you get hospital referrals to Strong. It's funny how the field of dentistry has been slow to get to that point. I think it's because of a sense on the part of the independent consultants in practice that they can provide as much as the Center can provide. I don't have any data, but I just believe absolutely that cannot be so, that the way you keep lively and at the leading fringe is to be in touch with the research and teaching institutions. As that is recognized general dentists will increasingly refer here the really tough problems."

Berg touched on national health insurance. "I really am very much opposed in principle to insurance for everything. That does not contradict my statement about older folks. There should be a dental insurance plan for the really costly things. Should it be for cosmetic things as is sometimes the case with orthodontia? I'm not so sure. On the other hand, for the poor, including the aged, there should be some device so that the cost-sharing can be minimal. Many aged persons will put off getting a good pair of false teeth because it is just too costly. That's too bad." He finds it "conceivable" that the Dental Center may increase its geriatric dental work and "develop a special program."

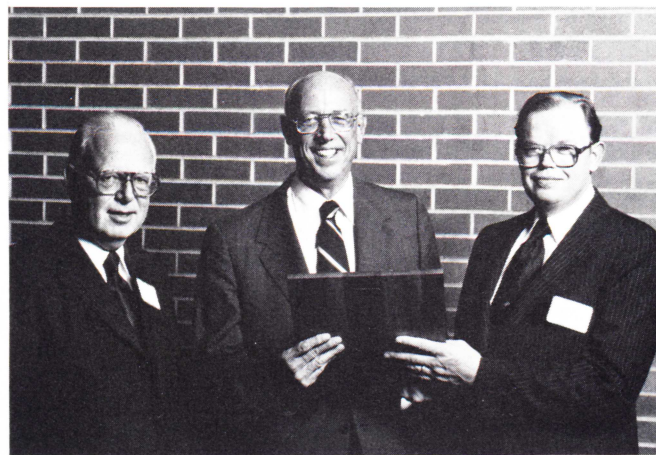
Berg came to Rochester 21 years ago from Boston where he was an allergist and chief of the allergy clinic for Massachusetts General Hospital. His interest in preventive medicine was whetted in the late 40s when he was awarded a fellowship to study in Sweden and while there "got quite interested in their health care delivery." He says, "I looked in some length at the Swedish health care system which was probably more sensible and frugal than now!" It was also in Sweden that he saw the Stockholm Eastman Dental Center, one of five European clinics built by George Eastman.

Berg relaxes by gardening, woodworking, weaving and reading history. He enjoys "the smell of the wood" when he's working with it and does "occasional" fine woodworking (he has made a dining room table) as well as "the coarse stuff," like shelves, kitchen cupboards and general remodeling.

His wife, Florence, took weaving lessons during their stay in Sweden and brought back a loom that is now in their remote Adirondack hideaway. "It's a huge thing, built like a house! I did all the work putting it together and warping up the loom and felt I should get involved. We make tapestries mostly and Rya rugs.

"I am also interested in medieval round churches. Last year the Memorial Art Gallery invited me to give a lecture on them. My wife is an art historian. It's fun to travel in Europe looking up old round churches. There aren't that many."

Bob Berg had intended to go into psychology during his undergraduate days at Harvard. But, he says, "I had a marvelous professor, a great teacher and researcher. He said to me one day, 'You don't want to go into psychology, you want to go into medicine.' And times being different and young folks taking advice of their elders, I went over to the dean in the medical school, talked with him for an hour and the next week he said I was admitted to Harvard Medical School. I have never regretted that decision!"



## A TRIO OF TRUSTEES

J. Wallace Ely, center, a twenty-year trustee and former president of the Board, was honored at a testimonial this past fall. At left is Board member Donald A. Gaudion, who chaired the event. At right is Board president, Bryant W. Rossiter. Dr. Rossiter, in his welcoming remarks to the guests, said: "Over the years, Wallace's life has been one of service and upward reach and his leadership has been a leadership of example. . . . He continues to be a strong advocate for strengthening and enhancing the program of the Center, doing everything within his power to ensure that the Center remains at the very forefront of modern dentistry . . . a steady hand at the helm as the trustees have tried to make their way through the rising tide of inflation, the choppy seas of an erratic stock market, the general shoals of the uncertainty of our times."



## BOARD OF TRUSTEES

Walter E. Andrus, administrative vice president of Gleason Works, has been elected to the Board of Trustees.

Mr. Andrus, a graduate of the Rochester Institute of Technology, is active in many civic organizations. He is chairman of the board of Blue Cross of Rochester, a member and past chairman of the United Negro College Fund, and member of the United Community Chest, the Rochester Chamber of Commerce, RIT's Nathaniel Rochester Society and the Rochester Rotary.

He is also a member of the American Management Association, Industrial Management Council, Machinery and Allied Products Institute and the National Machine Tool Builders Association.



## Recent Theses

*Mahmoud Ashrafi received his D.M.D. from the Dental School of the National University of Iran in 1974. He then attended the Institute of Basic Medical Science of the Royal College of Surgeons in England and sat for the Fellow of Dental Science examination. After earning his pedo certificate at EDC in 1978, he was a research assistant in the department of caries research while he worked on his Master's.*



*Mahmoud is now assistant professor and director of the graduate pedodontic program at the Marquette University School of Dentistry. He enjoys running, swimming, photography and traveling. His wife, Linda, is a native of Rochester.*

*His thesis adviser was Dr. Martin E.J. Curzon.*

### EFFECT OF PRE- AND POST-ERUPTIVE ADMINISTRATION OF STRONTIUM ON DENTAL CARIES AND MOLAR MORPHOLOGY IN RATS

by

Mahmoud Habibzadeh Ashrafi

The pre- and post-eruptive effect of strontium on dental caries and tooth morphology in Sprague-Dawley rats was investigated. At birth rat pups were randomized across litters to give roughly equal numbers of rats per treatment group. Forty-seven rat pups were fed solutions of strontium by esophageal intubations from day 4 to 17, at doses of 5, 10, 25, 50 and 75 mg/l. The daily volumes of solution were calculated to give strontium on a body weight basis.

From day 19 to day 64, post-weaning rats were fed MIT 200 cariogenic diet and doses of strontium in drinking water *ad libitum* at 5, 10, 25, 50 and 75 mg/l. Control group rats were given distilled deionized water throughout the experiment. Water consumption and weight gains were monitored throughout the experiment. However, no significant differences were found between groups. Results of bucco-lingual smooth surface caries scores (dose of strontium) for rats given strontium pre- and post-eruptively were 13.60 (control), 10.50 (5), 6.80 (10), 8.00 (25), 9.00 (50), 3.30 (75). Statistically significant reductions in caries were seen with strontium at 75 mg/l level given pre- and post-eruptively.

Measurements were made of molar dimensions for rats given strontium during tooth development. After scoring of smooth surface caries, the left mandible was embedded in

bio-plastic and sectioned longitudinally. After staining with modified Masson's Trichrome to differentiate enamel and dentin, each mandibular first and second molar was measured for 11 tooth-tissue dimensions on an optical comparator under X20 magnification. Although results showed a number of differences between treatment groups for some of the measurements made, no clear pattern could be found. It was concluded, therefore, that minor changes in tooth morphology were unlikely to play a role in any cariostatic effect of strontium and this was supported by a lack of correlation between sulcal caries scores and fissure measurements.

Strontium uptake by rat molars was determined to see if there were a relationship between surface enamel strontium and drinking water strontium and also if concentration of strontium in surface enamel correlates to the caries prevalence in animals. Analysis of the outer layer of enamel of maxillary molars showed that strontium uptake increased linearly when strontium was administered both pre- and post-eruptively. Significant post-eruptive uptake of strontium by enamel was found but a weak negative relationship existed between concentration of strontium in enamel surface and caries severity (E) scores.

*Shahla Azhdari received her D.M.D. from Tehran University and then taught at the National University of Iran for five years before coming to the United States. She earned her certificate in pedo from EDC in 1978.*

*Shahla is now an assistant professor at Marquette University School of Dentistry. She says, "I enjoy the snow and cold weather of Milwaukee so I don't miss Rochester weather!" She enjoys teaching. For relaxation she loves to cook, paint and travel.*

*Shahla and her husband are parents of a daughter.*

*The research for this thesis was under the supervision of Dr. Odd B. Sveen.*



### A COMBINED RESTORATIVE PREVENTIVE TECHNIQUE VS OCCLUSAL AMALGAM RESTORATIONS

by

Shahla Sadeghian Azhdari

The study evaluated a new restorative preventive technique for restoring localized occlusal caries. One hundred and thirty tooth surfaces were restored using the new technique. Localized decay was removed without extension for prevention, exposed dentin was covered by a liner and the cavity filled using a radiopaque composite. The occlusal surface was conditioned with 50% phosphoric acid for one minute, rinsed, dried and the fissure system covered with a filled sealant (Nuva Cote). For comparison, 116 contralateral teeth with similar lesions were prepared with extension for prevention, lined and filled with amalgam in the conventional way. Both procedures were timed. The new technique was found to be 25% less time consuming. Pa-

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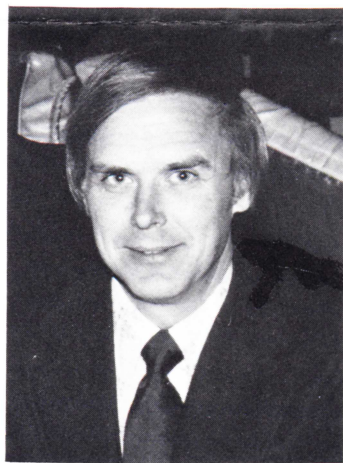


# Recent Theses . . .

Continued from page 3

tients were re-examined after six, twelve and eighteen months. Resistance to wear of composite sealant restorations was rated excellent ( $\frac{2}{3}$  or more of original filled sealant present) in 99% of the cases after six months, and 86% after one year. In two cases, air bubbles had exposed the underlying fissure and resulted in caries, and two amalgam restorations showed recurrent caries after one year. The marginal integrity of the composite/filled sealant was much better than the amalgam restorations. A laboratory study on marginal leakage after temperature cycling showed no dye penetration where filled sealant covered the composite while all amalgam restorations showed different degrees of dye penetrations. The present results indicate a potential for a more conservative, esthetic and economical way of restoring carious lesions in pits and fissures.

*Ed Plekavich was born in Cambridge, Massachusetts. He received his B.A. from Boston College in 1964. He went on to earn his D.D.S. cum laude in 1968 from the School of Dentistry at Georgetown University, where he won both the Robert J. Rothstein and Alumni Association awards for prosthodontics. In 1971 and 1972 he was awarded the Dental Teacher Training Fellowship from the*



*American Fund for Dental Education. After receiving his certificate in prosthodontics from EDC in 1973, he remained as an instructor in the departments of general dentistry and prosthodontics. He now practices prosthodontics in Washington, D.C., where he is assistant professor of fixed prosthodontics in the department of crown and bridge at Georgetown University.*

*Ed says he spends his "free time building at home" and has recently completed a new heating system that burns wood and frees him "from bondage to the gas company." During the winter he enjoys playing hockey with his students, but finds they "get younger and faster every year. They must eat well," he says, "because their endurance seems to have no end."*

*Ed and his wife have a daughter.*

*He did the research for his thesis under the supervision of Dr. William D. McHugh.*

## THE USE OF TOOTH ROOTS AS AUTOGRAPHS TO ISOLATE THE DENTAL IMPLANT CRYPT

by

Edward J. Plekavich

Alloplastic materials have been implanted in both the mandible and the maxilla to serve as abutments for dental prostheses. One of the problems with these implants is the open communication between the implant crypt and the oral cavity. This communication allows bacteria to find their way deep into the bone. Oral epithelium also migrates into the implant crypt to surround the implant. The purpose of this

study is to explore the use of tooth roots as autografts to isolate the implant crypt from the oral bacteria and epithelium. Two millimeter segments of tooth root from freshly extracted teeth were cemented to the posts of twenty-eight endosseous blade-vent implants. Care was taken to preserve the vitality of the periodontal membrane cells by keeping the extracted teeth wet with a tissue culture medium. The implant-root segment combinations were imbedded in the jaws of three monkeys and covered with mucoperiosteal flap. Plaque control for the implants was achieved by brushing and topical application of chlorhexidine gluconate. The animals were sacrificed after the implants had been in place 40, 80 and 120 days. Histologic examination revealed that it was possible to gain connective tissue fiber attachment to the root segment cemented to the post of the implant. Some of the root segments became ankylosed and some demonstrated no connective tissue attachment but showed epithelial downgrowth. All of the implants remained clinically sound throughout the test period.

## Staff News

At the annual meeting of the American Association of Dental Schools in Los Angeles in March, EDC's director, William D. McHugh, was elected to a three-year term as vice president for advanced education and federal dental services, and Bejan Iranpour, senior clinical associate and consultant in oral surgery, was elected vice president for hospitals.

Alan M. Polson, chairman of Periodontics, was elected president of the periodontal research group of the International Association for Dental Research and the American Association for Dental Research.

J. Daniel Subtelny, chairman of Orthodontics, and Joanne D. Subtelny, consultant in Orthodontics, will be jointly honored by the American Cleft Palate Association at its annual convention in Lancaster, Pennsylvania, in May.



MEMBER PUBLICATION  
AMERICAN ASSOCIATION OF DENTAL EDITORS



## Alumni News

**VAN E. CHRISTOU**, Ortho '50, after reading the article on the Center's Atrium Gallery, suggests that alumni might exhibit their paintings and photographs. Last year's staff show was very successful. There will be another in June. By all means, send along your art work! We'd love to show it.

**ROBERT D. REDFIELD**, Intern '71, is now "in full time private practice doing sedation dentistry on referral basis for restorative procedures" in Seattle, Washington. He is also a clinical associate in the department of oral-maxillofacial surgery and an instructor in anesthesiology at the University of Washington.

**AARON FENTON**, Prosthodontist '72, M.S. '74, with Pat and Sara will be on sabbatical from the University of Toronto from July to December to study dental care in England, Sweden and New Zealand.

**STANLEY SILBER**, GenDen '73, succinctly writes that he "got married."

**LIONEL CUDZINOWSKI**, Pedo '74, was appointed associate professor in the department of restorative dentistry, pedodontics section, of the University of Montreal.

**STEPHEN H. LITTMAN**, GenDen '74, who is in private practice of endodontics in Baltimore, Maryland, announces the birth of a son, Neil Jay, on December 22, 1979.

**GARY ROGOFF**, Prosthodontist '74, M.S. '79, and **SUE BRICKER** announce the birth of Melissa Clare Bricker-Rogoff, at 1 p.m., on Friday, April 25. Melissa weighed in at 6 lbs., 15 oz. and is 21 inches long. Sue was public relations consultant for EDC for several years.

**BRUCE HASKELL**, Ortho '75, writes from Kentucky that he has published an article in the July 1979 issue of "The Angle Orthodontist," and that he has "taken in an associate and opened a second office in Louisville." Bruce included some of his EDC ortho research in his work towards the Ph.D. degree awarded him by the University of Pittsburgh in 1978.

**MAHMOUD ASHRAFI**, Pedo '78, M.S. '79, and **DAVID S. RICHARDSON**, Pedo '79, M.S. '79, were two of the six winners of thesis awards at this year's American Academy of Pedodontics meeting. An abstract of Mahmoud's thesis appears elsewhere in this issue.

**PETER BARNETT**, GenDen '79, and his wife, Linda Cole, are parents of Regina Ruth, born April 18.

Alumni News Notes are due by June 16, please!

Name \_\_\_\_\_ Dept \_\_\_\_\_ Year \_\_\_\_\_

New Home Address \_\_\_\_\_

New Business Address \_\_\_\_\_ New Title or Position \_\_\_\_\_

Other News \_\_\_\_\_

Please cut out, fold, staple or tape, stamp, and drop in the mail box. Thanks!

Stamp

**MOMENTUM**  
Eastman Dental Center  
625 Elmwood Avenue  
Rochester, New York 14620



Yes! I would like to exhibit my artwork in the annual EDC Staff/Student/Alumni Show to be held at the Atrium Gallery from June 16 to July 11.

Name \_\_\_\_\_ Dept. \_\_\_\_\_ Year \_\_\_\_\_

Type of Art \_\_\_\_\_ Number of Pieces \_\_\_\_\_

I will arrange to have the work at EDC by June 14. It will be delivered by hand \_\_\_\_\_ or sent via \_\_\_\_\_  
(mail or UPS)

I understand the Gallery has not obtained insurance covering loss or damage to the work and that neither the Gallery nor its officers, agents, employees or volunteers shall have any liability to the exhibitor for loss or damage to the work.

Signed \_\_\_\_\_

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**MOMENTUM**

EASTMAN DENTAL CENTER  
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ROCHESTER, NEW YORK 14620