



ACADEMY OF DENTAL MATERIALS NEWSLETTER

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Susanne Scherrer, Secretary ADM

February 2000

News from the 1999 ADM Annual meeting in Tempe (AZ)

The very enjoyable meeting on "Tissue engineering and biological interactions of materials in dentistry" organized by John Powers and Joel Berg was highlighted by excellent presentations on an "avant garde" topic. Seventy people attended this meeting. Transactions are still available for purchase for \$25 and can be ordered by contacting:

Dr. David C. Sarrett, Transactions Editor ADM
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The Paffenbarger Award was given this year to David Ruddell, a Dental Materials Science PhD student at North Carolina, Chapel Hill, for his research work presented as a poster entitled: "The effect of impregnation method on the fracture behavior of a composite-reinforced branched-fiber material". Congratulations to David and his mentor, Jeff Thompson.

Next ADM annual meeting in New Orleans (Oct. 2000). Program chair: Jack Lemons Announcement and Call for Abstracts

The Academy of Dental Materials will host a meeting in New Orleans, LA on October 26-28, 2000 on **Dental Implant Treatments: Issues Beyond Ten Years In Vivo**. The program will provide three one-half day sessions. The first overview lecture on 30 years experience with biomaterials and dental materials will be given by J. Lemons from the University of Alabama at Birmingham. The second day overview on the long-term implant experience within the 31 Center VA Implant Research Program will be given by H. Morris of the Veterans Administration at the

University of Michigan. The third overview will be given on the overall aspects of treatment for longevity by C. Misch of the Misch Institute and the University of Pittsburgh.

These sessions will include extended discussion periods focused on prior experience and current (and future) needs for implant biomaterials and intra-oral restorative dental materials.

Poster sessions will be held each day on a wide variety of materials research. If you would like to submit an abstract for the poster sessions at this meeting, please contact Dr. David C. Sarrett, Transactions Editor, Academy of Dental Materials, Virginia Commonwealth University, School of Dentistry, P O Box 980566, 520 N 12th St, Richmond VA 23298-0566 USA.

The meeting hotel is the "Wyndham New Orleans" at Canal Park.

Journal Dental Materials status (David Watts)

Elsevier and David Watts have worked hard to get the Journal back on track. You should have received by now **all 6 issues of 1999 (vol.15)**. **If you are missing any of these issues please contact immediately Mike Bagby (West Virginia, USA) indicating clearly which issue is missing.**

Dr. Mike Bagby
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The Journal's acceptance rate for 1998-1999 was approximately 50%. The current publishing ratio of papers per issue is 10.5. However, due to a growing number of accepted papers the ratio is currently 13.0. In order to avoid unacceptable delays in publishing due to lack of space, expansion of the Journal is considered in the near future. The expansion costs will have to be

covered, therefore dues for 2000 had to be increased by \$35, a decision that was accepted by a large majority of the members present during the business meeting in Tempe.

Financial status of the Academy (Jim Overberger)

The financial status of the Academy as of Nov. 1999 is currently sound, however no excess cash is available for extravagant new items. The incomes are \$58,000 which comes from 85% of the members that have paid their dues. Fixed expenses are \$54,000. A buffer zone of \$14,000 is provided by corporate sponsoring.

Unfortunately, unacceptable high expenses of \$5,600 are occurring on a yearly basis due to problems with credit cards and checks. The board urges all members to make a special effort in providing:

- correct and working credit card numbers***
- readable names***
- expiration dates***

The same applies to checks, which should mention the name of the member who is paying his dues or registration.

Membership dues:

As mentioned above, the membership dues were increased by \$35, bringing the annual dues to \$175 per member. Students will remain at \$40 and receive the journal which at present costs \$76/ member/year to the Academy. This financial effort of the Academy is made to introduce students involved in Dental Materials research to the Journal and the Academy's activities.

A new policy for membership dues payments was established with enforceable deadlines. Hence dues for the year 2000 send out in November 1999 must be paid by February 1st. A reminder will be sent by mid February. If they are not paid by March 15, members will be removed from the membership list and will not receive the Journal. For the year 2001 dues, the deadline will be January 1, 2001 and unpaid dues after February 15 will result in loss of membership and the journal.

Centralization of the Membership list:

In order to avoid multiple lists, one single

membership list will be centralized at the treasurer's office. Labels for newsletters and the journal will be provided by the Treasurer only. Therefore, **all changes of addresses and e-mails should be sent to Mike Bagby who will assist Jim Overberger, our current treasurer, in this time consuming task.**

Dr. Mike Bagby

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In addition, if the member wants to receive information per e-mail he should send his changed **e-mail address** also to Susanne at: susanne.scherrer@medecine.unige.ch

Membership list on the web:

The membership directory web page is now made public and rewritten to automatically search privacy preferences for each member from the Treasurer's database. Jason Griggs has managed to incorporate a variety of privacy options:

- 1) total omission from the directory
- 2) listing of name only
- 3) listing of name, company/school, department
- 4) listing all contact information including mailing address, phone, fax, and email.

Please check this list and make your own choice at:

http://www.teleport.com/~aofdm/membership_directory.htm

The treasurer, however, keeps in his record a complete and accurate list of all the members.

Web site

Ron is constantly updating the web site with recent information on the ADM meetings. Please check this site on a regular basis and send any new items to Ron.

www.teleport.com/~aofdm

Greener Award :

The Greener Award was initiated in this year's meeting in Tempe Arizona. Evan Greener was the first recipient. The Greener award has been changed from the initial definition (last newsletter) to an honorary award. The title of the award will

be: The Evan Greener Award, for meritorious service to the ADM and dental materials research.

- The nominee will receive a medal.
- His expenses will be covered up to \$1,000 to attend the meeting to receive the award.
- The scientific contributions of the individual will appear in the journal.
- Nominations can come from any member and should be sent to the President.
- The Board of Directors will review the nomination.

The award may be an annual award but will be determined by strength of nomination.

Special award to Toru Okabe:

Dr. Toru Okabe, Professor and Chairman of Biomaterials Science at Baylor College of Dentistry, Texas A&M University System Health Science Center, was awarded the Regents Professor Service Award on September 23, 1999, by the Board of Regents, Texas A&M University System (TAMUS). This award is presented to outstanding professors in the university system who have displayed exemplary service nationally and internationally in teaching, research, and service throughout their careers. He will retain the Regents Professor title through the duration of his service to the Texas A&M University System. Congratulations Toru!

Future ADM Meeting sites:

2000: New Orleans (USA)

2001: Sienna (Italy)

2002: Hawaii

We invite members to express their opinion and provide us with suggestions on the places the ADM should hold future meetings. Send an e-mail to Susanne at:

Susanne.Scherrer@medecine.unige.ch

Carl W. Fairhurst, Ph.D. (1926 - 1999)

Dental research and, in particular, dental materials research has lost one of its pioneers. On April 4, 1999, Dr. Carl W. Fairhurst passed away at his retirement home in Parrish, Florida. He will be missed very much.

After military service during World War II, Fairhurst trained at Ohio State University as a dental technician. In 1952, he went to work for Marquette University, where he became involved in dental research under the guidance of Professor Gunnar Ryge. His early research included work on porosity in dental castings and on the bond between porcelain and alloys. With Ryge's encouragement, Fairhurst enrolled in the graduate school at Marquette and in 1959 obtained a Master of Science degree in Dental Materials. He then enrolled in Northwestern University's doctoral program in Materials Science where his mentor was x-ray crystallographer Professor J.B. Cohen. With Ryge, Fairhurst published a series of landmark papers during the early 1960s on the crystal structure of dental amalgam. He obtained his doctorate from Northwestern in 1966; his dissertation described the crystal structure and phase stability of the silver-mercury matrix phase of dental amalgam.

During the mid-1960s, Fairhurst served as Assistant Professor and Chair of the Department of Dental Materials at Marquette University. He worked in industry between 1967 and 1973 as manager of research and development for the S.S. White Dental Products Division of Penwalt Corporation.

In 1973, Fairhurst was appointed Professor and Division Director of Dental Physical Sciences at the School of Dentistry of the Medical College of Georgia (MCG). During Fairhurst's years at MCG, he resumed his research on the conditions that promote bonding between porcelain and dental alloys. He assembled a team of researchers that had, and continue to have, a major impact on research on dental ceramics and porcelain-fused-to-metal restorations. This team received continuous funding from NIH between 1974 and Fairhurst's retirement 20 years later. NIH recognized this continuous achievement by awarding Fairhurst its prestigious MERIT Award.

While at MCG, Fairhurst built a strong dental materials science group by recruiting researchers who could use basic science techniques to address the real-world problems of clinical biomaterials. His ceramics work is but one example of this. The MCG group also established productive research programs on dental amalgam, resin composites, and sealants. He collaborated with his wife, dentist-scientist Professor Eva Mertz-Fairhurst, on her important research on the use of dental sealants including a landmark study on sealing cavitated caries lesions. Fairhurst was a uniquely successful mentor. He instilled a strong commitment to high quality science in those with whom he worked. These researchers continue to have a major impact on dental materials research.

It is significant that Carl Fairhurst's achievements have been recognized by three groups: scientists, clinicians, and educators. In 1977, the Dental Materials Group, IADR, recognized him with its Souder Award, the highest award that is given for dental materials research. The Academy of Operative Dentistry presented Fairhurst with its Hollenback Award for lifetime achievement in Operative Dentistry. In 1979, the University of Georgia system awarded Fairhurst the title of Regents Professor. When he retired in 1994, the University awarded Fairhurst the title of Regents Professor Emeritus. In retirement, he continued his lifelong interests in saltwater fishing, gourmet cooking, and bird watching.

Professor Carl Fairhurst's legacy is the memory of those who shared his love of science and life. Through this man's work and through those who continue his work, dental science has been and will be enriched. With loving memory from his colleagues and co-workers.

Kenneth A. Anusavice, Michael B. Butts, Janet W. Ergle, P. E. Lockwood, J. Rodway Mackert, Jr., Richard J. Mitchell, Robert Morena, Debbie Nunley, Toru Okabe, E. E. Parry, Robert D. Ringle, Frederick A. Rueggeberg, Warren Twiggs.

Eva J. Mertz-Fairhurst, D.D.S. (1935- 1999)

Dentistry Has Lost a Leader in Sealant Research

The dental profession has lost one of its pioneers in sealant research. On July 26, 1999, Dr. Eva Mertz-Fairhurst passed away at her home in Parrish, Florida. Her death followed the passing away of her husband Carl Fairhurst on April 4, 1999.

After graduating from Rutgers University in 1957, Mertz-Fairhurst received her D.D.S degree from the University of Pennsylvania School of Dentistry in 1961. She practiced dentistry for one year in Pennsylvania before becoming a medical writer for Medical Literature, Inc between 1962 and 1965 and for the U.S. Food and Drug Administration from 1965 to 1970. She then served as Assistant Director of the Dental Clinical Research Department at Johnson and Johnson Dental Products Co, East Windsor, NJ from 1970 to 1975.

From 1975 to 1976, she served as a staff dentist at the Children and Youth Clinic, operated by the Community Dentistry Department at the Medical College of Georgia School of Dentistry. Through an NIH/NRS Fellowship Award, Mertz-Fairhurst conducted caries research at the Medical College of Georgia (MCG) from 1976 to 1979. She then served as an Assistant Professor in the Departments of Community Dentistry and Oral Biology from 1979 to 1981. She subsequently was promoted to Associate Professor and Professor in the Department of Restorative Dentistry in 1983 and 1988, respectively. In 1992 she was promoted to the rank of Professor in the Department of Oral Rehabilitation. While at MCG, she taught cariology and presented lectures in operative dentistry, occlusion and dental hygiene courses.

Professor Mertz-Fairhurst conducted research on the efficacy of pit and fissure sealants at MCG from 1981 through her retirement in 1993. One of her most outstanding contributions to preservative dentistry was her classic research on the use of composite and sealant to seal teeth with cavitated occlusal lesions. None of the carious dentine was removed from these teeth. Only the enamel was beveled and etched prior to placement of bonding agent and Miradapt composite. After etching the enamel again, the occlusal surface and restoration were sealed with Delton Sealant. The treated teeth were monitored through radiography for 10 years. At the end of this period, none of the lesions in teeth with intact sealant was found to progress. This important finding supports the hypothesis that the subsurface region of the sealed teeth do not support bacterial growth and that secondary caries is unlikely to develop beneath sealed margins.

Those of us who worked with this clinical scientist at MCG dedicate our current research efforts in her memory. She has enriched our lives and our dental careers through her inspirational and pioneering efforts in clinical research. Dr. Mertz-Fairhurst was a gentle and caring person whose spirit will long be remembered by those who have been fortunate to have known and loved her.

Kenneth J. Anusavice, Ph.D., D.M.D. J. Rodway Mackert, D.M.D., Ph.D. Richard J. Mitchell, Ph.D. Toru Okabe, Ph.D.