



Dental

JUNE 1992

Research News

Research Development Office, (902) 494-1675

Stimulus & Challenge

The voice of Dal Dental research

VOLUME VI, NUMBER 6

CREST & CLOSE-UP Student Research

Awards for 1992-93

Two student research awards are again being sponsored by Proctor and Gamble and Chesebrough-Ponds. The awards consist of a certificate, a cash prize and a travel grant to attend the 1993 IADR general meeting in Chicago. The deadline will be in August 1993. Application forms and guidelines will be available from the Research Development Office in May 1993. Eligible applicants include (Predoctoral (undergraduate) students and Postdoctoral (graduate/postgraduate) students. The two winners will participate through CADR in the Hatton Award Competition at the IADR meeting in 1993. This competition represents an opportunity for one of our undergraduate or graduate students to compete for a top international research prize.

Congratulations Randall

Biomaterials Graduate Student Randall Miller has satisfied the requirements for his MSc. degree through the Department of Physics. The title of Randall's thesis was "Factors Influencing Indentation Fracture Toughness of Glasses." The Dental Research News gives congratulations to Randall on his success. Randall is the fourth graduate student to obtain a degree based upon thesis work in biomaterials at Dalhousie University.

=====

Challenging Dogma

"Science is based on experiment, on a willingness to challenge old dogma, on an openness to see the universe as it really is. Accordingly, science sometimes requires courage at the very least the courage to question the conventional wisdom".

Carl Sagan

Incredible Coincidence

As reported in the April 1992 edition of the Dental Research News we will be celebrating the 200th abstract being presented by our Faculty at the 1992 IADR meeting. This will be 24 years since the very first Dalhousie abstract was presented in 1968. We now know who will be the lucky person to have the honour of presenting this important landmark paper for our Faculty. The name of the lucky individual is incredibly the same person who gave our **50th paper** in Chicago at the 1987 AADR meeting. That paper was given on Thursday March 11th by **Elliott J. Sutow**. The title of the paper was "Crevice Corrosion Products of Dental Amalgam," E. J. Sutow*, D. W. Jones., C. G. Owen and G. C. Hall. The total number of research papers given at the 1987 Chicago AADR meeting was 2,018. The chances of the same individual giving the **50th** and the **200th** paper must be very remote due to the random nature of the ordering of the various papers at the meetings and the variable total of Dalhousie papers being given at any meeting. The suspense is over **50th and 200th Papers** will both have been given by **Elliott J. Sutow**. The title of the 200th paper (abstract # 1391) being given by Elliott is "Corrosion of Dental Amalgam: influence of

Finishing Technique." E. J. Sutow*, D. W. Jones, A. S. Rizkalla, and P. Johnson. The paper is due to be given at 4:45 pm on Friday, July 3rd 1992, in Hall #3 of the Scottish Exhibition and Conference Center. Be there to see history being made. You will be able to tell your grandchildren that you saw the 200th Dalhousie paper being presented in 1992. However, what is perhaps an even more incredible coincidence than the same individual giving the paper is the fact that the paper deals with the subject of dental amalgam. This is the same topic as the 50th paper. Elliott has given many papers since the 50th which have dealt with many different subjects. The IADR meeting in Glasgow in July will be a large meeting, with a record number of 2,112 papers for a meeting held in the UK. A total of 23 of these papers which carry the names of our Dalhousie Colleagues.

Important safeguard

"Publication in a peer-reviewed journal provides another important safeguard on the integrity of research. Critical review by peers can detect errors and omissions invisible to the untutored eye. For this reason, it is the most acceptable means for disseminating research results."

Walter E. Massey

Director National Science Foundation

Scientific Dilemma

A recent paper published in the Journal of Prosthetic Dentistry (67:113-129, 1992) dealt with the problem of scientific knowledge versus clinical management of TMJ disorders. Although the paper by Norman Mohl and Richard Ohrbach, dealt with a specific clinical disorder, the comments made by the authors can be applied to a wide range of dental and medical clinical treatment procedures. They point out that "dentists confronting patient problems when reliable scientific evidence is unavailable have a dilemma that can only be managed by past clinical experience and the use of modalities that appear most effective under the observed conditions." The dental profession is often faced with controversial and conflicting concepts concerning etiology, diagnosis and appropriate treatment. The authors give six reasons for the controversies.

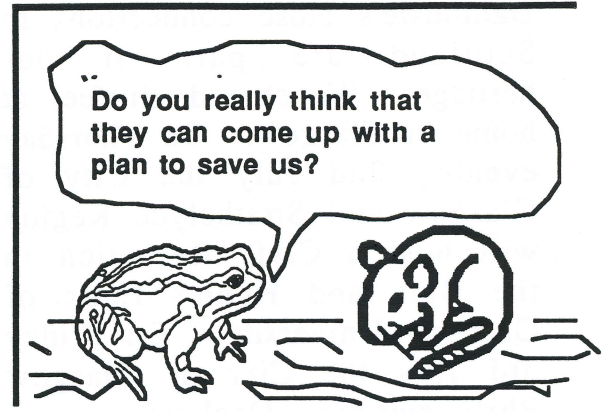
- 1) insufficient objective scientifically derived clinical evidence;
- 2) failure to effectively communicate relevant existing evidence to the profession;
- 3) failure to use well-communicated scientific evidence;
- 4) dependence on clinical trial and error;
- 5) over dependence on subjective reports of clinical success;

- 6) low appreciation that clinical success, however noteworthy, are not scientific proof of cause and effect.

The lesson we can learn from this is that scientific dentistry in Faculties of Dentistry in the Universities, should be conducting research on those topics areas in which insufficient objective scientifically derived clinical evidence does not yet exist. We should also be communicating this information to the profession through publications in refereed journals and scientific meetings. The dental profession should make sure that they keep up to date with the current dental scientific literature. As an aid to this a quality scientific continuing education programme is also highly desirable. Mohl and Ohrbach also point out that the dilemma is further compounded by the fact that clinical "information is often based upon outdated, hastily designed, or erroneous "research" that does not satisfy the standards of modern science." This further underlines the need for clinical research to be conducted in a wide range of dental subject areas. This provides a wonderful opportunity for our clinical faculty members to make a significant contribution to the dental profession and to scientific dentistry.

Proctor and Gamble Research Programme

The Proctor and Gamble Company have announced a competition for research funds aimed at eliminating or reducing the use of animals or reducing the distress imposed upon animals. The Animal Alternatives Research Programme will provide up to \$50,000 a year for three years (\$150,000). Three such awards will be funded. The deadline for submission is September 1st 1992. The winners will be announced on January 1st 1993. The Company are interested in proposals for both efficacy and safety testing. Topics such as inflammation/arthritis, diseases of the oral cavity, bone and skin disorders, rational drug design, acute oral toxicity, skin irritation, contact sensitization and computer modeling of toxicologic process. Our Faculty has ongoing research in a number of these areas, this is clearly an opportunity for us to take advantage of this research programme. Further details information and advice can be obtained from the Dental Research Development Office. Research proposals should not be more than three pages in length and should include the research objective, general plan of attack and a discussion of the significance of the proposed research as an alternative to current animal testing.



That's My Baby

When electromagnetic induction was discovered, namely, that by the movement of a coil of wire in the neighborhood of a magnet an electric current could be caused to flow, a spectator is reputed to have said, "Interesting, but of what possible use is it?" The great Faraday himself, is supposed to have answered, "Of what possible use is a newborn baby."

=====

Research Grant Obtained

Dr. Jim Johnson has obtained an internal grant (\$9,150) from the Faculty of Medicine. The title of the project is "Fixation of Implants."

=====

Jones to Step Down

Derek Jones will step down as Chair of the Research Development Committee as of the 1st July 1992.

=====

We All Belong to Glasgow
Dalhousie's close connections to Scotland are part of our heritage. We should all feel at home in Glasgow. On Thursday evening 2nd July the City of Glasgow and Strathclyde Region will host a Civic Reception in the Bute and Hunter Halls of Glasgow University. On Friday 3rd July the City of Glasgow Philharmonic Orchestra will present an international programme in the magnificent new Glasgow Royal Concert Hall. However, the main purpose of the event is dental science. The 1992 IADR meeting in Glasgow promises to be a memorable event. Apart from our 200th Dalhousie abstract being presented the schedule is very busy and exciting. We have 1,974 abstracts, including 18 symposia as well as 21 lunch and learning sessions available. An unexpected number of abstracts were submitted for the Glasgow meeting a total of 2121 (including symposia). The organizers were expecting about 1,500 papers. The rejection rate was about the same as normal 10% (147 papers), however, as previously reported Dalhousie's acceptance rate was 100%. The distribution of the programme is 60% in the form of posters and 40% oral presentations. Out of the abstracts submitted 57% were from individuals who are members of the IADR. The Glasgow meeting has a total of

708 (55%) more papers than the Dublin meeting of 1989. The Glasgow meeting will be the largest IADR meeting ever held in the UK. The Glasgow meeting will also be the first meeting in which the IADR will have a larger number of papers than the AADR meeting in a year in which a split meeting takes place. Although the 1991 Acapulco IADR meeting had the largest number of individuals attending (4,764), the Canadian IADR Montreal meeting retains one record of having the largest number of IADR members in attendance (2,275).

Putting on the Glasgow meeting IADR was found to be very expensive compared to meetings in North America. The City of Glasgow has contributed \$29,000. The expenses for the convention center, printing, AV services etc. are very high. Expenses were predicted to exceed income which resulted in the registration and exhibitor fees having to be increased above the normal. The cost of attending IADR meetings over the years has significantly increased. For example the membership registration fee was only \$10 in 1971, by 1977 it was \$25 and it had doubled to \$50 by 1981. The fee for the 1983 IADR meeting in Sydney Australia was \$120. The Acapulco meeting pushed the cost to \$140. In Glasgow the all time record IADR registration fee for members is \$195.