



Dental Research News

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Stimulus & Challenge

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The voice of Dal Dental research

Research Award for Janice Wilson

Janice Wilson 4th Year DDS student was the recipient of the 1994 Warner-Lambert Award for her demonstrated aptitude in research. Janice has been active in research at Dalhousie conducting research in the area of pain with Dr. Bill Lobb. Janice is planning to go to Graduate School thus, her understanding of and involvement in dental research are very valuable.

The recommendation by the Research Development Committee allowed Janice to attend the 30th Annual Dental Students Conference on Research. The meeting this year is being held at the University of North Carolina, School of Dentistry, Chapel Hill, North Carolina, April 16-19th. The basic objective of the conference is to expose outstanding dental students to dental educators, scientists and administrators and make them aware of the wide scope of careers available in dental research.

The Council on Dental Research of the ADA sponsors the annual orientation programme on dental research for one dental student from each dental school in the United States, Canada and Puerto Rico. The training and recruitment of manpower is of paramount importance to the expansion and improvement of dental research. One very important source of future dental scientists is the dental student population of today. The involvement of students in

research at Dalhousie is one way of making a contribution to the future of dental science in Canada. Janice's research experience at Dalhousie may pave the way for a dental science career. Janice will be reporting on her experience at the conference in the Dalhousie Dental Students Journal.

Timeless Words of Wisdom.

The recent development of our Clinical Research Unit and the exciting symposium dealing with Restorative Dentistry in the 1990's which was held at the IADR meeting in March, bring to mind the need to address the many clinical research questions facing dentistry in the next 30 years. Dentistry clearly has come a long way in the past 32 years, yet the editorial from the *Dalhousie Dental Journal* (Vol. III, No. 1) of the Fall of 1962 could almost have been written in 1994. The editorial was written by Fabian O. E. Harney and was as follows: "Dental research brings about changes which have a profound influence on the clinical practice of dentistry. The undergraduate acquires a curiosity about all phases of his profession, including the basic sciences, which weave an endless thread of application across all the clinical fields. This new orientation to the biological sciences is well timed, as the usefulness of dentistry would certainly be compromised if it continued to be practiced by a

specialized group of people dedicated merely to restoring lost tooth structure.

The profession of dentistry, reacting to changing times, is rapidly altering its course from being a profession of techniques alone, to one of coordinated application of techniques, superimposed on a scientific backdrop.

In the future, the dental profession will move forward on many fronts: in education, where schools will mold the dentist of tomorrow; in research, where scientists will strive to resolve the problem of the etiology of oral disease and in practice, where the concepts of preventive dentistry will be more fully embraced."

When we contemplate our new problem based science driven curriculum which is closely linked to the cutting edge of research in dentistry, the words of Fabian O. E. Harney are remarkably fresh and relevant after 32 years.

RDO The 7th Anniversary

On April the 1st it will be seven years since the RDO was established. Clearly our research has started the 7th year of the RDO with a bang. On this anniversary of the RDO we can look to the establishment of the Clinical Research Unit as a major step forward in the development of our clinical research.

Trends in Health Research

It is often important for us to keep an eye on trends in research funding in the United States. This can give an indication of expanding areas of research as well as possible future developments in Canada. Twelve months ago, stimulated by President Clinton's health care policies, the US National Science Foundation (NSF) and the The Whitaker Foundation called for applications for research funds to study cost effective health care technologies. A total of \$2 million was made available to start this research venture. It was pointed out that health care costs in the United States consume about 14% of the Gross Domestic Product (GDP), and this is forecast to increase in the future. Most other industrialized countries have costs below 10% of GDP. The United States realize that there is a critical need to contain the costs of health care, while at the same time aiming to improving the quality of and access to the health care system. The research funding from NSF and the Whitaker Foundation aims to fund innovative multidisciplinary research that can contribute to the containment or reduction of health care costs without compromising the quality, effectiveness or accessibility of the health care system. It is expected that this activity will bring together the diverse expertise needed

to meet this goal. The initial focus will be on teams of engineers, physical scientists and mathematicians, complemented by computer scientists, economists and health care professionals. It was expected that the thrust of the program will be broadened in future years. The following areas of research were suggested as being appropriate for funding from this research program. However, the research projects were not limited to this list.

- i) Research to increase productivity and reduce costs in the hospital environment.
- ii) Research to develop new technologies that can enable the delivery of care outside the hospital environment.
- iii) Research to develop new methodologies for low cost diagnosis.
- iv) Research to increase patient independence by developing novel means for self-diagnosis, self-therapy, and disease prevention.
- v) Research on advanced materials to be used in implant or external rehabilitative devices that would increase device longevity, and minimize the need for replacement or retrieval.
- vi) Expert and knowledge-based systems for improved and standardized diagnosis and treatment, and better health care delivery and risk management.
- vii) Innovative and cost-effective means to link patients, providers, care facilities, insurers, and homes.

viii) Development of improved information and communication systems to provide a uniform, rapid, and data-secure access to patient medical histories, eliminate duplication of tests, and supply data for statistical, epidemiological, and outcome studies.

ix) Innovative educational programs that would facilitate the application of technology to contain health care costs. This could include user-friendly computer-based educational systems. While this program is not directly aimed at dental research it is clear that there may be some lessons to be gained from this new policy in the United States. We should look out for reports on the results of these US funded projects in the next two years or so.

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Materials Synthesis Top Priority for the US.

A report in the National Science Foundation Engineering News has pointed out that materials synthesis, processing, and engineering and their synergy are critical national research areas for the United States. Their importance has also been highlighted by the US National Research Council Report, "Materials Science and Engineering for the 1990s," and by studies by US government agencies as well as the private sector. The consensus according to the NSF is that it is essential to enhance the materials research base in the United States in order to provide the new materials and creative people to strengthen the competitive position of U. S. industry in the 21st century.

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Summer Research

All faculty members are reminded to prepare their research proposals for the summer research activities which are not that far ahead. A memorandum was forwarded to Departments last month indicating the deadline for applications for discretionary funding. The deadline has been set as Friday April 29th 1994. Some funding will be available for support of students under the MRC Farquharson scholarship programme as well as from other sources. It is important to note that all applications should follow the guidelines established by the Research Development Committee. In addition any research involving humans should

also be evaluated by the Human Ethics Committee. Copies of both sets of Guidelines have been circulated to all Departments. Applications should be forwarded to the Chair of the Research Development Committee.

Pain Interest Group

Please note that a presentation of the "Pain Interest Group" will take place at the University Club 7:00 -9:00 p.m. On Wednesday May 25th the session will include "Canadian Pain Society" speakers. This session may be of interest to those individuals contemplating clinical research projects with the CRU. It provides an opportunity to make contact with colleagues in

other departments and disciplines which may lead to collaborative research. For further details phone Douglas Cane Department of Psychology (428-2196).

It Stands and Shines

"There are few earthly things more splendid than a University. In these days of broken frontiers and collapsing values, when the dams are down and the floods are making misery, when every future looks somewhat grim and every ancient foothold has become something of a quagmire, wherever a University stands, it stands and shines; wherever it exists, the free minds of men, urged on to full and fair inquiry, may still bring wisdom into human affairs."

John Masefield

Request for a Square Deal

A memorandum was received from MRC indicating a 25% across the board cut for the Farquharson Research Scholarships for 1994. Assistant Dean for Research Jones, wrote a strong letter to MRC indicating that previous letters had been forwarded to MRC President Dr. Henry Friesen in March of 1992 and to the previous President Dr. Bois in 1990, which had strongly pointed out that the Faculty of Dentistry at Dalhousie had in fact a very strong claim for additional Farquharson Research Scholarship funding under the present system.

It was suggested by Jones that MRC should be able to take this into account and not implement an across the board cut of 25% for Dalhousie Dental Faculty for 1994. The fact is that our faculty have continued to receive the lowest proportion of the Farquharson Research Scholarship funds for the past 18 years. This is in spite of the fact that our student numbers have increased since 1975 and our MRC research funding has significantly increased.

The bar diagram opposite illustrates the relative level of Farquharson Research Scholarship fund support from MRC to all faculties of dentistry in 1993/94, it is clear that an across the board cut would seem to be inappropriate. A calculation based on MRC research grant performance would place Dalhousie above the mid point in the ranking of the Canadian Faculties of Dentistry. In spite of this we receive the lowest amount of Scholarship funds (\$11, 040) along with Laval and Saskatchewan. A 25% cut would reduce this to \$8,280.

MRC Farquharson Research Scholarship Funds for Dental Faculties, 1993/94

