



Dental

AUGUST 1991

Research News

Research Development Office, (902) 494-1675

VOLUME V, NUMBER 8.

Opportunity for Research

The Academy of Operative Dentistry are once again funding a Fellowship Programme directed towards support of a dental student and a junior faculty member in a specific research project. The junior faculty member must initiate a research proposal involving an undergraduate dental student. A total of \$3,000 will be provided by the AOD to cover operating costs and fund the student working on the research project. The goals of the programme are to:

- 1) encourage the research activities of dental undergraduate students;
- 2) encourage junior faculty to engage in research, and
- 3) to further research in the area of Operative Dentistry/-Dental Materials.

The Faculty Research Development Office is willing to provide additional discretionary funding to support a successful application to cover additional costs such as

laboratory materials and supplies. Application forms and additional information are available from the Research Development Office. The Academy received six grant requests last year. According to the Chairman of their Research Committee Max Anderson, the research projects must cover areas of research pertinent to operative dentistry and/or dental materials. The Academy of Operative Dentistry have requested that all applications be reviewed by the various institutions prior to submission. The Academy of Operative Dentistry committee believe that the Student-Faculty Fellowship Programme will help teach the art of grantsmanship (or grants-womanship). The deadline for submission to the Academy is January 2nd 1992, the Research Development Office will require the applications to be submitted by December 6th for internal review.

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Derek W. Jones

Assistant Dean

Dalhousie Not on Book List
 The recent call for faculty members to respond to the list of journals required for our use in the Health Sciences Library is a function of the economic climate and Dalhousie's financial plight which drives the need to rationalize the library collection. The library is an important aspect of our research activity. Research means to 'search again.' An adequate library collection is thus essential to allow our research to be effective and efficient. A recent report in the chronicle of Higher Education (March 1991) listed the holdings of research libraries in the US and Canada. The top University library was at Harvard with 11.87 million volumes and a total staff of over one thousand. The University of Toronto was ranked 6th with 5.95 million volumes and a staff of 407. The University of British Columbia was ranked 26th with 2.92 million volumes and a staff of 407. The University of Alberta was 32nd with 2.96 million volumes and a staff of 396. McGill was down at number 42 with 2.51 million volumes and a staff of 326. The University of Western Ontario was listed at 48 with 1.96 million volumes and a staff of 287. The University of Laval was 50th with 1.79 million volumes and a staff of

267. York University was listed at 59 with 1.84 million volumes, Queens University was listed at 80, The University of Guelph was 92nd, The University of Manitoba was 93rd, McMaster was listed at 94th, the University of Saskatchewan was 97th and the University of Waterloo was 99th. A total number of 107 University research libraries were listed, of which 13 were Canadian. Dalhousie University did not make the list.

The Way Things Were.

When we contemplate the way things are in terms of our academic life, our research funding and support and indeed the quality of our research and teaching, we could perhaps consider the words of Will Rogers. "Things are not like they use to be and they probably never were."

Scientific Papers

"Scientific papers are instruments of persuasion. Scientific papers must argue you into believing what they conclude; they must be built on the principles of critical argument."

E. T. Huth-in: "How to Write and Publish Papers in the Medical Sciences," Ed 2. Baltimore, Williams & Wilkins, 1991, p 56.

Computer Analysis

The integrity of data bases to support microcomputer-based analysis programmes has become increasingly important to developers and users of analysis software. A paper by C. T. Windham *et al.* ("Integrity of Small Data Bases in Computer Analysis of Dietary Data"; *Crit. Rev. Food Sci. Nut.* 1990, 29(3) 149-66) reviews critical issues in maintaining data integrity during development of small nutritional data bases. Because a limited number of large, source data bases provides the data for smaller, special-purpose data bases, this review initially focuses on factors that affect the quality and precision of methodologies used in establishing large data bases. Issues discussed are accuracy of source data as determined by analytical methodology and imputation procedures, and methods for insuring representativeness of data. The effect of data transfer procedures on small data base integrity are discussed, including use of multiple sources and standardization of naming and coding conventions. Also reviewed are procedures for selecting reduced numbers of foods and nutrients without sacrificing accuracy of analysis, and methods currently in use for validating small data bases.

This review will be of value to many faculty members from the standpoint of the computer methods as well as from the potential linkage of nutrition and dentistry.

A Methodical Process

A very useful series of articles has been published on research in the *Journal of American Podiatr. Med. Association*. According to Dr. L. L. Gabel, conducting the research study should be a methodical process in which the details of the planning process are executed. ("Research Process. Conducting the Research Project," *J Am Podiatr Med Assoc.*, 80(12) 662-4 1990) This fourth article in a series of six on the research process presents guidelines with supporting recommendations to increase the likelihood that the study indeed will be conducted as planned. The guidelines emphasize the importance of

- 1) record-keeping systems,
- 2) detailed work schedules,
- 3) communications, and
- 4) monitoring progress.

Teamwork

"You might say this is now the age of teamwork, and that there's too much knowledge to digest for a single person to be out there doing what people did in the 19th Century and earlier." David Spurgeon.

Dental Amalgam?

The National Institute of Dental Research are holding a conference August 26-28th 1991, on "The Effects and Side effects of Dental Materials." An independent non-Federal panel will then weigh the scientific evidence and write a draft statement in response to the following key questions:

°What are the needs and benefits of tooth restorations?

°What are the incidence and severity of side effects associated with tooth restorative materials?

°Do materials for tooth restorations contribute to systemic disease and reactions?

°What are the benefit/risk ratios of the different tooth restorative materials?

°What should be the future directions for research on materials for tooth restorations?

The NIH meeting has been called to respond to the growing public concern over amalgam which has been generated by the media. The May edition of *Consumer Reports* carried a leading feature dealing with the issue over the safety of using "silver" fillings in repairing tooth decay.

Consumer Reports reviewed some of the current data and stated: "Given their solid track record and a risk that's still

conjecture, amalgam fillings are still your best bet." The *Consumer Reports* magazine, published since 1936, has become a trusted source of consumer advice and has 3 million subscribers. The magazine gave a very reasonable review for the general public. Those opposing amalgams cite recent Canadian research claiming kidney malfunction in test animals. And research from a Swedish-American team that studied infant cadavers shows mercury passes from pregnant mothers to children. An editorial in the *New England Journal of Medicine* has noted "many important medical questions concerning mercury toxicity remain."

A spokesman for the ADA Dr. Weintraub, was quoted in the media as applauding the *Consumer Reports* article. He stated "There is no credible scientific evidence that shows amalgam is anything but safe and effective." Dr. Eggleston, a researcher at USC, recommends against amalgams in pregnant women. "My concern is that there should be more research." In March, the US Food and Drug Administration panel found "no direct hazard to humans." form dental amalgam. However, the FDA is said that additional research on the use of dental amalgam should be conducted.

MEDLINE Data Base on Line Arrangements have been made for the Dental Faculty to have access to the Medline data base through the Apple Share-network. The data base currently available goes back to 1986. The searched material can be down loaded into your own personal reference database (in Endnote Plus for example). EndNote Plus is a database manager which allows you to search your own bibliographic references in your own private reference library. However, the major advantage of the system is that it is a bibliography maker, it builds a list of cited references automatically. The references are correctly formatted in the style of your choice. EndNote will correctly place the reference citations in your text and automatically produce a bibliography at the end of your paper. The availability of the MedLine system combined with the use of the EndNote or other database system provides one of the greatest aids and incentives to research and scholarly activity which has become available to our faculty in the past five years. Further details can be obtained from the Research Development Office.

Mercury and Cold Fusion
"Deliberately bypassing the peer-review process can short-circuit the self-correcting mechanisms of science and engineering and also damage public trust. Researchers who release their findings directly to the public risk adverse reactions later if their results are shown to be mistaken or misinterpreted by the media" "I doubt that "cold fusion" research benefited from the fact that much of its scientific review was carried out in the mass media. In the same vein, the credibility of the entire university research enterprise has been jeopardized by the action of individual schools attempting to bypass peer review to obtain earmarked Federal funds for their research facilities.

Walter E. Massey
Director
National Science Foundation

Passion

"Those who chose research as a career want passionately to do it... .., a passion for science is essential in making a country great, a passion for excellence, to be first or leaders in some areas, to take a risk, even to waste money at times in the hope that something will come of it because that's what happens in creative research."

Michael Sole.
