



Dental

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Research News

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1994 is an important year. We will celebrate the presentation of our 250th research abstract at the Seattle IADR meeting. *Happy New Year*

Maxillofacial Research

The following two abstracts were presented at the 1993 Autumn Meeting of the British Association of Oral and Maxillofacial Surgeons in London, England.

Labiomaxillary Cleft Embryology: Implications for Primary Cheilorhinoplasty.

A.J. Lyons & D.S. Precious. Poole Hospital, Poole, Dorset; and Dalhousie University.

Optimum results in cleft lip and palate surgery can be obtained using a functional primary repair. It behoves the surgeon to be familiar with intra-uterine events, in order to appreciate the complexity of the deformity which presents at birth. It was the purpose of this endeavour to examine the microanatomy of 46 human foetuses at various stages of development, 33 of which were normal and 13 of which had clefts. Of the 46 specimens, 17 were stained with Masson's trichrome, the remaining 29 with haematoxylin and eosin. These were then examined using photomicroscopy. Even in the earliest cleft specimens examined (8 postmenstrual weeks) the arrangement of the premaxilla, nasolabial musculature, nasal septum and lateral nasal cartilages was found to be dissymmetric, and lacking the purposeful functional arrangement seen in the normal specimens. These findings support the notion that

one important cause of deformity in cleft patients is disruption of the labioseptopremaxillary traction system. Surgical repair of this deformity must attempt to establish symmetry and 'normal' position of the constituent anatomical elements.

The Effect of Primary Surgery for Cleft Lip and Palate on the Growth of the Maxilla: a Review of 10 Year Old Patients.

A.F. Markus & D.S. Precious. Poole Hospital, Dorset and Dalhousie University..

The method of functional lip and palate repair as described by Delaire stresses the importance of careful reconstruction of the nasolabial musculature and the soft palate, closure of the hard palate without disturbance to the palatal mucoperiosteum and avoidance of a vomerine flap. In this way normal function and development of the maxilla and its associated structures can be achieved. Unnecessary scarring of the palate is avoided as well as scarring at the vomeromaxillary junction. This latter inhibits the normal forward sliding movement of the vomer along its maxillary interface. Use of a vomerine flap also establishes a reduction in vertical dimension of the maxilla and a reduction in the size, therefore, of the nasal aperture. Additionally, it encourages a retro-position of the maxilla with a resultant overclosure of the mandible. This paper presents a

review of 25 consecutive 10-year-old patients treated in Nantes. The results are based on analysis of lateral cephalometric radiographs and study models. Whilst small in number, it shows it is possible, using these techniques, to achieve an excellent result.

Dental Hygiene Research Conference

On October 15-17, 1993 over 300 dental hygienists attended a North American Research Conference in Niagara Falls, Ontario. The Conference, "An Exploration into the Future", was sponsored by the Canadian Dental Hygienists' Association. Keynote speakers included Roberta Bondar, Canadian astronaut and researcher, and Jane Fulton, Canadian health policy analyst and researcher. Dr. Fulton's engaging presentation on health care trends included a brief account of her recent visit to the White House and dinner with Hilary Clinton. The Conference included 22 commercial exhibits and a wide range of workshops, free papers, and posters. The topics included research applications in dental hygiene, theory development, and research that will affect future dental hygiene practice. Everything from lasers and saliva to design and funding! Glenda Butt, Joanne Clovis, and Terry Mitchell attended the conference. Joanne Clovis was a reviewer of abstracts and also presented a paper titled "Healthy Policy, Demographics, and Economics".

Research Grant Deadlines for 1994

January 1994

- 1 Information Technology Association of Canada/NSERC Award
- 2 Canadian Genome Analysis and Technology Program Letters/Intent
- 14 NSERC Collaborative Project Grants - Intent to Apply
- 15 RP Research Foundation Research Grant
- 15 AES/NSERC Science Subvention Research Grant
- 15 Canadian Red Cross Society Blood Services Career Development
- 17 SSHRC Major Collaborative Research Initiative - Letter of Intent

February 1994

- 1 Harry Frank Guggenheim Foundation Research Grants
- 12 Manning Awards Foundation Manning Awards
- 15 Kidney Foundation of Canada - Allied Health Council Research
- 15 Cancer Research Society Inc. Research Grants
- 28 Canadian Occupational Therapy Foundation Research Grant

March 1994

- 1 MRC Clinical Trials
- 15 Canadian Occupational Therapy Foundation Publication Grant

April 1994

- 1 Canadian Genome Analysis and Technology Program Letters/Intent
- 1 Hospital for Sick Children Foundation Research Grant
- 1 Secretary of State Canadian Studies Projects Directorate Grants
- 1 Parkinson Foundation of Canada Research Grant
- 1 Cancer Research Institute Postdoctoral Fellowships
- 1 SSHRC International Summer Institute Letters of Intent (for Summer 1995).

- 1 SSHRC Aid to Occasional Scholarly Conferences in Canada
- 1 SSHRC Strengthening of Specialized Research Collections
- 1 SSHRC Travel Grants for International Representation
- 1 MRC Fellowships
- 1 MRC Groups
- 1 MRC Program Grants
- 1 MRC Industrial Fellowships
- 15 NSERC Scientific Publications Grants
- 15 NSERC Strategic Grants (internal deadline April 8)
- 15 Juvenile Diabetes Foundation Grant renewals

June 1994

- 1 NIH Research grants
- 1 MRC Development Program: Phase 2
- 1 MRC University-Industry Programs
- 30 Canada Council Killam Research Fellowship

July 1994

- 1 Canadian Genome Analysis and Technology Program Letters/Intent
- 1 SSHRC/NSERC Chairs in Management Technology
- 1 SSHRC Aid to International Congresses in Canada
- 1 SSHRC Aid to Occasional Scholarly Conferences in Canada
- 1 SSHRC Travel Grants for International Representation
- 1 NSERC E.W.R. Steacie Memorial Fellowships
- 31 NHRDP Career Awards
- 31 Canadian Diabetes Association Grants-in-Aid

August 1994

- 1 Harry Frank Guggenheim Foundation Research Grants
- 13 NSERC Advanced materials for Research Grants
- 31 Canadian Research Institute for the Advancement of Women Research Grants

September 1994

- 1 NSERC Canada Gold Medal for Science and Engineering

- 1 Heart and Stroke Foundation Grants in Aid
- 1 International Human Frontier Science Program Research Grants
- 1 International Human Frontier Science Program Long-term Fellowships
- 1 MRC Clinical Trials
- 15 MRC Operating (new)
- 15 MRC Equipment
- 15 MRC Maintenance (new)
- 15 MRC Dental Clinician-Scientist
- 15 MRC Scholarships
- 15 NHRDP Aids applications
- 15 Connaught Laboratories Limited Canadian Universities Research
- 15 Canada-United States Fulbright Program Faculty and Graduate

October 1994

- 1 Multiple Sclerosis Society of Canada Research Grants
- 1 Multiple Sclerosis Society of Canada Career Development Awards
- 1 Multiple Sclerosis Society of Canada Postdoctoral Fellowships
- 1 Multiple Sclerosis Society of Canada Research Studentships
- 1 Juvenile Diabetes Foundation of Canada Career Development
- 1 Juvenile Diabetes Foundation of Canada Postdoctoral Fellowship
- 1 Canadian Genome Analysis and Technology Program Letters/Intent
- 1 Hospital for Sick Children Foundation Research Grant
- 1 Canadian Cystic Fibrosis Foundation Research Grant
- 1 SSHRC Bora Laskin National Fellowship
- 1 SSHRC Leger Fellowship
- 1 SSHRC Molson Prize
- 1 NSERC Infrastructure Grants
- 1 NSERC Major Equipment (\$150,001 to \$325,000)
- 1 NSERC Installations (more than \$325,000)

(continued on page 3)

Research Grant Deadlines Continued.
October 1994.

- 1 MRC Multi-user Equipment
- 1 MRC Maintenance Grants for Multi-user Equipment
- 1 MRC MRC Groups
- 1 MRC Program Grants
- 1 MRC International Scientific Exchanges
- 1 MRC University-Industry Programs
- 1 NHRDP Research Grants
- 7 Canadian Foundation for AIDS Research Letters of Intent
- 12 Michigan Society of Fellows Postdoctoral Fellowships
- 15 SSHRC Research Grants (internal deadline October 6)
- 15 SSHRC Strategic Grants (internal deadline October 6)
- 15 NSERC Research Grants (first time applicants and those already supported by MRC or SSHRC) (internal deadline October 8)
- 15 NSERC Bilateral Exchanges
- 15 NSERC International programs
- 15 NSERC Women's Faculty Award
- 15 National Cancer Institute of Canada Research Grants
- 15 National Cancer Institute of Canada Equipment Grants
- 15 National Cancer Institute of Canada New Investigator Grant
- 15 Columbia University Society of Fellows in the Humanities Postdoctoral Fellowships
- 15 National Humanities Center Fellowships
- 15 University of Pennsylvania Mellon Fellowships in the Humanities
- 15 Alzheimer Society of Canada Research and Training Awards
- 15 DFO/NSERC Science Subvention
- 15 Kidney Foundation of Canada Research Grants
- 15 Muscular Dystrophy Association of Canada Operating Grants

- 15 AIDS Nova Scotia Research Advisory Committee Research Grants

November 1994

- 1 NSERC Research Grants (internal deadline October 22)
- 1 NSERC Equipment Grants (\$7,001 to \$150,000) (internal deadline October 22)
- 1 NSERC Conference Grants (internal deadline October 22)
- 1 MRC Operating Grants (renewals)
- 1 MRC Maintenance Grants
- 1 MRC MRC Scientists
- 1 SSHRC Aid to Occasional Scholarly Conferences in Canada
- 1 SSHRC Travel Grants for International Representation
- 1 Association of University and Colleges of Canada Research and Training for Reform Baltic States and Ukraine
- 1 Canadian Occupational Therapy Association Publication Grant
- 1 Canadian Liver Foundation Establishment Grant Program
- 1 Canadian Liver Foundation Fellowship Program
- 1 Kidney Foundation of Canada Fellowship Awards
- 1 Kidney Foundation of Canada Nephrology Scholarships
- 15 MRC Fellowships
- 15 NSERC Canada International Fellowships (formerly NSERC International Fellowships) (departmental deadline) (Research Services internal deadline November 29)
- 15 Stanford University Mellon Postdoctoral Fellowships in the Humanities
- 16 Muscular Dystrophy Association of Canada Research Grants
- 30 Canada Council Canada Germany Award
- 30 Canada Council John G. Diefenbaker Award

December 1994

- 1 Association of Universities and Colleges of Canada Research and Training for Reform Russia
- 1 Canadian Diabetes Association Fellowships
- 1 Institute for Chemical Science and Technology Request for Research Proposals
- 1 Canadian Fitness and Lifestyles Research Institute Research Grants.

Caries Free Drinks

Imagine a research project in which the materials and supplies budget includes wine, beer, tea, coffee and chocolate. Dr. Larry Wolinsky, Associate Professor of Oral Biology at UCLA is studying tea, coffee, chocolate, beer, and wine that prevent decay-causing bacteria from adhering to teeth. These beverages contain tannins which cause the micro-organisms to clump together rather than adhere to teeth. The research may prove that by eating foods that are rich in tannins, it is possible to reduce the formation of plaque. The tannins may eventually be incorporated into toothpastes and mouth rinses.

Of Mice and Men

Ben Koop, California Institute of Technology compared stretches of DNA 96,000 bases long for both mice and humans. The section studied codes for molecules which interact with T cells. Although humans and mice have been evolving separately for between 65 and 85 million years, between 67 and 70% of the DNA sequence was the same in both species.

Science Dictionary

Oxford University Press has released a CD-ROM version of the Oxford Dictionary for writers and editors. They are now planning to follow this with software versions of their science and computing dictionaries.