

CURRICULUM VITAE

ROBERT PATTERSON CARMICHAEL

PERSONAL DATA

Place of Birth Powell River, British Columbia
Citizenship Canadian

EDUCATION

2002	F.R.C.D.C.	Royal College of Dentists of Canada
1990	M.Sc.	University of Toronto, School of Graduate Studies Thesis: Keratins and desmoplakins in human gingiva and peri-implant mucosa.
1987	M.R.C.D.C.	Royal College of Dentists of Canada
1987	Diploma in Prosthodontics	University of Toronto Postgraduate Thesis: The marginal gingiva around dental endosseous implants and the epithelial seal. A review of the literature.
1981-84	Resident	Abteilung für Prothetik und Kaufunktionsstörungen. Universität Zürich, Switzerland
1981	D.M.D.	University of British Columbia
1977	B.Sc.	University of British Columbia
1973-74	Science Major	University of Victoria

ACADEMIC AND PROFESSIONAL APPOINTMENTS

(including academic administration)

- Since 2007** Chief of Dentistry & Director of Ontario Cleft Lip and Palate/Craniofacial Dental Program, Bloorview Kids Rehab
- Since 2007** Co-chairman, International Team for Implantology Scholarship Center, Bloorview Kids Rehab/University of Toronto
- Since 2007** Examiner, Royal College of Dentists of Canada (Prosthodontics)
- 3.11.2007-5.11.2007** Visiting Professor, The King Abdulaziz Medical City Dental Services & Surgery Department, Central Region. Riyadh, Saudi Arabia
- Since 2006** Carmichael Prosthodontics, Bloorview Kids Rehab, 150 Kilgour Road, Toronto, Ontario M4G 1R8
- Since 2005** Staff Prosthodontist, Graduate Oral and Maxillofacial Surgery Programme, Mount Sinai Hospital
- 2001-2007** Assessor, Designated Assessment Centre System, Ontario Ministry of Health (Program closed 2007)
- Since 2000** Assistant Professor, Faculty of Dentistry, University of Toronto
- Since 1997** Coordinator, Prosthodontic Services, Dental Department, Hospital for Sick Children
- 1995-2002** Staff Prosthodontist, Dental Department, The Toronto Hospital, General Division
- 1994-2000** Associate in Dentistry Faculty of Dentistry, University of Toronto, Department of Prosthodontics
- 1991-1997** Staff Prosthodontist, Department of Dentistry, Hospital for Sick Children
- Since 1989** Staff Prosthodontist, Department of Dentistry, Bloorview Kids Rehab
- 1985-1989** Demonstrator in complete dentures for third year Dental Students, Faculty of Dentistry, University of Toronto

- 1985-1989** Prosthodontic Staff, Faculty of Dentistry, University of Toronto,
Continuing Dental Education, Courses in Osseointegration
- 1981-1984** Resident, Department of Removable Prosthetics and
Cranio-mandibular Disorders, University of Zurich
- 1981-1984** Demonstrator in complete denture courses for third and fourth year
Dental Students, University of Zurich
- 1981-1984** Demonstrator in occlusion courses for third and fourth year Dental
Students, University of Zurich

PRESENT TEACHING AND RESEARCH APPOINTMENTS

Chief of Dentistry, Bloorview Kids Rehab,
150 Kilgour Road, Toronto, Ontario M4G 1R8 (Since 2007)

Co-Director, Bloorview Kids Rehab/University of Toronto International Team for
Implantology Scholarship Center (Since 2007)

Coordinator, Prosthodontics, Dental Department, Hospital for Sick Children,
555 University Avenue, Toronto, Ontario, M5G 1X8 (Since 1991)

Assistant Professor, Department of Prosthodontics, Faculty of Dentistry, University of
Toronto, 124 Edward Street, Toronto, Ontario, M5G 1G6 (Since 2000)

PROFESSIONAL QUALIFICATIONS

Licensed Dentist (Ontario and British Columbia)
Certified Prosthodontist (Ontario)
National Dental Examining Board Certification
Fellow, Royal College of Dentists of Canada

PREVIOUS ACADEMIC/PROFESSIONAL APPOINTMENTS/EMPLOYMENT

- 1988-2006** Private practice limited to prosthodontics, 4 Beech Street, Brampton,
Ontario
- 1995-2004** Staff Prosthodontist, Dental Department, The Toronto Hospital, General
Division, 200 Elizabeth Street, Toronto, Ontario, M5G 2C4. (Department
closed 2004)
- 1998-2001** Editorial Advisor, The Canadian Journal of Dental Technology
- 1996-97** Implantology Section Editor, *Dentist's Guide*, Continuing Dental
Education Program
- 1990-92** Private practice limited to prosthodontics, in association with Drs. G.A.
and F.L. Zarb
- 1989-91** Fellow, Medical Research Council of Canada, Faculty of Dentistry,
University of Toronto
- 1985-89** Demonstrator in complete denture course for 3rd yr. Dental Students,
Faculty of Dentistry, University of Toronto

- 1985-89** Prosthodontic Staff. Continuing Dental Education Courses in Osseointegration. Faculty of Dentistry, University of Toronto
- 1985-88** Associate dentist with Dr. S. Janusonis, Brampton Ontario
- 1985** Associate dentist with Dr. J.B. Houston, Toronto, Ontario
- 1981-84** Resident, Department of Removable Prosthetics and Craniomandibular Disorders, University of Zurich, Switzerland
- 1981-84** Demonstrator in complete denture courses for 3rd & 4th yr. Dental Students. Faculty of Dentistry, University of Zurich
- 1981-84** Demonstrator in occlusion courses for 3rd & 4th yr. Dental Students, Faculty of Dentistry, University of Zurich
- 1980** Student Clinical Externe: (i) Clinic for Oral Mucosal Disease, Vancouver General Hospital, Director: Bruce Blasberg, D.M.D.; (ii) Temporomandibular Joint Clinic, University of British Columbia, Director: Bruce Blasberg, D.M.D.; (iii) Clinic for Atypical Facial Pain, Shaughnessy Hospital, Vancouver, British Columbia, Director: Ronald A. Remick, M.D.
- 1979** Teaching Assistant, Microbiology 425, Faculty of Dentistry, University of British Columbia
- 1979** Laboratory assistant to Dr. R.H. Roydhouse, Department of Restorative Dentistry, University of British Columbia
- 1977** Laboratory assistant to Dr. B.C. McBride, Department of Microbiology, University of British Columbia

HONOURS AND AWARDS

- 1999-08** Fellow, Pierre Fauchard Academy
- 1994** ITI-Straumann Scholarship which funded clinical fellowship training in implantology and bone regeneration at the Universities of Geneva, Freiburg, and Bern, and the Institut Straumann
- 1993** Fellow, Greater New York Academy of Prosthodontics

- 1988-91** Medical Research Council of Canada Fellowship Ontario Graduate Scholarship (declined in favour of MRC Fellowship)
- 1986-87** University of Toronto Masters Open Fellowship
- 1985-86** University of Toronto Masters Open Fellowship
- 1981** Oral and Maxillofacial Surgery Clinicians Contest, University of British Columbia
- 1979** Delegate, Student Conference on Dental Research, Harvard University

PROFESSIONAL WORKS PUBLISHED

Publications

Carmichael RP. On promoting quality of prosthodontic care for children with craniofacial dental anomalies. *Int J Prosthodontics* 2008 Oct/Dec; 21(6):474.

Sándor GK, Ylikontiola LP, Serlo W, Pirttiniemi PM, Carmichael RP. Midfacial Distraction Osteogenesis. *Atlas Oral Maxillofac Surg Clin North Am.* 2008 Sep;16(2):249-272.

Khan AA, Sándor GKB, Dore E, Morrison AD, Alsahli M, Amin F, Peters E, Dempster D, Hanley DA, Glorieux FH, Neville A, Talwar RM, Al Mardini M, Paul T, Khosla S, Josse RG, Sutherland S, Lam DK, Carmichael RP, Blanas N, Kendler D, Petak S, St. Marie LG, Compston JE. Canadian Consensus Practice Guidelines for Bisphosphonate Associated Osteonecrosis of the Jaw. *J Rheumatol.* 2008 July 2008 35(7):1391-1397.

Carmichael RP, Sandor GKB. Long-term multidisciplinary management of a growing female with oligodontia and prognathism. *Forum Implantologicum* 2008 Jun; 4(1):4-11.

Carmichael RP, Sandor, GKB, Bilko S, Riquelme, C. Reconstruction of an ablative defect of the mandible in a young man using lateral soft tissue matrix expansion grafting and a novel technique for construction of a retrievable fixed prosthesis. *Forum Implantologicaum* 2008 Jun; 4(1):12-25.

Carmichael RP, Sándor GK. Dental Implants, Growth of the Jaws, and Determination of Skeletal Maturity. *Atlas Oral Maxillofac Surg Clin North Am.* 2008 Mar;16(1):1-9.

Carmichael RP, Sándor GK. Dental Implants in the Management of Nonsyndromal Oligodontia. *Atlas Oral Maxillofac Surg Clin North Am.* 2008 Mar;16(1):11-31.

Carmichael RP, Sándor GK. Use of Dental Implants in the Management of Syndromal Oligodontia. *Atlas Oral Maxillofac Surg Clin North Am.* 2008 Mar;16(1):33-47.

Sándor GK, Carmichael RP. Use of Dental Implants in the Management of Dental Malformations. *Atlas Oral Maxillofac Surg Clin North Am.* 2008 Mar;16(1):49-59

Carmichael RP, Sándor GK. Use of Dental Implants in the Management of Cleft Lip and Palate. *Atlas Oral Maxillofac Surg Clin North Am.* 2008 Mar;16(1):61-82.

Sándor GK, Carmichael RP. Rehabilitation of Trauma Using Dental Implants. *Atlas Oral Maxillofac Surg Clin North Am.* 2008 Mar;16(1):83-105.

Sándor GK, Carmichael RP, Binahmed A. Reconstruction of Ablative Defects Using Dental Implants. *Atlas Oral Maxillofac Surg Clin North Am.* 2008 Mar;16(1):107-123.

Sándor GK, Daskalogiannakis J, Carmichael RP. Facilitation of Orthodontics and Orthognathic Surgery Using Dental Implants. *Atlas Oral Maxillofac Surg Clin North Am.* 2008 Mar;16(1):125-135.

Sándor GK, Carmichael RP, Nish IA, Daskalogiannakis J. Distraction Osteogenesis Using Dental Implants. *Atlas Oral Maxillofac Surg Clin North Am.* 2008 Mar;16(1):137-146.

Lam DK, Sándor GKB, Holmes HI, Carmichael RP, Clokie CML. Marble Bone Disease: A Review of Osteopetrosis and Its Oral Health Implications for Dentists. *J Can Dent Ass.* 2007 Nov; 73(9):839-43. www.cda-adc.ca/jcda/vol-73/issue-9/839.html

Fenton CC, Nish IA, Carmichael RP, Sandor GKB. Mandibular reconstruction in a child with soft tissue matrix expansion grafting following ablation of a metastatic retinoblastoma. *J Oral Maxillofac Surg* 2007; 65:2329-2335.

Binahmed A, Charles M, Campisi P, Forte V, Carmichael RP, Sándor GKB. Primary squamous cell carcinoma of the maxillary alveolus in a 10-year-old girl. *J Can Dent Ass* 2007 Oct; 73(8):715-8. www.cda-adc.ca/jcda/vol-73/issue-8/715.html

Cloutier M, Makepeace C, Carmichael RP, Sandor GKB. An analysis of peripheral giant cell granuloma associated with dental implant treatment. *Oral Surg Oral Med Oral Path Oral Radiol Endod* 2006 Nov 29; (Epub ahead of print). 2007 May; 103(5): 613-617.

Daskalogiannakis J, Piedade L, Lindholm TC, Sandor GK, Carmichael RP. Cleidocranial dysplasia: 2 generations of management. *J Can Dent Assoc.* 2006 May;72(4):337-42.

Kainulainen VT, Kainulainen TJ, Oikarinen KS, Carmichael RP, Sandor GK. Performance of six bone collectors designed for dental implant surgery. *Clin Oral Implants Res.* 2006 Jun;17(3):282-7.

Armellini D, Bilko S, Carmichael RP, von Fraunhofer JA. Screw-retained prosthesis for Straumann implant sites with limited interocclusal clearance. *J Prosthodont.* 2006 May-Jun;15(3):198-201.

Sándor GKB, Ylikontiola LP, Carmichael RP, Serlo W, Nish IA, Daskalogiannakis J: Distraction osteogenesis of the midface. IN: *Oral and Maxillofacial Surgery Clinics of North America: Management of the Pediatric Maxillofacial Patient.* Mosby, St. Louis. November 2005; 17(4):485-501.

Sándor GK, Ylikontiola LP, Serlo W, Carmichael RP, Nish IA, Daskalogiannakis J. Distraction Osteogenesis of the Midface. *Oral Maxillofac Surg Clin North Am.* 2005 Nov;17(4):485-501.

Kainulainen VT, Sándor GKB, Carmichael RP, Oikarinen KS. Safety of zygomatic bone harvesting: A prospective study of 32 consecutive patients with simultaneous zygomatic bone grafting and 1-stage implant placement. *International Journal of Oral and Maxillofacial Implants* 2005;20:245-252.

Armellini D, Carmichael RP, Daskalogiannakis J , von Fraunhofer JA. Camouflaging changes in the appearance of a patient with ectodermal dysplasia. *Journal of Implant Dentistry* 2005;14(3):227-231.

Suri S, Carmichael RP, Tompson B. Simultaneous functional and fixed appliance therapy for growth modification and dental alignment prior to prosthetic habilitation in hypohydrotic ectodermal dysplasia: A clinical report. *Journal of Prosthetic Dentistry* 2004 Nov;92(5):428-33.

Sándor GKB, Nish IA, Carmichael RP. Comparison of conventional surgery with motorized trephine in bone harvest from the anterior iliac crest. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 2003 Feb;95(2):150-5.

Sándor GKB, Kainulainen VT, Queiroz JO, Carmichael RP, Oikarinen KS. Preservation of ridge dimensions following grafting with coral granules of 48 post-traumatic and post-extraction dento-alveolar defects. *Dental Traumatology* 2003 Aug;19(4):221-7.

Barron RP, Carmichael RP, Marcon PA, Sándor GKB. Dental erosion in gastroesophageal reflux disease. *Journal of the Canadian Dental Association.* 2003 Feb;69(2):84-9.

Sándor GKB, Carmichael RP, Coraza L, Clokie CML, Jordan RCK. Genetic mutations in certain head and neck conditions of interest to the dentist. *Journal of the Canadian Dental Association,* 2001 November; 67(10): 583-588. <http://www.cda-adc/jcda/vol-67/issue-10/eng/594.html>

Sándor GKB, Carmichael RP, Clokie CML. *Hypertelorism*. IN: Fonseca RJ. Oral and Maxillofacial Surgery, Volume 6 PP221-238, W.B. Saunders Company, Philadelphia, Pa. 2000. ISBN# 0-7216-9631-7.

Caminiti MF, Sándor GKB, Carmichael RP: Quantification of bone harvested from the iliac crest using a power-driven trephine. *Journal of Oral and Maxillofacial Surgery*, July 1999; 57(7):801-805.

Carmichael RP, Habsha E, Gillanders DJ. Presentation and dental management of hypohidrotic ectodermal dysplasia. *Ontario Dentist* 1998; 75: 27-33.

Sándor GKB, Carmichael RP, Vasilakos JS: Revised American Heart Association guidelines for the prevention of bacterial endocarditis: highlights of specific changes for the dental profession. *Journal of the Canadian Dental Association*, February 1998; 64(2): 680-682.

Carmichael RP: A simple guide to choosing an articulator. *The Canadian Journal of Dental Technology*, 1997; 2(1): 26.

Sándor GKB, Leeper HA, Carmichael RP: Speech and Velopharyngeal Function. IN: *Oral Surgery Clinics of North America: Risks and Benefits of Orthognathic Surgery*. Mosby, St. Louis. May 1997; 9(2):147-165.

Sándor GKB, Marchac D, Patat J-L, Carmichael RP: Experience with the use of coral granules as a bone graft substitute in the human cranio-maxillofacial skeleton. *Bulletin de l'Institut océanographique, Monaco*, n spécial 14, 3, 1995.

Carmichael RP, McCulloch CAG, Zarb GA: Quantitative immunohistochemical analysis of keratins and desmoplakins in human gingiva and peri-implant mucosa. *Journal of Dental Research* 1991; 70(5): 899-905.

Carmichael RP, McCulloch CAG, Zarb GA: Immunohistochemical localization and quantification of desmoplakins I & II and keratins 1 and 19 in plastic-embedded sections of human gingiva. *Journal of Histochemistry and Cytochemistry* 1991; 39(4): 519-528.

Carmichael RP, Apse P, Zarb GA, McCulloch CAG: Biological, microbiological, and clinical aspects of the peri-implant mucosa. *The Brånemark Osseointegrated Implant*. GA Zarb and T Albrektsson (eds). Quintessence Books, 1989.

Davis D, Carmichael RP: Plasticizing effect of soft lining materials on polymerized acrylic resins. *Journal of Prosthetic Dentistry* 1988; 60(4): 463-466.

Dorey JL, Blasberg B, Conklin RJ, Carmichael RP: Oral leukoplakia: Current concepts in diagnosis, management, and malignant potential. *International Journal of Dermatology* 1984; 23(10): 638-642.

Remick RA, Blasberg B, Patterson BD, Carmichael RP, Miles JE: Clinical aspects of xerostomia. *Journal of Clinical Psychiatry* 1983; 44: 63-65.

Abstracts (published)

Kainulainen, VT, Sándor GKB, Carmichael RP. Simultaneous one stage implant placement and bone grafting with zygomatic bone – A prospective study of 32 consecutive patients. 85th Annual Meeting of the American Association of Oral and Maxillofacial Surgeons, Orlando, Florida, USA. *Journal of Oral and Maxillofacial Surgery* September 2003; 61(8) Suppl 1:41.

Sándor GKB, Carmichael RP. A 10 year longitudinal follow-up of dental implants in the grafted cleft alveolous. Second World Cleft Congress, München, Germany, September 2002, Number 187, Page 197.

Carmichael RP, Sándor GKB: A 10-year longitudinal follow-up of oral implants in adolescents and young adults. European Association of Osseointegration Annual Scientific Congress, Berne, Switzerland, April 1997. *Clinical Oral Implant Research*, October 1997; 8(5): 435-436. 7th Biomaterials Club Meeting, Fuengirorla, Spain, April 1998, Number 23.

Caminiti MF, Carmichael RP, Sándor GKB: Harvesting bone from the iliac crest using a power-driven trephine. 44th Annual Meeting of the Canadian Society of Oral and Maxillofacial Surgeons, Montreal, Quebec, September 1997; Number 8: page 9.

Sándor GKB, Carmichael RP: Outpatient bone graft procurement using minimally invasive surgery. *Journal of Oral and Maxillofacial Surgery*, August 1997; 55(8): Supp 3: S43.

Sándor GKB, Carmichael RP: Facilitating orthognathic surgical procedures using osseointegrated dental implants. 54th Meeting of the American Cleft Palate and Craniofacial Association, New Orleans, Louisiana, April 1997; Number 146: page 62.

Sándor GKB, Carmichael RP, Nish I: Trephined cancellous cores improve iliac crest donor site morbidity in 54 patients. 78th Annual Meeting of the American Association of Oral and Maxillofacial Surgeons, Miami Beach, Florida. *Journal of Oral and Maxillofacial Surgery*, August 1996; 54(8) Supp 3: 27.

Sándor GKB, Carmichael RP, Nish I: Trephined cancellous cores improve iliac crest donor site morbidity in 54 patients (abstract). ITI World Symposium, Basel, Switzerland, June 7-8, 1996.

Sándor GKB, Carmichael RP, Nish I: Trephined cancellous cores improve iliac crest donor site morbidity in 54 patients (abstract). 50th Meeting of the Canadian Society of

Plastic Surgeons, Halifax, Nova Scotia, Abstract #10. Canadian Journal of Plastic Surgery, May 1996; 4(1): 17.

Sándor GKB, Carmichael RP, Nish I: Trephined cancellous cores improve iliac crest donor site morbidity in 54 patients (abstract). Canadian Journal of Plastic Surgery, 1996; 4(1): 17, Number 10.

Carmichael RP, Sándor GKB. Colonization by staphylococcus aureus in the nares of patients with anhydrotic ectodermal dysplasia. 53rd Meeting of the American Cleft Palate and Craniofacial Association, San Diego, California, USA, April 1996; Number 87, Page 54.

Sándor GKB, Marchac D, Patat J-L, Carmichael RP: Experience with the use of coral granules as a bone graft substitute in the human cranio-maxillofacial skeleton (abstract). Abstracts of the 7th International Symposium on Biomineralization. Biomineralization 1993, Monte Carlo, Monaco, November 1993; 145: 98.

Sándor GKB, Caminiti MF, Carmichael RP: Quantification of cancellous bone harvested from 40 iliac crest sites (abstract). Journal of Oral and Maxillofacial Surgery August 1995; 53(8) supp 4: 90.

Sándor GKB, Caminiti MF, Carmichael RP, Tompson B: Innovations in the management of 22 patients with cleidocranial dysplasia (abstract). Journal of Oral and Maxillofacial Surgery August 1995; 53(8) supp 4: 76.

Sándor GKB, Carmichael RP: Pediatric dental implantology (abstract SO2). Journal of Oral and Maxillofacial Surgery August 1995; 53(8) supp 4: 22.

Carmichael RP: Oral habilitation of an adolescent with familial odontodysplasia (abstract). Proceedings of the 1st Annual Scientific Session of the Ontario Association of Dental Specialists. Yorkville Four Seasons Hotel, Toronto, Ontario, May 6, 1994.

Carmichael RP, McCulloch CAG, Zarb GA: Immunohistochemical demonstration of Desmoplakins I & II in plastic-embedded human gingiva (abstract 769). Journal of Dental Research 1989; 68 [special issue].

Carmichael RP, Palla S: Silent period duration in normal subjects after experimental parafunction (abstract 1379). Journal of Dental Research 1984; 63 [special issue].

Remick RA, Blasberg B, Patterson BD, Carmichael RP, Miles JE: Clinical aspects of xerostomia (abstract). Proceedings of the Canadian Psychiatric Association 1980: 92-93.

Translations (German to English)

A Gerber and G Steinhardt. Dental Occlusion and the Temporomandibular Joint. Chicago, Quintessence Books, 1990.

M Ebnetter, HF Wolf and A Wolgen-Singer. Dental Atlas. Volumes I & II. Chicago, Quintessence Books, 1984. (Revised).

Stockli PW, Teuscher UM. Combined activator head gear orthopedics. *Current Orthodontic Concepts and Techniques*. 3rd Edition. TM Graber and FS Brainerd (eds). St. Louis, Saunders Co. 1985: 405-483. (Revised).

Book Reviews

Reviewed **Osseointegrated Dental Technology** by Graham E. White, 1993, Quintessence Publishing Co., Inc. In: *The Canadian Journal of Dental Technology*, 1996; 1(1): 46.

Electronic Publications

Sándor GKB, Carmichael RP. Reconstruction of an adolescent female severely afflicted with Gorlin-Goltz syndrome. Case of the Month, Case 29, ITI Straumann Home Page, December 1998, [HTTP:\\www.ITIdental.org](http://www.ITIdental.org).

PRESENTATIONS AT MEETINGS

- 2008** Moderator, Loading protocols and clinical outcomes. The Toronto Osseointegration Conference Revisited. Metro Toronto Convention Center. Toronto. May 10, 2008.
- 2007** Implants in children, adolescents and young adults. 1st International Dental Implant Workshop. Department of Dentistry. King Faisal Specialist Hospital and Research Center. Riyadh, Saudi Arabia. October 31, 2007.

Dental implants in cleft alveolus. Advanced Dental & Surgical Crash Course 2007. The King Abdulaziz Medical City. Riyadh, Saudi Arabia. November 3, 2007.

- Restoration of the Straumann dental implant. Advanced Dental & Surgical Crash Course 2007. The King Abdulaziz Medical City. Riyadh, Saudi Arabia. November 3, 2007.
- Dental implants and growth of the jaws. Advanced Dental & Surgical Crash Course 2007. The King Abdulaziz Medical City. Riyadh, Saudi Arabia. November 5, 2007.
- Dental implants in syndromes. Advanced Dental & Surgical Crash Course 2007. The King Abdulaziz Medical City. Riyadh, Saudi Arabia. November 5, 2007.
- Dental implants in oligodontia. Advanced Dental & Surgical Crash Course 2007. The King Abdulaziz Medical City. Riyadh, Saudi Arabia. November 5, 2007.
- 2004** Aesthetic Lessons Learned from 15 years of Follow-up in The Treatment of Children, Adolescents and Young Adults with Dental Implants. Invited Lecture, Finnish ITI Lecture Weekend, Finlandia Hall, Mannerheimintie 13, Helsinki, Finland, May 2004.
- A prospective 15-year follow-up study of dental implants in children, adolescents and young adults. Invited lecture, Faculty of Dentistry, University of Oulu, Oulu, Finland, May 2004.
- Basic and advanced restorative techniques with the Straumann dental implant system. The Congress at the Summit, Mont-Tremblant, Quebec, December 2004.
- 2003** Suri S, Carmichael R, Tompson B. Functional jaw orthopedics in the dentofacial management of hypohydrotic ectodermal dysplasia. Poster presentation. Annual meeting, American Association of Orthodontics. Hawaii, 2003.
- 2003** Practical Tips in Restorative Dentistry for the General Practitioner. 135th Annual Spring Meeting of the Ontario Dental Association, Toronto, Canada, April 2003.
- 2002** Prosthodontic Treatment in the Child and Adolescent. Halton- Peel Dental Nurses Association Quarterly Meeting. Henry Schein Arcona Building, Mississauga, Ontario, October 2002.
- Procera: From a single crown to a full mouth reconstruction, Education Centre, Lindberg, Homburger, Modent Dental Laboratory, Toronto, June 2002.
- Clinical technique for a single Procera crown. Hospital for Sick Children, February 2002.

2001 Single missing teeth and compromised situations: Implant-supported single crowns. University of Bern, Switzerland, March 2001.

Integrated Treatment Planning in Complex Dental Implant Reconstruction. Pacific Dental Meeting, Vancouver, British Columbia, March 2001.

One Stage Implant Surgery and Prosthodontic Management. 48th Annual Meeting of the Canadian Association of Oral and Maxillofacial Surgeons, Ottawa, Ontario, May 2001.

Dental implant survival in adolescents and young adults. 2001 North American ITI Congress. Whistler, British Columbia, December 2001.

2000 Treatment of the Cleft Lip Palate Patient. Alpha Omega. Adath Israel Synagogue, Toronto, Ontario.

1999 New Applications of Oral Implants in Combination with Orthodontic Treatment. Combined Canadian Association of Orthodontists and Canadian Association of Oral and Maxillofacial Surgeons Joint Scientific Session, Halifax, Nova Scotia, September 1999.

Team Interactions Among Prosthodontists, Dental Technologists and Surgeons in Reconstruction of Complex Deformities. Education for the Millennium. Canadian Journal of Dental Technology, Toronto, Ontario, May 1999.

1998 Prosthodontic and Surgical Techniques to Optimize Esthetics with Dental Implants. Toronto Academy of Dentistry 61st Winter Clinic, Toronto, Ontario, November 1998.

Advances in the Esthetic Treatment of Adolescent and Young Adult Patients Using Dental Implants. Ontario Study Club for Osseointegration (OSCO), Toronto, Ontario, September 1998.

Surgical Innovations in Dental Implantology in the Treatment of Adolescents and Young Adults. ITI (International Team for Implantology) 4th World Congress, Boston, Massachusetts, June 1998.

Co-chair, Protocol Review on Oral Implants in Children, Adolescents and Young Adults, Bloorview MacMillan Centre, March 1998.

Carmichael RP: Prosthodontic rehabilitation in a craniofacial reconstructive unit. Sault Ste. Marie Dental Society Meeting, February 1998.

- Carmichael RP: Prosthodontic research in pediatric dental reconstructive unit. Faculty of Dentistry, University of Toronto, January 1998.
- 1997** Carmichael RP: Prosthodontic rehabilitation in a craniofacial reconstructive unit. Thunder Bay Dental Society Meeting, September 1997.
- Carmichael RP: Dental Implant Failures. Meeting of the Brampton Dental Association. Brampton Golf Club, Brampton, Ontario, January 1997.
- 1995** Carmichael RP: Avoidance of Peri-Implant Complications. 6th Meeting of the International College of Prosthodontists. San Diego, California, July 1995.
- 1994** Carmichael RP: Avoidance of Gingival Complications: A Dividend or a Myth. Symposium: Successful Osseointegration- Avoiding Problems and Complications. Sponsored by Nobelpharma Canada, Inc. and the University of Toronto. Toronto, Ontario, June 1994.
- Carmichael RP: Oral habilitation of an adolescent male with familial odontodysplasia. 1st Annual Scientific Session of the Ontario Association of Dental Specialists. Toronto, Ontario, May 1994.
- Carmichael RP: Implantology. Halton-Peel Dental Society. Mississauga, Ontario, January 1994.
- 1993** Carmichael RP: Prosthetic rehabilitation of the cleft lip/palate patient. Ontario Easter Seals Meeting, The Hospital for Sick Children. Toronto, Ontario, November 1993.
- Carmichael RP: Prosthetic rehabilitation of the cleft lip and palate patient. Ontario Cleft Palate Study Group. Hugh MacMillan Rehabilitation Centre. Toronto, Ontario, June 1993.
- Carmichael RP: Soft tissue management of peri-implant mucosa. Nobelpharma Team Day for Dental Hygienists. L'Hotel. Toronto, Ontario, June 1993.
- Carmichael RP: Prosthetic rehabilitation of the cleft lip/palate patient. Craniofacial-Cleft Lip and Palate Centre Meeting, The Hospital for Sick Children. Toronto, Ontario, May 1993.
- Carmichael RP: Peri-Implantitis: Point-Counterpoint Session. The 8th Annual Meeting of the Academy of Osseointegration. Sheraton Harbor Island. San Diego, California, March 1993.
- Carmichael RP: Peri-Implant mucosa: Clinical response and epithelial cell composition. The 42nd Annual Scientific Session of the American Academy of

- Fixed Prosthodontics. The Chicago Marriott Hotel. Chicago, Illinois, February 1993.
- 1992** Carmichael RP: A clinical study of osseointegrated dental implants in the treatment of adolescents and young adults with oligodontia. The 38th Annual Meeting of the Greater New York Academy of Prosthodontics. The Plaza Hotel. New York, New York, December 1992.
- Carmichael RP: Clinical criteria for determining implant success. Symposium on The Impact of Osseointegration on the Treatment of the Prosthodontic Patient. University of Toronto, Toronto, Ontario, November 1992.
- Carmichael RP: Mucosal Reactions to Osseointegrated Dental Implants. Nobelpharma Team Day. The Sutton Place Hotel. Toronto, Ontario, September 1992.
- Carmichael RP: What's New In Prosthodontics. Brampton District Dental Society. Brampton Golf Club, Brampton, Ontario, September 1992.
- Carmichael RP: Post-Graduate Seminar on Cleft Lip and Palate. Department of Prosthodontics, Faculty of Dentistry, University of Toronto, Toronto, Ontario, September 1992.
- 1990** Carmichael RP: Biology of Peri-Implant Epithelium and Mucosal Seal. The New York Academy of Dentistry, Union League Club, New York, New York, November 1992.
- Carmichael RP: Keratins and desmoplakins in human gingiva and peri-implant mucosa. Presented to the Faculty of the School of Dentistry, University of Michigan. Ann Arbor, Michigan, October 1992.
- Carmichael RP: A Decade of Research in Osseointegration at the Department of Prosthodontics, University of Toronto: Future Directions, Future Clinical Management. 72nd Annual Meeting of the Academy of Denture Prosthetics. Palm Springs, California, May 1990.
- Carmichael RP: The Mucosal Response to Brånemark Osseointegrated Implants. Faculty of Dentistry, McGill University. Montreal, Quebec, May 1990.
- Carmichael RP: The Soft Tissue Response to Brånemark Osseointegrated Implants. Authorized Brånemark System Dental Laboratories 3rd Annual Meeting. Nobelpharma. Toronto, Ontario, April 1990.
- Carmichael RP: Success in Osseointegration: Is it Really that Easy? Halton-Peel Dental Society School-Daze, Constellation Hotel. Mississauga, Ontario, April 1990.

- 1989** Carmichael RP: Biology of the Peri-Implant Epithelium and the Mucosal Seal. Faculty of Dentistry, University of British Columbia. Vancouver, British Columbia, June 1989.
- Carmichael RP: Biology of the peri-implant mucosa and the mucosal seal. International Symposium on Osseointegrated Dental Implants. University of Pennsylvania, School of Dental Medicine, June 1989.
- Carmichael RP: Recent innovations in implant prosthodontics. West Toronto Dental Society. Toronto, Ontario, February 1989.
- 1988** Carmichael RP: Plasticizing effect of soft lining materials on polymerized acrylic resins. Association of Prosthodontists of Ontario, Toronto, Ontario, June 1988.
- Carmichael RP: An immunohistological assay of marginal tissues around osseointegrated dental implants. American Academy of Osseointegration, Dallas, Texas, March 1988.
- 1987** Carmichael RP: Soft tissue response around osseointegrated implants. University of British Columbia, Faculty of Dentistry, Vancouver, British Columbia, December 1987.
- Carmichael RP: Framework design for tissue integrated prostheses. Osseointegration Training Course, University of Toronto, Toronto, Ontario, November 1987.
- 1986** Carmichael RP: Osseointegration in clinical dentistry. Brampton and District Dental Association, Brampton, Ontario, September 1986.
- 1983** Carmichael RP: Rehabilitation of the depleted dentition and oral hygiene care. Association of America Dental Hygienists in Switzerland, Zurich, Switzerland, September 1983.

TEACHING

- 2008** Surgical and prosthodontic aspects of dental implant treatment in the child, adolescent and young adult. At Bloorview Kids Rehab in conjunction with the University of Toronto Faculty of Dentistry Department of Continuing Dental Education. For Japanese delegation. November 30, 2008.
- 2004** Surgical and restorative treatment planning. Dental Residency Educational Program, University of Toronto, April 2004.

- 2003** Surgical and restorative treatment planning. Dental Residency Educational Program, University of Toronto, April, 2003.
- 1996-2002** Clinical Instructor, Postgraduate Prosthodontic Training Programme, University of Toronto, Faculty of Dentistry.
- 1996** Prosthodontic Treatment of the Cleft Lip and Palate Patient. Structurally Related Disorders Course. Graduate Department of Speech Pathology, University of Toronto, April 1996.
- ITI Certification Course on Guided Bone Regeneration. The Crowne Plaza Hotel, Toronto, Ontario. In conjunction with Straumann Canada, Inc. 3 hr lectures and 3 hr hands-on, February 1996 (With Sándor GKB and Cochran D).
- ITI Certification Course on Guided Bone Regeneration and the ITI Dental Implant. The Hospital for Sick Children. Toronto, Ontario. 3 hr lectures and 3 hr hands-on. February 22 (With Sándor GKB).
- Pediatric Dental Implantology. Lecture at The Hospital for Sick Children Annual Continuing Education Course, February 1996 (With Sándor GKB).
- 1995** Brånemark System Prosthetic Hands-On Workshop. Nobelpharma, Canada, Inc. 200 Yorkland Blvd., North York, Ontario, December 1995.
- Examiner. Oral examination of Dr. Christopher Wyatt for the Diploma in Prosthodontics, University of Toronto, June 1995.
- Lecture. Prosthodontic Treatment of the Cleft Lip and Palate Patient. Structurally Related Disorders Course, Graduate Department of Speech Pathology, University of Toronto.
- Prosthodontic treatment of the Cleft Lip and Palate and the Craniofacial Anomalies Patient. Craniofacial Anomalies Course for Graduate Students. Faculty of Dentistry, University of Toronto, March 1995.
- 1994** Lecture. Prosthodontic Treatment of the Cleft Lip and Palate Patient. Structurally Related Disorders Course, Graduate Department of Speech Pathology, University of Toronto, March 1994.
- 1993** Lecture. Prosthodontic Treatment of the Cleft Lip and Palate Patient. Structurally Related Disorders Course, Graduate Department of Speech Pathology, University of Toronto, March 1993.
- 1992** Seminar. Prosthodontic Treatment of the Cleft Palate, Prosthodontics V, Postgraduate Programme, University of Toronto, September 1992.

Seminar. Aesthetic Considerations in Treatment Planning, Prosthodontics IIB, Postgraduate Programme, University of Toronto, March 1992.

1990 One Day Training Course in Osseointegration, Saint John's, Newfoundland, (Sponsored by Canadian Associated Dental Laboratories), November 1990.

One Day Training Course in Osseointegration, Seneca College, King, Ontario, (Sponsored by Nobelpharma, Canada, Inc.), September 16 (With Apse P).

Supervision of Clinical Fellows

Dr. Boyan Vladmirov
Scholar of the International Team for Implantology, October 2008 – Present
27 A Mladezhka Street
4002 Plovdiv
BULGARIA

Dr. Claudia Riquelme
Scholar of the International Team for Implantology, September 2007 – October 2008
Al. Córdoba 16
Alphaville Conde, Barueri
06454-910 São Paulo
BRAZIL

Dr. Sagun Suri
Oral Health Sciences Center
Postgraduate Institute of Medical Education & Research
Chandigarh 160012
INDIA
September 2006 until 2007
September 2001 until December 2001

Dr. Diana Ismail
29 Lynch Road
Toronto, Ontario M2J 2V6
CANADA
August 2003 until June 2004

Dr. Debbie Armellini
Assistant Professor,
Department of Restorative Dentistry, Faculty of Dentistry
University of Maryland
666 W. Baltimore St f 3D36.

Baltimore, MD 21208
USA
July 2002 until September 2003

Dr. Tiina Kainulainen
Department of Prosthodontics
Oulu University Hospital
PL 5481
90014 University of Oulu,
FINLAND
August 2002 until November 2002.

Dr. Robert McAndrew
Clinical Senior Lecturer
Department of Adult Dental Health,
UWCM, Cardiff University, Heath Park, CF14 4XY, Wales,
UK
February 1999 until April 1999

COMMITTEE AND ADMINISTRATIVE SERVICE

Extra-discipline specialty representative
Selection Committee, Graduate Oral and Maxillofacial Surgery
Programme, University of Toronto, 2008-Present

Medical Advisory Committee, Bloorview Kids Rehab, 2007 - Present

Operational Advisory Committee, Ontario Cleft Lip and Palate/Craniofacial Dental
Program, Provincial Council for Children's Health, 2007 – Present

Pediatric Hospital Dental Chiefs of Canada, 2007 – Present

Chair, Dean's ad hoc Advisory Committee of GTA Hospital Dental Chiefs, May, 2008 -
Present

Society Memberships and Positions, Current

Co-director, Bloorview Kids Rehab/University of Toronto International Team for
Implantology Scholarship Center
Fellow, Pierre Fauchard Academy
Chair, Education Committee, Association of Prosthodontists of Ontario, 1997 -2000
Fellow, Greater New York Academy of Prosthodontics
Member, Scientific Investigation Committee, Greater New York Academy of
Prosthodontics, 1994-95
Member, Medical Staff Association, Hospital for Sick Children
Canadian Association for Dental Research
International Association for Dental Research
Brampton and District Dental Association
Fellow, Royal College of Dentists of Canada
Association of Prosthodontists of Ontario
Royal College of Dental Surgeons of Ontario
British Columbia College of Dental Surgeons
Canadian Dental Association
Member, Reception Committee, Greater New York Academy of Prosthodontics
1993-1994
American Association for the Advancement of Science 1989-1992
Postgraduate Dental Education and Graduate Advisory Committee, Faculty of Dentistry,
University of Toronto 1986-1987
Ontario Dental Association 1985-1988; 2002 - Present
Neuroscience Group, International Association of Dental Research 1984-1986
Interview Committee, Student Admissions, Faculty of Dentistry, University of British
Columbia 1979-1981
President, Third Year Dental Class, University of British Columbia 1979-1980
President, Graduating Class, Department of Microbiology, University of British
Columbia 1976-1977

Life Sciences Council, University of British Columbia 1976-1977
Curriculum Committee, Faculty of Science, University of British Columbia 1975-1976
Financial Aid Committee, Alma Mater Society, University of British Columbia 1975-
1976

Personal Research Focus

1. Craniofacial dental applications of dental implants
2. Use of dental implants in adolescents and young adults
3. Minimally-invasive bone grafting techniques