

**Academic Record**

**Schooling:** Edmonton, Alberta  
University of Alberta, B.Sc. 1965  
University of Alberta M.D. 1969

**Rotating Internship** Victoria Hospital  
London, Ontario July 1969- June 1970

**Family Practice** Powell River & Kelowna,  
British Columbia September 1970-May 1971

**Post Graduate Training**  
General Surgery,  
University of Hawaii July 1971 – June 1972  
  
Orthopaedic Surgery,  
University of Western Ontario July 1972 – June 1974  
  
Orthopaedic Fellow, (spine injuries)  
Ranchos Los Amigos Hospital, Univ of Southern California July 1974 – June 1975  
  
Orthopaedic Surgery,  
University of Western Ontario July 1975 – June 1976

**Current Memberships**

- Fellow of the Royal College of Surgeons of Canada 1977 - present
- Orthopaedic Surgeon in private practice in Calgary 1977 – present
- Diplomat of the American Board of Orthopaedic Surgery 1979 – present
- Clinical Associate Professor of Surgery, University of Calgary 1991 – Present.
- Adjunct Associate Professor, Faculty of Kinesiology 1991- Present
- Active staff, Calgary Health Region, Orthopaedic Surgery
- Knee Surgery Consultant, University of Calgary Sport Medicine Centre
- Associate Member, Joint Injury and Arthritis Research Group
- Member, Alberta Medical Association 1977- present
- Canadian Academy of Sports Medicine 1992 – present
- Member, College of Physicians and Surgeons of Alberta (CPSA)
- Reviewer, Clinical J Sport Med. 2005 –present
- Life Member, Calgary Yacht Club
- Royal Victoria Yacht Club

**Past Memberships**

- Councillor, College of Physician's and Surgeons of Alberta (CPSA)
- Member, Medical Facilities Assessment Committee, CPSA
- Peter Lougheed Centre CHR site, Orthopaedic Surgery Chief
- Fellow of the American Academy of Orthopaedic 1980- 2000
- Director, Alberta Medical Association 1992 – 1994
- President, Col. Belcher Hospital Medical Staff
- Active Staff, Dept. of Surgery Calgary General Hospital 1977
- Consulting Staff, Dept. of Surgery, Foothills Hospital 1980
- Regatta Chairman, Calgary Yacht Club
- Secretary, Calgary Yacht Club
- Member, International Society of Biomechanics. 2001 – 2007
- Adjunct Professor, Faculty of Engineering 1996 – 2007
- IEEE Engineering in Medicine and Biology Society 1991- 2005
- Canadian Orthopaedic Association 2003-2007

**Awards**

Physician of Merit, Calgary General Hospital Medical Staff Assoc, 2004  
Distinguished Collaborator, Faculty of Engineering, 2003

**Publications**

1. J Bone Joint Surg; 2009;91:1214-1218, ***Lateral transfer of medial hamstring tendons to the fibula for anterolateral rotatory instability of the knee. A Case Report.*** Bell D, Petersen E
2. Abstract, Clin J Sport Med, 2002; 12 (3):193-194.  
***A comparison of home vs. physiotherapy supervised rehabilitation programs following ACL reconstruction.***  
Grant JA, Mohtadi NG, Bray RC, Bell GD, Frank CB.
3. J Biomech Eng. 2002 June;124(3):294-301.  
***A modeling study of partial ACL injury: simulated KT-2000 arthrometer tests.***  
Liu W, Maitland ME, Bell GD.
4. J Acoust Soc Am. 2001 December;110(6):3292-304.  
***Auditory display of knee-joint vibration signals.***  
Krishnan S, Rangayyan R.M., Bell G.D., Frank C.B.
5. IEEE Trans Biomed Eng. 2000 June; 47(6):773-83.  
***Adaptive time-frequency analysis of knee joint vibroarthrographic signals for noninvasive screening of articular cartilage pathology.***  
Krishnan S, Rangayyan R.M., Bell G.D, Frank C.B.

6. Accepted European Medical and Biomedical Engineering Conference, pages (in press) Vienna, Austria, November 1999. ***Computer-aided auscultation of knee joint vibroarthrographic signals using Hough and Radon transforms***  
Rangayyan R.M, Krishnan S., Bell G.D, and Frank, C.B
7. IEEE Trans Biomed Eng. 1997 November;44(11):1068-74.  
***Parametric representation and screening of knee joint vibroarthrographic signals.***  
Rangayyan,R.M. Krishnan,S. Bell, G.D, Frank, C.B, Ladly, K.O.
8. Med Biol Eng Comput. 1997 November;35(6):677-84.  
***Adaptive filtering, modeling and classification of knee joint vibroarthrographic signals for non-invasive diagnosis of articular cartilage pathology.***  
Krishnan,S. Rangayyan R.M, Bell G.D, Frank C.B, Ladly K.O.
9. IEEE Trans Biomed Eng. 1996 January;43(1):15-23.  
***Screening of vibroarthrographic signals via adaptive segmentation and linear prediation modeling.***  
Moussavi Z.M, Rangayyan R.M, Bell G.D, Frank C.B, Ladly K.O, Zhang Y.T.
10. J Rehabil Res Dev. 1996 October;33(4):395-403.  
***Relationships of the vibromyogram to the surface electromyogram of the human rectus femoris muscle during voluntary isometric contraction.***  
Zhang YT, Frank CB, Rangayyan RM, Bell GD.
11. Clin Biomech (Bristol, Avon). 1995 March;10(2):93-97.  
***Quantitative analysis of anterior cruciate ligament instability.***  
Maitland ME, Bell GD, Mohtadi NG, Herzog W.
12. Med Eng Phys. 1995 December;17(8):583-94.  
***Localization of knee joint cartilage pathology by multichannel vibroarthrography.***  
Shen Y, Rangayyan R.M, Bell G.D, Frank C.B, Zhang Y.T, Ladly K.O.
13. J Orthop Trauma, 8: 350-353, 1994  
***Delayed presentation of proximal tibial fibula joint dislocation.***  
Fallon. P, Viriani. N.S, Bell G.D, Hollinshead R.
14. Proceedings, Can. Med. And Biological Engineering Society Conference May 1- 5 1994, Vancouver, B.C. ***An adaptive filter for the study of VAG and VMG signals obtained in vivi during dynamic knee movement.***  
Zhang Y.T, Rangayyan R.M, Frank C.B, Bell D.G
15. IEEE Engineering in Medicine and Biology Society, San Diego, CA. October 28-31 1994 Pages 381-1 – 382. ***Time delay Estimation for Source Localization of Vibroarthographic Signals from Human Knee Joints.***  
Chen, Y.P. Rangayyan, R.M. Frank, C.B. Bell, G.D. Y.T. Zhang

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16. Proceedings of the Canadian Medical and Biological Engineering Society Conference; May 12 -14, 1993 ***Statistical Analysis of Vibroarthrographic Signals using the Adaptive Least Squares method;***  
Moussavi Z.K, Rangayyan R.M, Frank C.B, Bell G.D, Ladley K.O, Zhang Y.T
  - 15 Proceedings of the Canadian Medical & Biological Engineering Conference May 12 – 14 1993.***Vibroarthrographic Transfer Function of the Knee Joint System during Mechanical Stimulation;***  
Zhang Y.T, Frank C.B, Bell G.D, Shen Y.P, Rangayyan
  16. Defense Science Journal, 43:201-210, 1993. ISSN 011-748tx  
***The Effect of External Loads and Cyclic Loading on Normal Patellofemoral Joint Signals.***  
Ladley K.O, Frank C.B, Bell G.D, Zhang Y.T, and Rangayyan R.M.
  17. Am J Sports Med. 1993 Jul-Aug; 21(4):604-8.  
***Prospective evaluation of the McMurray test.***  
Evans PJ, Bell GD, Frank C.
  18. Am J Sports Med. 1993 Sep-Oct. 21(5):690-5.  
***Does Cybex testing increase knee laxity after anterior cruciate ligament reconstructions?***  
Maitland ME, Lowe R, Stewart S, Fung T, Bell GD.
  19. IEEE Trans Biomed Eng. 1992 Sep;39(9):971-9.  
***Mathematical modeling and spectrum analysis of the physiological patello-femoral pulse train produced by slow knee movement.***  
Zhang YT, Frank CB, Rangayyan RM, Bell GD.
  20. IEEE Trans Biomed Eng. 1992 Oct;39(10):1045-52.  
***A comparative study of simultaneous vibromyography and electromyography with active human quadriceps.***  
Zhang YT, Frank CB, Rangayyan RM, Bell GD.
  21. IEEE Transactions on Biomedical Engineering 39: 1045 – 1052, 1992  
***A comparative study of simultaneous vibromyography and electromyography with active human quadriceps.***  
Zhang Y.T, Frank C.B, Rangayyan R.M, Bell G.D.
  22. IEEE Transactions on Biomedical Engineering 39: 971-979 1992  
***Mathematical Modeling and Spectrum Analysis of the Physiological Patello-Femoral Pulse Train Produced by Slow Knee Movement***  
Yuan – T.S, Frank CB, Rangayyan R.M, Bell G.D.
  23. Canadian Family Physician, 38: 67-71, 1992  
***Sports Medicine, What family physician’s see and what they need to learn.***

Lockyer J., Strother R.T, Gondocz T, Bell G.D

24. Physiotherapy Canada, 44.2. abstracts page 2, Spring 1992  
***Does Cybex testing alter the laxity of Anterior Cruciate Reconstructions?***  
Maitland M.E, Lowe R., Stewart S., Fung T., Bell G.D.
25. IEEE Engineering in Medicine and Biology Magazine 65-68 March 1990.  
***Analysis of Knee Joint Sounds Signals for non-invasive Diagnosis of Cartilage Pathology;***  
Frank C.B, Rangayyan R.M, and Bell G.D.
26. Calgary General Hospital Video production, 1987  
***Your Knees, Injury and Treatment,***  
Tall G. and Bell D.G,
27. Alberta Occupational Medicine Newsletter, 4 (2) P 15 – 16,1986  
***Knee Injuries: The Anterior Cruciate Ligament – “State of the Art”,***  
Bell G.D, Dufresne M. Ronald, Van Schhoor, J. Tinie.
28. Canadian Academy of Sports Medicine Newsletter. 5(4) 33-34, 1984  
***Reliability on Knee examinations (abstract from Winter Sports Conference);***  
Bell D.G,
29. Orthopaedic Clinics of North America, 9: 1081 – 1089, 1978  
***Traumatic Respiratory Quadriplegia and Pentaplegia,***  
Stauffer E.S, and Bell G.D.
30. Clin Orthop. 1977 Oct (128): 155-8  
***Section II: General Orthopaedic. Anterior cervical fusion for Trauma.***  
Bell G.D, Bailey S.I.
31. Can J Physiol Pharmacol. 1970 Feb; 48 (20): 123-30.  
***The effect of oxyphenbutazone (Tandearil) on the seromucoid – bound carbohydrates of rats with formalin – and turpentine-induced inflammation***  
Macbeth R.W, Belur N.V, Bell G.D, Barron C.

**Research Presentations:**

- Derivatives of the Knee Anterior Drawer Force – Displacement Curve  
Banff Arthroscopy meeting 1994
- Evaluation of McMurray Test  
Canadian Orthopaedic Association, Ottawa, Ontario 1988  
International Society of the Knee, Sydney, Australia 1987
- Anterior Cervical Fusion for Trauma  
Canadian Orthopaedic Association Annual Meeting  
Toronto, Ontario 1977
- Traumatic Respiratory Quadriplegia and Pentaplegia  
Veteran's Administration Spinal Cord Injury Annual Meeting  
Palo Alto, California 1975

Telemark backcountry skier

Laser sailing dinghy racing 1979 – present

Thankful for 38 years of support and advice of my wife, Diane