

## **C.E. “TED” BAIN, BENG, MD, CCFP (EM)**

### **CURRICULUM VITAE**

#### **EDUCATION**

CCFP (EM)	Certificant Special Competence in Emergency Medicine College of Family Physicians of Canada	1996
CCFP	Certificant College of Family Physicians of Canada	1995
	Rotating Internship Scarborough General Hospital Scarborough, Ontario	1983-1984
MD	Queen’s University Kingston, Ontario	1979-1983
BEng	Royal Military College Kingston, Ontario	1970-1974

#### **SELECTED CONTINUING EDUCATION COURSES**

Traffic Accident Reconstruction I & II Northwestern University Traffic Institute, Evanston, Illinois	2003
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#### **AVIATION EXPERIENCE AND APPOINTMENTS**

Clinical Adjunct Professor, USAF School of Aerospace Medicine	2008-Present
US Federal Aviation Authority – Private Pilot’s License	2003-Present
Civil Aviation Medical Examiner, Transport Canada	1986-1992
Transport Canada – Commercial Pilot’s License	1980-Present
Pilot (Kiowa), Canadian Armed Forces Reserves	1983-1985
Pilot (CF-104), Canadian Armed Forces	1974-1979

## **PROFESSIONAL EXPERIENCE**

Consultant Biodynamic Research Corporation San Antonio, Texas	2003-Present
Emergency Medicine Prince George Regional Hospital Prince George, British Columbia	2000-2003
Emergency Medicine Surrey Memorial Hospital Surrey, British Columbia	1993-2003
Emergency Medicine Dufferin Area Hospital Orangeville, Ontario	1984-1992
Emergency Medicine Georgetown & District Hospital Georgetown, Ontario	1984-1986
Family Medicine, Private Practice Surrey, British Columbia	1992-2000
Family Medicine, Private Practice Caledon, Ontario	1984-1992

## **APPOINTMENTS**

Clinical Adjunct Professor, USAF School of Aerospace Medicine	2008-Present
Inspector, Medical Services Commission Province of British Columbia	2000-2005
Emergency Department Locum Prince George Regional Hospital Prince George, British Columbia	2000-2003
President, Whistler Mountain Medical Associates Whistler, British Columbia	1999-2003

Instructor, Advanced Cardiac Life Support	1996-2004
Instructor, Advanced Trauma Life Support	1996-2004
Chief, Department of General Practice Surrey Memorial Hospital Surrey, British Columbia	1996-2000
Medical Advisor, City of Surrey Fire Department Surrey, British Columbia	1996-2003
Chairman, Medical Resource Committee Surrey Memorial Hospital Surrey, British Columbia	1994-1996
Medical Advisor, Hilton Villa Nursing Home Surrey, British Columbia	1992-1996
Active Staff, Surrey Memorial Hospital Surrey, British Columbia	1992-2003
Occupational Health Physician, Dufferin Area Hospital	1989-1992
Occupational Medicine (Plant Physician for four manufacturing facilities in Orangeville, Ontario).	1987-1992
Civil Aviation Medical Examiner, Transport Canada	1986-1992
Member, Medical Advisory Committee Avalon Care Centre, Orangeville, Ontario	1986-1992
Associate Staff, Georgetown & District Hospital Georgetown, Ontario	1984-1986
Active Staff, Dufferin Area Hospital Orangeville, Ontario	1984-1992

## PROFESSIONAL REGISTRATIONS

Medical Licensures: Texas, USA	2004 - Present
British Columbia, Canada	1992 - Present
Ontario, Canada	1983 - 1992
The Accreditation Commission for Traffic Accident Reconstruction (ACTAR #1699)	2006 - 2016

## PROFESSIONAL AFFILIATIONS

Member, Canadian Medical Association	1984-Present
Member, British Columbia Medical Association	1992-Present
Member, Canadian Association of Emergency Physicians	1994-Present
Member, College of Family Physicians of Canada	1995-Present
Member, Aerospace Medical Association	2003 - 2010
Member, Society of Automotive Engineers	2003-Present
Member, Association for the Advancement of Automotive Medicine	2004-Present

## PUBLICATIONS

Funk, J.R., Cormier, J.M., Bain, C.E., “Analytical Model for Investigating Sideswipe Collisions”, SAE 2004-01-1185, *2004 Society of Automotive Engineers (SAE) Congress*, Detroit, MI, March 2004.

Funk, J.R., Cormier, J.M., Bain, C.E., Guzman, H., Bonugli, E., “An Evaluation of Various Neck Injury Criteria in Vigorous Activities”, *2007 International IRCOBI Conference On The Biomechanics Of Impacts*, Maastricht, Netherlands, October 2007.

Funk, J.R., Cormier, J.M., Bain, C.E., Guzman, H., Bonugli, E., “Relationship between Linear and Rotational Head Acceleration in Various Activities”, *45<sup>th</sup> International ISA Biomedical Sciences Instrumentation Symposium*, Copper Mountain, CO., April 2008.

Funk, J.R., Cormier, J.M., Bain, C.E., Guzman, H., Bonugli, E., “Validation and Application of a Methodology to Calculate Head Accelerations and Neck Loading in Soccer Ball Impacts”, SAE 2009-01-0251, *2009 Society of Automotive Engineers (SAE) Congress*, Detroit, MI, April 2009.

Manoogian S.J., Funk J.R., Cormier J.M., Bain, C.E., Guzman H., Bonugli E., “Evaluation of Thoracic and Lumbar Accelerations of Volunteers in Vertical and Horizontal Loading Scenarios”, SAE 2010-01-0146, *2010 Society of Automotive Engineers (SAE) Congress*, Detroit, MI, April 2010.

Scott W.R., Bain C.E., Manoogian S.J., Cormier J.M., Funk J.R., “Simulation Model for Low-Speed Bumper-to-Bumper Crashes”, SAE 2010-01-0084, *2010 Society of Automotive Engineers (SAE) Congress*, Detroit, MI, April 2010.

Funk J.R., Cormier J.M., Bain C.E., Guzman H., Bonugli E., Manoogian S.J.: Head and Neck Loading in Everyday Vigorous Activities, *Annals of Biomedical Engineering*, 2010.

Funk J.R., Cormier J.M., Bain, C.E., Wirth J.L., Bonugli E.B., Watson R.A., “Factors affecting ejection risk in rollover crashes”. *56<sup>th</sup> Annual Scientific Conference of the Association for the Advancement of Automotive Medicine*. October 14-17, Seattle, Washington. 2012.

Germane A.G.; Freund M.A., Gwin L.P., McNish T.M., Scott W.R., Day C.M., and Bain C.E. Technology in the courtroom. Curran J. and Meaders K., eds. IN: *Expert Witnesses: Motor Vehicle and Accident Reconstruction Cases, 2016-2017 Edition*. Thomson Reuters; 2016; pp. 1073-1094.

Cormier J., Gwin L., Reinhart L., Wood R., and Bain C. A comprehensive review of low-speed rear impact volunteer studies and a comparison to real-world outcomes. *Spine*. 2018; 43(18):1250-1258.

Wood R.L., Greenston M.J., Bain C.E., and Brooks C.N. Do Low-Speed Vehicle Collisions Cause Intervertebral Disc Degeneration or Herniation? *AMA Guides Newsletter*. 2018; Nov/Dec: 3-8.