

Dated: 09/01/2011

JOHN G. MILTON, M.D., Ph.D., FRCP (C)

PERSONAL DATA

Date of birth:	April 8, 1950
Place of birth:	Halifax, Nova Scotia
Citizenship:	Canadian U.S. Landed Immigrant
Marital Status:	Married; no children
Address:	Joint Science Department The Claremont Colleges 925 North Mills Ave., Claremont, CA 91711
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EDUCATION

BSc	McGill University; 1971 Honors in Cell and Molecular Biology Thesis: The role of periodic chemical reactions in biology
PhD	McGill University, 1975 Biophysical Chemistry Thesis: Ordering and disordering of hydroxylic solvents by ions and biopolymer surfaces employing emission spectroscopy.
MDCM	McGill University, 1982
Internship	Royal Victoria Hospital, Internal Medicine, 1982-1983
Residency	Montreal Neurological Institute, 1983-1986
Fellowship	Montreal Neurological Institute, 1986-1987; EEG and epilepsy

MEDICAL EXAMINATIONS AND LICENSES

1986	LMCC
1986-2006	General medical license for province of Ontario
1986-present	Fellow of Royal College of Physicians
1986	Certified Speciliste de Quebec
1987	American Board of Neurology and Psychiatry
1988-present	State of Illinois medical license
1997-present	State of Indiana medical license
2005-present	State of California medical license

POSITIONS

2011-present	Adjunct faculty, Center for Applied Mathematics in Bioscience and Medicine (CANBAM), McGill University
2010	Quest faculty, 4 th Computational Neuroscience Summer School, University of Ottawa Center for Neural Dynamics, Ottawa, Canada, June 13-25.
2006-present	Fellow, American Physical Society, Division of Biological Physics
2004-present	Full professor (with tenure), William R. Kenan, Jr. Chair in Computational Neurosciences, The Claremont Colleges
1996-2004	Associate Professor of Neurology (with tenure), The University of Chicago
1989-2004	Co-Director, Clinical Neurophysiology Laboratories, The University of Chicago
1989-2008	Adjunct Professor of Physiology, Center of Nonlinear Dynamics in Physiology and Medicine, McGill University
1997-2004	Organizor/director, Epilepsy Clinic, Michiana Neurologic, South Bend, IN
2003	Visiting scientist, Kavli Institute for Theoretical Physics, University of California, Santa Barbara (09/2 – 10/18)
2003	Sabbatical leave, Department of Mathematics, Harvey Mudd College (08/03 – 01/04)
1998-2002	Organizor/director, Epilepsy Clinic, Ludeman Developmental Center, Parkforest, IL
1992-1998	Director, Adult Epilepsy Center & Monitoring Unit
1989-1996	Assistant Professor of Neurology, The University of Chicago
1996	Guest faculty, Department of Mathematics, University of Utah, Salt Lake City
1994	Guest faculty, Centre du Reserches Mathématiques, Université de Montréal, Montreal
1993	Guest faculty, Department of Mathematics, University of British Columbia, Vancouver
1990	Guest Faculty, Institute for Mathematical Applications, University of Minnesota
1987-1988	Assistant Professor, Dept. Physiology, McGill University
1986	Chief Resident, Montreal Neurological Institute
1979-1982	Canadian Heart Foundation Medical Scientist, McGill University
1978	Quebec-France Exchange Scientist, Paris, France
1977-1978	Lecturer, Dept. Physiology, McGill University
1976-1977	Post-doctoral Fellow in Platelet Biophysics, Dept. Physiology, McGill University, Supervisor: Drs. M.M. Frojmovic and S.G. Mason
1974-1976	Japan Society for the Promotion of Science Fellow in Biomathematics, Kyoto University, Japan, Supervisor: Dr. E. Teramoto.

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

1979	Canadian Medical Association
1983	Canadian Neurological Society
1983	American Academy of Neurology
1986	Fellow, The Royal College of Physicians and Surgeons of Canada
1986	Ontario Medical Association
1994	American Physical Society
1995	Society for Industrial and Applied Mathematics (SIAM)
1998	Society for Mathematical Biology
1999	Society for Neuroscience
2002	American College of Sports Medicine

HONORS AND AWARDS

1969	Elizabeth Logan Scholarship in Botany and Zoology
1971-1974	National Research Council of Canada Postgraduate Scholarship
1974-1976	Japan Society for Promotion of Science Fellowship
1978	McGill Faculty of Medicine Internal Award
1978	Quebec-France Exchange Scholarship for visiting Scientists
1979	Medical Research Council Research Award for Medical Students
1979-1982	Canadian Heart Foundation Medical Scientist Fellowship

1991	Richard Bellman Prize in Mathematical Biosciences (shared with A. Longtin).
2006	Fellow, American Physical Society, Division of Biological Physics
2008	27 th Ostrom Lecturer, Department of Mathematics, Washington State University: “Legends of the fall: From the fingertip to the foot’s sole”

GOLF INSTRUCTOR EDUCATION

1999	LPGA Education Program for Accessible Golf, St. Andrew’s Golf course, West Chicago
2000	LPGA National Education Program I, Tempe, AZ
2001	LPGA National Education Program II, Tempe, AZ
2002	LPGA National Education Program III, Daytona Beach, FL
2003	Team physician, Part 2: American College of Sports Medicine, Orlando, FL
2004	Team physician, Part 1: American College of Sports Medicine, Las Vegas, NV
2003-2005	Coach, Women’s Golf team (CMS): The Claremont Colleges

ADMINISTRATIVE ACTIVITIES

1990	Chairman and Organizer: Session entitled: Nonlinear Dynamics and Chaos in Physiological Systems. 12 th IEEC Medical and Biology Society Meetings, Philadelphia.
1994	Conference Chairman and Organizer: Dynamical Disease. Mont Tremblant, PQ, Canada (with J. Bélair, L. Glass and U an der Heiden).
1997	Chairman and Organizer: Symposium entitled “Taking control of epilepsy in the outpatient setting”. Symposium organized with Primed. Boston, MA
1997-1998	Vice-chair, Committee to Review Department of Ophthalmology and Visual Sciences, The University of Chicago.
1998	Chairman, Gordon Research Conference on Theoretical Biology and Bio-mathematics, Tilton, NH (with M. Lewis).
2001-2002	Chairman, Biological Physics Prize Committee, American Physics Society
2003	Organizer (with Juan Luis Cabrera), Mini-symposium entitled “Delay differential equations: Noise and Neurodynamics”, First Joint Meeting of CAIMS & SIAM, Montreal, Canada, June 16-20.
2003	Organizer (with Sue Ann Campbell), Mini-symposium entitled “Delay differential equations: Applications to biological and physical systems”, First Joint Meeting of CAIMS and SIAM, Montreal, Canada, June 16-20.
2006	Elected member-at-Large, Executive Committee, Division of Biological Physics, American Physical Society (3 year term)
2006	Faculty member, Board of Trustees committee on Academic Affairs, Claremont McKenna College
2006	Faculty member, Committee on Appointments, Promotion and Tenure, Claremont McKenna College
2008	Organizer (with S. S. Chan and S. Quake), 5 th APS Workshop on Opportunities in Biological Physics: Biomechanics & Genetic Networks, New Orleans, March 9.
2009	Guest editor, Focus Issue on “Bipedal locomotion: From robots to humans”, Chaos 19(2), June issue
2009	Organizer (with Sue Ann Campbell, Gabor Stépán, Toru Ohira and Minoru Shinohara) of 5-day workshop entitled “Noise, time delay and balance control”, Banff International Research Station (BIRS), for Mathematical Innovation and Discovery, Banff, Canada, Nov. 8-13.
2009	Member, Advisory Committee, “Fourth International Workshop on Seizure Prediction”, Kansas City, June.
2010	Guest editor, Focus Issue on “Mathematics and Neuroscience “, Mathematical Modeling of Natural Phenomena, January issue.

RESEARCH SUPPORT

1. Source: Fonds de la Recherche en Sante du Quebec

- Title: Nonlinear dynamics in physiology
 Role: Co-Investigator; shared equally with 5 other investigators (17% effort)
 Costs: Annual direct: \$15,790 Cdn; Total: \$15,790
 Project Period: 1988-1991
2. Source: Brain Research Foundation
 Title: Clamping apparatus for the pupil light reflex
 Role: Principal Investigator
 Costs: Annual Direct: \$9,500 US; Total: \$9,500 US
 Project Period: 1990-1991
3. Source: North Atlantic Treaty Organization (NATO 890482)
 Title: Delayed differential equations and models of the pupil light reflex
 Role: Principal Investigator
 Costs: Annual Direct: \$14,180 US; Total: \$14,180 US
 Project Period: 1990-1995
4. Source: NIH (NS-32529)
 Title: Dynamic diseases
 Role: Principal Investigator
 Costs: Annual Direct: \$10,000 US; Total: \$10,000 US
 Project Period: 1994-1995
5. Source: NIMH (MH47542)
 Title: Complex dynamics and noise in the pupil light reflex.
 Role: Principal Investigator
 Costs: Annual Direct: \$505,000 US; Total: \$782,750 US
 Project Period: 1991-1996
6. Source: Brain Research Foundation
 Title: Hybrid electronic devices for the treatment of epilepsy.
 Role: Principal Investigator
 Costs: Annual Direct: \$13,000 US; Total: \$13,000 US
 Project Period: 1996-1998
7. Source: Brain Research Foundation
 Title: Multistability in motor control.
 Role: Principal Investigator
 Costs: Annual Direct: \$14,000 US; Total: \$14,000 US
 Project Period: 1997-1998
8. Source: NIMH
 Title: Complex dynamics and noise in the pupil light reflex.
 Role: Principal Investigator
 Costs: Annual Direct: \$712,370 US; Total: \$1,051,128 US
 Project Period: 1998-2003 (undergoing competitive review for extension)
9. Source: Brain Research Foundation
 Title: Acquisition of motor skills: On the road to automatic
 Role: Principal Investigator
 Costs: Annual Direct: \$ 23,000 US; Total: \$ 23,000 US
 Project Period: 2003-2005
10. Source: National Science Foundation
 Title: Noise, delays and development of expertise
 Role: Principal Investigator

Costs: \$ 319,000 (direct)
 Project Period: 2006-2009

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11. Source: National Science Foundation
 Title: UBM: Research Experiences at the Biology-Mathematics Interface (REBBI)
 Role: Principal Investigator
 Co-PIs: Lisette de Pillis (HMC), Art Lee (Claremont McKenna), Mario Martelli (Claremont McKenna), Gregory Dewey (Keck Graduate Institute)
 Costs: \$ 429,878 (direct)
 Project Period: 2006-2011

12. Source: National Science Foundation
 Title: Noise, delays and development of expertise
 Role: Principal Investigator
 Costs: \$ 335,199 (direct)
 Project Period: 2010-2013

EDITORIAL ACTIVITIES

1993-present Editorial Advisory Board, CHAOS
 1989-present Reviewer for SIAM Reviews
 1990-present Reviewer for Mathematical Reviews
 1993-present Journal reviewer:
 Journal of Theoretical Biology
 CHAOS
 Neural Networks
 Bulletin Mathematical Biology
 Physical Review Letters
 Physical Review E
 2010-present Review editor, Frontiers Neuroscience: Systems Physiology

TEACHING ACTIVITIES (since 1989)

1989-present Clinical Neurophysiology and Epilepsy
 1989-present Clinical Neurology
 1991 Lecturer: IEEE course in "Analysis of complex dynamics in neural systems". St. Paul, MN
 1993 Lecturer: Summer School in Biomathematics. University of British Columbia
 1994 Lecturer: Centre du Reserches Mathématiques, Université de Montréal (CRM), Université de Montréal
 1996 Lecturer: Case Studies in Mathematical Biology, Department of Mathematics, University of Utah, Salt Lake City
 1996-1997 Teaching faculty, McGill Summer School in Nonlinear Dynamics in Biology.
 1997-1998 Lecturer, Neurobiology 346: Computational Neurobiology
 1998-2002 Biosciences Quantitative Topics in Biology (formerly Neurobiology 346, with J. Foss)
 1998-1999 Teaching faculty, McGill Summer School in Nonlinear Dynamics in Biology
 1999 Lecture (6 hours), "Understanding Science and Golf", The University of Chicago Graham School of General Studies
 2000 Lecture (6 hours), "Physics, Your Body, and Golf", The University of Chicago Graham School of General Studies
 2000 Lecturer, Centre du Reserches Mathématiques, Université de Montréal (CRM), Université de Montréal.
 2003 Mathematics 189i: Mathematical Toys: More than just a game, Department of Mathematics, Harvey Mudd College

2004	LLSO-29001: Sport, Society and Science (together with 7 faculty).
2004	Teaching faculty, McGill Summer School in Nonlinear Dynamics
2004-2005	The Claremont Colleges: Foundations of Neuroscience (Bio-095L, JSD);
2005-present	The Claremont Colleges: Analysis of human motor skills (BIO-39L, JSD);
2005-present	The Claremont Colleges: Introduction to Mathematical Physiology (BIO-133L, JSD);
2006-present	The Claremont Colleges: Functional Anatomy and Biomechanics (BIO-150a,b)

COURSES DEVELOPED:

2004-present	<p>BIO-39L: Analyses of human motor skills.</p> <p>Neurobiology of motor skills, expertise, and performance. Noninvasive methods of motion analysis, motion capture, EEG/EMG, multimodal imaging. Teaching interventions. Laboratory examines development of basic sporting skills in children, athletes and those with disabilities. This course will fulfill the general education requirement in biology. It can count towards the major in Neurobiology, but not other biology majors.</p>
2004-present	<p>BIO-133L: Dynamics diseases: Introduction to Mathematical Physiology</p> <p>Mathematical analyses of biological oscillators, excitable media, and feedback control mechanisms. Comparing predictions with observation. Design of therapeutic strategies. Laboratory develops computer skills to explore dynamic systems. Students must have a PC laptop computer with Internet access. Prerequisites: Mathematics 30 and permission of the instructor.</p>
2007-present	<p>BIO 150La: Functional human anatomy and biomechanics: Limbs & Movement</p> <p>Developmental and evolutionary principles of limb design and function; mechanical properties of bone, soft tissues, muscle, nerve; inter-relationships between structure, biomechanics, and function; open chain versus closed chain kinematics; mobility of limb girdles; mechanisms of injury and prevention. Laboratory involves dissection of human cadavers. Prerequisites: Biology 39L (or Dance 190po or Dance 163sc), Biology 43 or 44 (or equivalent), Physics 30 or 33 (or equivalent), and permission of instructor. The AISS sequence may be used for the introductory biology and physics courses. Offered every other year.</p>
2007-present	<p>BIO 150Lb: Functional human anatomy and biomechanics: Back and core stabilization</p> <p>Evolution and development of pronograde versus orthograde stance; development of pelvic diaphragm; mechanical properties of disk and vertebrae (creep); passive versus active stabilization and limb movement; back pain. Laboratory involves dissection of human cadavers. Prerequisites: Biology 39L (or Dance 190po or Dance 163sc), Biology 43 or 44 (or equivalent), Physics 30 or 33 (or equivalent), and permission of instructor. The AISS sequence may be used for the introductory biology and physics courses. Offered every other year.</p>

STUDENTS TRAINED: UNDERGRADUATE

1993	Jeffrey Steck , Project title: Latency and instability in the pupil light reflex
1999	Earick Rayburn Project title: The search for a threshold: Studying the dynamics of beams while balancing them on a finger
2000	Renatta Knox Project title: On-off intermittency in stick balancing
2000	Megan McClellan Project title: On-off intermittency in stick balancing
2001	Anand Dash Project title: Feedback inhibition
2005	Lopez-Kim, Kathleen M. A physiological and socio-behavioral examination of gender differences in incidence of hyponatremia in marathoners. Pitzer College (Human Biology).
2005	Minero, Kymberly. Exercise: Does it affect uterine cancer the same as it affects breast cancer? Pitzer College (Human Biology)
2006	Cummins, Jennifer. Development of expertise in stick balancing: the effect of dual cognitive task. Claremont McKenna College. (Neuroscience)
2006	Gunnoe, Jessica. Development of expertise in stick balancing: Kinematical changes. Scripps College.(Neuroscience)

- 2006 **Haber, Joey.** Effect of Tai Chi Chuan on gait stride variability in the elderly. Pitzer College (Oriental Studies).
- 2006 **Hamayasu, Tina.** Prevalence of mild concussion in college football players. Scripps College. (Human Biology)
- 2006 **King, Meredith.** Interactions between neural control mechanism for postural sway. Claremont McKenna College. (Neuroscience, Neuroscience Prize)
- 2006 **Lampe, Elizabeth.** Measuring Grade I concussions in CMS athletes. Scripps College (Neuroscience).
- 2006 **McCune, Soraya.** Use of virtual reality in rehabilitation of post-stroke patients. Pomona College.
- 2006 **Naik, Paulami.** Indecision in decision making neural networks. Pomona College (Neuroscience).
- 2006 **Nichols, David A.** The mathematics and the mechanics of balance and gait. Claremont McKenna College. (Physics/Mathematics; Physics prize)
- 2006 **Ruth, Christopher Harrison.** Tai Chi Chuan, balance and the elderly: An organizational plan for an extended research study. Pitzer College (Oriental Studies).
- 2006 **Tolefson, Molly.** Development of expertise in stick balancing: Effect of dual motor task. Scripps College. (Neuroscience)
- 2006 **Vakil, Neil.** The impact of neuropsychological testing on the prediction of sports injuries. Pitzer College. (Human Biology)
- 2007 **Acosta, Christopher.** Concussion prevention through strength training. Pitzer College. (Human Biology)
- 2007 **Clemens, Coury.** Random perturbations (“noise”) and gait stride variability. Claremont McKenna College (Biology).
- 2007 **Laygo, Allison A.** Grade I concussions and the role of head rotational forces. Claremont McKenna College (Biology).
- 2007 **Nguyentat, Annie L.** Improving gait stability with noise perturbations amongst the elderly. Claremont McKenna College (Human Biology).
- 2007 **Shanks, Sky Patrice.** Heel-landing patterns on different surfaces of varying degrees of roughness and their correlations to walking stability. Pitzer College (Human Biology).
- 2007 **Wilson, Heather.** Development of expertise in stick balancing. Scripps College (Neuroscience).
- 2008 **Baldini, AnGee.** Assessment of market opportunities for electro-encephalography applied to neurological disease. Claremont McKenna College (Neuroscience)
- 2008 **Balch, Elizabeth.** Legends of the fall: Understanding mechanisms of balance and expertise in a stick balancing task. Claremont McKenna College (Neuroscience).
- 2008 **Coleman, Adam C.** The effect of turns on walking gaits & diffusion fluctuation analysis. Claremont McKenna College. (Physics)
- 2008 **Ruiz, Ferrin A.** Stick balancing: Laban movement analysis and the development of expertise. Scripps College. (Biology/Dance)
- 2008 **Strauss, Meredith.** Good vibrations: The effects of vibration on stick balancing. Scripps College (Neuroscience).
- 2008 **Brooks, Jacob.** The effect of footwear on distance running mechanics. Pitzer College (Human Biology).
- 2009 **Avalos-Feehan, Kelsy.** Posture and its effect on postural sway: Looking at flexed posture in the elderly. Claremont McKenna College. (Neuroscience).
- 2009 **Blomberg, Andrew.** Virtual stick balancing: Effect of distant dependent tracking. Claremont McKenna College (Neuroscience).
- 2009 **Fraiser, Ryan.** The effects of vibration on stick balancing. Pitzer College (Neuroscience).
- 2009 **Gyorffy, Janelle.** The effects of vibration on postural sway. Pomona College (Neuroscience).
- 2009 **Oki, Kari C. K.** Involvement of cutaneous mechanoreceptor units at the distal phalanx of the finger in a stick balancing task. Scripps College (Motion Science: Self-designed) (Yarrow prize for highest GPA).
- 2009 **Storzbach, Dacey.** Changing Weibul hazard shape parameters in treated cancer. Scripps College (Human Biology).

- 2009 **Wang, Lawrence.** Bridging postural sway and stick balancing using an inverted pendulum. Claremont McKenna College (Biology).
- 2009 **Wong, Jamie.** The effects of postural changes on balance stabilization in dancers. Pitzer College (Human Biology).
- 2009 **Lippai, Joshua.** Modeling of motor control in a virtual balancing task using a pursuit-evasion- like paradigm. Pomona College (Major: Mathematics).
- 2009 **Zimmerman, Scott.** Modeling human balance via discontinuous stochastic delay differential equations. Pomona College (Major: Mathematics).
- 2010 **Bellows, Rachel.** Eye blinking and virtual stick balancing: Evidence against predictive control. Pitzer College (Major: Human Biology).
- 2010 **Hanley, Erin.** Sensory modalities and stick balancing: The contribution of cutaneous mechanoreceptors in voluntary balance control. Scripps College (Major: Neuroscience).
- 2011 **Dajani, Rachel.** The effect of vibration on human balance and its implications for Japan's growing elderly population. Pitzer College (Major: Human Biology).
- 2011 **Davis, Shane.** Power Balance Performance technology: Is a performance enhancing wristband too good to be true? Claremont McKenna College (Major: Biology).
- 2011 **Deyoe, Emily Celeste.** Training on a rocker-board with vibrations: Improving balance and decreasing chance of injury. Scripps College (Major: Human Biology).
- 2011 **Gama, Cynthia Mirella.** The effects of dual-task interference on balance control: Calculating the probability of benefit by chance for a dual-task. Pitzer College (Major: Neurobiology).
- 2011 **Grant-Overton, Sharday.** STICKPERSON: Assignment of principal components. Claremont McKenna College (Major: Neuroscience).
- 2011 **Mehdi, Meela.** The varying effects of dual-tasks on postural sway. Pomona College (Major: Dance & Neuroscience).
- 2011 **Nguyentat, Michael T.** Neural responses to vibration during wobble board balancing. Claremont McKenna College (Major: Neuroscience).
- 2011 **Quan, Austin.** Noise, delays, and resonance in a neural network. Harvey Mudd College (Major: Mathematics).

STUDENTS TRAINED: GRADUATE

- 1988-1989 **G.M. North** (supervised jointly with R. E. Kearney). Thesis title: Signal characteristics of surface EMG. Received M. Eng. In Biomedical Engineering from McGill University.
- 1986-1989 **André Longtin** (supervised jointly with M. C. Mackey). Thesis title: Complex dynamics, bifurcation and noise in time-delayed feedback. Received Ph.D. in Physics from McGill University. Present position: Associate Professor of Physics; The University of Ottawa.
- 1992-1993 **Toro Ohira** (supervisor, J.D. Cowan). Project title: Dynamics of second-order delay differential equation with negative feedback. Received Ph.D. in Physics from The University of Chicago. Present position: Research Scientist, Sony Computer Science Laboratory, Tokyo, Japan.
- 1994-1999 **Jennifer Foss.** Thesis title: Multistability in delayed recurrent neural loops. Present position: Lecturer, The University of Chicago. Present position: Research associate, Northwestern.
- 1995-2001 **John D. Hunter.** Thesis title: Control of synchrony in the Aplysia buccal ganglion. Present position: Research, The University of Chicago.

STUDENTS TRAINED: POST-DOCTORAL

- 1997-1998 **Christian Eurich** (BASF fellowship). Project title: Noise-induced transitions in neural control. Present position: Lecturer in Physics, University of Bremen, Germany.
- 2000-2002 **Juan-Luis Cabrera** (DGESIC, Ministerio de Educacion y Cultura Spain). Project title: On-off intermittency in human balancing tasks. Present position: professor of Theoretical Physics, IVIC, Venezuela
- 2001-2002 **John D. Hunter** (NIMH). Project title: Spatio-temporal patterns of EEG coherence in human epilepsy. Present position: Research associate, Department of Pediatrics, The University of Chicago.

ORIGINAL PEER REVIEWED ARTICLES (* denotes student co-author)

1. **Milton JG**, Purkey RM, and Galley WC (1978). The kinetics of solvent reorientation in hydroxylated solvents from the exciting-wavelength dependence of chromophore emission spectra. *J. Chem. Phys.* 68: 5396-5404.
2. Frojmovic MM, **Milton JG**, Caen JP, and Tobelem G (1978). Platelets from "giant platelet syndrome (BSS)" are discocytes and normal sized. *J. Lab. Clin. Med.* 91: 109-116.
3. Galley WC and **Milton JG**. (1979). Protein emission. *Photochemistry and Photobiology* 29: 179-184.
4. Frojmovic MM and **Milton JG**. (1982). Human platelet size, shape and related functions in health and disease. *Physiol. Rev.* 62: 185-261.
5. **Milton JG** and Frojmovic MM (1979). Shape changing agents produce abnormally large platelets in a hereditary "giant" platelet syndrome (MPS). *J. Lab. Clin. Med.* 93: 154-161.
6. **Milton JG** and Frojmovic MM (1979). Invaginated plasma membrane of human platelets: Evagination and measurement in normal and "giant" platelets. *J. Lab. Clin. Med.* 93: 162-170.
7. **Milton JG**, Yung W*, Glushak C*, and Frojmovic MM (1980). Kinetics of ADP-induced human platelet shape change: apparent positive cooperativity. *Can. J. Physiol. Pharmacol.* 58: 45-52.
8. **Milton JG**, Yung W*, and Frojmovic MM (1981). Dependence of platelet volume measurements on heterogeneity of platelet morphology. *Biophys. J.* 35: 257-261.
9. Frojmovic MM, **Milton JG**, and Duchastel A (1983). Microscopic measurements of platelet aggregation reveal a low ADP-dependent process distinct from turbidometrically-measured aggregation. *J. Lab. Clin. Med.* 101: 964-976.
10. **Milton JG** and Frojmovic MM (1983). Sex-related differences in platelet morphology in whole blood (WB) and platelet-rich plasma (PRP). *Thrombosis Res.* 30: 595-607.
11. **Milton JG** and Frojmovic MM (1983). Turbidometric evaluations of platelet activation: Relative contributions of measured shape change, volume, and early aggregation. *J. Pharmacol. Meth.* 9: 101-115.
12. Frojmovic MM and **Milton JG** (1983). Physical, chemical and functional changes following activation in normal and "giant" platelets. *Blood Cells* 9: 359-382.
13. Leblanc R, Feindel W, Yamamoto YL, **Milton JG**, and Frojmovic MM (1984). Reversal of acute experimental cerebral vasospasm by calcium antagonism with verapamil. *Can. J. Neuro. Sci.* 11: 42-47.
14. **Milton JG** and Frojmovic MM (1984). Adrenaline and adenosine diphosphate induced platelet aggregation require shape change: Importance of pseudopods. *J. Lab. Clin. Med.* 104: 805-815.
15. Leblanc R, Feindel W, Yamamoto YL, **Milton JG**, Frojmovic MM, and Hodge CP (1984). The effects of calcium antagonism on the epicerebral circulation in cerebral vasospasm. *Stroke* 15: 1017-1020.
16. **Milton JG**, Frojmovic MM, Tang SS*, and White JG (1984). Spontaneous platelet aggregation in a hereditary giant platelet syndrome (MPS). *Amer. J. Pathol.* 114: 336-345.
17. **Milton JG**, Hutton RA, Tuddenham EGD, and Frojmovic MM (1985). Platelet size and shape in hereditary giant platelet syndromes on blood smear and in suspension: Evidence for two types of abnormalities. *J. Lab. Clin. Med.* 106: 326-335.

18. **Milton JG** and Galley WC (1986). Evidence for heterogeneity in DNA-associated solvent mobility from acridine phosphorescence spectra. *Biopolymers* 25: 1673-1684.
19. **Milton JG** and Galley WC (1986). Rate constants and activation parameters for the mobility of bulk and DNA-associated glycol-water solvents. *Biopolymers* 25: 1685-1695.
20. Mendelson WB, Sack DA, James SP, Martin JV, Wagner R, Garnett D, **Milton JG**, and Wehr, TA (1987). Frequency analysis of the sleep EEG in depression. *Psych. Res.* 21: 89-94.
21. **Milton JG**, Gotman J, Remillard GM, and Andermann F (1987). Timing of seizure recurrence in adult epileptics: A statistical analysis. *Epilepsia* 28: 471-478.
22. **Milton JG** and Frojmovic MM (1987). Unusual properties of platelet shape in coronary and cerebral artery disease. *Thrombosis Res.* 47: 511-531.
23. Mackey MC and **Milton JG**. (1987). Dynamical diseases. *Ann. N. Y. Acad. Sci.* 504: 16-32.
24. Bélair J and **Milton JG** (1988). Itinerary of a discontinuous map from the continued fraction expansion. *Appl. Math. Lett.* 1: 339-342.
25. Longtin A* and **Milton JG** (1988). Complex oscillations in the human pupil light reflex with 'mixed' and delayed feedback. *Math. Biosci.* 90: 183-199.
26. **Milton JG**, Longtin A*, Kirkham TH, and Francis GS (1988). Irregular pupil cycling as a characteristic abnormality in patients with demyelinating optic neuropathy. *Amer. J. Ophthalm.* 105: 402-407.
27. Longtin A* and **Milton JG** (1989). Modelling autonomous oscillations in the human pupil light reflex using delay-differential equations. *Bull. Math. Biol.* 51: 605-624.
28. Longtin A* and **Milton JG** (1989). Insight into the transfer function, gain and oscillation onset for the pupil light reflex using delay-differential equations. *Biol. Cybern.* 61: 51-58.
29. **Milton JG** and Mackey MC (1989). Periodic haematological diseases: Mystical entities or dynamical disorders? *J. Royal College of Physicians of London* 23: 236-241.
30. **Milton JG**, Longtin A*, Beuter A, Mackey MC, and Glass L (1989). Complex dynamics and bifurcations in neurology. *J. Theor. Biol.* 138: 129-147.
31. **Milton JG**, an der Heiden U, Longtin A*, and Mackey MC. (1990). Complex dynamics and noise in simple neural networks with mixed feedback. *Biomedica Biochimica Acta* 49: 697-707.
32. **Milton JG** and Bélair J (1990). Chaos, noise and extinction in models of population growth. *Theor. Pop. Biol.* 37: 273-290.
33. an der Heiden U, Longtin A*, Mackey MC, **Milton JG**, and Scholl R* (1990). Oscillatory modes in a nonlinear second order differential equation with delay. *J. Dynamics Diff. Eqn.* 2: 423-449.
34. Mackey MC and **Milton JG**. (1990). A deterministic approach to survival statistics. *J. Math. Biol.* 28: 33-48.
35. Beuter A, **Milton JG**, Labrie C*, and Glass L. (1990). Delayed visual feedback and movement control in Parkinson's disease. *Exp. Neurol.* 110: 228-235.
36. Longtin A*, **Milton JG**, Bos JE, and Mackey MC. (1990). Noise and critical behavior of the pupil light reflex at oscillation onset. *Physical Rev. A* 41: 6992-7005.

37. **Milton JG** and Longtin A*. (1990). Evaluation of constriction and dilation from pupil cycling measurements. *Vision Res.* 30: 515-525.
38. Mackey MC and **Milton JG**. (1990). Feedback, delays and the origin of blood cell dynamics. *Com. Theor. Biol.* 1: 299-327.
39. Kushida CA*, Rye DB*, Nummy D, **Milton JG**, Spire J-P, and Rechtschaffen A. (1991). Cortical asymmetry of REM sleep EEG following unilateral pontine hemorrhage. *Neurology* 41: 598-601.
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111. Cabrera JL* and **Milton J** (2003). Delays, scaling, and balance control. First Joint Meeting of CAIMS and SIAM, Montreal, Canada, June 16-20.

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119. **Milton JG** (2009). REBMI: research experiences at the biology-mathematics interface. International Conference on Mathematical Biology and Annual Meeting of the Society of Mathematical Biology, University of British Columbia, Vancouver, July 27-July 30.
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