

## **CURRICULUM VITAE**

**Michael Joseph Strong**

### **1. Personal Information**

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### **2. Education:**

Protein Chemistry Methodology, University of Alabama at Birmingham, Dr. G.S.V. Johnson, 1992 (CIBA Foundation Bursar)  
Research Fellowship, Laboratory of Central Nervous System Studies, National Institute of Neurological Disorders and Stroke, National Institutes of Health, Bethesda, Maryland, 1987-1990 (Supervisor: Ralph M. Garruto, PhD.; Laboratory Chief: D. Carleton Gajdusek, MD, Nobel Laureate)  
Recombinant DNA Methodology, Foundation for Advanced Education in the Sciences, Inc., National Institutes of Health, 1989  
Neuropathology Review, Armed Forces Institute of Pathology, 1988  
Resident, Neurology, 1984-87, University of Western Ontario  
Resident, Medicine, 1982-84, University of Western Ontario  
Doctor of Medicine, 1978-82, Queen's University, Kingston, Ontario  
Undergraduate Biochemistry 1976-78, Queen's University  
Graduate 1972-76, Leamington District Secondary School, Leamington, Ontario

### **3. Employment History**

Co-chair, (2000-current), Department of Clinical Neurological Sciences, University of Western Ontario  
Chief, (2000-current), Division of Neurology, Department of Clinical Neurological Sciences, University of Western Ontario  
Professor (2001-current), Department of Clinical Neurological Sciences, University of Western Ontario  
Professor, (2001-current), Department of Pathology, University of Western Ontario  
Associate Professor, (1995-2001), Department of Clinical Neurological Sciences, University of Western Ontario  
Assistant Professor, (1990-1995), Department of Clinical Neurological Sciences, University of Western Ontario  
Scientist (1994-current), John P. Robart's Research Institute, University of Western Ontario, London, Ontario  
Associate Scientist (1990-1994), John P. Robart's Research Institute, University of Western Ontario, London, Ontario  
Core Faculty, (1994-current), Graduate Program in Neurosciences, University of Western Ontario  
Honorary Lecturer, (1994-2001), Department of Pathology, University of Western Ontario  
Honorary Associate Professor (1997-2001), School of Communication Sciences and Disorders, Faculty of Health Sciences, University of Western Ontario, London, Ontario

### **4. Distinctions, honors, fellowships, scholarships**

Fellow, Canadian Academy of Health Sciences, 2009  
Distinguished University Professor, University of Western Ontario, 2009  
Forbes Norris Award, International Alliance of ALS/MND Associations, 2008  
Excellence in Teaching Award, University Student's Council, University of Western Ontario, 2008

Fellow, The American Academy of Neurology, 2008  
Faculty Scholar Award, The University of Western Ontario, July 2006-2008  
Excellence in Teaching Award, University Student's Council, University of Western Ontario, 2007  
American Biographical Institute listing, "International Profiles of Accomplished Leaders", 2007  
Best Doctors in Canada Listing, 2002 – 2003; 2006-2007; 2007-2008  
Excellence in Teaching Award, University Student's Council, University of Western Ontario, 2006  
Sheila Essay Award, American Academy of Neurology, April 2005  
Royal College Speaker, Canadian Congress of Neurological Sciences, June 2005  
Excellence in Teaching Award, University Student's Council, University of Western Ontario, 2005  
Excellence in Teaching Award, University Student's Council, University of Western Ontario, 2004  
Honorary Life Member, ALS Society of Canada  
Arthur J. Hudson Chair in ALS Research, 2001-current  
Royal College Speaker, Canadian Congress of Neurological Sciences, June 2001  
Hilda Glassman Award for Clinical Management Research, The ALS Association, 1999  
The Premier's Research Excellence Award, 1999  
International Who's Who of Professionals listing, 1996  
Medical Research Council of Canada Scholar, 1991-1996  
CIBA Foundation Symposium Bursary. Aluminum in Biology and Medicine, London, England, 1991  
Francis McNaughton Memorial Prize for Clinical Research, Canadian Congress of Neurological Sciences, Halifax, Nova Scotia, 1991  
Junior Travel Award, 2nd International Conference on Alzheimer's Disease and Related Disorders, Toronto, Ontario, 1990  
Medical Research Council of Canada Fellowship, 1988-90  
Health Research Personnel Development Program Fellowship, Ontario Ministry of Health, 1988-89 (declined)  
CNS Residents Research Day Award: University of Western Ontario, 1986 & 1987  
Aesculapian Society Award, Queen's University, 1982  
Lange Medical Book Award, 1981  
J.N. Hume Award, 1976  
Jednota Scholarship (American Catholic Women's Council), 1976  
Ontario Scholar 1976  
Valedictorian, Leamington District Secondary School, 1976

## **5. Scholarly and Professional Activities**

### **5.(i). Offices Held:**

Chair, Health Professionals Advisory Committee, ALS Society of Canada, 1998 - 2005  
Executive Committee member, Motor Neuron Diseases Subgroup, World Federation of Neurology, 1997-current  
Co-chair, ALS Research Consortium of Canada, 1997-2001  
Member, ALS C.A.R.E. Advisory Board, (International ALS Registry), 1996-2002  
Medical Scientific Advisory Board Member, Muscular Dystrophy Association of Canada, 1995-1997  
Medical Advisor, Board of Directors, Amyotrophic Lateral Sclerosis Society of Ontario, 1993-1996  
Member, Board of Directors, Canadian Association of Interns and Residents, 1984-85  
Member, National Joint Council on Prelicensure, 1984-85  
President, Canadian Federation of Medical Students, 1980-81  
Past-President, Canadian Federation of Medical Students, 1981-82  
Editor, Mediscan, 1980-81  
President, Class of Medicine, Queen's University, 1978-79  
Vice-President, Queen's University Aesculapian Society, 1979-80  
Secretary Treasurer, Student Section Ontario Medical Association, 1979-80

**5.(ii). Professional Society Membership**

Member, FASEB  
 Fellow, Royal College of Physicians and Surgeons of Canada  
 Canadian Medical Association  
 Ontario Medical Association  
 American Academy of Neurology, Fellow  
 Canadian Neurological Society  
 Society for Neuroscience  
 Peripheral Nerve Society

**5.(iii). Invited Lectures**

1. “The evidence for amyotrophic lateral sclerosis (ALS) as a disorder of altered RNA metabolism”, Biotechnologia Habana, Havana, Cuba, November, 2009
2. “The evidence for amyotrophic lateral sclerosis (ALS) as a disorder of altered RNA metabolism”, Andre Delambre symposium, Quebec, September, 2009
3. “Is ALS a disorder of RNA metabolism?” Cleveland Clinic, Cleveland, August 2009
4. “TDP-43 as an RNA stability determinant”, 3<sup>rd</sup> International Research Workshop on Frontotemporal Dementia in ALS, London, Canada, June 2009
5. “ALS as a disorder of RNA metabolism. The importance of being TDP-43....”, Canadian Congress of Neurological Sciences, Halifax, June 2009
6. “The journey to understanding ALS”, Keynote Speaker, Canadian Medical Hall of Fame, London, May 2009
7. “ALS as a disorder of RNA metabolism”, Third Annual ALS Society of Canada Investigators Meeting, Toronto, May 2009
8. “Advances in understanding the pathogenesis of ALS”, University of Toronto, March, 2009
9. “Frontotemporal syndromes of ALS”, Wayne State University, March, 2009
10. “Advances in amyotrophic lateral sclerosis: 2009”, Keynote lecture, Muscular Dystrophy Association (USA) Annual Meeting, Las Vegas, January, 2009
11. “Protein aggregates and disrupted transport in models of ALS”, Society for Neuroscience, Washington, November, 2008
12. “TDP-43: implications for the pathogenesis of ALS and ALSci”, International UKMND meeting, Birmingham, UK, November, October 2008
13. “TDP-43: insights into the molecular biology of ALS”, 4th Annual Leadership Summit ALS-TDI, Boston, Mass, October, 2008
14. “Post-transcriptional regulation of neurofilament expression in diseased motor neurons”, Gordon Research Conference on Intermediate Filaments, Magdalen College, Oxford, September, 2008
15. ‘Frontotemporal dementia in motor neuron disease’, European Neurological Society Annual meeting, Nice, France, June 2008
16. “Is Amyotrophic Lateral Sclerosis a Disorder of RNA Metabolism? Lessons from TDP-43”, University of Pittsburg Centre for ALS Research, Pittsburg, May 2008
17. “Altered mRNA stability determinants in ALS:”, Methodist Neurological Institute Lecture, Houston, Texas, May 2008
18. Invited participant, National Institute of Neurological Disorders and Stroke, Workshop on Frontotemporal Dementia, Washington, February 2008
19. “Update on the frontotemporal syndromes of ALS”, ALS Society of Canada Research Forum, Toronto, May 2008
20. “Biomarkers in ALS”, ALS Association Meeting “Accelerating ALS Research: Translating Basic Discoveries into Therapies for ALS”, Tampa, January 2008
21. Opening plenary lecture, “The splitting of amyotrophic lateral sclerosis – is more than one better?”, 17<sup>th</sup> International ALS/MND conference, Toronto, December 2007
22. “TDP-43: mechanisms of disease induction”, Andre Delambre symposium, Montreal, October 2007
23. “Alterations in messenger RNA stability as a common pathogenic mechanism in ALS”, Banbury Conference, New York, September 2007
24. “Frontotemporal syndromes in ALS”, Cold Spring Harbour, September 2007
25. “What’s new in ALS”, Update in Neurology Session, Canadian Congress of Neurological Sciences, Edmonton, June 2007

26. "Advances in clinical management of ALS", Canadian Congress of Neurological Sciences, Edmonton, June 2007
27. Opening plenary lecture, 2<sup>nd</sup> International Research Workshop on Frontotemporal Dementia in ALS, London, June, 2007
28. "Management of intractable spasticity", Canadian Neuromodulation Society meeting, Niagra-on-the-Lake, May, 2007
29. "TDP43 is a human low molecular weight neurofilament (hNFL) binding protein that is mislocalized in ALS", International ALS.MND meeting, Yokohama, Japan, December 1, 2006
30. "Frontotemporal lobar degeneration in ALS – new concepts in tauopathy", University of Toronto, September, 2006
31. "Update on ALS", Manitoba ALS Society Annual meeting, Winnipeg, September, 2006
32. "Immunomodulation of motor neuron biology", Foundation Andre Delambre lecture, Quebec city, September 2006
33. "Perturbations in intermediate filament metabolism in motor neuron degeneration – chicken or the egg?", Gordon Conference on Intermediate Filament Biology invited speaker, Rhode Island, July 2006
34. "Altered mRNA stability in ALS – a common pathway of neurofilament aggregate formation?" HBI lecture, University of Calgary, May 2006
35. "ALS – much more than a motor system disease", Department of Clinical Neurological Sciences lecture, University of Calgary, May 2006
36. "An emerging field – frontotemporal lobar degeneration in ALS", Henry Ford Hospital, Detroit, May 2006
37. "Frontotemporal lobar dysfunction in ALS – just another proteinopathy?" University of Texas Southwestern, Dallas, January 2006
38. "Frontotemporal lobar degeneration in ALS", International ALS.MND meeting, Dublin, December 10, 2005
39. "ALS and FTD", Northwestern University, Chicago, November 22, 2005
40. "Amyotrophic lateral sclerosis", 43<sup>rd</sup> Annual Scientific Assembly, Ontario College of Family Physicians, November 17, 2005
41. "Neurofilament aggregates and gliosis", Symposium foundation Andre Delambre, Montreal, September 9, 2005
42. "Tau protein metabolism in ALS with cognitive impairment", New Brunswick Neurology Annual meeting, Charlottetown, New Brunswick, August 2005
43. "Altered mRNA stability in ALS", New Brunswick Neurology Annual meeting, Charlottetown, New Brunswick, August 2005
44. "Recent advances in the pathophysiology and management of ALS", Canadian Congress of Neurological Sciences, "What's new in the clinical neurosciences" session, Ottawa, 2005
45. "Molecular pathogenesis of ALS", Canadian Neurological Society Lecturer, Canadian Congress of Neurological Sciences, Ottawa, 2005
46. "Amyotrophic lateral sclerosis – current concepts", Canadian Congress of Neurological Sciences, ALS Strategies for Quality Life/Quality Care symposium, Ottawa, June 2005
47. "ALS as a proteinopathy", American Academy of Neurology, Miami, April 2005
48. "Cognition impairment in ALS", International ALS/MND Alliance Annual Meeting, Philadelphia, 30 November, 2004
49. "Amyotrophic lateral sclerosis", Canadian College of Family Physician's Annual General Meeting, Toronto, November 27, 2004
50. "Amyotrophic Lateral Sclerosis" – a multisystems disorder, Ottawa, November, 2004
51. "Primary lateral sclerosis: discrete entity or syndrome complex?", First international conference on primary lateral sclerosis, Chamonide, California, June 2004
52. "Molecular Biology of ALS", Phoenix, March 2004
53. "Neurofilamentous aggregates in ALS – not just innocent bystanders", NINDS, Bethesda, December, 2003
54. "Managing Spasticity", Interurban Spinal Cord Conference, London, October, 2003
55. "Neurofilament biology in ALS", Queen's University, Kingston, Ontario, February, 2003
56. "Cognition in ALS. Changing the way your think", Colorado Neurological Society, Denver, February 2003
57. "The William Halseth ALS Lecture", University of Colorado, February, 2003
58. "Frontotemporal dementia and ALS – just another tauopathy?", Rotman Foundation Lecture, Toronto, November, 2002
59. "Neurofilamentous aggregates in ALS", 13<sup>th</sup> international symposium on ALS/MND, Melbourne, November, 2002
60. "25 years makes a difference", ALS Society of Canada National Conference, Toronto, October 2002
61. "The challenge of ALS: one disease – multiple processes" Milwaukee, October, 2002

62. "Biochemical markers in the diagnosis of ALS", World Federation of Neurology Workshop on Diagnosis of ALS, San Francisco, November, 2001
63. "ALS as a complex, multisystems biological disorder". Montreal, September, 2001
64. "ALS as a multisystems disorder". Plenary Lecture, International ALS/MND Symposium, Aarhus, Denmark, December 2000
65. "Microglia, Motor Neurons and Neurofilament – Pathobiology of ALS", Baylor Medical School, Houston, Texas, July 2000
66. "Update on ALS Therapy", Second Annual ALS Care Conference, CCNS, Ottawa, June, 2000
67. "Creatine and Coenzyme Q10 therapy in ALS", First Conference on Multi-drug therapy in ALS, Charlotte, North Carolina, May 2000
68. "Stem Cell Therapy in ALS", ALSA Annual Leadership Conference, Washington, DC, May 2000
69. "Management of respiratory failure in ALS", Maine, October 1999
70. "Neurofilament metabolism in ALS", University of Alberta, Edmonton, June 1999
71. "Neurofilament nitration, NOS activity, and the pathogenesis of sporadic ALS", McGill University, February, 1999
72. "Neurofilament nitration in the pathogenesis of sporadic ALS", Pacific ALS Research Centre, UCLA, December 1998
73. "Motor Neuron Disease and Trace Elements: Plenary lecture, Fifth International Conference, International Society for Race Elements Research in Humans (ISTERH), Lyon, France, October 1998
74. "Neurofilament Metabolism in ALS", Ninth International Symposium on ALS, Munich, 1998
75. Invited Participant, Gordon Conference: Intermediate Filaments, Holderness, New Hampshire, 1998
76. "Defining optimal management in ALS: From first symptoms to announcement", Consensus meeting, Chicago, May 1998
77. "Current issues in ALS therapeutic trials", Arlie House Conference Centre, Virginia, April 1998,
78. "Care of the ALS patient in the year 2000", plenary speaker, Annual Quebec Conference on ALS, Montreal, June, 1997
79. "Neurofilament Metabolism in sporadic ALS", Montreal Neurological Institute, June 1997
80. "Aberrant posttranslational neurofilament metabolism in ALS", University of Alabama at Birmingham, October 1996
81. Invited participant, Gordon Conference: Intermediate Filaments, Holderness, New Hampshire, 1996
82. "Team management, Ventilation and Ethics" Muscular Dystrophy Association of Canada Workshop, New Brunswick, 1995
83. "Progress in ALS Research: Aluminum Neurotoxicity" ALS Society of Canada Research Workshop, Toronto 1995
84. "Amyotrophic Lateral Sclerosis (ALS) an overview of diagnosis, pathophysiology and treatment" CME Symposium, Kitchener, November 1995
85. "Can the mechanisms of aluminum neurotoxicity be integrated into a unified scheme?", COMTOX meeting Vancouver, July 1995
86. "Amyotrophic Lateral Sclerosis, an update on research", Credit Valley Hospital, Mississauga, April 1995
87. "Amyotrophic Lateral Sclerosis, an overview of diagnosis, pathophysiology and treatment", Allentown, Pennsylvania, November 1994
88. "Neurofilament phosphatase resistance in aluminum toxicity," National Institutes of Health, Bethesda, Maryland, November 1994
89. "New treatments for degenerative disorders, including amyotrophic lateral sclerosis," Toronto Neurology Update, Toronto, Canada, June 1994
90. "The neuronal cytoskeleton: Principle player or innocent bystander? An approach to adult-onset neurodegenerative disorder," Canadian Congress of Neurological Sciences, Neurobiology Review Course, Toronto, Canada, June 1993
91. "Aluminum-induced neurofilamentous degeneration: A mechanistic approach," Neurology Grand Rounds, The Montreal General Hospital, March 1993
92. "Clinical Neuropharmacology Course," American Academy of Neurology, New York, April 1993
93. "Aluminum-induced neurofilamentous degeneration: A mechanistic approach," Neurology Grand Rounds, Ottawa Civic Hospital, April 1993
94. "Aluminum Neurotoxicity", Third International Symposium on MND/ALS, Birmingham, U.K., November 1992
95. Gordon J. Mogensson Memorial Research Forum, University of Western Ontario, London, Ontario, April 1992
96. "Recent advances of Amyotrophic Lateral Sclerosis", Neurosciences Nurses Association, London Chapter, October 1991

97. "Recent advances in amyotrophic lateral sclerosis", The Allentown Hospital-Lehigh Valley Neurosciences Invited Lecturer, February 1990
98. "Synergism in the induction of experimental chronic neurodegenerative disorders: N-butylbenzenesulfonamide and aluminum chloride", Eighth International Neurotoxicology Conference, Arkansas, September 1990
99. "The search for the cause of high incidence foci of ALS: Lessons from the Pacific Basin and the laboratory bench", London Neurosciences Lecture, June 1989
100. "The phenotypic heterogeneity of familial ALS", the Genetics of Familial ALS Conference, Lake Bluff, Illinois, 1988

#### **5.(iv). Roles in Conferences**

- Chair, Program Committee, Third International Research Workshop in Frontotemporal dementia in ALS, London, June, 2009
- Chair, Program Committee, Second International Research Workshop in Frontotemporal dementia in ALS, London, June, 2007
- Chair, Program Committee, First International Research Workshop in Frontotemporal dementia in ALS, London, May, 2005
- Chair, Program Committee, Strategies of ALS Care full day symposium, Canadian Congress of Neurological Sciences, 1999 – 2006
- Member, Scientific Program Committee, International ALS/MND Symposium, 2001 - 2007
- Chair, Scientific Program Committee, International ALS/MND Symposium, Vancouver, November, 1999
- Chair, World Federation of Neurology Subcommittee on ALS/MND Symposium, Munich, November, 1998
- Co-chair, AAN session on Motor Neuron Diseases, April, 1998
- Chair, Course #4 (Advances in ALS), Canadian Congress of Neurological Sciences, London, June 1996
- Chair, University Hospital Research Workshop, April 1995
- Group Coordinator, Workshop on Research Issues in Aluminum Toxicity, Vancouver, July 1995

#### **5.(v). Review Boards**

##### **Editorial Board:**

Amyotrophic Lateral Sclerosis (1999 – current)

##### **Journal Reviewer:**

Annals of Neurology (2005 – current)  
 Muscle & Nerve (2004 – current)  
 Journal of Neuroimmunology  
 Neurotoxicology (2001-current)  
 Neurology (2001-current)  
 Brain Research (1990.-current)  
 Canadian Journal of Neurological Sciences (1992-current)  
 Pharmacology and Toxicology (1995-current)  
 Journal of Neurochemistry (1997 – current)  
 Journal of Chemical Neuroanatomy (1996 – current)  
 Journal of Cell Biology (1998 – current)  
 Alzheimer's Disease (1999 – current)

##### **Grant Review (External):**

The Les Turner Foundation, Chicago (2004 – current)  
 CIHR Neurosciences B panel member (2002 – 2005)

United Kingdom Motor Neuron Diseases Association  
The ALS Association, ad hoc reviewer, 2003 - current  
The ALS Association, Clinical committee chair (2000 – 2003), USA  
The ALS Association, Scientific committee member, USA  
Alberta Heritage Foundation  
Medical Research Council of Canada  
Muscular Dystrophy Association of Canada  
Amyotrophic Lateral Sclerosis Society of Canada  
National Institutes of Health, *ad hoc* program reviewer

**Supervisory:**

External examiner, Master's defense, Cathy-lynn Dufort, University of Western Ontario, 1998  
External examiner, Ph.D. defense, Dalton Wolfe, University of Western Ontario, 1995  
External examiner, Master's defense, Susan Ilkov-Moor, University of Western Ontario, 1995  
External examiner, Master's defense, Laure Adams, University of Western Ontario, 1993  
External examiner, Ph.D. defense, Bonnie Schmidt, University of Western Ontario, 1993  
External examiner, Ph.D. defense, Martin Somerville, University of Toronto, 1992

**Advisory Committee, Ph.D. Candidate:**

Saima Humayan (Supervisor), Department of Pathology, 2007 – 2008 (moved to Texas, 2008)  
Katie Moisse (Supervisor), Department of Pathology, 2005 - 2009  
Teresa Sanelli (Supervisor), Department of Pathology, 2001-2005  
Julie Pongrac, Graduate Program, Department of Pharmacology, 1994- 1998  
Manuel Resendes, Graduate Program, Department of Physiology, 1996-1999

**Advisory Committee, Master's Candidate:**

Erin Cooper, Department of Communicative Disorders, 2007 - current  
Ian Welch (supervisor), Department of Pathology, 2006 - current  
Christen Shoesmith (supervisor), Department of Clinical Neurological Sciences, 2005 - 2007  
Jessie McLean (supervisor), Department of Pathology, 2003 – 2005  
Carolyne Wilson, (Supervisor), Graduate Neurosciences Program, 1999-2001  
Mark Arundine, (Supervisor), Department of Pathology, 1998-2000  
Sammy Iskander, Department of Pathology, 1997 – 2000  
Christine Aere, Department of Communicative Disorders, 1997 - 1999  
Nelson Wong, (Supervisor), Department of Pathology, 1995-1997  
Christine Hall, Department of Communicative Disorders, 1995-1998  
Dalton Wolf, Graduate Neurosciences Program, Comprehensive Advisor, 1993

**Postdoctoral Fellows:**

Christian Dropplemann, PhD (2009 – current)  
Zhongping He, PhD (2008 – current)  
Mai Gohar, MD, PhD (2006 – current)  
Weiwen Ge, PhD (2002 – 2003)  
Wenchang Wang, MD (2002-2004)  
Weiyen Wen, MD, PhD (2002-2004)  
Beiping He, M.D., 1997-1999

**Sabbatical Supervision:**

Weimin Wang, MD, Associate Professor of Neurology, China, 2002 - 2003

**6. University, Faculty, Department & Hospital Committee Membership**

Project director, Lifecycle Research Network (LRN London), 2007 – current

Lead Author, CFI submission: Lifecycle Research Network, 2007

Member, Clinical Research Facility Steering committee, 2005 – current

Member, Dean's Tactical Planning Committee (TPC), Schulich School of Medicine and Dentistry, UWO, 2006 - 2008

Member, Dean's Advisory Council, Schulich School of Medicine and Dentistry, UWO, 2003 – 2006

Chair, Clinical research and education facilities committee, 2004-2005

Chair, Committee of Clinical Chairs, Faculty of Medicine and Dentistry, 2004-2006

Chair, Clinical Investigation Steering Committee (CISC), LHSC, 2004-present

Member, Selection committee, Executive Vice-President Academic, LHSC, 2003-2004

Member, Faculty of Medicine and Dentistry, Dean's Tactical Planning Committee, 2003 - current

Co-chair, Department of Clinical Neurological Sciences, 2000-present

Chief, Division of Neurology, Department of Clinical Neurological Sciences, 2000-present

Chairman, Finance Committee, Department of Clinical Neurological Sciences, 2000-present

Member, Medical Advisory Committee, LHSC, 2000 - present

Program Leader, Neurosciences, Lawson Health Research Institute, 2001 - 2005

Chairman, Clinician Researcher Committee, Faculty of Medicine and Dentistry, 2000

Executive Advisory Committee member, Department of Clinical Neurological Sciences, LHSC, 1997-2000

Chairman, Research Working Group, Department of Clinical Neurological Sciences, LHSC, 1997-2000

Internal Research Fund Review Committee, LHSC, 1996-1997

Research Task Force, LHSC, 1995-1996

Research Steering Committee, Strategic Planning, University Hospital, 1994-1995

Finance Committee, Department of Clinical Neurological Sciences, 1993-current

Co-chairman, London Neuroscience Association, 1991-1993

Postgraduate Education Committee Coordinator, LHSC-University Campus, 1990-current

**7. Research Funding****Extramural:****Active**

“MicroRNA (miRNA) modulation of NFL mRNA degradation and translational silencing in ALS: a novel window to the understanding of RNA stability in ALS”, 2009, ALS Society of Canada Senior Investigator Bridge Funding, \$100,000

“The role of TDP-43 in regulating NFL mRNA metabolism”, 2008-2011, Canadian Institutes of Health Research, 194,394/annum

“Specificity and sensitivity of Thr175 Tau phosphorylation antibody in ALS”, 2007, Western Innovation Fund, \$49,000

“The cellular basis of cognitive change in amyotrophic lateral sclerosis (motor neuron disease)”, 2006 -2008, (co-PI P. Nigel Leigh), The Amyotrophic Lateral Sclerosis Association and the ALS Society of Canada, \$159,996 (USD)

“The role of microglia in the generation of microtubule associated tau protein hyperphosphorylation in frontotemporal lobar dysfunction in amyotrophic lateral sclerosis (ALS)”, 2005 – 2008, Scottish Rite Charitable Foundation of Canada, \$107,040 (Cdn)

“Engineered bone marrow stem cells (BMSCs) for treatment of CNS injuries and diseases”, 2005 –2010, Canadian Institutes of Health Research, \$1,500,000, (Principal investigator: Serge Rivest, PhD, Laval University)

“The regulation of microglial activation in ALS”, 2004 –2007, The Muscular Dystrophy Association (USA); \$234,846 (US)

- “A molecular and neuropathological characterization of the cognitive impairment of sporadic amyotrophic lateral sclerosis”, 2004 –2007, The Amyotrophic Lateral Sclerosis Association and the ALS Society of Canada (joint sponsorship), \$230,739 (US)
- “A prospective study of rapid CT cerebral blood flow imaging in the detection of cognitive impairment in sporadic amyotrophic lateral sclerosis (ALS)”, 2002 – 2005, The Amyotrophic Lateral Sclerosis Association, \$48,932 (US)

### Inactive

- “Mechanisms of microglial-mediated motor neuron death”, 2001 – 2004, Scottish Heritage Rite Foundation, \$34,000/annum
- “Aberrant intermediate filament expression in sporadic ALS”, 2001 – 2003, The Amyotrophic Lateral Sclerosis Association, 50,000/annum
- “Intermediate filament expression in sporadic amyotrophic lateral sclerosis”, 2001 – 2003, CIHR (NRP program), 68,583/annum
- “The impact of enteral nutritional support on the quality of life of ALS patients and their primary care-givers”, MJ Strong (Principal investigator); B. O’Farrell (co-investigator), S. Wiebe (co-investigator), ALS Society of America, 1999 – 2001, \$22,422 (US)
- “Premiere’s research excellence award” (graduate and post-graduate student support award); 1999-2001, \$150,000
- “Analysis of disease progression in SOD1-associated amyotrophic lateral sclerosis”, Craig Strathdee (Principal investigator), MJ Strong (Co-investigator), ALS Society of America, 1999 – 2001, \$56,824 (US)
- “Low molecular weight neurofilament (NFL) as a scavenger of reactive nitrating species in sALS: Implications for disease induction”, ALS Society of Canada, 1998 – 2000, \$84,000
- “A comparison of manual motor muscle testing and maximum voluntary isometric contraction megascopes as measures of disease progression in amyotrophic lateral sclerosis”; Eric Sorensen (Mayo Clinic; Principal investigator), MJ Strong (Co-investigator), ALS Society of America, 1998-2000, \$100,000
- “Phosphorylation and assembly characteristics of NFH in amyotrophic lateral sclerosis”, ALS Society of Canada, 1996 - 1998, \$67,000
- “SOD mutants in ALS”, Craig Strathdee (co-investigator), ALS Society of Canada, 1996-1998, \$68,000
- Medical Research Council of Canada Scholar, 1991-1996
- “Microglia, peroxynitrite formation and tyrosine nitration of the low molecular weight neurofilament in amyotrophic lateral sclerosis (ALS)”, ALS Society of America, 1995-1997, \$73,927 (US)
- "Characteristics of protein kinase activities and domain-specific neurofilament phosphorylation in aluminum-induced motor neuron degeneration", ALS Society of Canada, 1994-96, \$106,500
- "Neurofilament phosphorylation in aluminum-induced neurofilamentous inclusions in dissociated motor neurons", Amyotrophic Lateral Sclerosis Society of Canada, 1991-93; \$91,126
- "A temporal analysis of chronic aluminum-induced neurofibrillary degeneration: cellular and molecular mechanisms", Upjohn London Neurosciences Program. The Upjohn Company of Canada, 1990-92, \$96,000

### Intramural:

- “nNOS isoform expression in sporadic amyotrophic lateral sclerosis (ALS)”, London Health Sciences Centre, Internal Research Fund, \$8,500
- “Mechanisms of neuronal death in amyotrophic lateral sclerosis”, London Health Sciences Centre, Internal Research Fund, 1997, \$12,500
- “Characterization of cognitive impairments in amyotrophic lateral sclerosis”, London Health Sciences Centre, Internal Research Fund, 1996, \$21,758
- “Identification of the gene for familial muscle hypertrophy with cramps”, University Hospital Pooled Research Trust Fund, 1995, \$10,000
- “Nitric oxide synthase expression in sporadic amyotrophic lateral sclerosis”, University Hospital Pooled Research Trust Fund, 1995, \$8,490
- “Are integrins involved in the microglia proliferation in amyotrophic lateral sclerosis?”, University Hospital Pooled Research Trust Fund, 1994, \$7,925
- "Neurofilament subunit protein isoform analysis using FPLC ION exchange chromatography", Academic Development Fund, UWO, 1994-95; \$5,550

- "Aluminum toxicity: effects of axotomy on aluminum-induced alterations in neurofilament gene expression", University Hospital Pooled Research Trust Fund, 1993-94; \$6,549
- "The role of protein synthesis and axonal transport in aluminum neurotoxicity", University Hospital Pooled Research Trust Fund, 1993, \$8,900
- "Effects of axotomy on aluminum-induced alterations in neurofilament gene expression", University Hospital Pooled Research Trust Fund, 1993, \$6,549
- "Characterization of neurofilament subunit protein and microtubule-associated protein tau mRNA in chronic aluminum neurotoxicity". University Hospital Pooled Research Trust Fund, 1992-93, \$6,000
- "Ultraspec III Spectrophotometer". University of Western Ontario V.P. Research Competition, 1993, \$6,790
- "Aluminum-induced triton X-100 soluble neurofilament breakdown products: phosphorylation, proteolytic and chymotrypsin-digestion characterization", University Hospital Pooled Research Trust Fund, 1992, \$5,000
- "Characterization of Neurofilament subunit protein and microtubule-associated protein tau mRNA in chronic aluminum neurotoxicity", University Hospital Pooled Research Trust Fund, 1992-93, \$6,000

### Industrial:

- "Canadian Cohort study of ALS Subjects", Aventis, (Brian Feagan, co-investigator), 2001 – 2005, 380,000/annum.
- "A 12-week, randomized, double-blind, placebo-controlled, parallel group, multicenter, safety and dose-ranging study of three oral doses (0.5mg, 2.5mg and 10mg once daily) of TCH346 in patients with Amyotrophic Lateral Sclerosis", Novartis Pharmaceuticals Canada Inc (Doug Arnold, Principle investigator), 2002; \$45,000
- "A Canadian multicentre phase IV comparative study of the effect of riluzole 50 mg bid on the survival of ALS subjects compared to historical controls", MJ Strong (Principle Investigator), Aventis, 2001 – 2005; \$37,500/annum
- "A randomized double-blind, placebo controlled, study to evaluate the efficacy, safety and tolerability of recombinant-methionyl human brain derived neurotrophic factor (r-metHuBDNF) when given by intrathecal infusion to subjects with amyotrophic lateral sclerosis", Amgen Canada, Inc., \$259,000, (1998-current)
- "Efficacy, safety and tolerability study of SR 57746A in patients with amyotrophic lateral sclerosis (ALS)", Sanofi Recherche, \$573,000, 1997-current
- "A trial of recombinant methionyl human brain-derived neurotrophic factor (r-metHuBDNF) given by daily subcutaneous injection to patients with amyotrophic lateral sclerosis (ALS)", Amgen Incorporated, 1994-current; \$321,000, 1994-1997
- "A phase II-III prospective, randomized, double-blinded placebo-controlled dose-ranging safety and efficacy study of recombinant human ciliary neurotrophic factor (rHCNTF) in patients with amyotrophic lateral sclerosis". Regeneron Pharmaceuticals, Inc., 1993-94; \$132,623

## 8. Publications

### 8.(i) Articles in Refereed Journals

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### 8.(ii). Chapters

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Ge W.W. & Strong M.J.,	AY821786	2004	alternatively spliced human SMN mRNA
Ge W.W. & Strong M.J.,	AY821787	2004	alternatively spliced human SMN mRNA
Ge W.W. & Strong M.J.,	DQ145510	2005	alternatively spliced human 14-3-3 Tau mRNA
Strong MJ, Volkening K, Hammond R, Leystra-Lantz C.,	EF434181	2007	TDP43(1-419)
Strong MJ, Volkening K, Hammond R, Leystra-Lantz C.,	EF434182	2007	TDP43(1-417)
Strong MJ, Volkening K, Hammond R, Leystra-Lantz C.,	EF434183	2007	TDP43(1-261)

**8.(v) Patents and copyright**

1. US60/749,030 - Polyclonal Antibody to pTau(Thr175)

**8.(vi). Abstracts**

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