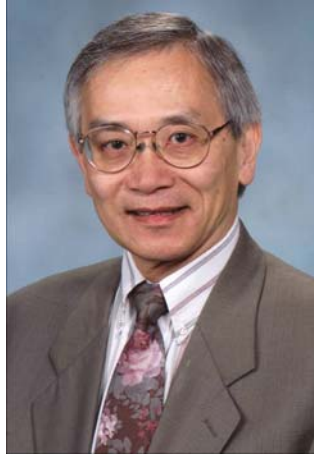


CURRICULUM VITAE



Phillip Anson Low – Robert D and Patricia E Kern Professor of Neurology

Qualifications: M.B., B.S. (Syd.), M.D. (Syd.), F.R.A.C.P., FRCP

Home Address: 604 14th Avenue SW
Rochester, MN 55902
507-288-4913

Citizenship: USA and Australia

Date of Birth: September 11, 1941

Place of Birth: Suva, Fiji Islands

Marital Status: Married, 1968: Maureen
Children: Yvette, DOB 10/5/69
Rachele, DOB 11/16/70
Victoria (Tori), DOB 3/19/76
Phillip Andrew, DOB 7/21/82

Education:

1958 - 1960 St. Joseph's College, Hunter's Hill, NSW, Australia

1960 - 1965 Medical School, University of Sydney, NSW, Australia. M.B.B.S. (M.D. equivalent)

Postgraduate Training:

Jan. 1966 - Sept. 1967	St. Vincent's Hospital Residency Training, NSW, Australia
Aug. 1970	Certification in Internal Medicine; Membership of Royal Australasian College of Physicians (M.R.A.C.P.)
Jan. 1972 - Dec. 1973	Neurology Registrar (Neurology Residency), Royal Prince Alfred Hospital, Sydney, NSW, Australia
Jan. 1974 - April 1976	Graduate Studies on "Experimental Hypertrophic Neuropathy of the Trembler Mouse"; Advisor: Professor J. G. McLeod, Department of Medicine (Neurology), University of Sydney, NSW, Australia; Awarded Research Doctorate (M.D. – Syd.) in Nov. 1977
1975	Fellowship of Royal Australasian College of Physicians (F.R.A.C.P.)

Postgraduate Training (continued):

April 1976 - Aug. 1977	Postdoctoral Research Fellow with Dr. P. J. Dyck, Department of Neurology, Mayo Clinic, Rochester, MN 55905
Sept. 1977 - April 1978	Postdoctoral Fellow with Dr. Toshio Narahashi, Laboratory of Cellular Pharmacology and Toxicology, Department of Pharmacology, Northwestern University, Chicago, IL 60611
May 1978 - Aug. 1978	Visiting Scientist (Dr. C. Schauf), Department of Physiology and Neurological Sciences, Rush Presbyterian-St. Luke's Medical School, Chicago, IL 60612
2002	Fellowship of Royal College of Physicians (FRCP) – Awarded on the basis of distinguished clinician

Departmental Appointments (Mayo Clinic):

1984 - Present	Academic Promotions Committee
1984	Graduate Degrees Program Committee
1985 - Present	Research Committee
1985 - 1988	Chairman, Research Committee
1989 - Present	Executive Committee
1991 - Present	Recruitment Committee
1999 - Present	Academic Affairs Committee
2000 - Present	Visiting Faculty Selection Committee

Faculty and Institutional (Mayo Clinic) Appointments:

Sept. 1978	Consultant in Neurology, Department of Neurology, Mayo Clinic, Rochester, MN
	Director, Neuroscience Laboratory, Guggenheim 8
	Attending Neurologist, St. Mary's Hospital, Rochester, MN
	Attending Neurologist, Rochester Methodist Hospital, Rochester, MN
1978 - 1982	Assistant Professor of Neurology, Mayo Medical School
March 1982	Founder and Director, Autonomic Reflex Laboratory

Faculty and Institutional (Mayo Clinic) Appointments (continued):

1982 - 1984	Associate Professor of Neurology, Mayo Medical School
1984	Professor of Neurology, Mayo Medical School
1984 - 1987	Member, Staff Development Committee
1988 - 1991	Member, Research Training and Degrees Program Committee Member, Admissions and Student Progress Subcommittee
1989 - Present	Chairman, Division of Clinical Neurophysiology
1994 - 2002	Head, Peripheral Nerve Center
2002 - Present	Section head, Peripheral Nerve Section
2002 - Present	GCRC Advisory Committee

Board Certification:

1980	American Board of Psychiatry and Neurology
1992	Certification in the Medical Subspecialty of Neurology with Added Qualifications in Clinical Neurophysiology (ABPN)

Research Interests:

1. Peripheral nerve microenvironment with major focus on the mechanisms of nerve ischemia and the pathogenesis of chronic progressive diabetic neuropathy.
2. Quantitation of human autonomic function using noninvasive techniques.
3. Pathophysiology of human dysautonomia.
4. Clinical treatment trials of peripheral and autonomic neuropathies.

<u>Licensure:</u>	Minnesota
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Scientific Societies:

American Academy of Neurology
 American Association for the Advancement of Science
 American Autonomic Society
 American Medical Association
 American Neurological Association
 Australian Association of Neurology
 Society for Neuroscience
 Sigma Xi

Awards, Honors, and Membership of Honorary Societies:

Nov. 1976	Awarded Peter Bancroft Prize for Research, University of Sydney, NSW, Australia
1976	Mayo Foundation Scholarship Award
1988	Jacob Javits Neuroscience Award, National Institutes of Health
1992 - 1994	Chairman, Section of the Autonomic Nervous System, American Academy of Neurology
1992 - 1997	Board of Governors, American Autonomic Society
1993 - 1995	President, International Neurovegetative Research Society
1993 - 1995	President, American Autonomic Society
2001	First Clinical Research Committee Mentorship Award, Mayo Foundation
2006	Named Professorship – Robert D and Patricia E Kern Professor of Neurology

Other National Professional Activities:

Editorial Board, *Muscle & Nerve*, Jan. 1988 - 1992.

Editorial Board, *Clinical Autonomic Research*, Jan. 1991 - Present.

Editorial Board, *Journal of the Autonomic Nervous System*, Jan. 1994 - Present.

Associate Editor, *Journal of the Autonomic Nervous System*, Jan. 1995 - Present.

Editorial Board, *Journal of Clinical Neurophysiology*, Feb. 1995 - 2002.

Editorial Board, *Journal of Clinical Neuromuscular Diseases*, 1999 - Present.

Other National Professional Activities (continued):

Editorial Board, *Diabetes*, Jan. 2000 - Present.

Written Examination Committee, American Board of Psychiatry and Neurology, 1995 - 1999.

Scientific Issues Committee, American Academy of Neurology, 1993 - 1999.

Member, NIH Neurology A Study Section, 1989 - 1992.

Member, Juvenile Diabetes Research Foundation Medical Science Review Committee, 1999 - 2001.

Member, Juvenile Diabetes Research Foundation Clinical Trials Review Committee, 2002 - Present

Ad hoc reviewer of research grants for NINCDS, Veterans Administration, Medical Research Council of Canada and Australia.

Ad hoc special study section member, NINCDS.

Ad hoc reviewer to the following journals: *Proceedings of the National Academy of Sciences, Science, New England Journal of Medicine, Diabetes, Diabetes Care, Neurosurgery, Brain, Experimental Neurology, Neurology, Annals of Neurology*, etc.

Scientific Advisory Board, Neuropathy Association, 1995 - Present.

Peripheral Nerve Association, Board Member, 1992 – 1994.

Peripheral Nerve Society, Board Member, 1994 – 1997.

Committee on Certification for Added Qualifications in Clinical Neurophysiology, American Board of Psychiatry and Neurology, 1995 - 1999.

Commission on the Autonomic Nervous System, International Union of Physiological Sciences (IUPS), 1996 - Present.

Councilor, American Neurological Association, 2000 - 2002.

Member of Steering Committee - NIDDK/NHLBI Animal Models of Diabetic Complications Neuropathy Disease Validation Committee (AMDCC), 2002 – Present.

Examiner of Ph.D. Dissertations:

T. J. Ingall - “Autonomic nervous System Function in Aging and in Diseases of the Peripheral Nervous System”, submitted June 1986.

Philippe Durant - “Central and Peripheral Pharmacology of the Urinary Bladder in Unanesthetized Rats”, 1987.

Research Advisor to Postdoctoral Fellows:

7/1/82 – 6/30/83	Roger R. Tuck, M.B.B.S., Ph.D. (Awarded D. C. Balfour Alumni Award, Mayo Foundation)
7/1/84 – 6/30/86	Megumi Takeuchi, M.D.
7/1/84 – 8/31/85	Philip G. McManis, M.B.B.S.
7/1/86 – 6/30/87	Timothy J. Day, M.B.B.S.
7/1/86 – 6/30/87	Terrence D. Lagerlund, M.D., Ph.D.
7/1/86 – 6/30/88	Douglas W. Zochodne, M.D.
7/1/86 – 9/30/88	Thomas C. Chelimsky, M.D.
3/31/88 – 6/30/89	Eduardo E. Benarroch, M.D., D.Sci.
10/1/86 – 9/30/87	Malcolm Shupeck, M.D.
1/1/88 – 12/31/88	Zhongxian Huang, M.D.
1/9/89 – 1/31/90	Paola Sandroni, M.D.
5/1/88 – 10/31/93	Mikihiro Kihara, M.D.
4/1/90 – 3/31/91	Ronald Schondorf, M.D., PhD.
7/1/90 – 6/30/91	Catherine Willner, M.D.
7/1/92 – 6/30/93	Guillermo A. Suarez, M.D.
1/26/93 – 1/25/95	Masaaki Nagamatsu, M.D.
4/1/94 – 3/8/96	Hideyuki Sasaki, M.D.
10/1/94 – 12/28/96	Jong-Chyou Denq, M.D.
12/19/94 – 5/24/96	Peter Novak, M.D., Ph.D.
12/19/94 – 7/10/97	Vera Novak, M.D., Ph.D.
7/1/95 – 8/25/96	Miquel Buti, M.D.
1/1/97 – 1/5/98	Judith Spies, M.D., Ph.D.
2/2/96 – 2/2/97	Yutaka Kishi, M.D.

Research Advisor to Postdoctoral Fellows (continued):

7/1/95 – 8/31/97	Luciano Scionti, M.D.
5/30/96 – 9/30/98	Yoshiyuki Mitsui, M.D.
7/1/97 – 6/30/98	Victor Gordon, M.D.
12/29/97 – 12/31/00	Kunihisa Okamoto, M.D.
7/1/98 – Present	Wolfgang Singer, M.D.
7/6/98 – 9/16/99	Hiroshi Tani, M.D.
7/1/00 – 6/30/01	Caroline Klein, M.D., Ph.D.
7/10/00 – 9/27/02	Machiko Nishizawa, M.D.
4/2/00 – 8/31/04	Lisa M. Benrud-Larson, Ph.D.
4/2/01 – 5/28/04	Haruyasu Iida, M.D.
11/29/01 – 4/14/05	Yanping Wang, Ph.D.
04/19/04 – 4/31/06	Nobutoshi Kawamura, M.D.
05/01/05 – present	Axel Lipp MD
08/02/05 – present	Chih-Cheng Huang MD

Current Research Funding:

RO1 NS39722-3 (Low) NIH/NINDS Diabetic Autonomic Neuropathy	9/30/99-8/31/04
FNDTJDRF 1-2001-554-3 (Low) JDRF Mechanisms of Diabetic Ischemic Inflammatory Response	7/1/01-6/30/04
M01 RR00585-33 (Burnett) NCCR General Clinical Research Center	12/1/99-11/30/04
P50 NS32352-9 (Low) NIH/NINDS Autonomic Disorders Program Project-Core Facility	1/1/01-8/31/05
P50-NS32352-9 (Low) NIH/NINDS Autonomic Disorders Program Project-Project 1	1/1/01-8/31/05
ROINS 22352-18 (Low) NIH/NINDS Peripheral Nerve Ischemia	7/1/01-6/30/05
1K08NS/AI02247 Mentor to Stephen Vernino MD PhD	
5 K23 RR15537 Mentor to Paola Sandroni MD PhD	

PUBLICATIONS

Journal Articles

1. Lyneham RC, McLeod JG, Smith ID, Low PA, Shearman RP, Korda AR: Convulsions and electroencephalogram abnormalities after intra-amniotic prostaglandin R. *Lancet* 2:1003-1005, 1973.
2. Low PA, McLeod JG, Turtle JR, Donnelly P, Wright RA: Peripheral neuropathy in acromegaly. *Brain* 97:139-152, 1974.
3. Low PA, Allsop JL, Halmagyi GM: Huntington's chorea: The rigid form (Westphal variant) treated with levodopa. *Med J Aust* 1:393-394, 1974.
4. Steiner JA, Low PA, Huang CY, West M, Uther JB, Allsop JL, Chalmers JP: L-dopa and the Shy-Drager syndrome. *Med J Aust* 2:133-136, 1974.
5. Low PA: Pathology of diabetic neuropathy. *Bull Postgrad Comm Med Univ of Syd*, August, pp. 138-141, 1975.
6. Low PA, McLeod JG: Hereditary demyelinating neuropathy in the Trembler mouse. *J Neurol Sci* 26:565-574, 1975.
7. Low PA, Walsh JC, Huang CY, McLeod JG: The sympathetic nervous system in diabetic neuropathy. A clinical and pathological study. *Brain* 98:341-356, 1975.
8. Low PA, Walsh JC, Huang CY, McLeod JG: The sympathetic nervous system in alcoholic neuropathy. A clinical and pathological study. *Brain* 98:357-364, 1975.
9. Low PA, Walsh JC, Huang CY, McLeod JG: The autonomic nervous system in alcoholic and diabetic neuropathy. *Proc Aus Assoc Neurol* 12:145-150, 1975.
10. Walsh JC, Low PA, Allsop JL: Autonomic disturbances produced by lung cancer: a report of two unusual cases. *Proc Aus Assoc Neurol* 12:81-83, 1975.
11. McLeod JG, Low PA, Morgan JA: A family with Charcot-Marie-Tooth disease and Leber's optic atrophy. *Proc Aus Assoc Neurol* 12:23-25, 1975.
12. Walsh JC, Low PA, Allsop JL: Localized sympathetic activity: an uncommon complication of lung cancer. *J Neurol Neurosurg Psychiatry* 39:93-95, 1976.
13. M.D. Thesis, University of Sydney (1976) Hereditary hypertrophic neuropathy in the Trembler mouse. Awarded Doctorate in Medicine, and Peter Bancroft Award for Best Research Effort in 1976.
14. Low PA: Hereditary hypertrophic neuropathy in the Trembler mouse. I. Histopathological studies: Light microscopy. *J Neurol Sci* 30:327-341, 1976.
15. Low PA: Hereditary hypertrophic neuropathy in the Trembler mouse. II. Histopathological studies: electron microscopy. *J Neurol Sci* 30:343-368, 1976.
16. Low PA, Dyck PJ: Increased endoneurial fluid pressure in experimental lead neuropathy. *Nature* 269:427-428, 1977.

17. Low PA, Okazaki H, Dyck PJ: Splanchnic preganglionic neurons in man. I. Morphometry of preganglionic cytons. *Acta Neuropathol (Berl)* 40:55-61, 1977.
18. McLeod JG, Low PA: Peroneal muscular atrophy with autosomal dominant inheritance. *Clin Exp Neurol* 14:142-153, 1977.
19. Low PA, Dyck PJ: Splanchnic preganglionic neurons in man: II. Morphometry of myelinated fibers of T⁷ ventral spinal root. *Acta Neuropathol (Berl)* 40:219-225, 1977.
20. Low PA, McLeod JG: Refractory period, conduction of trains of impulses, and effect of temperature on conduction in chronic hypertrophic neuropathy. *J Neurol Neurosurg Psychiatry* 40:434-447, 1977.
21. Low PA: The evolution of 'onion bulbs' in the hereditary hypertrophic neuropathy of the Trembler mouse. *Neuropathol Appl Neurobiol* 3:81-92, 1977.
22. Low P, Marchand G, Knox F, Dyck PJ: Measurement of endoneurial fluid pressure with polyethylene matrix capsules. *Brain Res* 122:373-377, 1977.
23. Low PA, McLeod JG, Prineas JW: Hypertrophic Charcot-Marie-Tooth disease - light and electron microscope studies of the sural nerve. *J Neurol Sci* 35:93-115, 1978.
24. Low PA, Burke WJ, McLeod JG: Congenital sensory neuropathy with selective loss of small myelinated fibers. *Ann Neurol* 3:179-182, 1978.
25. Dyck PJ, Lais AC, Low PA: Nerve xenografts to assess cellular expression of the abnormality of myelination in inherited neuropathy and Friedreich's ataxia. *Neurology* 28:261-265, 1978.
26. Low PA, Dyck PJ: Splanchnic preganglionic neurons in man: III. Morphometry of myelinated fibers of rami communicantes. *J Neuropathol Exp Neurol* 37:734-740, 1978.
27. Dyck PJ, Kawamura Y, Low PA, Shimono M, Solovy JS: The number and sizes of reconstructed peripheral autonomic, sensory and motor neurons in a case of dysautonomia. *J Neuropathol Exp Neurol* 37:741-755, 1978.
28. Low PA, Thomas JE, Dyck PJ: The splanchnic autonomic outflow in Shy-Drager syndrome and idiopathic orthostatic hypotension. *Ann Neurol* 4:511-514, 1978.
29. McLeod JG, Low PA, Morgan JA: Charcot-Marie-Tooth disease with Leber optic atrophy. *Neurology* 28:179-184, 1978.
30. Dyck PJ, Jedrzejowska H, Karnes J, Kawamura Y, Low PA, O'Brien PC, Offord K, Ohnishi A, Ohta M, Pollock M, Stevens JC: Reconstruction of motor, sensory and autonomic neurons based on morphometric study of sampled levels. *Muscle Nerve* 2:399-405, 1979.
31. Low PA, Wu CH, Narahashi T: The effect of anthopleurin-A on crayfish giant axon. *J Pharmacol Exp Ther* 210:417-421, 1979.
32. McLeod JG, Low PA: Animal models of peripheral neuropathy: the Trembler mouse. *Muscle Nerve* 2:495-502, 1979.

33. Dyck PJ, Low PA, Sparks MF, Hexum LA, Karnes JL: Effect of serum hyperosmolality on morphometry of healthy human sural nerve. *J Neuropathol Exp Neurol* 39:285-295, 1980.
34. Pencek TL, Schauf CL, Low PA, Eisenberg BR, Davis FA: Disruption of the perineurium in amphibian peripheral nerve: Morphology and physiology. *Neurology* 30:593-599, 1980.
35. Low PA, Dyck PJ, Schmelzer JD: Mammalian peripheral nerve sheath has unique responses to chronic elevations of endoneurial fluid pressure. *Exp Neurol* 70:300-306, 1980.
36. Dyck PJ, Windebank AJ, Low PA, Baumann WJ: Blood nerve barrier in rat and cellular mechanisms of lead-induced segmental demyelination. *J Neuropathol Exp Neurol* 39:700-709, 1980.
37. Dyck PJ, Lambert EH, Windebank AJ, Lais AC, Sparks MF, Karnes J, Sherman WR, Hallcher LM, Low PA, Service JF: Acute hyperosmolar hyperglycemia causes axonal shrinkage and reduced nerve conduction velocity. *Exp Neurol* 71:507-514, 1981.
38. Low PA, Dyck PJ, Okazaki H, Kyle R, Fealey RD: The splanchnic autonomic outflow in amyloid neuropathy and Tangier disease. *Neurology* 31:461-463, 1981.
39. Dyck PJ, Lais AC, Karnes JL, Sparks M, Hunder H, Low PA, Windebank AJ: Permanent axotomy, a model of axonal atrophy and secondary segmental demyelination and remyelination. *Ann Neurol* 9:575-583, 1981.
40. Low PA: In vitro study of acute elevations of endoneurial pressure in mammalian peripheral nerve sheath. *Exp Neurol* 74:160-169, 1981.
41. Low PA, Dyck PJ, Schmelzer JD: Chronic elevation of endoneurial fluid pressure is associated with low-grade fiber pathology. *Muscle Nerve* 5:162-165, 1982.
42. Low PA, Schmelzer JD, Dyck PJ: Results of endoneurial injection of Guillain-Barre serum in Lewis rats. *Mayo Clin Proc* 57:360-364, 1982.
43. Low PA, Schmelzer JD, Dyck PJ, Kelly JJ Jr: Endoneurial effects of sera from patients with acute inflammatory polyradiculoneuropathy - electrophysiological studies on normal and demyelinated nerves. *Neurology* 32:720-724, 1982.
44. Low PA, Yao JK, Poduslo JF, Donald DE, Dyck PJ: Peripheral nerve microenvironment: collection of endoneurially enriched fluid. *Exp Neurol* 77:208-214, 1982.
45. Dyck PJ, Lais AC, Hansen SM, Sparks MF, Low PA, Parthasarathy S, Baumann WJ: Technique assessment of demyelination from endoneurial injection. *Exp Neurol* 77:359-377, 1982.
46. Dyck PJ, Swanson CJ, Low PA, Bartleson JD, Lambert EH: Prednisone-responsive hereditary motor and sensory neuropathy. *Mayo Clin Proc* 57:239-246, 1982.
47. Poduslo JF, Low PA, Windebank AJ, Dyck PJ, Berg CT, Schmelzer JD: Altered blood-nerve barrier in experimental lead neuropathy assessed by changes in endoneurial albumin concentration. *J Neurosci* 2:1507-1514, 1982.

48. Dyck PJ, O'Brien PC, Whale KF, Walleye RP, Daube JR, Bartleson JD, Mokri B, Swift T, Low PA, Windebank AJ: Prednisone improves chronic inflammatory demyelinating polyradiculoneuropathy more than no treatment. *Ann Neurol* 11:136-141, 1982.
49. Low PA, Schmelzer JD, Dyck PJ, Kelly JJ: Electrophysiological studies of Guillain-Barre serum on 2 strains of rats with different susceptibilities to develop EAN. *Kyoto Symposia (EEG Suppl. No. 36):81-90*, 1982.
50. Dyck PJ, Karnes J, Sparks M, Low PA: The morphometric composition of myelinated fibres by nerve, level and species related to nerve microenvironment and ischaemia. *Kyoto Symposia (EEG Suppl. No. 36):39-55*, 1982.
51. Low PA, Dyck PJ, Lambert EH, Brimijoin WS, Trautman JC, Malagelada JR, Fealey RD, Barrett DM: Acute panautonomic neuropathy. *Ann Neurol* 13:412-417, 1983.
52. Low PA, Schmelzer JD: Peripheral nerve conduction studies in galactose-poisoned rats. *J Neurol Sci* 59:415-421, 1983.
53. Dyck PJ, Low PA, Stevens JC: "Burning feet" as the only manifestation of dominantly inherited sensory neuropathy. *Mayo Clin Proc* 58:426-429, 1983.
54. Low PA, Neumann C, Dyck PJ, Fealey RD, Tuck RR: Evaluation of skin vasomotor reflexes by using laser Doppler velocimetry. *Mayo Clin Proc* 58:583-592, 1983.
55. Low PA, Caskey PE, Tuck RR, Fealey RD, Dyck PJ: Quantitative sudomotor axon reflex test in normal and neuropathic subjects. *Ann Neurol* 14:573-580, 1983.
56. Low PA, Schmelzer JD, Yao JK, Dyck PJ, Parthasarathy S, Baumann WJ: Structural specificity in demyelination induced by lysophospholipids. *Biochim Biophys Acta* 754:298-304, 1983.
57. Low PA, Tuck RR: Effects of changes of blood pressure, respiratory acidosis and hypoxia on blood flow in the sciatic nerve of the rat. *J Physiol (Lond)* 347:513-524, 1984.
58. Tuck RR, Schmelzer JD, Low PA: Endoneurial blood flow and oxygen tension in the sciatic nerves of rats with experimental diabetic neuropathy. *Brain* 107:935-950, 1984.
59. Low PA, Tuck RR, Dyck PJ, Schmelzer JD, Yao JK: Prevention of some electrophysiologic and biochemical abnormalities with oxygen supplementation in experimental diabetic neuropathy. *Proc Natl Acad Sci USA* 81:6894-6898, 1984.
60. Dyck PJ, Karnes J, O'Brien P, Nukada H, Lais A, Low P: Spatial pattern of nerve fiber abnormality indicative of pathologic mechanisms. *Am J Pathol* 117:225-238, 1984.
61. Dyck PJ, Low PA, Windebank AJ: Clinical and laboratory approaches to improve diagnosis, characterization and therapy of undiagnosed neuropathy. *Excerpta Medica Int Congr Series* 662:65-74, 1984.
62. Dyck PJ, Low PA, Windebank PJ: Prednisone, immunotherapy and plasmapheresis in chronic inflammatory-demyelinating polyradiculoneuropathy (CIDP). *Excerpta Medica Int Congr Series* 662:399-406, 1984.

63. Low PA: Endoneurial potassium is increased and enhances spontaneous activity in regenerating mammalian nerve fibers--Implications for neuropathic positive symptoms. *Muscle Nerve* 8:27-33, 1985.
64. Poduslo JF, Low PA, Nickander KK, Dyck PJ: Mammalian endoneurial fluid: Collection and protein analysis from normal and crushed nerves. *Brain Res* 332:91-102, 1985.
65. Low PA, Ward K, Schmelzer JD, Brimijoin S: Ischemic conduction failure and energy metabolism in experimental diabetic neuropathy. *Am J Physiol* 248:E457-E462, 1985.
66. Low PA, Nukada H, Schmelzer JD, Tuck RR, Dyck PJ: Endoneurial oxygen tension and radial topography in nerve edema. *Brain Res* 341:147-154, 1985.
67. Low PA, Fealey RD, Sheps SG, Su WPD, Trautmann JC, Kuntz NL, Dyck PJ: Chronic idiopathic anhidrosis. *Ann Neurol* 18:344-348, 1985.
68. Dyck PJ, O'Brien P, Swanson C, Low P, Daube J: Combined azathioprine and prednisone in chronic inflammatory-demyelinating polyneuropathy. *Neurology* 35:1173-1176, 1985.
69. Windebank AJ, Low PA, Blexrud MD, Schmelzer JD, Schaumburg HH: Pyridoxine neuropathy in rats: specific degeneration of sensory axons. *Neurology* 35:1617-1622, 1985.
70. Wood JR, Camilleri M, Low PA, Malagelada JR: Brainstem tumor presenting as an upper gut motility disorder. *Gastroenterology* 89:1411-1414, 1985.
71. Yao JK, Low PA: Improvement of endoneurial lipid abnormalities in experimental diabetic neuropathy by oxygen modification. *Brain Res* 362:362-365, 1986.
72. Low PA, Schmelzer JD, Ward KK: Experimental chronic hypoxic neuropathy: relevance to diabetic neuropathy. *Am J Physiol* 250:E94-E99, 1986.
73. Nukada H, Dyck PJ, Low PA, Lais AC, Sparks MF: Axonal caliber and neurofilaments are proportionately decreased in galactose neuropathy. *J Neuropathol Exp Neurol* 45:140-150, 1986.
74. Low PA, Schmelzer JD, Ward KK: The effect of age on energy metabolism and resistance to ischemic conduction failure in rat peripheral nerve. *J Physiol (Lond)* 374:263-272, 1986.
75. McManis PG, Low PA, Yao JK: Relationship between nerve blood flow and intercapillary distance in peripheral nerve edema. *Am J Physiol* 251:E92-E97, 1986.
76. Low PA, Zimmerman BR, Dyck PJ: Comparison of distal sympathetic with vagal function in diabetic neuropathy. *Muscle Nerve* 9:592-596, 1986.
77. Dyck PJ, Daube J, O'Brien P, Pineda A, Low PA, Windebank AJ, Swanson C: Plasma exchange in chronic inflammatory demyelinating polyradiculoneuropathy. *N Engl J Med* 314:461-465, 1986.
78. Low PA: Recent advances in the pathogenesis of diabetic neuropathy. *Muscle Nerve* 10:121-128, 1987.
79. Low PA: Autonomic neuropathy. *Semin Neurol* 7:49-57, 1987.
80. Schmelzer JD, Low PA: Electrophysiological studies on the effect of age on caudal nerve of the rat. *Exp Neurol* 96:612-620, 1987.

81. Lagerlund TD, Low PA: A mathematical simulation of oxygen delivery in rat peripheral nerve. *Microvasc Res* 34:211-222, 1987.
82. Dyck PJ, Benstead TJ, Conn DL, Stevens JC, Windebank AJ, Low PA: Nonsystemic vasculitic neuropathy. *Brain* 110:843-854, 1987.
83. Nagata H, Brimijoin S, Low P, Schmelzer JD: Slow axonal transport in experimental hypoxia and in neuropathy induced by p-bromophenylacetylurea. *Brain Res* 422:319-326, 1987.
84. Takeuchi M, Low PA: Dynamic peripheral nerve metabolic and vascular responses to exsanguination. *Am J Physiol* 253:E349-E353, 1987.
85. Cohen J, Low P, Fealey R, Sheps S, Jiang N-S: Somatic and autonomic function in progressive autonomic failure and multiple system atrophy. *Ann Neurol* 22:692-699, 1987.
86. Low PA, Schmelzer JD, Ward KK, Curran GL, Poduslo JF: Effect of hyperbaric oxygenation on normal and chronic streptozotocin diabetic peripheral nerves. *Exp Neurol* 99:201-212, 1988.
87. McManis PG, Low PA: Factors affecting the relative viability of centrifascicular and subperineurial axons in acute peripheral nerve ischaemia. *Exp Neurol* 99:84-95, 1988.
88. Zochodne DW, Ward KK, Low PA: Guanethidine adrenergic neuropathy: an animal model of selective autonomic neuropathy. *Brain Res* 461:10-16, 1988.
89. Benstead TJ, Dyck PJ, Low P: Chronic hypoxia induces selective maldevelopment of peripheral myelin in rat. *J Neuropathol Exp Neurol* 47:599-608, 1988.
90. Schmelzer JD, Low PA: The effect of hyperbaric oxygenation and hypoxia on the blood-nerve barrier. *Brain Res* 473:321-326, 1988.
91. Day TJ, Schmelzer JD, Low PA: Aortic occlusion and reperfusion and conduction, blood flow, and the blood-nerve barrier of rat sciatic nerve. *Exp Neurol* 103:173-178, 1989.
92. Ward KK, Low PA, Schmelzer JD, Zochodne DW: Prostacyclin and noradrenaline in peripheral nerve of chronic experimental diabetes in rats. *Brain* 112:197-208, 1989.
93. Schmelzer JD, Zochodne DW, Low PA: Ischemic and reperfusion injury of rat peripheral nerve. *Proc Natl Acad Sci USA* 86:1639-1642, 1989.
94. Day TJ, Lagerlund TD, Low PA: Analysis of H₂ clearance curves used to measure blood flow in rat sciatic nerve. *J Physiol (Lond)* 414:35-54, 1989.
95. Fealey RD, Low PA, Thomas JE: Thermoregulatory sweating abnormalities in diabetes mellitus. *Mayo Clin Proc* 64:617-628, 1989.
96. Shupeck M, Ward KK, Schmelzer JD, Low PA: Comparison of nerve regeneration in vascularized and conventional grafts: nerve electrophysiology, norepinephrine, prostacyclin, malondialdehyde, and the blood-nerve barrier. *Brain Res* 493:225-230, 1989.
97. Zochodne DW, Low PA, Dyck PJ: Adrenergic sympathectomy ablates unmyelinated fibers in the rat 'preganglionic' cervical sympathetic trunk. *Brain Res* 498:221-228, 1989.

98. McEvoy KM, Windebank AJ, Daube JR, Low PA: 3,4-Diaminopyridine in the treatment of Lambert-Eaton myasthenic syndrome. *N Engl J Med* 321:1567-1571, 1989.
99. Sodhi N, Camilleri M, Camoriano JK, Low PA, Fealey RD, Perry MC: Autonomic function and motility in intestinal pseudoobstruction caused by paraneoplastic syndrome. *Dig Dis Sci* 34:1937-1942, 1989.
100. Moy S, Opfer-Gehrking TL, Proper CJ, Low PA: The venoarteriolar reflex in diabetic and other neuropathies. *Neurology* 39:1490-1492, 1989.
101. Low PA, Lagerlund TD, McManis PG: Nerve blood flow and oxygen delivery in normal, diabetic, and ischemic neuropathy. *Int Rev Neurobiol* 31:355-438, 1989.
102. Greene RM, Winkelmann RK, Opfer-Gehrking TL, Low PA: Sweating patterns in atopic dermatitis patients. *Arch Dermatol Res* 281:373-376, 1989.
103. Low PA, Opfer-Gehrking TL, Proper CJ, Zimmerman I: The effect of aging on cardiac autonomic and postganglionic sudomotor function. *Muscle Nerve* 13:152-157, 1990.
104. Kihara M, Low PA: Regulation of rat nerve blood flow: role of epineurial α -receptors. *J Physiol (Lond)* 422:145-152, 1990.
105. Zochodne DW, Huang Z, Ward KK, Low PA: Guanethidine-induced adrenergic sympathectomy augments endoneurial perfusion and lowers endoneurial microvascular resistance. *Brain Res* 519:112-117, 1990.
106. Benarroch EE, Schmelzer JD, Ward KK, Nelson DK, Low PA: Noradrenergic and neuropeptide Y mechanisms in guanethidine-sympathectomized rats. *Am J Physiol* 259:R371-R375, 1990.
107. Zochodne DW, Low PA: Adrenergic control of nerve blood flow. *Exp Neurol* 109:300-307, 1990.
108. Griffin JW, Cornblath DR, Alexander E, Campbell J, Low PA, Bird S, Feldman EL: Ataxic sensory neuropathy and dorsal root ganglionitis associated with Sjogren's syndrome. *Ann Neurol* 27:304-315, 1990.
109. Low PA: Hypoxic factors in diabetic neuropathy. *Diabete Metab* 16:361-363, 1990.
110. Vassallo M, Camilleri M, Caron BL, Low PA: Gastrointestinal motor dysfunction in acquired selective cholinergic dysautonomia associated with infectious mononucleosis. *Gastroenterology* 100:252-258, 1991.
111. Lagerlund TD, Low PA: Axial diffusion and Michaelis-Menten kinetics in oxygen delivery in rat peripheral nerve. *Am J Physiol* 260:R430-R440, 1991.
112. Kihara M, Weerasuriya A, Low PA: Endoneurial blood flow in rat sciatic nerve during development. *J Physiol (Lond)* 439:351-360, 1991.
113. Benarroch EE, Low PA: The acetylcholine-induced flare response in evaluation of small fiber dysfunction. *Ann Neurol* 29:590-595, 1991.

114. Dyck PJ, Kratz KM, Lehman KA, Karnes JL, Melton LJ, O'Brien PC, Litchy WJ, Windebank AJ, Smith BE, Low PA, Service FJ, Rizza RA, Zimmerman BR: The Rochester Diabetic Study: Design, criteria for types of neuropathy, selection bias, and reproducibility of neuropathic tests. *Neurology* 41:799-807, 1991.
115. Torres NE, Zollman PJ, Low PA: Characterization of muscarinic receptor subtype of rat eccrine sweat gland by autoradiography. *Brain Res* 550:129-132, 1991.
116. Arnold RW, Dyer JA, Gould AB Jr, Hohberger GG, Low PA: Sensitivity to vasovagal maneuvers in normal children and adults. *Mayo Clin Proc* 66:797-804, 1991.
117. Kihara M, Schmelzer JD, Poduslo JF, Curran GL, Nickander KK, Low PA: Aminoguanidine on nerve blood flow, vascular permeability, electrophysiology, and oxygen free radicals. *Proc Natl Acad Sci USA* 88:6107-6111, 1991.
118. Sandroni P, Ahlskog JE, Fealey RD, Low PA: Autonomic involvement in extrapyramidal and cerebellar disorders. *Clin Auton Res* 1:147-155, 1991.
119. Low PA, Nickander KK: Oxygen free radical effects in the sciatic nerve in experimental diabetes. *Diabetes* 40:873-877, 1991.
120. Cameron NE, Cotter MA, Low PA: Nerve blood flow in early experimental diabetes in rats: relation to conduction deficits. *Am J Physiol* 261:E1-E8, 1991.
121. Kihara M, Nickander KK, Low PA: The effect of aging on endoneurial blood flow, hyperemic response and oxygen-free radicals in rat sciatic nerve. *Brain Res* 562:1-5, 1991.
122. Sandroni P, Benarroch EE, Low PA: Pharmacologic dissection of components of the Valsalva maneuver in adrenergic failure. *J Appl Physiol* 71:1563-1567, 1991.
123. Benarroch EE, Opfer-Gehrking TL, Low PA: Use of photoplethysmographic technique to analyze the Valsalva maneuver in normal man. *Muscle Nerve* 14:1165-1172, 1991.
124. Zollman PJ, Awad O, Schmelzer JD, Low PA: Effect of ischemia and reperfusion in vivo on energy metabolism of rat sciatic-tibial and caudal nerves. *Exp Neurol* 114:315-320, 1991.
125. Dyck PJ, Low PA, Windebank AJ, Jaradeh SS, Gosselin S, Bourque P, Smith BE, Kratz KM, Karnes JL, Evans BA, Pineda AA, O'Brien PC, Kyle RA: Plasma exchange in polyneuropathy associated with monoclonal gammopathy of undetermined significance. *N Engl J Med* 325:1482-1486, 1991.
126. Harper CM Jr, Low PA, Fealey RD, Chelimsky TC, Proper CJ, Gillen DA: Utility of thermography in the diagnosis of lumbosacral radiculopathy. *Neurology* 41:1010-1014, 1991.
127. Low PA, Opfer-Gehrking TL, Kihara M: In vivo studies on receptor pharmacology of the human eccrine sweat gland. *Clin Auton Res* 2:29-34, 1992.
128. Dyck PJ, Karnes JL, O'Brien PC, Litchy WJ, Low PA, Melton LJ III: The Rochester Diabetic Neuropathy Study: Reassessment of tests and criteria for diagnosis and staged severity. *Neurology* 42:1164-1170, 1992.
129. Low PA: Evaluation of autonomic function. *Curr Opin Neurol Neurosurg* 5:461-463, 1992.

130. Benarroch EE, Zollman PJ, Schmelzer JD, Nelson DK, Low PA: Guanethidine sympathectomy increases substance P concentration in the superior sympathetic ganglion of adult rats. *Brain Res* 584:305-308, 1992.
131. Low PA: Non-invasive evaluation of autonomic function. *Neurology Chronicle* 2:1-8, 1992.
132. Schondorf R, Low PA: Gender related differences in the cardiovascular responses to upright tilt in normal subjects. *Clin Auton Res* 2:183-187, 1992.
133. Stewart JD, Low PA, Fealey RD: Distal small fiber neuropathy: results of tests of sweating and autonomic cardiovascular reflexes. *Muscle Nerve* 15:661-665, 1992.
134. Low PA, Opfer-Gehrking TL: Differential effects of amitriptyline on sudomotor, cardiovagal, and adrenergic function in human subjects. *Muscle Nerve* 15:1340-1344, 1992.
- 134.5. Dyck PJ, Kratz KM, Karnes JL, Litchy WJ, Klein R, Pach JM, Wilson DM, O'Brien PC, Melton LJ III, Service FJ. The prevalence by staged severity of various types of diabetic neuropathy, retinopathy, and nephropathy in a population-based cohort: the Rochester Diabetic Neuropathy Study.[erratum appears in *Neurology* 43(11):2345, 1993]. *Neurology*. 43(4):817-824, 1993.
135. Schondorf R, Low PA: Idiopathic postural orthostatic tachycardia syndrome: An attenuated form of acute pandysautonomia? *Neurology* 43:132-137, 1993.
136. Low PA: Autonomic nervous system function. *J Clin Neurophysiol* 10:14-27, 1993.
137. Bharucha AE, Camilleri M, Low PA, Zinsmeister AR: Autonomic dysfunction in gastrointestinal motility disorders. *Gut* 34:397-401, 1993.
138. Kihara M, Opfer-Gehrking TL, Low PA: Comparison of directly stimulated with axon reflex-mediated sudomotor responses in human subjects and in patients with diabetes. *Muscle Nerve* 16:655-660, 1993.
139. Camilleri M, Balm RK, Low PA: Autonomic dysfunction in patients with chronic intestinal pseudo-obstruction. *Clin Auton Res* 3:95-100, 1993.
140. Low PA: Composite autonomic scoring scale for laboratory quantification of generalized autonomic failure. *Mayo Clin Proc* 68:748-752, 1993.
141. Opfer-Gehrking TL, Low PA: Impaired respiratory sinus arrhythmia with paradoxically normal Valsalva ratio indicates combined cardiovagal and peripheral adrenergic failure. *Clin Auton Res* 3:169-173, 1993.
142. Kihara M, Zollman PJ, Schmelzer JD, Low PA: The influence of dose of microspheres on nerve blood flow, electrophysiology, and fiber degeneration of rat peripheral nerve. *Muscle Nerve* 16:1383-1389, 1993.
143. Low P, Kihara M, Cameron N, Cotter M, Poduslo J: Cause and effect of ischaemia in chronic experimental diabetic neuropathy. *Diabet Med* 10 (Suppl 2):52S-55S, 1993.

144. Benarroch EE, Zollman PJ, Smithson IL, Schmelzer JD, Low PA: Different reinnervation patterns in the celiac/mesenteric and superior cervical ganglia following guanethidine sympathectomy in adult rats. *Brain Res* 644:322-326, 1994.
145. Lagerlund TD, Low PA: Mathematical modeling of hydrogen clearance blood flow measurements in peripheral nerve. *Comput Biol Med* 24:77-89, 1994.
146. Iuliano BA, Schmelzer JD, Thiemann RL, Low PA, Rodriguez M: Motor and somatosensory evoked potentials in mice infected with Theiler's murine encephalomyelitis virus. *J Neurol Sci* 123:186-194, 1994.
147. Kihara M, Zollman PJ, Smithson IL, Lagerlund TD, Low PA: Hypoxic effect of exogenous insulin on normal and diabetic peripheral nerve. *Am J Physiol* 266:E980-E985, 1994.
148. Low PA, Amadio PC, Wilson PR, McManis PG, Willner CL: Laboratory findings in reflex sympathetic dystrophy: A preliminary report. *Clin J Pain* 10:235-239, 1994.
149. Arnold RW, Gould AB, MacKenzie R, Dyer JA, Low PA: Lack of global vagal propensity in patients with oculocardiac reflex. *Ophthalmology* 101:1347-1352, 1994.
150. Low PA: Autonomic neuropathies. *Curr Opin Neurol* 7:402-406, 1994.
151. Nickander KK, Schmelzer JD, Rohwer DA, Low PA: Effect of α -tocopherol deficiency on indices of oxidative stress in normal and diabetic peripheral nerve. *J Neurol Sci* 126:6-14, 1994.
152. Suarez GA, Fealey RD, Camilleri M, Low PA: Idiopathic autonomic neuropathy: Clinical, neurophysiologic, and follow-up studies on 27 patients. *Neurology* 44:1675-1682, 1994.
153. Low PA, Opfer-Gehrking TL, Textor SC, Schondorf R, Suarez GA, Fealey RD, Camilleri M: Comparison of the postural tachycardia syndrome (POTS) with orthostatic hypotension due to autonomic failure. *J Auton Nerv Syst* 50:181-188, 1994.
154. Dyck PJ, Litchy WJ, Kratz KM, Suarez GA, Low PA, Pineda AA, Windebank AJ, Karnes JL, O'Brien PC: A plasma exchange versus immune globulin infusion trial in chronic inflammatory demyelinating polyradiculoneuropathy. *Ann Neurol* 36:838-845, 1994.
155. Kihara M, McManis PG, Schmelzer JD, Kihara Y, Low PA: Experimental ischemic neuropathy: salvage with hyperbaric oxygenation. *Ann Neurol* 37:89-94, 1995.
156. Low PA, Opfer-Gehrking TL, Textor SC, Benarroch EE, Shen W-K, Schondorf R, Suarez GA, Rummans TA: Postural tachycardia syndrome (POTS). *Neurology* 45 (Suppl 5):S19-S25, 1995.
157. Kihara M, Low PA: Vasoreactivity to prostaglandins of rat peripheral nerve. *J Physiol* 484:463-467, 1995.
158. Kihara M, Low PA: Impaired vasoreactivity to nitric oxide in experimental diabetic neuropathy. *Exp Neurol* 132:180-185, 1995.
159. Dyck PJ, Litchy WJ, Lehman KA, Hokanson JL, Low PA, O'Brien PC: Variables influencing neuropathic endpoints: The Rochester Diabetic Study of Healthy Subjects. *Neurology* 45:1115-1121, 1995.

160. Low PA, Opfer-Gehrking TL, McPhee BR, Fealey RD, Benarroch EE, Willner CL, Suarez GA, Proper CJ, Felten JA, Huck CA, Corfits JL: Prospective evaluation of clinical characteristics of orthostatic hypotension. *Mayo Clin Proc* 70:617-622, 1995.
161. Low PA: Update on the evaluation, pathogenesis, and management of neurogenic orthostatic hypotension. *Neurology* 45 (Suppl 5):S4-S5, 1995.
162. Kihara M, Schmelzer JD, Low PA: Effect of cilostazol on experimental diabetic neuropathy in the rat. *Diabetologia* 38:914-918, 1995.
163. Benarroch EE, Smithson IL, Low PA: Localization and possible interactions of catecholamine- and NADPH-diaphorase neurons in human medullary autonomic regions. *Brain Res* 684:215-220, 1995.
164. Nagamatsu M, Nickander KK, Schmelzer JD, Raya A, Wittrock DA, Tritschler H, Low PA: Lipoic acid improves nerve blood flow, reduces oxidative stress, and improves distal nerve conduction in experimental diabetic neuropathy. *Diabetes Care* 18:1160-1167, 1995.
165. Low PA, Opfer-Gehrking TL, Dyck PJ, Litchy WJ, O'Brien PC: Double-blind, placebo-controlled study of the application of capsaicin cream in chronic distal painful polyneuropathy. *Pain* 62:163-168, 1995.
166. Nagamatsu M, Low PA: Oxidized cellulose causes focal neuropathy, possibly by a diffusible chemical mechanism. *Acta Neuropathol* 90:282-286, 1995.
167. Ahlskog JE, Uitti RJ, Low PA, Tyce GM, Nickander KK, Petersen RC, Kokmen E: No evidence for systemic oxidant stress in Parkinson's or Alzheimer's disease. *Mov Disord* 10:566-573, 1995.
168. Low PA, Suarez GA: Diabetic neuropathies. *Baillieres Clin Neurol* 4:401-425, 1995.
169. Chelimsky TC, Low PA, Naessens JM, Wilson PR, Amadio PC, O'Brien PC: Value of autonomic testing in reflex sympathetic dystrophy. *Mayo Clin Proc* 70:1029-1040, 1995.
170. Nagamatsu M, Schmelzer JD, Zollman PJ, Smithson IL, Nickander KK, Low PA: Ischemic reperfusion causes lipid peroxidation and fiber degeneration. *Muscle Nerve* 19:37-47, 1996.
171. Kihara M, Schmelzer JD, Kihara Y, Smithson IL, Low PA: Efficacy of limb cooling on the salvage of peripheral nerve from ischemic fiber degeneration. *Muscle Nerve* 19:203-209, 1996.
172. Assessment: Clinical autonomic testing report of the Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology. *Neurology* 46:873-880, 1996.
173. Shen W-K, Hammill SC, Munger TM, Stanton MS, Packer DL, Osborn MJ, Wood DL, Bailey KR, Low PA, Gersh BJ: Adenosine: Potential modulator for vasovagal syncope. *J Am Coll Cardiol* 28:146-154, 1996.
174. Bouvette CM, McPhee BR, Opfer-Gehrking TL, Low PA: Role of physical countermeasures in the management of orthostatic hypotension: Efficacy and biofeedback augmentation. *Mayo Clin Proc* 71:847-853, 1996.

175. Nickander KK, McPhee BR, Low PA, Tritschler H: Alpha-lipoic acid: Antioxidant potency against lipid peroxidation of neural tissue in vitro and implications for diabetic neuropathy. *Free Radic Biol Med* 21:631-639, 1996.
176. Sasaki H, Low PA: Extreme vasoreactivity of rat epineurial arterioles to vasopressin. *Am J Physiol* 271:H1307-H1313, 1996.
177. Low PA: Diabetic autonomic neuropathy. *Semin Neurol* 16:143-151, 1996.
178. Novak V, Novak P, Opfer-Gehrking TL, Low PA: Postural tachycardia syndrome: time frequency mapping. *J Auton Nerv Syst* 61:313-320, 1996.
179. Sandroni P, Opfer-Gehrking TL, Benarroch EE, Shen WK, Low PA: Certain cardiovascular indices predict syncope in the postural tachycardia syndrome. *Clin Auton Res* 6:225-231, 1996.
180. Sasaki H, Kihara M, Zollman PJ, Nickander KK, Smithson IL, Schmelzer JD, Willner CL, Benarroch EE, Low PA: Chronic constriction model of rat sciatic nerve: nerve blood flow, morphologic and biochemical alterations. *Acta Neuropathol* 93:62-70, 1997.
181. Sasaki H, Schmelzer JD, Zollman PJ, Low PA: Neuropathology and blood flow of nerve, spinal roots and dorsal root ganglia in longstanding diabetic rats. *Acta Neuropathol* 93:118-128, 1997.
182. Low PA, Golden JL, Freeman R, Sheng KN, McElligott MA, Midodrine Study Group: Efficacy of midodrine vs placebo in neurogenic orthostatic hypotension. *JAMA* 277:1046-1051, 1997.
183. McManis PG, Schmelzer JD, Zollman PJ, Low PA: Blood flow and autoregulation in somatic and autonomic ganglia. Comparison with sciatic nerve. *Brain* 120:445-449, 1997.
184. Nagamatsu M, Podratz J, Windebank AJ, Low PA: Acidity is involved in the development of neuropathy caused by oxidized cellulose. *J Neurol Sci* 146:97-102, 1997.
185. Low PA, Yao JK, Kishi Y, Tritschler HJ, Schmelzer JD, Zollman PJ, Nickander KK: Peripheral nerve energy metabolism in experimental diabetic neuropathy. *Neurosci Res Commun* 21:49-56, 1997.
186. Low PA, Nickander KK, Tritschler HJ: The roles of oxidative stress and antioxidant treatment of experimental diabetic neuropathy. *Diabetes* 46 (Suppl 2):S38-S42, 1997.
187. Shen WK, Fenton AM, Lohse CM, Bailey KR, Low PA, Hammill SC: Hemodynamic analysis during isoproterenol-induced vasovagal syncope. *Am J Cardiol* 80:817-822, 1997.
188. Low PA, Ahlskog E, Petersen RC, Waring SC, Esteban-Santillan C, Kurland LT: Autonomic failure in Guamanian neurodegenerative disease. *Neurology* 49:1031-1034, 1997.
189. Bharucha AE, Novak V, Camilleri M, Zinsmeister AR, Hanson RB, Low PA: α_2 -Adrenergic modulation of colonic tone during hyperventilation. *Am J Physiol* 273:G1135-G1140, 1997.
190. Low PA, Denq JC, Opfer-Gehrking TL, Dyck PJ, O'Brien PC, Slezak JM: Effect of age and gender on sudomotor and cardiovagal function and blood pressure response to tilt in normal subjects. *Muscle Nerve* 20:1561-1568, 1997.

191. Pascoe MK, Low PA, Windebank AJ, Litchy WJ: Subacute diabetic proximal neuropathy. *Mayo Clin Proc* 72:1123-1132, 1997.
192. Denq JC, Opfer-Gehrking TL, Giuliani M, Felten J, Convertino VA, Low PA: Efficacy of compression of different capacitance beds in the amelioration of orthostatic hypotension. *Clin Auton Res* 7:321-326, 1997.
193. Fujimura J, Camilleri M, Low PA, Novak V, Novak P, Opfer-Gehrking TL: Effect of perturbations and a meal on superior mesenteric artery flow in patients with orthostatic hypotension. *J Auton Nerv Syst* 67:15-23, 1997.
194. Low PA, Opfer-Gehrking TL, Zimmerman IR, O'Brien PC: Evaluation of heart rate changes: electrocardiographic versus photoplethysmographic methods. *Clin Auton Res* 7:65-68, 1997.
195. O'Suilleabhain P, Low PA, Lennon VA: Autonomic dysfunction in the Lambert-Eaton myasthenic syndrome. Serologic and clinical correlates. *Neurology* 50:88-93, 1998.
196. Rivera-Quinones C, McGavern D, Schmelzer JD, Hunter SF, Low PA, Rodriguez M: Absence of neurological deficits following extensive demyelination in a class I-deficient murine model of multiple sclerosis. *Nature Med* 4:187-193, 1998.
197. Benarroch EE, Smithson IL, Low PA, Parisi JE: Depletion of catecholaminergic neurons of the rostral ventrolateral medulla in multiple systems atrophy with autonomic failure. *Ann Neurol* 43:156-163, 1998.
198. Novak V, Novak P, Spies JM, Low PA: Autoregulation of cerebral blood flow in orthostatic hypotension. *Stroke* 29:104-111, 1998.
199. Wright RA, Kaufmann HC, Perera R, Opfer-Gehrking TL, McElligott MA, Sheng KN, Low PA: A double-blind, dose-response study of midodrine in neurogenic orthostatic hypotension. *Neurology* 51:120-124, 1998.
200. Novak V, Spies JM, Novak P, McPhee BR, Rummans TA, Low PA: Hypocapnia and cerebral hypoperfusion in orthostatic intolerance. *Stroke* 29:1876-1881, 1998.
201. Maleki D, Camilleri M, Burton DD, Rath-Harvey DM, Oenning L, Pemberton JH, Low PA: Pilot study of pathophysiology of constipation among community diabetics. *Dig Dis Sci* 43:2373-2378, 1998.
202. Low PA: Autonomic neuropathies. *Curr Opin Neurol* 11:531-537, 1998.
203. Schlegel TT, Benavides EW, Barker DC, Brown TE, Harm DL, DeSilva SJ, Low PA: Cardiovascular and Valsalva responses during parabolic flight. *J Appl Physiol* 85:1957-1965, 1998.
204. Denq J-C, O'Brien PC, Low PA: Normative data on phases of the Valsalva maneuver. *J Clin Neurophysiol* 15:535-540, 1998.
205. Novak V, Novak P, Opfer-Gehrking TL, O'Brien PC, Low PA: Clinical and laboratory indices that enhance the diagnosis of postural tachycardia syndrome. *Mayo Clin Proc* 73:1141-1150, 1998.
206. Wu C-L, Denq J-C, Harper CM, O'Brien PC, Low PA: Clinical and electrophysiologic attributes as predictors of results of autonomic function tests. *Clin Auton Res* 8:347-351, 1998.

207. Sandroni P, Low PA, Ferrer T, Opfer-Gehrking TL, Willner CL, Wilson PR: Complex Regional Pain Syndrome I (CRPS I): Prospective study and laboratory evaluation. *Clin J Pain* 14:282-289, 1998.
208. Gilman S, Low PA, Quinn N, Albanese A, Ben-Shlomo Y, Fowler CJ, Kaufmann HC, Klockgether T, Lang AE, Lantos PL, Litvan I, Mathias CJ, Oliver E, Robertson D, Schatz I, Wenning GK: Consensus statement on the diagnosis of multiple system atrophy. *J Auton Nerv Syst* 74:189-192, 1998.
209. Wright RA, Grant IA, Low PA: Autonomic neuropathy associated with sicca complex. *J Auton Nerv Syst* 75:70-76, 1999.
210. Mitsui Y, Schmelzer JD, Zollman PJ, Kihara M, Low PA: Hypothermic neuroprotection of peripheral nerve of rats from ischaemia-reperfusion injury. *Brain* 122:161-169, 1999.
211. Mosek A, Novak V, Opfer-Gehrking TL, Swanson JW, Low PA: Autonomic dysfunction in migraineurs. *Headache* 39:108-117, 1999.
212. Suarez GA, Opfer-Gehrking TL, Offord KP, Atkinson EJ, O'Brien PC, Low PA: The Autonomic Symptom Profile. A new instrument to assess autonomic symptoms. *Neurology* 52:523-528, 1999.
213. Low PA, Novak V, Spies JM, Novak P, Petty GW: Cerebrovascular regulation in the postural orthostatic tachycardia syndrome (POTS). *Am J Med Sci* 317:124-133, 1999.
214. Shen WK, Rea RF, Beinborn D, Lohse CM, Hodge DO, Low PA, Hammill SC: Sensitivity to orthostatic stress and β -receptor activation in patients with isoproterenol-induced vasovagal syncope: A case controlled study. *PACE* 22:615-625, 1999.
215. Mitsui Y, Schmelzer JD, Zollman PJ, Mitsui M, Kihara M, Low PA: Hypothermic neuroprotection of peripheral nerve of rats from ischemia-reperfusion injury: intransischemic vs. reperfusion hypothermia. *Brain Res* 827:63-69, 1999.
216. Low PA, Opfer-Gehrking TL: The autonomic laboratory. *Am J END Technol* 39:65-76, 1999.
217. Kishi Y, Schmelzer JD, Yao JK, Zollman PJ, Nickander KK, Tritschler HJ, Low PA: α -Lipoic acid: Effect on glucose uptake, sorbitol pathway, and energy metabolism in experimental diabetic neuropathy. *Diabetes* 48:2045-2051, 1999.
218. Smit AAJ, Halliwill JR, Low PA, Wieling W: Pathophysiological basis of orthostatic hypotension in autonomic failure. *J Physiol* 519.1:1-10, 1999.
219. Mitsui Y, Okamoto K, Martin DP, Schmelzer JD, Low PA: The expression of proinflammatory cytokine mRNA in the sciatic-tibial nerve of ischemia-reperfusion injury. *Brain Res* 844:192-195, 1999.
220. Novak V, Reeves AL, Novak P, Low PA, Sharbrough FW: Time-frequency mapping of R-R interval during complex partial seizures of temporal lobe origin. *J Auton Nerv Syst* 77:195-202, 1999.
221. Sandroni P, Opfer-Gehrking TL, McPhee BR, Low PA: Postural tachycardia syndrome: Clinical features and follow-up study. *Mayo Clin Proc* 74:1106-1110, 1999.
222. Smit AAJ, Wieling W, Opfer-Gehrking TL, van Emmerik-Levelt HM, Low PA: Patients' choice of portable folding chairs to reduce symptoms of orthostatic hypotension. *Clin Auton Res* 9:341-344, 1999.

223. Sandroni P, Davis MDP, Harper CM Jr, Rogers RS III, O'Fallon M, Rooke TW, Low PA: Neurophysiologic and vascular studies in erythromelalgia: A retrospective analysis. *J Clin Neuromusc Dis* 1:57-63, 1999.
224. Mitsui Y, Schmelzer JD, Zollman PJ, Mitsui M, Tritschler HJ, Low PA: Alpha-lipoic acid provides neuroprotection from ischemia-reperfusion injury of peripheral nerve. *J Neurol Sci* 163:11-16, 1999.
225. Braune S, Elam M, Baron R, Low PA: Assessment of blood pressure regulation. *The International Federation of Clinical Neurophysiology. Electroencephalogr Clin Neurophysiol Suppl* 52:287-291, 1999.
226. McGavern DB, Murray PD, Rivera-Quinones C, Schmelzer JD, Low PA, Rodriguez M: Axonal loss results in spinal cord atrophy, electrophysiological abnormalities and neurological deficits following demyelination in a chronic inflammatory model of multiple sclerosis. *Brain* 123:519-531, 2000.
227. Gordon VM, Opfer-Gehrking TL, Novak V, Low PA: Hemodynamic and symptomatic effects of acute interventions on tilt in patients with postural tachycardia syndrome. *Clin Auton Res* 10:29-33, 2000.
228. Kishi Y, Nickander KK, Schmelzer JD, Low PA: Gene expression of antioxidant enzymes in experimental diabetic neuropathy. *J Periph Nerv Syst* 5:11-18, 2000.
229. Sandroni P, Novak V, Opfer-Gehrking TL, Huck CA, Low PA: Mechanisms of blood pressure alterations in response to the Valsalva maneuver in postural tachycardia syndrome. *Clin Auton Res* 10:1-5, 2000.
230. Shen W-K, Low PA, Rea RF, Lohse CM, Hodge DO, Hammill SC: Distinct hemodynamic profiles in patients with vasovagal syncope: A heterogenous population. *J Am Coll Cardiol* 35:1470-1477, 2000.
231. Vernino S, Low PA, Fealey RD, Stewart JD, Farrugia G, Lennon VA: Autoantibodies to ganglionic acetylcholine receptors in autoimmune autonomic neuropathies. *N Engl J Med* 343:847-855, 2000.
232. Fenton AM, Hammill SC, Rea RF, Low PA, Shen WK: Vasovagal syncope. *Ann Intern Med* 133:714-725, 2000.
233. Noseworthy JH, O'Brien PC, Weinshenker BG, Weis JA, Petterson TM, Erickson BJ, Windebank AJ, Whisnant JP, Stolp-Smith KA, Harper CM Jr, Low PA, Romme LJ, Johnson M, An KN, Rodriguez M: IV immunoglobulin does not reverse established weakness in MS. A double-blind, placebo-controlled trial. *Neurology* 55:1135-1143, 2000.
234. Tani H, Singer W, McPhee BR, Opfer-Gehrking TL, Haruma K, Kajiyama G, Low PA: Splanchnic-mesenteric capacitance bed in the postural tachycardia syndrome (POTS). *Auton Neurosci* 86:107-113, 2000.
235. Schlegel TT, Brown TE, Wood SJ, Benavides EW, Bondar RL, Stein F, Moradshahi P, Harm DL, Fritsch-Yelle JM, Low PA: Orthostatic intolerance and motion sickness after parabolic flight. *J Appl Physiol* 90:67-82, 2001.
236. Klein CJ, Silber MH, Halliwill JR, Schreiner SA, Suarez GA, Low PA: Basal forebrain malformation with hyperhidrosis and hypothermia: Variant of Shapiro's syndrome. *Neurology* 56:254-256, 2001.

237. Shen WK, Low PA, Jahangir A, Munger TM, Friedman PA, Osborn MJ, Stanton MS, Packer DL, Rea RF, Hammill SC: Is sinus node modification appropriate for inappropriate sinus tachycardia with features of postural orthostatic tachycardia syndrome? *PACE* 24:217-230, 2001.
238. Singer W, Opfer-Gehrking TL, McPhee BR, Hilz MJ, Low PA: Influence of posture on the Valsalva manoeuvre. *Clin Sci* 100:433-440, 2001.
239. Okamoto K, Martin DP, Schmelzer JD, Mitsui Y, Low PA: Pro-and anti-inflammatory cytokine gene expression in rat sciatic nerve chronic constriction injury model of neuropathic pain. *Exp Neurol* 169:386-391, 2001.
240. Sandroni P, Low PA: Autonomic peripheral neuropathies: clinical presentation, diagnosis, and treatment. *Journal of Clinical Neuromuscular Disease* 2(3):147,2001.
241. Apfel SC, Asbury AK, Bril V, Burns TM, Campbell JN, Chalk CH, Dyck PJ, Dyck PJB, Feldman EL, Fields HL, Grant IA, Griffin JW, Klein CJ, Lindblom U, Litchy WJ, Low PA, Melanson M, Mendell JR, Merren MD, O'Brien PC, Rendell M, Rizza RA, Service FJ, Thomas PK, Walk D, Wang AK, Wessel K, Windebank AJ, Ziegler D, Zochodne DW: Positive neuropathic sensory symptoms as endpoints in diabetic neuropathy trials. *J Neurol Sci* 189:3-5, 2001.
242. Burns TM, Lawn ND, Low PA, Camilleri M, Wijdicks EFM: Adynamic ileus in severe Guillain-Barre syndrome. *Muscle Nerve* 24:963-965, 2001.
243. Kishi M, Tanabe J, Schmelzer JD, Low PA: Morphometry of dorsal root ganglion in chronic experimental diabetic neuropathy. *Diabetes* 51:819-824, 2002.
244. Singer W, Shen WK, Opfer-Gehrking TL, McPhee BR, Hilz MJ, Low PA: Evidence of an intrinsic sinus node abnormality in patients with postural tachycardia syndrome. *Mayo Clin Proc* 77(3):246-252, 2002.
245. Low PA, Schondorf R, Rummans TA: Why do patients have orthostatic symptoms in POTS? *Clin Auton Res* 11(4):223-224, 2001.
246. Nickander KK, Schmelzer JD, Low PA: Assessment of the "common" 4.8-kb mitochondrial DNA deletion and identification of several closely related deletions in the dorsal root ganglion of aging and streptozotocin rats. *J Peripher Nerv Syst* 7:96-103, 2002.
247. Low PA: Autonomic Neuropathies. *Curr Opin Neurol* 15:605-609, 2002.
248. Schmeichel AM, Schmelzer JD, Low PA: Oxidative injury and apoptosis of dorsal root ganglion neurons in chronic experimental diabetic neuropathy. *Diabetes* 52:165-171, 2003.
249. Benrud-Larson LM, Dewar MS, Sandroni P, Rummans TA, Haythornthwaite JA, Low PA: Quality of life in patients with postural tachycardia syndrome. *Mayo Clin Proc* 77:531-537, 2002.
250. Singer W, Shen WK, Opfer-Gehrking TL, McPhee BR, Hilz MJ, Low PA: Heart rate dependent EKG-abnormalities in patients with postural tachycardia syndrome. *Auton Neurosci* 103:106-113, 2003.
251. Low PA, Vernino S, Suarez G: Autonomic dysfunction in peripheral nerve disease. *Muscle Nerve* 27: 646-661, 2003.

252. Klein CM, Vernino S, Lennon VA, Sandroni P, Fealey RD, Benrud-Larson L, Sletten D, Low PA: The spectrum of autoimmune autonomic neuropathies. *Ann Neurol* 53: 752-758, 2003.
253. Delgado-Aros S, Vella A, Camilleri M, Low PA, Burton DD, Thomforde GM, Stephens D: Effects of glucagon-like peptide-1 and feeding on gastric volumes in diabetes mellitus with cardio-vagal dysfunction. *Neurogastroenterol Motil* 15:435-443, 2003.
254. Ametov AS, Barinov A, Dyck PJ, Hermann R, Kozlova N, Litchy WJ, Low PA, Nehrdich D, Novosadova M, O'Brien PC, Reljanovic M, Samigullin R, Schuette K, Stokov I, Tritschler HJ, Wessel K, Yakhno N, Ziegler D: The sensory symptoms of diabetic polyneuropathy are improved with alpha-lipoic acid: The SYDNEY Trial. *Diabetes Care* 26:770-776, 2003.
255. Camilleri M, Kim D, McKinzie S, Kim J, Thomforde GM, Burton DD, Low PA, Zinsmeister AR: A randomized, controlled exploratory study of clonidine in diarrhea-predominant irritable bowel syndrome. *Clinical Gastroenterology and Hepatology* 1:111-121, 2003.
256. Saito F, Moore SA, Barresi R, Henry MD, Messing A, Ross-Barta SE, Cohn RD, Williamson RA, Sluka KA, Sherman DL, Brophy PJ, Schmelzer JD, Low PA, Wrabetz L, Feltri ML, Campbell KP: Unique role of dystroglycan in peripheral nerve myelination, nodal structure, and sodium channel stabilization. *Neuron* 38:747-758, 2003.
257. Finnoff JT, Smith J, Low PA, Dahm DL, Harrington SP: Acute hemodynamic effects of abdominal exercise with and without breath holding. *Arch Phys Med Rehabil* 84:1017-1022, 2003.
258. Singer W, Opfer-Gehrking TL, Mcphee BR, Hilz MJ, Bharucha AE, Low PA: Acetylcholinesterase inhibition: a novel approach in the treatment of neurogenic orthostatic hypotension. *J Neurol Neurosurg Psychiatry* 74:1294-1298, 2003.
259. Benarroch EE, Schmeichel AM, Low PA, Parisi JE: Depletion of ventromedullary NK-1 receptor-immunoreactive neurons in multiple system atrophy. *Brain* 126:2183-2190, 2003.
260. Davis MDP, Sandroni P, Rooke TW, Low PA: Erythromelalgia: vasculopathy, neuropathy, or both? A prospective study of vascular and neurophysiologic studies in erythromelalgia. *Arch Dermatol* 139:1337-1343, 2003.
261. Mokri B, Low PA: Orthostatic headaches without CSF leak in postural tachycardia syndrome. *Neurology* 61:980-982, 2003.
262. Benrud-Larson LM, Sandroni P, Haythornthwaite JA, Rummans TA, Low PA. Correlates of functional disability in patients with postural tachycardia syndrome: Preliminary cross-sectional findings. *Health Psychol* 22:643-648, 2003.
263. Iida H, Schmelzer JD, Schmeichel AM, Wang Y, Low PA. Peripheral nerve ischemia: reperfusion injury and fiber regeneration. *Exp Neurol* 184:997-1002, 2003.
264. Sandroni P, Benrud-Larson LM, McClelland RL, Low PA. Complex regional pain syndrome type I: incidence and prevalence in Olmsted county, a population-based study. *Pain* 103:199-207, 2003.
265. Basford JR, Sandroni P, Low PA, Hines SM, Gehrking JA, Gehrking TL. Effects of linearly polarized 0.6-1.6 μM irradiation on stellate ganglion function in normal subjects and people with complex regional pain (CRPS I). *Lasers Surg Med* 32:417-423, 2003.

266. Davis MDP, Sandroni P, Rooke TW, Low PA. Erythromelalgia: vasculopathy, neuropathy, or both? A prospective study of vascular and neurophysiologic studies in erythromelalgia. *Arch Dermatol* 139:1337-1343, 2003.
267. Sandroni P, Vernino S, Klein CM, Lennon VA, Benrud-Larson L, Sletten D, Low PA. Idiopathic Autonomic Neuropathy: Comparison of cases seropositive and seronegative for ganglionic acetylcholine receptor antibody. *Arch Neurol* 61:44-48, 2004.
268. Vernino S, Low PA, Lennon VA. Experimental Autoimmune Autonomic Neuropathy. *J Neurophysiol* 90:2053-2059, 2003.
269. Low PA. Testing the autonomic nervous system. *Semin Neurol* 23:407-421, 2003.
270. Singer W, Spies JM, McArthur J, Low J, Griffin JW, Nickander KK, Gordon V, Low PA. Prospective evaluation of somatic and autonomic small fibers in selected autonomic neuropathies. *Neurology* 62:612-618, 2004.
271. Benarroch EE, Schmeichel AM, Low PA, Parisi JE. Involvement of medullary serotonergic groups in multiple system atrophy. *Ann Neurol* 55:418-422, 2004.
272. Thaisetthawatkul P, Boeve BF, Benarroch EE, Sandroni P, Ferman TJ, Petersen R, Low PA. Autonomic dysfunction in dementia with Lewy bodies. *Neurology* 62:1804-1809, 2004.
273. Low PA, James S, Peschel T, Leong R, Rothstein A. Zonisamide and associated oligohydrosis and hyperthermia. *Epilepsy Res* 62:27-34, 2004.
274. Vincent AM, Russell JW, Low PA, Feldman EL. Oxidative stress in the pathogenesis of diabetic neuropathy. *Endocr Rev* 25:612-628, 2004.
275. Low PA. Evaluation of sudomotor function. *Clin Neurophysiol* 115:1506-1513, 2004.
276. Iida H, Schmeichel AM, Wang Y, Schmelzer JD, Low PA. Schwann cell is a target in ischemia-reperfusion injury to peripheral nerve. *Muscle Nerve* 30:761-766, 2004.
277. Wang Y, Schmelzer JD, Schmeichel A, Iida H, Low PA. Ischemia-reperfusion injury of peripheral nerve in experimental diabetic neuropathy. *J Neurol Sci* 227:101-107, 2004.
278. Low PA, Benrud-Larson LM, Sletten DM, Opfer-Gehrking TL, Weigand SD, O'Brien PC, Suarez GA, Dylek PJ. Autonomic symptoms and diabetic neuropathy: a population-based study. *Diabetes Care* 27:2942-2947, 2004.
279. Sahul ZH, Trusty JM, Erickson M, Low PA, Shen WK. Pacing does not improve hypotension in patients with severe orthostatic hypotension. A prospective randomized cross-over pilot study. *Clin Auton Res* 14:255-258, 2004.
- 279.5 Ziegler D, Nowak H, Kempler P, Vargha P, Low PA. Treatment of symptomatic diabetic polyneuropathy with the antioxidant alpha-lipoic acid: a meta-analysis. *Diabet Med*. 21:114-21, 2004.
280. Schrage WG, Eisenach JH, Dinunno FA, Roberts SK, Johnson CP, Sandroni P, Low PA, Joyner MJ. Effects of midodrine on exercise-induced hypotension and blood pressure recovery in autonomic failure. *J Appl Physiol* 97:1978-1984, 2004.

- 280.5 Kumar N, Low PA. Myeloneuropathy and anemia due to copper malabsorption. *J Neurol*. 251:747-9, 2004.
281. Vernino S, Ermilov LG, Sha L, Szurszewski JH, Low PA, Lennon VA. Passive transfer of autoimmune autonomic neuropathy to mice. *J Neurosci* 24:7037-7042, 2004.
- 281.5. Smit AA, Wieling W, Fujimura J, Denq JC, Opfer-Gehrking TL, Akarriou M, Karemaker JM, Low PA. Use of lower abdominal compression to combat orthostatic hypotension in patients with autonomic dysfunction. *Clin Auton Res*. 14:167-75, 2004.
282. Sandroni P, Opfer-Gehrking TL, Singer W, Low PA. Pyridostigmine for the treatment of neurogenic orthostatic hypotension: a follow-up survey study. *Clin Auton Res* 15:51-53, 2005.
283. Gehrking JA, Hines SM, Benrud-Larson LM, Opfer-Gehrking TL, Low PA. What is the minimum duration of head-up tilt necessary to detect orthostatic hypotension? *Clin Auton Res* 15:71-75, 2005.
284. Benarroch EE, Schmeichel AM, Low PA, Boeve BF, Sandroni P, Parisi JE. Involvement of medullary regions controlling sympathetic output in Lewy body disease. *Brain* 128:338-344, 2005.
285. Sletten DM, Nickander KK, Low PA. Stability of acetylcholine chloride solution in autonomic testing. *J Neurol Sci* 234:1-3, 2005.
286. Wang Y, Schmeichel AM, Iida H, Schmelzer JD, Low PA. Ischemia-reperfusion injury causes oxidative stress and apoptosis of Schwann cell in acute and chronic experimental diabetic neuropathy. *Antioxid Redox Signal* 7:1513-1520, 2005.
287. Schrezenmaier C, Gehrking JA, Hines SM, Low PA, Benrud-Larson LM, Sandroni P. Evaluation of orthostatic hypotension: relationship of a new self-report instrument to laboratory-based measures. *Mayo Clin Proc* 80:330-334, 2005.
288. England JD, Gronseth GS, Franklin G, Miller RG, Asbury AK, Carter GT, Cohen JA, Fisher MA, Howard JF, Kinsella LJ, Latov N, Lewis RA, Low PA, Sumner AJ. Distal symmetrical polyneuropathy: definition for clinical research. *Muscle Nerve* 31:113-23, 2005.
289. Lagerlund TD, Low PA, Novak V, Novak P, Hines SM, McPhee B, Busacker NE. Spectral analysis of slow modulation of EEG amplitude and cardiovascular variables in subjects with postural tachycardia syndrome. *Auton Neurosci* 117:132-142, 2005.
290. Benrud-Larson LM, Sandroni P, Schrag A, Low PA. Depressive symptoms and life satisfaction in patients with multiple system atrophy. *Mov Disord* 20:951-957, 2005.
291. Muentert Swift N, Charkoudian N, Dotson RM, Suarez GA, Low PA. Baroreflex control of muscle sympathetic nerve activity in the postural orthostatic tachycardia syndrome. *Am J Physiol Heart Circ Physiol* 289:1226-1233, 2005.
292. Nickander KK, Carlson PJ, Urrutia RA, Camilleria M, Low PA. A screen of candidate genes and influence of β_2 -adrenergic receptor genotypes in postural tachycardia syndrome. *Auton Neurosci* 120:97-103, 2005.

293. Kawamura N, Schmelzer, JD, Wang Y, Schmeichel AM, Low PA. The therapeutic window of hypothermic neuroprotection in experimental ischemic neuropathy: Protection in ischemic phase and potential deterioration in later reperfusion phase. *Exp Neurol* 195:305-312, 2005.
294. Suarez GA, Clark VM, Norell JE, Kottke TE, Callahan MJ, O'Brien PC, Low PA, Dyck PJ. Sudden cardiac death in diabetes mellitus: risk factors in the Rochester diabetic neuropathy study. *J Neurol Neurosurg Psychiatry* 76:240-245, 2005.
295. Vogel ER, Sandroni P, Low PA. Blood pressure recovery from Valsalva maneuver in patients with autonomic failure. *Neurology* 65:1533-1537, 2005.
296. Razavi M, Luria DM, Jahangir A, Hodge DO, Low PA, Shen WK. Acute blood pressure changes after the onset of atrioventricular nodal reentrant tachycardia: a time-course analysis. *J Cardiovasc Electrophysiol* 16:1037-1040, 2005.
- 296.5 Brady PA, Low PA, Shen WK. Inappropriate sinus tachycardia, postural orthostatic tachycardia, and overlapping syndromes. *PACE* 28:1112-1121, 2005
297. Benarroch EE, Schmeichel AM, Sandroni P, Low PA, Parisi JE. Involvement of vagal autonomic nuclei in multiple system atrophy and Lewy body disease. *Neurology* 66:378-383, 2006.
298. Singer W, Sandroni P, Opfer-Gehrking TL, Suarez GA, Klein CM, Hines S, O'Brien PC, Slezak J, Low PA. Pyridostigmine treatment trial in neurogenic orthostatic hypotension. *Arch Neurol* 63:513-518, 2006.
299. Wang Y, Schmeichel AM, Iida H, Schmelzer JD, Low PA. Enhanced inflammatory response via activation of NF- κ B in acute experimental diabetic neuropathy subjected to ischemia-reperfusion injury. *J Neurol Sci* (in press).
300. Low VA, Sandroni P, Fealey RD, Low PA. Distal small-fiber neuropathy and pattern of anhidrosis. *Muscle Nerve* 34:57-61, 2006.

Edited Books

1. Peripheral Neuropathy, Third Edition, PJ Dyck, PK Thomas, JW Griffin, PA Low, JF Poduslo (Eds). WB Saunders, Philadelphia, 1993.
2. Clinical Autonomic Disorders: Evaluation and Management, Second Edition, PA Low (Ed). Lippincott-Raven, Philadelphia, 1997.
3. Textbook of Diabetic Neuropathy, FA Gries, NE Cameron, PA Low, D Ziegler (Eds). Thieme, New York, 2003.
4. Primer on the Autonomic Nervous System, Second Edition, D Robertson, PA Low, G Burnstock, I Biaggioni (Eds). Elsevier Inc., San Diego, 2004.

Book Chapters

1. Dyck PJ, Low PA, Stevens JC: Diseases of peripheral nerves. Chapter 38 in Clinical Neurology, Vol. 3, AB Baker, LH Baker (Eds). Harper & Row, Philadelphia, 1981, pp 1-126.
2. Low PA, Stevens JC: Peripheral and autonomic neuropathy. In Clinical Medicine, JA Spittell (Ed). Harper & Row, Hagerstown, Maryland, 1981.
3. Dyck PJ, Pineda A, Swanson C, Low P, Windebank A, Daube J: The Mayo Clinic experience with plasma exchange in chronic inflammatory-demyelinating polyneuropathy (CIDP). In Progress in Clinical and Biological Research, Vol 106, Therapeutic Apheresis and Plasma Perfusion, RS Tindall (Ed). Alan R Liss, Inc, New York, 1982, pp 197-204.
4. Dyck PJ, Low PA, Windebank AJ: Axonal atrophy associated with segmental demyelination and axonal degeneration in human neuropathy. Chapter 6 in Disorders of the Motor Unit, DL Schotland (Ed). John Wiley and Sons, Inc., 1982, pp 75-86.
5. Dyck PJ, Low PA, Stevens JC: Diseases of peripheral nerves. Chapter 38 in Clinical Neurology, A.B. Baker (Ed). Harper and Row, Philadelphia, Vol 3, 1982, pp 1-126.
6. Chiu SY, Low PA: Voltage clamp of mammalian myelinated fibers. Chapter 38 in Peripheral Neuropathy, Second Edition, PJ Dyck, PK Thomas, EH Lambert, R Bunge (Eds). WB Saunders, Philadelphia, 1984, pp 885-899.
7. Low PA: Endoneurial fluid pressure and microenvironment of nerve. Chapter 28 in Peripheral Neuropathy, Second Edition, PJ Dyck, PK Thomas, EH Lambert, R Bunge (Eds). WB Saunders, Philadelphia, 1984, pp 599-617.
8. Low PA: Quantitation of autonomic responses. Chapter 50 in Peripheral Neuropathy, Second Edition, PJ Dyck, PK Thomas, EH Lambert, R Bunge (Eds). WB Saunders, Philadelphia, 1984, pp 1139-1165.
9. Low PA, Stevens JC: Peripheral neuropathies including autonomic neuropathies. Chapter 13 in Clinical Medicine, JA Spittell (Ed). Harper & Row, Hagerstown, Maryland, 1985.
10. Low PA: Sudomotor function and dysfunction. Chapter 45 in Diseases of the Nervous System, AK Asbury, GM McKhann, WI McDonald (Eds). WB Saunders, Philadelphia, 1986, pp 596-605.
11. McManis PG, Low PA: Peripheral Neuropathies. In Conn's Current Therapy, R Rakel (Ed), 1986, pp. 757-764.
12. Low PA, Fealey RD: Sudomotor neuropathy. Chapter 14 in Diabetic Neuropathy, PJ Dyck, PK Thomas, A Winegrad, D Porte (Eds). WB Saunders, Philadelphia, 1987, pp 140-145.
13. Low PA, Tuck RR, Takeuchi M: Nerve microenvironment in diabetic neuropathy. Chapter 27 in Diabetic Neuropathy, PJ Dyck, PK Thomas, A Winegrad, D Porte (Eds). WB Saunders, Philadelphia, 1987, pp 266-278.
14. Low PA: Diabetic Neuropathy. In Diabetic Therapy: Today and Tomorrow, Franklin Scientific Projects, London, 1987.

15. Low PA, Fealey RD: Structure and function of pre- and postganglionic neurons in pure autonomic failure and multisystem atrophy with autonomic failure. Chapter 30 in Autonomic Failure, R Bannister (Ed). Oxford University Press, Oxford, 1988, pp 544-557.
16. 103A. Daube JR, Litchy WJ, Low PA, Windebank AJ: Classification of ALS by autonomic abnormalities. In Amyotrophic Lateral Sclerosis, T Tsubaki, Y Yase (Eds). Excerpta Medica Int Congr Series #769, Elsevier, Amsterdam, 1988, pp 189-191.
17. Harati Y, Low PA: Autonomic peripheral neuropathies: diagnosis and clinical presentation. Chapter 3 in Current Neurology, Vol 10, SH Appel (Ed). Yearbook Medical Publishers, 1990, pp 105-176.
18. Low PA, Fealey RD: Testing of sweating. Chapter 21 in Autonomic Failure. A Textbook of Clinical Disorders of the Autonomic Nervous System, Third Edition, R Bannister, CJ Mathias (Eds). Oxford Medical Publishers, 1992, pp 413-420.
19. Low PA, Fealey RD: Pathological studies of the sympathetic neuron. Chapter 31 in Autonomic Failure. A Textbook of Clinical Disorders of the Autonomic Nervous System, Third Edition, R Bannister, CJ Mathias (Eds). Oxford Medical Publishers, 1992, pp 586-592.
20. Ogawa T, Low PA: Autonomic regulation of temperature and sweating. Chapter 6 in Clinical Autonomic Disorders: Evaluation and Management, PA Low (Ed). Boston: Little, Brown and Company, 1993, pp 79-91.
21. Low PA: Clinical evaluation of autonomic function. Chapter 13 in Clinical Autonomic Disorders: Evaluation and Management, PA Low (Ed). Boston: Little, Brown and Company, 1993, pp 157-167.
22. Low PA: Laboratory evaluation of autonomic failure. Chapter 14 in Clinical Autonomic Disorders: Evaluation and Management, PA Low (Ed). Boston: Little, Brown and Company, 1993, pp 169-195.
23. Benarroch EE, Sandroni P, Low PA: The Valsalva maneuver. Chapter 16 in Clinical Autonomic Disorders: Evaluation and Management, PA Low (Ed). Boston: Little, Brown and Company, 1993, pp 209-215.
24. Low PA, Pfeifer MA: Standardization of clinical tests for practice and clinical trials. Chapter 23 in Clinical Autonomic Disorders: Evaluation and Management, PA Low (Ed). Boston: Little, Brown and Company, 1993, pp 287-296.
25. Low PA, Dyck PJ: Pathologic studies and the nerve biopsy in autonomic neuropathies. Chapter 26 in Clinical Autonomic Disorders: Evaluation and Management, PA Low (Ed). Boston: Little, Brown and Company, 1993, pp 331-344.
26. Low PA, Zimmerman IR: Development of an autonomic laboratory. Chapter 27 in Clinical Autonomic Disorders: Evaluation and Management, PA Low (Ed). Boston: Little, Brown and Company, 1993, pp 345-354.
27. Low PA: Pitfalls in autonomic testing. Chapter 28 in Clinical Autonomic Disorders: Evaluation and Management, PA Low (Ed). Boston: Little, Brown and Company, 1993, pp 355-365.
28. Low PA, Kihara M, Cardone C: Pharmacology and morphometry of the eccrine sweat gland in vivo. Chapter 29 in Clinical Autonomic Disorders: Evaluation and Management, PA Low (Ed). Boston: Little, Brown and Company, 1993, pp 367-373.

29. Low PA, McLeod JG: The autonomic neuropathies. Chapter 31 in Clinical Autonomic Disorders: Evaluation and Management, PA Low (Ed). Boston: Little, Brown and Company, 1993, pp 395-421.
30. Hilsted J, Low PA: Diabetic autonomic neuropathy. Chapter 32 in Clinical Autonomic Disorders: Evaluation and Management, PA Low (Ed). Boston: Little, Brown and Company, 1993, pp 423-443.
31. Schondorf R, Low PA: Idiopathic postural tachycardia syndromes. Chapter 46 in Clinical Autonomic Disorders: Evaluation and Management, PA Low (Ed). Boston: Little, Brown and Company, 1993, pp 641-652.
32. Stewart JD, Low PA: Small-fiber neuropathy. Chapter 47 in Clinical Autonomic Disorders: Evaluation and Management, PA Low (Ed). Boston: Little, Brown and Company, 1993, pp 653-666.
33. Low PA: The effect of aging on the autonomic nervous system. Chapter 50 in Clinical Autonomic Disorders: Evaluation and Management, PA Low (Ed). Boston: Little, Brown and Company, 1993, pp 685-700.
34. McManis PG, Low PA, Lagerlund TD: Microenvironment of nerve: Blood flow and ischemia. Chapter 28 in Peripheral Neuropathy, Third Edition, PJ Dyck, PK Thomas, JW Griffin, PA Low, JF Poduslo (Eds). WB Saunders Company, Philadelphia, 1993, pp 453-473.
35. Low PA: Quantitation of autonomic function. Chapter 38 in Peripheral Neuropathy, Third Edition, PJ Dyck, PK Thomas, JW Griffin, PA Low, JF Poduslo (Eds). WB Saunders Company, Philadelphia, 1993, pp 729-745.
36. Willner C, Low PA: Pharmacologic approaches to the neuropathic pain. Chapter 94 in Peripheral Neuropathy, Third Edition, PJ Dyck, PK Thomas, JW Griffin, PA Low, JF Poduslo (Eds). WB Saunders Company, Philadelphia, 1993, pp 1709-1720.
37. Low PA: Neurogenic orthostatic hypotension. In Current Therapy in Neurologic Disease, Fourth Edition, JT Johnson, JW Griffin (Eds). Mosby-Year Book, St. Louis, 1993, pp 21-26.
38. Low PA, Stevens JC, Suarez GA, Windebank AJ, Smith BE: Diseases of peripheral nerves. Chapter 51 in Clinical Neurology, Vol. 4, RJ Joynt (Ed). Lippincott-Raven, Philadelphia, 1995.
39. Low PA: Recent studies on experimental diabetic neuropathy. In Diabetic Neuropathy: New Concepts and Insights, N Hotta, DA Greene, JD Ward, AAF Sima, AJM Boulton (Eds). Elsevier, Amsterdam, 1995, pp 17-21.
40. Low PA, Wilson PR, Sandroni P, Willner CL, Chelimsky TC: Clinical characteristics of patients with reflex sympathetic dystrophy (sympathetically maintained pain) in the USA. In Progress in Pain Research Management, Vol. 6, W Janig, M Stanton-Hicks (Eds). IASP Press, Seattle, 1996, pp 49-66.
41. Low PA, Schondorf R: Postural tachycardia syndrome. Chapter 56 in Primer on the Autonomic Nervous System, D Robertson, PA Low, RJ Polinsky (Eds). Academic Press, San Diego, 1996, 279-283.
42. Low PA: Quantitative sudomotor axon reflex test and related tests. Chapter 33 in Clinical Neurophysiology, JR Daube (Ed). FA Davis Company, Philadelphia, 1996, pp 386-391.

43. Low PA: Peripheral adrenergic function. Chapter 34 in Clinical Neurophysiology, JR Daube (Ed). FA Davis Company, Philadelphia, 1996, pp 392-395.
44. Low PA, Nickander KK, Tritschler HJ: α -Lipoic acid treatment of peripheral nerve disease. Chapter 20 in Lipoic Acid in Health and Disease, J Fuchs, L Packer, G Zimmer (Eds). Marcel Dekker, New York, 1997, pp 305-320.
45. Novak V, Novak P, Low PA: Interpretation of oscillations in heart rate and blood pressure. In Frontiers of Blood Pressure and Heart Rate Analysis, M Di Rienzo, G Mancina, G Parati, A Pedotti, A. Zanchetti (Eds). IOS Press, 1997, pp 129-142.
46. Low PA, Kennedy WR: Cutaneous effectors as indicators of abnormal sympathetic function. Chapter 6 in Autonomic Innervation of the Skin, JL Morris, IL Gibbins (Eds). Harwood Academic Publishers, Amsterdam, 1997, pp 165-212.
47. Low PA, Suarez GA, Benarroch EE: Clinical autonomic disorders: Classification and clinical evaluation. Chapter 1 in Clinical Autonomic Disorders: Evaluation and Management, Second Edition, PA Low (Ed). Lippincott-Raven, Philadelphia, 1997, pp 3-15.
48. Ogawa T, Low PA: Autonomic regulation of temperature and sweating. Chapter 7 in Clinical Autonomic Disorders: Evaluation and Management, Second Edition, PA Low (Ed). Lippincott-Raven, Philadelphia, 1997, pp 83-96.
49. Low PA: The effect of aging on the autonomic nervous system. Chapter 14 in Clinical Autonomic Disorders: Evaluation and Management, Second Edition, PA Low (Ed). Lippincott-Raven, Philadelphia, 1997, pp 161-175.
50. Low PA: Laboratory evaluation of autonomic function. Chapter 15 in Clinical Autonomic Disorders: Evaluation and Management, Second Edition, PA Low (Ed). Lippincott-Raven, Philadelphia, 1997, pp 179-208.
51. Willner C, Low PA: Laboratory evaluation of complex regional pain syndrome. Chapter 16 in Clinical Autonomic Disorders: Evaluation and Management, Second Edition, PA Low (Ed). Lippincott-Raven, Philadelphia, 1997, pp 209-220.
52. Low PA, Pfeifer MA: Standardization of autonomic function. Chapter 23 in Clinical Autonomic Disorders: Evaluation and Management, Second Edition, PA Low (Ed). Lippincott-Raven, Philadelphia, 1997, pp 287-295.
53. Novak V, Novak P, Low PA: Time-frequency analysis of cardiovascular function and its clinical applications. Chapter 26 in Clinical Autonomic Disorders: Evaluation and Management, Second Edition, PA Low (Ed). Lippincott-Raven, Philadelphia, 1997, pp 323-348.
54. Novak P, Novak V, Low PA, Petty GW: Transcranial Doppler evaluation in disorders of reduced orthostatic tolerance. Chapter 27 in Clinical Autonomic Disorders: Evaluation and Management, Second Edition, PA Low (Ed). Lippincott-Raven, Philadelphia, 1997, pp 349-368.
55. Low PA, Dyck PJ: The neuropathology of autonomic neuropathies. Chapter 28 in Clinical Autonomic Disorders: Evaluation and Management, Second Edition, PA Low (Ed). Lippincott-Raven, Philadelphia, 1997, pp 369-381.

56. Low PA, Zimmerman IR: Development of an autonomic laboratory. Chapter 29 in Clinical Autonomic Disorders: Evaluation and Management, Second Edition, PA Low (Ed). Lippincott-Raven, Philadelphia, 1997, pp 383-390.
57. Low PA: Pitfalls in autonomic testing. Chapter 30 in Clinical Autonomic Disorders: Evaluation and Management, Second Edition, PA Low (Ed). Lippincott-Raven, Philadelphia, 1997, pp 391-401.
58. Low PA, McLeod JG: Autonomic neuropathies. Chapter 36 in Clinical Autonomic Disorders: Evaluation and Management, Second Edition, PA Low (Ed). Lippincott-Raven, Philadelphia, 1997, pp 463-486.
59. Hilsted J, Low PA: Diabetic autonomic neuropathy. Chapter 37 in Clinical Autonomic Disorders: Evaluation and Management, Second Edition, PA Low (Ed). Lippincott-Raven, Philadelphia, 1997, pp 487-507.
60. Low PA, Bannister R: Multiple system atrophy and pure autonomic failure. Chapter 42 in Clinical Autonomic Disorders: Evaluation and Management, Second Edition, PA Low (Ed). Lippincott-Raven, Philadelphia, 1997, pp 555-575.
61. Low PA, Schondorf R, Novak V, Sandroni P, Opfer-Gehrking TL, Novak P: Postural tachycardia syndrome. Chapter 49 in Clinical Autonomic Disorders: Evaluation and Management, Second Edition, PA Low (Ed). Lippincott-Raven, Philadelphia, 1997, pp 681-697.
62. Giuliani MJ, Stewart JD, Low PA: Distal small-fiber neuropathy. Chapter 50 in Clinical Autonomic Disorders: Evaluation and Management, Second Edition, PA Low (Ed). Lippincott-Raven, Philadelphia, 1997, pp 699-714.
63. Low PA, Benarroch EE, Suarez GA, Dotson RM: Clinical autonomic disorders. Chapter 57 in Clinical Neurology, Vol. 4, RJ Joynt, RC Griggs (Eds). Lippincott-Raven, Philadelphia, 1997, pp 1-91.
64. Suarez GA, Low PA: Acute and chronic autonomic neuropathies. Chapter 10 in Immunological and Infectious Diseases of the Peripheral Nerves, N Latov, JHJ Wokke, JJ Kelly Jr (Eds). Cambridge University Press, UK, 1998, pp 138-157.
65. Suarez GA, Low PA: Peripheral nervous system complications of diabetes mellitus or hypoglycemia. Chapter 8 in Handbook of Clinical Neurology, Goetz CG, Aminoff MJ, (Eds). Elsevier Science, Amsterdam, 1998, pp 131-170.
66. Low PA, Fealey RD: Sudomotor neuropathy. Chapter 13 in Diabetic Neuropathy, Second Edition, PJ Dyck, PK Thomas (Eds). WB Saunders Company, Philadelphia, 1999, pp 191-199.
67. Low PA, Nickander KK, Scionti L: Role of hypoxia, oxidative stress, and excitatory neurotoxins in diabetic neuropathy. Chapter 21 in Diabetic Neuropathy, Second Edition, PJ Dyck, PK Thomas (Eds). WB Saunders Company, Philadelphia, 1999, pp 317-329.
68. Low PA, Fealey RD: Evaluation of sudomotor function. Chapter 27 in Autonomic Failure, Fourth Edition, CJ Mathias, R Bannister (Eds). Oxford University Press, Oxford, 1999, pp 263-270.
- 68.5 Low PA, Smith BE, Stevens JC, Suarez GA, Windebank AJ: Diseases of Peripheral Nerves. In Clinical Neurology on CD-ROM. RC Griggs, RJ Joynt (Eds). Lippincott Williams & Wilkins, Philadelphia, 2001.

69. Low PA: Quantitative sudomotor axon reflex test and related tests. Chapter 34 in Clinical Neurophysiology, Second Edition, J Daube (Ed). Oxford University Press, New York, 2002, pp 445-450.
70. Low PA: Adrenergic function. Chapter 35 in Clinical Neurophysiology, Second Edition, J Daube (Ed). Oxford University Press, New York, 2002, pp 451-457.
71. Benarroch EE, Low PA: Cardiovagal and other reflexes. Chapter 37 in Clinical Neurophysiology, Second Edition, J Daube (Ed). Oxford University Press, New York, 2002, pp 467-476.
72. Low PA, Benarroch EE, Suarez GA, Dotson RM: Clinical Autonomic Disorders. In Clinical Neurology on CD-ROM. RC Griggs, RJ Joynt (Eds). Lippincott Williams & Wilkins, Philadelphia, 2003.
73. Low PA: Oxidative stress: An integrative view. In Textbook of Diabetic Neuropathy, Gries FA, Cameron NE, Low PA, Ziegler D (Eds). Thieme, New York, 2003, pp 123-128.
74. Low PA: Sudomotor function. In Textbook of Diabetic Neuropathy, Gries FA, Cameron NE, Low PA, Ziegler D (Eds). Thieme, New York, 2003, pp 274-275.
75. Low PA: Diabetic acute motor neuropathy. In Textbook of Diabetic Neuropathy, Gries FA, Cameron NE, Low PA, Ziegler D (Eds). Thieme, New York, 2003, p 315.
76. Gries FA, Low PA, Ziegler D: Recommendations for structured care. In Textbook of Diabetic Neuropathy, Gries FA, Cameron NE, Low PA, Ziegler D (Eds). Thieme, New York, 2003, pp 373-376.
77. Low PA: The sweat gland. Chapter 31 in Primer on the Autonomic Nervous System, Second Edition, Robertson D, Biaggioni I, Burnstock G, Low PA (Eds). Elsevier Academic Press, Boston, 2004, pp 124-126.
78. Kihara M, Sugeno J, Low PA: Temperature regulation. Chapter 32 in Primer on the Autonomic Nervous System, Second Edition, Robertson D, Biaggioni I, Burnstock G, Low PA (Eds). Elsevier Academic Press, Boston, 2004, pp 127-129.
79. Low PA: The venoarteriolar reflex. Chapter 38 in Primer on the Autonomic Nervous System, Second Edition, Robertson D, Biaggioni I, Burnstock G, Low PA (Eds). Elsevier Academic Press, Boston, 2004, pp 152-153.
80. Low PA, Schondorf R: Assessment of sudomotor function. Chapter 61 in Primer on the Autonomic Nervous System, Second Edition, Robertson D, Biaggioni I, Burnstock G, Low PA (Eds). Elsevier Academic Press, Boston, 2004, pp 231-233.
81. Vernino S, Low PA, Lennon VA: Autoimmune autonomic neuropathy. Chapter 87 in Primer on the Autonomic Nervous System, Second Edition, Robertson D, Biaggioni I, Burnstock G, Low PA (Eds). Elsevier Academic Press, Boston, 2004, pp 324-327.
82. Low PA, McLeod JG: Guillain-Barre syndrome. Chapter 89 in Primer on the Autonomic Nervous System, Second Edition, Robertson D, Biaggioni I, Burnstock G, Low PA (Eds). Elsevier Academic Press, Boston, 2004, pp 332-333.

83. Low PA: Neuropathic postural tachycardia syndrome. Chapter 92 in Primer on the Autonomic Nervous System, Second Edition, Robertson D, Biaggioni I, Burnstock G, Low PA (Eds). Elsevier Academic Press, Boston, 2004, pp 341-343.
84. Low PA, Engstrom JW: Disorders of the autonomic nervous system. Chapter 354 in Harrison's Principles of Internal Medicine, Sixteenth edition, Kasper DL, Braunwald E, Fauci AS, Hauser SL, Longo DL, Jameson JL (Eds). McGraw Hill, New York, 2004.
85. Low PA: Oxidative stress and excitatory neurotoxins in neuropathy. Chapter 23 in Peripheral Neuropathy, Fourth Edition, Dyck PJ, Thomas PK (Eds). Elsevier Science, Philadelphia, 2005, pp 509-533.
86. McManis PG, Low PA, Lagerlund TD: Nerve blood flow and microenvironment. Chapter 30 in Peripheral Neuropathy, Fourth Edition, Dyck PJ, Thomas PK (Eds). Elsevier Science, Philadelphia, 2005, pp 667-680.
87. Low PA, Mathias CJ: Quantitation of autonomic impairment. Chapter 44 in Peripheral Neuropathy, Fourth Edition, Dyck PJ, Thomas PK (Eds). Elsevier Science, Philadelphia, 2005, pp 1103-1133.
88. Low PA, Singer W: Management of autonomic failure. Chapter 119 in Peripheral Neuropathy, Fourth Edition, Dyck PJ, Thomas PK (Eds). Elsevier Science, Philadelphia, 2005, 2653-2669.
89. Low PA: Neurologic causes of syncope. Chapter 9 in Syncope: Mechanisms and Management, Second Edition, Grubb B, Olshansky B (Eds). Blackwell Publishing, Malden, Massachusetts, in press.

Editorials

1. Low PA, Dotson RM: Symptomatic treatment of painful neuropathy (editorial). JAMA 280:1863-1864, 1998.