

BIOGRAPHICAL SKETCH

Give the following information for the key personnel and consultants and collaborators. Begin with the principal investigator/program director. Photocopy this page for each person.

NAME Stephen J. Withrow	POSITION Director, Animal Cancer Center, Stuart Chair in Oncology University Distinguished Professor
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EDUCATION (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

INSTITUTION AND LOCATION	DEGREE	YEAR CONFERRED	FIELD OF STUDY
University of Minnesota, Duluth		1965-68	Pre-Vet
University of Minnesota, St. Paul	D.V.M.	1972	Veterinary Medicine
Animal Medical Center, New York	Resident	1973-75	Surgery
Mayo Clinic, Rochester, Minn.	Post-doc.	1975	Surgery/Orthopedics
Massachusetts Gen. Hosp., Boston	Res. Fellow	1986	Orthopedic Oncology

RESEARCH AND PROFESSIONAL EXPERIENCE: Concluding with present position, list, in chronological order, previous employment, experience, and honors. Include present membership on any Federal Government public advisory committee. List, in chronological order, the titles, all authors, and complete references to all publications during the past three years and to representative earlier publications pertinent to this application. If the list of publications in the last three years exceeds two pages, select the most pertinent publications. **DO NOT EXCEED TWO PAGES.**

EMPLOYMENT/EXPERIENCE

1973-1975 Surgical Resident, The Animal Medical Center, New York
 1974-1975 Associated with research activities at Sloan-Kettering Memorial Institute for Cancer Research, New York
 1975-1978 Associate Professor, Western College of Veterinary Medicine, University of Saskatchewan, Canada
 1978 Postdoctorate fellow; Mayo Clinic, (Rochester)
 1986 Research Fellow, Orthopedic Oncology, Massachusetts General Hospital
 1978- Professor of Surgical Oncology, Department of Clinical Sciences, College of Veterinary Medicine and Biomedical Sciences, Colorado State University, Fort Collins, Colorado
 1998- Director, Animal Cancer Center College of Veterinary Medicine and Biomedical Sciences, Colorado State University, Fort Collins, Colorado.
 2007 Director, Cancer Supercluster™ and Chief Scientific Office of NeoTREX™

PROFESSIONAL SOCIETIES

Musculoskeletal Tumor Society
 American Veterinary Medical Association
 Veterinary Cancer Society (Past President)
 American College of Veterinary Surgeons, Board certified 1975
 Colorado Veterinary Medical Association
 American Animal Hospital Association
 American College of Veterinary Internal Medicine, Specialty of Oncology, Board Certified, 1988

HONORS

Alumni Faculty Award, Colorado State University, 1982
 Purina Research Award, Colorado State University, 1984
 American Animal Hospital Association, National Award of Merit, 1987
 A.M.C. Distinguished Alumnus, 1989
 Gaines Award, AVMA, 1990
 Outstanding Faculty Award, CVMA, 1995
 AKC Career Achievement Award in Canine Research, 1999
 Ronald McDonald House Volunteer of the Year, 2001
 University Distinguished Professor, Colorado State University, 2004
 Bonfils-Stanton Foundation Award, May 2004

PUBLICATIONS (over 230 through 2006);

Books: Sm. Anim. Clinical Oncology; W.B. Saunders Co (1989, 1996, 2001, 2006) 720 pages

- Straw, R.C., S.J. Withrow, et al: 1994. Effects of *Cis*-Diamminedichloroplatinum II Released from D,L-Polylactic Acid Implanted Adjacent to Cortical Allografts in Dogs. *J Ortho Res*, 12Z:871-877.
- Withrow, S.J.**, R.C.Straw, et al 1995. Slow Release Adjuvant Cisplatin for Treatment of Metastatic Canine Osteosarcoma. *Eur J Exp Musculoskel Res* 4:105-110.
- Withrow, S.J. 1995. The Science of Surgical Oncology: Past Progress and Future Direction. *Veterinary Clinics of North America: Small Animal Practice* 25:225-230.
- Straw, R.C., S.J. Withrow. 1996. Limb-sparing Surgery Versus Amputation for Dogs with Bone Tumors. *Veterinary Clinics of North American: Small Animal Practice* 26:135-143.
- Dunn, R.L., G.L. Yeweym, S.M. Fujita, K.R. Josephs, S.L. Whitman, G.L. Southard, W.S. Dernell, R.C. Straw, S.J. Withrow, B.E. Powers. 1996. Sustained Release of Cisplatin in Dogs from an Injectable Implant Delivery System. *Journal of Bioactive and Compatible Polymers* 11:286-300.
- Lillehei, K.O., Q. Kong, S.J. Withrow, et al: 1996. Efficacy of Intralesionally Administered Cisplatin-Impregnated Biodegradable Polymer for the Treatment of 9L Gliosarcoma in the Rat. *Neurosurgery* 39(6):1191-1199.
- Dernell, W.S., S.J. Withrow, et al: 1997. Intracavity Treatment of Soft Tissue Sarcomas in Dogs Using Cisplatin in a Biodegradable Polymer. *Anticancer Res* 17:4499-4506(1997)
- Kuntz, C.A., W.S.Dernell, B.E.Powers, C.Devitt, R.C.Straw, and S.J. Withrow. Prognostic factors for surgical treatment of soft-tissue sarcomas in dogs: 75 cases (1986-1996) *JAVMA*, 211:9; Nov 1, 1997.
- McNiell, E.A., G.K.Ogilvie, B.E.Powers, J.M. Hutchison, M.D. Salman, and S.J. Withrow. Evaluation of prognostic factors for dogs with primary lung tumors: 67 cases (1985-1992). *JAVMA*, 211:11 Dec 1, 1997.
- Mendoza S., T. Konishi, W.S. Dernell, S.J. Withrow, C.W. Miller. 1998. Status of P53, Rb and Mdm2 Genes in Canine Osteosarcoma. *Anticancer Res* 18: 4449-4454 (1998).
- Withrow S.J. The Evolution of Veterinary Surgical Oncology. 1998. *Clin Techn in Sm Anim Pract* 13:1(Feb) 1998. 1-3.
- Meyer J.D., R.F. Falk, R.M. Kelly, J.E. Shively, S.J. Withrow, W.S. Dernell, D.J. Kroll, T. W. Randolph, M.C. Manning. 1998. Preparation and in Vitro Characterization of Gentamycin-Impregnated Biodegradable Beads Suitable for Treatment of Osteomyelitis. *Journ Pharm Sci* 87:9, Sept 1998.
- Ehrhart, N., W.S. Dernell, W.E. Hoffmann, R.M. Weigel, B. E. Powers, S.J. Withrow. 1998. Prognostic importance of alkaline phosphatase activity in serum from dogs with appendicular osteosarcoma: 75 cases (1990-1996). *JAVMA* 213: 7, Oct 1998.
- Ehrhart, N., W.S. Dernell, E.J. Ehrhart, J.M.Hutchinson, E.B.Double, J.H. Brekke, R.C. Straw, S.J. Withrow. 1999. Effects of a controlled-release Cisplatin delivery system used after resection of mammary carcinoma in mice. *AJVR* 60: 11, Nov 1999.
- Ferreira, S.D., W.S. Dernell, B.E. Powers, R.A. Schochet, C.A. Kuntz, S.J. Withrow, R.M. Wilkins. 2000. Effect of Gas-Plasma Sterilization on the Osteoinductive Capacity of Demineralized Bone Matrix. *Clin Ortho & Related Research* 2000; 388: 233-239.
- Lana, S.E., G.K. Ogilvie, R.A. Hansen, B.E.Powers, W.S.Dernell, S.J. Withrow. 2000. Identification of matrix metalloproteinases in canine neoplastic tissue. *AJVR*, 61:2, Feb 2000.
- Bianco SR, Sun J, Fosmire SP, HanceK., Padilla I, Ritt MG, Getzy DM, Duke RC, Withrow SJ, et al. Enhancing antimelanoma immune responses through apoptosis. *Cancer Gene Therapy* (2003) 10, 733-736.
- Liptak JM, Dernell WS, Ehrhart EJ, Rizzo SA, Rooney MB, Withrow SJ. Retroperitoneal sarcomas in dogs: 14 cases (1992-2002) *JAVMA*, Vol 224, No. 9, May 1, 2004.
- Withrow SJ, Liptak JM, Straw RC, Dernell WS, Jameson VJ, Powers BE, et.al Biodegradable Cisplatin Polymer in Limb-Sparing Surgery for Canine Osteosarcoma. *Annals of Surg Onco* 11(7); 705-713. 2004