

## BIOGRAPHICAL SKETCH

NAME Denise L. Smith	POSITION TITLE Professor of Exercise Science
Institution/Organization: Skidmore College	Director First Responder Health and Safety Lab

EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Houghton College, Houghton, New York	B.Sc.	1979-1983	Physical Education
University of Illinois, Urbana, Illinois	M.Sc.	1983-1985	Exercise Physiology
University of Illinois, Urbana, Illinois	Ph.D.	1986-1990	Kinesiology

### A. Positions and Employment

- 2003-present Professor, Health and Exercise Sciences, Skidmore College, Saratoga Springs, NY.
- 2006-2011 Class of 1961 Endowed Chair
- 1994-present Research Scientist/Visiting Associate Professor, Fire Service Institute and Department of Kinesiology, University of Illinois, Champaign, IL.
- 2002-2007 Chair, Department of Exercise Science, Skidmore College, Saratoga Springs, NY.
- 1996-2003 Associate Professor, Skidmore College, Saratoga Springs, NY.
- 1990-1996 Assistant Professor, Skidmore College, Saratoga Springs, NY.

### B. Service

- Fellow*, American College of Sports Medicine (FACSM), 1996.
- Member*, National Health Initiative, Strategic Health Objectives Committee, 2000-2006.
- Co-chair*, Occupational Physiology Interest Group, 2000-2004.
- Member*, External Ad Hoc Expert Review Committee. American College of Sports Medicine Position Stand. Exertional Heat Illness During Training and Competition. Spring, 2006.
- Reviewer*, MSSE, Erg, JAP, EJAP, Metabolism.

### C. Honors

- Boston Firefighters Local 718 Award. Awarded for research that promotes Firefighter Health and Safety. June 2011.
- Moseley Research Lecture, Sudden Cardiac Death: Why Fire Fighters are at Risk? Skidmore College, 2009.

### D. Peer Reviewed Publications

- Fernhall, B., Fahs, C.A., **Smith, D.L.**, Rowland, T., Horn, G.P. (2012). Acute effects of firefighting on cardiac performance. *EJAP*, 112(2): 735-741.
- Soteriades, E.S., **Smith, D.L.**, Tsismenakis, A.J., Baur, D.M., Kales, S.N. (2011). Cardiovascular disease in U.S. firefighters: a systematic review. *Cardiol Rev.* 19(4): 202-215.
- Smith, D.L.** (2011). Firefighter fitness: improving performance and preventing injuries and fatalities. *Cur Sports Med Rev*, 10(3):167-172.
- Smith, D.L.**, Petruzzello, S.J., Goldstein, E., Ahmad, U., Tangella, K., Freund, G.G., Horn, G.P. (2011). Effect of live-fire training drills on platelet number and function. *Prehosp Emerg Care*, 15(2):233-239.
- Horn, G., Gutzmer, S., Fahs, C., Petruzzello, S.J., Goldstein, E., Fahey, G., Fernhall, B., **Smith, D.L.** (2011). Physiological recovery from firefighting activities in rehabilitation and beyond. *Prehosp Emerg Care*, 15(2):214-225.
- Park, K., Rosengren, K.S., Horn, G.P., **Smith, D.L.**, Hsiao-Wecksler, E.T. (2011). Assessing gait changes in firefighters due to fatigue and protective clothing. *Saf Sci*, 49(5):719-726.

- Fahs, C.A., Yan, H., Ranadive, S., Rossow, L.M., Agiovlasis, S., Echols, G., **Smith, D.L.**, Horn, G.P., Rowland, T., Fernhall, B. (2011). Acute effects of firefighting on arterial stiffness and blood flow. *Vasc Med*, 16(2):113-118.
- Fahs, C.A., **Smith, D.L.**, Horn, G., Agiovlasis, S., Rossow, L.M., Echols, G., Heffernan, K.S., and Fernhall, B. (2009). The impact of excess body weight on arterial structure and function and blood pressure in Firefighters. *Am J Cardiol*, 104:1441-1445.
- Petruzzello, S., Gapin, J., Snook, E., and **Smith, D.L.** (2009). Perceptual and Physiological Heat Strain: Examination in Firefighters In Laboratory and Field-based Studies. *Erg*, 52(6):747-754.
- Smith, D.L.**, Petruzzello, S.J., Chludzinski, M.A., Reed, J.J., and Woods, J.A. (2005). Selected hormonal and immunological responses to live-fire firefighting drills. *Erg*, 48(1):55-65.
- Smith, D.L.**, Dyer, K., and Petruzzello, S.J. (2004). Blood chemistry and immune cell changes during one week of intensive firefighting training. *J Therm Biol*, 29:725-729.
- Smith, D.L.**, Petruzzello, S.J., Chludzinski, M.A., Reed, J.J., and Woods, J.A.. (2001). Effects of strenuous live-fire fire fighting drills on hematological, blood chemistry, and psychological measures. *J Therm Biol*, 26(4-5):375-380.
- Smith, D.L.**, Petruzzello, S.J., and Manning, T.S. (2001). The Effect of Strenuous Live-Fire Drills on Cardiovascular and Psychological Responses of Recruit Firefighters. *Erg*, 44(3):244-254.
- Smith, D.L.** and Petruzzello, S.J. (1998). Selected Physiological and Psychological Responses to Live-Fire Drills in Different Configurations of Firefighting Gear. *Erg*, 41(8):1141-1154.

#### **E. Books**

- Plowman, S.A. and **Smith, D.L.** (2011). *Exercise Physiology: for Health, Fitness, and Performance*. Third edition. Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins.
- Smith, D.L.** and Fernhall B. (2011). *Advanced Cardiovascular Exercise Physiology*. Champaign: Human Kinetics Publisher.

#### **F. Other Publications**

- National Institute of Occupational Safety and Health (NIOSH). Centers for Disease Control and Prevention. Department of Health and Human Services. F2010-21 Fire Fighter Fatality Investigation and Prevention Program. "Volunteer Fire Fighter Suffers a Fatal Cardiac Event After Fire Suppression Training – Pennsylvania". **D.L. Smith** and T. Hales. Completed 14 investigations and reports related to cardiac-related fatalities in the fire service.

#### **G. Research Support**

- 2010 DHS – AFG. Effect of Dehydration and Heat Stress on Vascular and Hemostatic Functions. \$999,997. (Denise Smith, PI; Patricia Fehling, Co-PI).
- 2009 DHS – AFG. "Improving Structural Firefighting Gear- From the Inside Out". \$569,403 (Denise Smith, PI; Patricia Fehling, Co-PI).
- 2009 DHS – AFG: Fire Prevention and Safety Grant. "Effect of Aspirin on Hemostatic and Vascular Function after Live Fire Fighting". \$998,000 (Co-PI; Gavin Horn, PI).
- 2007 DHS – AFG. Effect of Physical Fitness on Physiological Recovery from Firefighting Duties. Co-PI. \$994,342.
- 2007 DHS – AFG: Fire Prevention and Safety Grant. "Cardiovascular Function Following Prolonged Fire Fighting: Documenting Changes, Predicting Risk, and Improving Function". Principal Investigator with Gavin Horn. \$985,000
- 2006 DHS – AFG. "Cardiovascular and Biomechanical Responses to Firefighting". Principal Investigator with Gavin Horn. \$990,000