

SARAH ANN REED

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EDUCATION

- Ph.D.** University of Florida 2009 Animal Molecular and Cellular Biology
Doctoral Thesis: *Isolation and characterization of equine umbilical cord blood derived stem cells.*
Advisor: Sally E. Johnson, Ph.D.
GPA 4.0/4.0
- M.S.** University of Florida 2006 Animal Sciences
Masters Thesis: *Identification of differentially expressed proteins as a result of Raf kinase activity.*
Advisor: Sally E. Johnson, Ph.D.
GPA 3.77/4.0
- Non-degree** Pennsylvania State University 2003 Undergraduate Studies
GPA 3.81/4.0
- B.S.** Delaware Valley College 2003 Equine Science
GPA 3.94/4.0

PROFESSIONAL EXPERIENCE

- Post Doctoral Associate** *Aug 2009 – Present*
University of Florida Department of Physical Therapy, Gainesville, FL
Post Doctoral Associate
Used cancer and sepsis rodent models to examine the involvement of the Foxo and NFκB signaling pathways in muscle wasting.
- USDA National Needs Fellow** *Aug 2006 – Aug 2009*
University of Florida Department of Animal Sciences, Gainesville, FL
Research Fellow
Conducted research to isolate and characterize equine umbilical cord blood derived stem cells. Worked closely with fellow and new graduate students to organize research and prepare laboratory materials.
- Graduate Research Assistant** *Aug 2004 – Aug 2006*
University of Florida Department of Animal Sciences, Gainesville, FL
Research Assistant
Conducted a research study to determine proteomic responses to cell cycle exit in mouse myoblasts and satellite cells. Responsible for harvest of muscle tissue and isolation of primary satellite cell cultures.

Laboratory Technician

Jan 2004 – Jun 2004

Pennsylvania State University Department of Poultry Science, University Park, PA

Implemented a two-dimensional proteomics system. Prepared laboratory materials.

PUBLICATIONS

Refereed Publications

Reed, S.A. and S.E. Johnson. Culture of equine umbilical cord blood and adipose derived stem cells to promote tenocytic differentiation. In preparation.

Reed, S.A., K. Moore, W.T. Thatcher, and S.E. Johnson. Refinement of culture conditions to promote the maintenance of equine umbilical cord blood derived stem cells. In preparation.

Li, J., **S.A. Reed**, and S.E. Johnson. Hepatocyte growth factor (HGF) signals through SHP2 to regulate primary mouse myoblast proliferation. *Exp Cell Res.* 2009 Aug; 315(13):2284-92

Reed, S.A. and S.E. Johnson. Equine umbilical cord blood contains a population of stem cells that express Oct4 and differentiate into mesodermal and endodermal cell types. *J Cell Physiol.* 2008 May; 215(2):329-36.

Reed, S.A., S.E. Ouellette, X. Liu, R.E. Allen, and S.E. Johnson. E2F5 and LEK1 translocation to the nucleus is an early event demarcating myoblast quiescence. *J Cell Biochem.* 2007 Aug; 101(6):1394-408.

Abstracts of Presentations

Reed, S.A. and S.E. Johnson. (May 2009). Optimization of culture conditions for equine umbilical cord blood derived stem cells. Abstract presented at the 2009 Meeting of the Equine Science Society. Keystone, CO.

Reed, S.A., J. Li, and S.E. Johnson. (April 2009). Effects of Three Dimensional Culture and Fibroblast Growth Factor Supplementation on Equine Umbilical Cord Blood Derived Stem Cells. Abstract presented at the Annual University of Florida Animal Molecular and Cellular Biology Symposium. Crystal River, FL.

Reed, S.A. and S.E. Johnson. (March 2008). Optimization of culture conditions for equine umbilical cord blood derived stem cells. Abstract presented at the Annual University of Florida Animal Molecular and Cellular Biology Symposium. Cedar Key, FL.

Li, J., **S.A. Reed**, and S.E. Johnson. (December 2007). Hepatocyte growth factor induces cell cycle withdrawal in satellite cells in a MAPK-dependent manner. Abstract presented at the Annual meeting of the American Society for Cell Biology. Washington, DC.

Reed, S.A. and S.E. Johnson. (June 2007). Characterization of equine umbilical cord blood-derived stem cells. Abstract presented at the 2007 Meeting of the Equine Science Society. Hunt Valley, MD.

Reed, S.A. and S.E. Johnson. (April 2007). Characterization of equine umbilical cord blood-derived stem cells. Abstract presented at the Annual University of Florida Animal Molecular and Cellular Biology Symposium. St. Augustine, FL.

Reed, S.A., S.E. Ouellette, S.E. Johnson. (May 2006). Identification of proteins associated with satellite cell quiescence. Abstract presented at Frontiers in Myogenesis. Pine Mountain, GA.

Reed, S.A., K.J. Johnson, S.E. Johnson. (June 2005). Intracellular signaling events in equine skeletal muscle. Abstract presented at the 2005 Meeting of the Equine Science Society. Tucson, AZ.

Johnson, K.J., **S.A. Reed**, S.E. Johnson, E.A. Ott. (June 2005). Effects of vitamin E supplementation on oxidative stress in exercising horses. Abstract presented at the 2005 Meeting of the Equine Science Society. Tucson, AZ.

Reed, S.A., X. Wang, S.E. Johnson. (December 2004). Identification of differentially expressed proteins as a consequence of raf activity in skeletal myoblasts. Abstract presented at the Annual meeting of the American Society for Cell Biology. Washington, DC.

Wang, X., **S.A. Grove**, S.E. Johnson. (December 2004). Inhibition of myogenesis by an activated raf kinase that is defective in MEK binding. Abstract presented at the Annual meeting of the American Society for Cell Biology. Washington, DC.

TEACHING EXPERIENCE

Reed, S.A. (Fall 2008). Intramembranous Ossification. Guest Lecture in ANS3043 Honors Growth and Development of Farm Animals, Senior level undergraduate course. University of Florida.

Reed, S.A. (Fall 2008). Bone Remodeling and the Role of Hormones. Guest Lecture in ANS3043 Honors Growth and Development of Farm Animals, Senior level undergraduate course. University of Florida.

Reed, S. A. (Spring 2008). Cardiovascular and Respiratory Responses to Exercise. Guest Lecture and Lab Instructor in ANS3079L Relationship of Form to Function, Senior level undergraduate course. University of Florida.

Reed, S.A. (Spring 2008). Equine Leg Anatomy Dissection Laboratory. Guest Lab Instructor in ANS3079L Relationship of Form to Function, Senior level undergraduate course. University of Florida.

Reed, S.A. (Spring 2008). Equine Anatomy. Guest Lecture in ANS3079L Relationship of Form to Function, Senior level undergraduate course. University of Florida.

Reed, S.A. (Fall 2007). Pre- and Post-Natal Muscle Development. Guest Lecture in ANS6636 Meat Technology, Graduate course. University of Florida.

Reed, S.A. (Spring 2007). Lectures in Equine Muscle Anatomy and Physiology. Teaching Assistant for ANS4905 The Equine Athlete, Senior level undergraduate course. University of Florida.

Reed, S.A. (Spring 2005). Basic Equine Skeletal Anatomy. Guest Lecture in ANS3043 Growth and Development, Senior level undergraduate course. University of Florida.

Reed, S.A. (Spring 2005). Satellite Cells and Muscle Regeneration. Guest Lecture in ANS3043 Growth and Development, Senior level undergraduate course. University of Florida.

MEMBERSHIPS

- ✦ Delta Epsilon Iota Honor Society
2008 – Present
- ✦ Equine Science Society
2004 – Present
- ✦ UF Animal Sciences Graduate Student Association
2004 – Present; Vice President of Professional Development, 2006
- ✦ American Society for Cell Biology
2004-2005
- ✦ American Quarter Horse Association
1993 – Present
- ✦ Delta Tau Alpha Honor Society
2001 – Present

HONORS AND AWARDS

- ✦ USDA National Needs Fellowship
University of Florida Animal Molecular and Cellular Biology Program
2006 – Present
- ✦ Craig Hill Achievement Award Recipient
Delaware Valley College Equine Science Department
2003
- ✦ American Quarter Horse Association General Scholarship Recipient
Delaware Valley College
2000 – 2003