BIOGRAPHICAL SKETCH

NAME
Sushmitha S. Durgam

TITLE
Assistant Professor of Equine Surgery

EDUCATION/TRAINING (*Begin with baccalaureate*)			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY/FOCUS
Karnataka Animal Sciences University, INDIA	B.V.Sc.	2002 - 2007	Veterinary Medicine
University of Illinois	M.S.	2007 - 2010	Veterinary Clinical Sciences Stem Cells for Tendon Healing
University of Illinois	Ph.D.	2011 - 2016	Veterinary Clinical Sciences Tendon Healing, Tendon-derived progenitor cells

STATEMENT

I am an assistant professor in the department of Veterinary Clinical Sciences at OSU and currently in the process of developing a translational orthopedic research program focused on tenocyte and tendon-derived stem cell phenotype and plasticity during tendon healing. Research during my Masters and PhD training has focused on in-vitro and in-vivo studies of equine tendinitis with autogenous progenitor cells. In addition, I have been involved in projects addressing aspects of equine chondrocyte, osteoblast and mesenchymal stem cell biology.

RESEARCH and/or PROFESSIONAL EXPERIENCE

October 2016 - Present — *Assistant Professor – Tenure Track*, Equine Surgery
The Ohio State University, Columbus, OH

July 2011- August 2016 — *Graduate Research Assistant* (Doctor of Philosophy)
Dept. of Veterinary Clinical Medicine, University of Illinois, Urbana Champaign, IL

August 2015 - May 2016 — *Equine Emergency Surgeon*
University of Illinois, Urbana-Champaign, IL

July 2011- July 2015 — *Large Animal (Equine Emphasis) Surgery Resident*
University of Illinois, Urbana-Champaign, IL.

July 2010 - June 2011 — *Large Animal Surgical Intern*
Tufts Cummings School of Veterinary Medicine, MA.

July 2008- June 2010 — *Rotating Intern, Equine Medicine and Surgery*
University of Illinois, Urbana-Champaign, IL.

August 2007- June 2010 — *Graduate Research Assistant* (Master of Science)
Dept. of Veterinary Clinical Medicine, University of Illinois, Urbana-Champaign, IL,

PEER REVIEWED PUBLICATIONS

Durgam S, Stewart M. "Cellular and molecular factors influencing tendon healing – Review." *Tissue Engineering Part B* 2016 (Submitted – Under Review).

Durgam S, Stewart M. "Efficacy of stem cell therapy for healing of equine superficial digital flexor tendon." *Veterinary Evidence* 2016 (Submitted – Under Review).

Durgam S, Stewart M. "Tendon-derived progenitor cells: In-vitro characterization and in vivo effects for tendon healing- Review." *Journal of Stem Cell and Regenerative Medicine* 2016 Accepted for publication.

Durgam S, Stewart A, Bilof K, Sivaguru M, Stewart M. "Tendon-derived progenitor cells improve healing of on collagenase-induced flexor tendinitis." *Journal of Orthopedic Research* doi:10,1002/jor.23251 [Epub ahead of print].

Durgam S, Schuster B, Cymerman A, Stewart A, Stewart M. "Differential adherence preplating does not enhance tendon-derived progenitor cell selection during monolayer expansion." *Tissue Engineering Part C* 2016; 22:801-808.

Bianchessi M, Chen Y**, Durgam S,** Pondenis H, Stewart M. "Effect of fibroblast growth factor-2 on equine synovial fluid chondro-progenitor expansion and chondrogenesis." *Stem Cells International*. 2016;doi: 10.1155/2016/9364974.

Kay A, **Durgam S**, Stewart M, Joslyn S, Schaeffer DJ, Horn G, Kessler M, Chu P. "Lag screw fixation of type III pedal bone fractures in the horse: An ex-vivo study." *Veterinary Surgery.* 2016;doi: 10.1111/vsu.12555. [Epub ahead of print].

Sivaguru M, Eichorst J, **Durgam S**, Fried G, Stewart A, Stewart M. "Imaging horse tendons using multimodal 2-photon microscopy." Methods 2014 Mar;66(2):256-67

Carlson E, Stewart A, Carlson K, **Durgam S** Pondenis H. "Effect of serum and autologous conditioned serum on equine articular chondrocytes treated with interleukin-1b." *American Journal of Veterinary Research* 2013 May;74(5):700-5.

Durgam S, Stewart A, Pondenis H, Yates A, Evans R, Stewart M. "Responses of equine tendon- and bone marrow-derived cells to monolayer expansion with FGF-2 and sequential culture with IGF-I and pulverized tendon." *American Journal of Veterinary Research* 2012 Jan;73(1):162-70.

Durgam S, Stewart A, Pondenis H, Guttierez-Nibeyro S, Evans R, Stewart M. "Comparison of equine tendon- and bone marrow-derived cells cultured on tendon matrix and supplemented with IGF-I." *American Journal of Veterinary Research* 2012 Jan;73(1):153-61.

Sivaguru M, **Durgam S**, Ambedkar R, Leudtke D, Fried G, Stewart A, Toussaint K. "Quantitative analysis of collagen fiber organization in injured tendons using Fourier transform-second harmonic generation imaging."*Optics Express* 2010 Nov;18(24):24983-93

Karlin W, Stewart A, **Durgam S**, O'Dell-Anderson K, Stewart M, Naughton J. "Evaluation of experimentally induced injury to the superficial digital flexor tendon in horses by use of low-field magnetic resonance imaging and ultrasonography." *American Journal of Veterinary Research* 2011 Jun;72(6): 791-8.

Schaefer E, Stewart A, **Durgam S**, Byron C, Stewart M. "Effects of sodium hyaluronate and triamcinolone acetate on proteoglycan metabolism in equine articular chondrocytes treated with interleukin-1." *American Journal of Veterinary Research* 2009; 70:1494-501.

Stewart A, Barrett J, Byron C, Yates A, **Durgam S**, Evans R, Stewart M. Comparison of tendon-, muscle-, and bone marrow-derived cells cultured on tendon matrix. *American Journal of Veterinary Research* 2009 70:750-757.

HONORS/AWARDS AND DISTINCTIONS

Spring 2016 Graduate Student Travel Award for best abstract presented at national convention (Orthopedic Research Society 2016) in Dept. of Veterinary Clinical Medicine, University of Illinois, Urbana-Champaign, IL

First Place, Basic Science Research Category, "Second Harmonic Generation (SHG) Imaging Provides Quantitiative Analysis of Collagen Alignment in Healing Equine Flexor Tendons." *CVM Research Day 2016*, University of Illinois, Urbana-Champaign, IL.

Everett B. Thompson Memorial Award, University of Illinois, Stipend for completion of PhD for the academic year 2015-2016.

Third Place, Basic Science Research Category, "In-Vitro Comparison of FGF-2/IGF-I Enhanced Tendon- and Bone Marrow-Derived Progenitor Cells Cultured with Tendon Matrix." *Phi Zeta Research Day 2010, University of Illinois, Urbana-Champaign, IL*

First Place, Clinical Research Category, "Effects of Tendon-Derived Progenitor Cells on Collagenase-Induced Model of Tendinitis in Horses." *Phi Zeta Research Day 2009*, University of Illinois, Urbana-Champaign,IL

GRANT PROPOSALS SUBMITTED THAT HAVE BEEN FUNDED

October 2011- Sept 2012 — Isolation of Tendon-Derived Progenitor Cells Using Pre-Plating Technique. (PI: Stewart AA; **Co-PI: Durgam S**) *Animal Health and Disease.* $ 17,323.40

October 2008- Sept 2009 — The Use of Tendon-Derived Progenitor Cells to Promote Tendon Healing in Horses. (PI: Stewart AA; **Co-PI: Durgam S**) *American Quarter Horse Association*. $ 58,360.00

October 2008 - Sept 2009 — The Use of Tendon-Derived Progenitor Cells to Promote Tendon Healing in Horses. (PI: Stewart AA; **Co-PI: Durgam S**) *American Quarter Horse Association*. $ 26,951.00

Sept 2007- July 2009 — Growth Factor Enhanced Progenitor Cells for Tendon Healing. (PI: Stewart AA; **Co-PI: Durgam S**) *Grayson Jockey Club Foundation*. $ 44,320.00