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EDUCATION

- 2007 - 2012 **Ph.D.** in Reproductive Biology
University of Illinois at Urbana-Champaign, IL
- 2001 - 2003 **MVSc** in Animal Reproduction, Gynecology and Obstetrics
Tamil Nadu Veterinary and Animal Sciences University, India
- 1995 - 2001 **BVSc** (DVM equivalent, Veterinary Medicine)
Tamil Nadu Veterinary and Animal Sciences University, India

EMPLOYMENT

- 2017 - Present Assistant Instructor, UT Southwestern Medical Center, Dallas, Texas
- 2012 - 2017 Postdoctoral Researcher, UT Southwestern Medical Center, Dallas, Texas
- 2004 - 2007 Senior Research Fellow, Sri Venkateswara Veterinary University, India

RESEARCH SUPPORT

- 2017 - 2019 NIH K99/R00 Pathway to Independence Award (1K99HD090301), Role: PI

RESEARCH EXPERIENCE

- 2017 - Present K99/R00 Research at UT Southwestern Medical Center
Mechanisms by which the myometrial extracellular matrix modulates myometrial cell function in pregnancy and parturition
- 2013 - 2017 Postdoctoral Research at UT Southwestern Medical Center
Steroid hormonal regulation of extracellular matrix structure and function in cervix
- 2007 - 2012 Doctoral Research at University of Illinois at Urbana-Champaign
Role of Msx homeobox genes in uterus during embryo implantation
- 2004 - 2007 Research at Sri Venkateswara Veterinary University
Meiotic maturation of preantral follicles from sheep and buffalo ovaries
- 2001 - 2003 Masters Research at Tamil Nadu Veterinary and Animal Sciences University
Influence of cysteamine supplementation during in vitro culture on preimplantation development of ovine embryos

PUBLICATIONS

- Jayyosi C, Lee N, Willcockson A, **Nallasamy S**, Mahendroo M, Myers K (2018) The mechanical response of the mouse cervix to cyclic tensile test with advancing gestation in normal and preterm pregnancy. *Acta Biomaterialia* (Epub: 2018 July 27)
- Willcockson A, Nandu T, Liu C, **Nallasamy S**, Kraus L, Mahendroo M (2018) Cervical transcriptome signature identifies pathways that drive LPS-mediated preterm birth. *Biology of Reproduction*, 98(3):408-421.
- **Nallasamy S**, Akins M, Tetreault B, Luby-Phelps K and Mahendroo M (2018) Distinct reorganization of collagen architecture in lipopolysaccharide - mediated premature cervical remodeling. *Biology of Reproduction*, 98(1): 63–74.
- **Nallasamy S**, Yoshida K, Akins M, Myers K, Iozzo R, Mahendroo M (2017) Steroid hormones are key modulators of tissue mechanical function via regulation of collagen and elastic fibers. *Endocrinology*, 158(4): 950 - 962.
- **Nallasamy S**, Kim J, Sitruk-Ware R, Bagchi M, Bagchi I (2013) Ulipristal blocks ovulation by inhibiting progesterone receptor-dependent pathways intrinsic to the ovary. *Reproductive Sciences*, 20(4):371-381.
- **Nallasamy S**, Li Q, Bagchi M, Bagchi I (2012) Msx homeobox genes critically regulate embryo implantation by controlling paracrine signaling between uterine stroma and epithelium. *PLoS Genetics* 8(2): e1002500.
- Gangineni A, **Nallasamy S**, Rao V H (2010) Development of morulae from the oocytes of cultured sheep preantral follicles. *Theriogenology*, 74; 884-894.
- **Nallasamy S**, Gopalakrishnan D (2007) Effect of cysteamine on in vitro maturation of sheep oocytes. *Indian Veterinary Journal*, 84:1261-1263.
- **Nallasamy S**, Gopalakrishnan D (2006) Recovery and morphological assessment of oocytes from sheep ovaries. *Indian Veterinary Journal*, 83: 1215 – 1216.
- **Nallasamy S**, Gopalakrishnan D (2006) Effects of cumulus cells and cysteamine on in vitro development of ovine embryos. *Indian Veterinary Journal*, 83; 368 – 370.
- **Nallasamy S**, Gopalakrishnan D, Palanisamy A, Thangavel A (2006) Effect of cysteamine during in vitro culture on preimplantation development of ovine embryos. *Indian Veterinary Journal*, 83:146-149.

Invited Review

Nallasamy S and Mahendroo M (2017) Distinct roles of cervical epithelia and stroma in pregnancy and parturition. *Seminars in Reproductive Medicine*, 35(2):190-200.

Book Chapter

Mahendroo M and **Nallasamy S** (2018) Chapter: 50 The Cervix - Volume 2: Female Reproduction. Encyclopedia of Reproduction 2nd Edition, Section Editors: Spencer TE and Flaws JA, Elsevier Science Publishing Co Inc.

Manuscripts Under Review/In Preparation

- Bryant S*, **Nallasamy S***, Mahendroo M (2018) Spatio-temporal dynamics of murine cervical stromal cell populations in pregnancy (*Equal contribution).
- **Nallasamy S**, Li Q, Bagchi M, Bagchi I (2018) Msx homeobox genes act downstream of BMP2 to regulate uterine decidualization in the mouse and the human.
- **Nallasamy S**, Lee N, Jayyosi C, Myers K, Mahendroo M (2018) Decorin and biglycan are required for cervical extracellular matrix structure in pregnancy.

PRESENTATIONS

2018 Jun Talk, UT Southwestern Green Center Retreat, Dallas, TX
2018 Apr Talk, Texas Forum for Reproductive Sciences, Houston, TX
2018 Mar Poster, Society for Reproductive Investigation, San Diego, CA
2017 Apr Poster, Texas Forum for Reproductive Sciences, Houston, TX
2016 Apr Poster, Texas Forum for Reproductive Sciences, Houston, TX
2016 Mar Poster, Society for Reproductive Investigation, Montreal, Canada
2015 Apr Talk, Texas Forum for Reproductive Sciences, Houston, TX
2015 Mar Poster, Society for Reproductive Investigation, San Francisco, CA
2014 Oct Talk, Mechanotransduction in the Reproductive Tract, Durham, NC
2014 Sep Poster, UT Southwestern Postdoctoral Research Symposium, Dallas, TX
2014 Apr Poster, Texas Forum for Reproductive Sciences, San Antonio, TX
2012 Apr Poster, CVM Research Day; University of Illinois at Urbana – Champaign
2011 Oct Poster, Illinois Symposium on Reproductive Sciences, Champaign, IL
2011 Jul Poster, Society for Study of Reproduction, Portland, OR
2011 May Poster, NICHD Specialized Cooperative Centers Program, Chicago, IL.
2011 Apr Talk, Phi Zeta Day, University of Illinois at Urbana-Champaign, IL
2010 Apr Poster, Phi Zeta Day, University of Illinois at Urbana-Champaign, IL
2009 Dec Poster, Indian Society for Study of Animal Reproduction, India
2008 Dec Poster, Indian Society for Study of Animal Reproduction, India
2005 Jan Talk, Annual Conference of Society of Animal Physiologists of India

MENTORING EXPERIENCE

- Supervised Veterinary students, Reproductive physiology laboratory course (2005-2006)
- Undergraduate research fellowship program:
 - Rachel Dzuik (06/2015 - 08/2015) Texas Tech University, TX
 - Shivani Bhatnagar (01/2017 – 04/2017) University of Texas at Dallas
- Stefanie Bryant MD, MFM Fellow (2015 - 2017)

OTHER PROFESSIONAL ACTIVITIES

Professional Memberships

2017 - Present Society for Reproductive Investigation
2002 - Present Life Member, The Indian Society for Study of Animal Reproduction
2011 - 2013 Phi Zeta at the University of Illinois College of Veterinary Medicine
2009 - 2012 Member, Society for the Study of Reproduction
2001 - 2010 Veterinarian, Tamil Nadu Veterinary Council

Journal Reviewer

- Matrix Biology
- Scientific Reports
- Reproduction
- Theriogenology
- Reproductive Sciences
- Journal of Cellular and Molecular Medicine
- Acta Obstetrica et Gynecologica Scandinavica
- European Journal of Obstetrics & Gynecology and Reproductive Biology
- The Journal of Obstetrics and Gynaecology Research
- Journal of Visualized Experiments (JoVE)

- ❖ 2018 Mar Poster Judge, Society for Reproductive Investigation, San Diego, CA
- ❖ 2018 Mar Abstract Judge, Society for Reproductive Investigation, San Diego, CA
- ❖ 2018 Mar Lecture, STARS Symposium, UT Southwestern Medical Center, TX
- ❖ 2017 Feb Lecture, STARS Symposium, UT Southwestern Medical Center, TX
- ❖ 2015 Apr Session Moderator, Texas Forum for Reproductive Sciences, TX