## LINDSEY MARIE VANSANDT

Director, Imperiled Cat *Signature* Project Center for Conservation and Research of Endangered Wildlife Cincinnati Zoo & Botanical Garden 3400 Vine Street; Cincinnati, OH 45220

**Education/Training** 

Institution and Location	Degree	Year	Field of Study
University of Missouri-Columbia	DVM	2008	Veterinary medicine
University of Maryland, College Park	PhD	2014	Animal sciences

Positions and Employment	
Director, Imperiled Cat Signature Project Cincinnati Zoo and Botanical Garden,	2023 – present
Center for Conservation and Research of Endangered Wildlife (CREW)	2023 – přesent
Medical Director Gem City Vet, Trotwood Ohio	2021 – present
Theriogenologist CREW	2018 - 2023
Post-Doctoral Scientist CREW	2014 - 2017
<b>Doctoral Research</b> University of Maryland and Smithsonian Conservation Biology Institute	2009 - 2014
Instructor of Record Department of Animal and Avian Sciences, University of Maryland	2010 – 2014
Research Intern Reproductive and Behavioral Sciences Department, St Louis Zoo	2008 - 2009
Academic Activities, Organizations, and Review Boards	
<b>Steering Committee</b> Association of Zoos and Aquariums (AZA) Reproduction and Endocrinology Scientific Advisory Group	2024 – present
Steering Committee AZA Felid Taxon Advisory Group (TAG)	2023 – present
Advisory Board AZA Reproductive Management Center	2023 – present
Adjunct Assistant Professor University of Cincinnati Department of Biological	2022 – present
Sciences Scientific Advisory Board Michelson Prize and Grants in Reproductive Biology	2022 – present
•	2022 – present
Program	
Program Scientific Ethical Review Board Alliance for Contraception in Cats & Dogs Reproductive Advisor Amur leopard, jaguar, and sand cat Felid TAG Species Survival	2019 – present Plans (SSPs)
Scientific Ethical Review Board Alliance for Contraception in Cats & Dogs Reproductive Advisor Amur leopard, jaguar, and sand cat Felid TAG Species Survival Honors and Awards	Plans (SSPs)
Scientific Ethical Review Board Alliance for Contraception in Cats & Dogs Reproductive Advisor Amur leopard, jaguar, and sand cat Felid TAG Species Survival Honors and Awards Emerging Scientist Travel Scholarship Felid TAG	Plans (SSPs) 2017
Scientific Ethical Review Board Alliance for Contraception in Cats & Dogs Reproductive Advisor Amur leopard, jaguar, and sand cat Felid TAG Species Survival  Honors and Awards Emerging Scientist Travel Scholarship Felid TAG Dr. Richard F. Davis Memorial Scholarship University of Maryland, College of	Plans (SSPs)
Scientific Ethical Review Board Alliance for Contraception in Cats & Dogs Reproductive Advisor Amur leopard, jaguar, and sand cat Felid TAG Species Survival  Honors and Awards Emerging Scientist Travel Scholarship Felid TAG Dr. Richard F. Davis Memorial Scholarship University of Maryland, College of Agriculture and Natural Resources PhD Student of the Year University of Maryland, Department of Animal and Avian	Plans (SSPs) 2017
Scientific Ethical Review Board Alliance for Contraception in Cats & Dogs Reproductive Advisor Amur leopard, jaguar, and sand cat Felid TAG Species Survival Honors and Awards  Emerging Scientist Travel Scholarship Felid TAG  Dr. Richard F. Davis Memorial Scholarship University of Maryland, College of Agriculture and Natural Resources  PhD Student of the Year University of Maryland, Department of Animal and Avian Sciences	Plans (SSPs)  2017 2014  2013
Scientific Ethical Review Board Alliance for Contraception in Cats & Dogs Reproductive Advisor Amur leopard, jaguar, and sand cat Felid TAG Species Survival  Honors and Awards Emerging Scientist Travel Scholarship Felid TAG Dr. Richard F. Davis Memorial Scholarship University of Maryland, College of Agriculture and Natural Resources PhD Student of the Year University of Maryland, Department of Animal and Avian	Plans (SSPs)  2017 2014
Scientific Ethical Review Board Alliance for Contraception in Cats & Dogs Reproductive Advisor Amur leopard, jaguar, and sand cat Felid TAG Species Survival Honors and Awards  Emerging Scientist Travel Scholarship Felid TAG  Dr. Richard F. Davis Memorial Scholarship University of Maryland, College of Agriculture and Natural Resources  PhD Student of the Year University of Maryland, Department of Animal and Avian Sciences  Michael J. Pelczar Award for Excellence in Graduate Study Endowed Fellowship, University of Maryland, Graduate School  First place, Science of the Cell, oral presentation Graduate Research Interaction	Plans (SSPs)  2017 2014  2013
Scientific Ethical Review Board Alliance for Contraception in Cats & Dogs Reproductive Advisor Amur leopard, jaguar, and sand cat Felid TAG Species Survival Honors and Awards  Emerging Scientist Travel Scholarship Felid TAG  Dr. Richard F. Davis Memorial Scholarship University of Maryland, College of Agriculture and Natural Resources  PhD Student of the Year University of Maryland, Department of Animal and Avian Sciences  Michael J. Pelczar Award for Excellence in Graduate Study Endowed Fellowship, University of Maryland, Graduate School  First place, Science of the Cell, oral presentation Graduate Research Interaction Day, University of Maryland	Plans (SSPs)  2017 2014  2013  2013  2013
Scientific Ethical Review Board Alliance for Contraception in Cats & Dogs Reproductive Advisor Amur leopard, jaguar, and sand cat Felid TAG Species Survival Honors and Awards  Emerging Scientist Travel Scholarship Felid TAG  Dr. Richard F. Davis Memorial Scholarship University of Maryland, College of Agriculture and Natural Resources  PhD Student of the Year University of Maryland, Department of Animal and Avian Sciences  Michael J. Pelczar Award for Excellence in Graduate Study Endowed Fellowship, University of Maryland, Graduate School  First place, Science of the Cell, oral presentation Graduate Research Interaction Day, University of Maryland  Outstanding Graduate Student – Ph.D. candidate University of Maryland,	Plans (SSPs)  2017 2014  2013  2013
Reproductive Advisor Amur leopard, jaguar, and sand cat Felid TAG Species Survival  Honors and Awards Emerging Scientist Travel Scholarship Felid TAG Dr. Richard F. Davis Memorial Scholarship University of Maryland, College of Agriculture and Natural Resources PhD Student of the Year University of Maryland, Department of Animal and Avian Sciences Michael J. Pelczar Award for Excellence in Graduate Study Endowed Fellowship, University of Maryland, Graduate School First place, Science of the Cell, oral presentation Graduate Research Interaction Day, University of Maryland Outstanding Graduate Student – Ph.D. candidate University of Maryland, College of Agriculture and Natural Resources Alumni Chapter	Plans (SSPs)  2017 2014  2013  2013  2013  2013
Reproductive Advisor Amur leopard, jaguar, and sand cat Felid TAG Species Survival  Honors and Awards Emerging Scientist Travel Scholarship Felid TAG Dr. Richard F. Davis Memorial Scholarship University of Maryland, College of Agriculture and Natural Resources PhD Student of the Year University of Maryland, Department of Animal and Avian Sciences Michael J. Pelczar Award for Excellence in Graduate Study Endowed Fellowship, University of Maryland, Graduate School First place, Science of the Cell, oral presentation Graduate Research Interaction Day, University of Maryland Outstanding Graduate Student – Ph.D. candidate University of Maryland, College of Agriculture and Natural Resources Alumni Chapter Distinguished Teaching Assistant University of Maryland, Center for Teaching	Plans (SSPs)  2017 2014  2013  2013  2013
Reproductive Advisor Amur leopard, jaguar, and sand cat Felid TAG Species Survival  Honors and Awards Emerging Scientist Travel Scholarship Felid TAG Dr. Richard F. Davis Memorial Scholarship University of Maryland, College of Agriculture and Natural Resources PhD Student of the Year University of Maryland, Department of Animal and Avian Sciences Michael J. Pelczar Award for Excellence in Graduate Study Endowed Fellowship, University of Maryland, Graduate School First place, Science of the Cell, oral presentation Graduate Research Interaction Day, University of Maryland Outstanding Graduate Student – Ph.D. candidate University of Maryland, College of Agriculture and Natural Resources Alumni Chapter Distinguished Teaching Assistant University of Maryland, Center for Teaching Excellence	Plans (SSPs)  2017 2014  2013  2013  2013  2013
Reproductive Advisor Amur leopard, jaguar, and sand cat Felid TAG Species Survival  Honors and Awards Emerging Scientist Travel Scholarship Felid TAG Dr. Richard F. Davis Memorial Scholarship University of Maryland, College of Agriculture and Natural Resources PhD Student of the Year University of Maryland, Department of Animal and Avian Sciences Michael J. Pelczar Award for Excellence in Graduate Study Endowed Fellowship, University of Maryland, Graduate School First place, Science of the Cell, oral presentation Graduate Research Interaction Day, University of Maryland Outstanding Graduate Student – Ph.D. candidate University of Maryland, College of Agriculture and Natural Resources Alumni Chapter Distinguished Teaching Assistant University of Maryland, Center for Teaching	Plans (SSPs)  2017 2014  2013  2013  2013  2013  2012

## **Select Peer-Reviewed Publications**

- Vansandt LM, M Meinsohn, P Godin, N Nagykery, N Sicher, M Kano, A Kashiwagi, M Chauvin, HD Saatcioglu, JL Barnes, AG Miller, AK Thompson, HL Bateman, EM Donelan, R González, J Newsom, G Gao, PK Donahoe, D Wang, WF Swanson, and D Pépin. Durable contraception in the female domestic cat using AAV9 delivery of a feline AMH transgene. Nature Communications. 2023; 14:3140; 1-12.
- González R, A Miller, **LM Vansandt**, WF Swanson. Characterization of basal seminal traits and semen cryopreservation in Canada lynx (*Lynx canadensis*). Theriogenology Wild, 2023; 2 (2023): 100026
- **LM Vansandt**, HL Bateman, AG Miller, JR Herrick, A Moresco, R González, ME Iawniuk, WF Swanson. Cross-species efficacy of a chemically-defined, soy lecithin-based cryomedium for semen banking in imperiled wild felids. Theriogenology, 2021; 159(4); 108-115.
- Fischer A, VAW Benka, J Briggs, MA Driancourt, J Maki, DSO Mora, K Morris, KA Myers, L Rhodes, LM Vansandt, GR Weedon, J Wolf, and JK Levy. Effectiveness of GonaCon as an immunocontraceptive in colony-housed cats. Journal of Feline Medicine and Surgery, 2018; 20(8): 786-792.
- Vansandt LM, MA Kutzler, AE Fischer, KN Morris and WF Swanson. Safety and effectiveness of a single and repeat intramuscular injection of a GnRH vaccine (GonaCon<sup>TM</sup>) in adult female domestic cats. Reproduction in Domestic Animals, 2017; 52(S2): 348-353.
- Swanson WF, HL Bateman and **LM Vansandt**. Urethral catheterization and sperm vitrification for simplified semen banking in felids. Reproduction in Domestic Animals, 2017; 52(S2): 255-260
- **Vansandt LM**, Livesay JL, Dickson MJ, Li L, Pukazhenthi BS, Keefer CL. Conservation of spermatogonial stem cell marker expression in undifferentiated felid spermatogonia. Theriogenology, 2016; 86(4); 1022-1035.
- Bermejo-Álvarez P, Ramos-Ibeas P, Park K, Powell AP, **Vansandt L**, Bickart D, Ramirez M, Gutiérrez-Adán A, Telugu BP. Tet-mediated imprinting erasure in H19 locus following reprogramming of spermatogonial stem cells to induced pluripotent stem cells. Scientific reports, 2015; 5: 13691.
- Franklin AD, Crosier AE, **Vansandt LM**, Mattson E, Xiao Z. Induction of Cytokine Production In Cheetah (Acinonyx Jubatus) Peripheral Blood Mononuclear Cells and Validation of Feline-Specific Cytokine Assays For Analysis Of Cheetah Serum. Journal of Zoo and Wildlife Medicine, 2015; 46(2): 306-313.
- **Vansandt LM**, Pukazhenthi B, Keefer CL. Molecular Markers of Spermatogonial Stem Cells in the Domestic Cat. Reproduction in Domestic Animals Suppl, 2012; 47: 256-260.
- Christensen BW, Asa CS, Wang C, **Vansandt L**, Bauman K, Callahan M, Jens J, and Ellinwood NM. Effect of Semen Collection Method on Sperm Motility of Gray Wolves (*Canis lupus*) and Domestic Dogs (*C. l. familiaris*). Theriogenology. 2011; 76(5):975-80.

## **Select Abstracts and Presentations**

- Hall L, Miller A, Franklin A, Fritz S, Swanson W, and **Vansandt L**. Characterization of 13,14-dihydro-15-keto-prostaglandin f2-alpha metabolite (PGFM) in the sand cat (*Felis margarita*) and Pallas' cat (*Otocolobus manul*) as a non-invasive marker for pregnancy resulting from natural breeding or artificial insemination. 8th Conference of the International Society of Wildlife Endocrinology, Corbett National Park, India. Oral Presentation. 2023.
- **Vansandt LM**. A tale of two kitties: what ART in wild felids can teach us about the domestic cat. Society for Theriogenology Annual Conference, Birmingham, AL. Invited oral presentation. 2023.
- **Vansandt LM**, CH Adania, PR Yanai, Paulino JdS, RCR da Paz, HL Bateman, WF Swanson. Synchronization, Ovulation Induction, and Successful Artificial Insemination in the Jaguar (*Panthera onca*). 51st Annual Conference of the American Association of Zoo Veterinarians, St. Louis, MO. Poster presentation. 2019.
- Vansandt LM, D Markovic, ML Biller, J Newsom, H Bateman, WF Swanson, BA Hay. AAV-Vectored Generation of GnRH-Binding Immunoglobulins for Non-Surgical Sterilization of Domestic Cats. 6th International Symposium on Non-Surgical Contraceptive Methods of Pet Population Control, Boston, MA. Oral presentation. 2018.

## **Select Book Chapters**

- RCR da Paz, **LM Vansandt**, WF Swanson, CH Adania. The Jaguar: *Panthera onca*. In: Assisted Reproduction in Wild Mammals of South America. Silva AR (ed). Boca Raton: CRC Press. Pp. 1 14; 2023.
- **Vansandt LM**. Feline Estrous Cycle. In: Feline Reproduction. Johnson A, Kutzler M (eds). Boston, MA: CAB International. Pp.11 22; 2022.