Last update: July 8th, 2024

CURRICULUM VITAE

Helena D. Zomer
University of Florida, College of Veterinary Medicine
Department of Physiological Sciences
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EDUCATION

PhD, Cell and Developmental Biology 2014 - 2018
Department of Cell Biology, Embryology and Genetics - Federal University of Santa Catarina, Brazil
Project: Dermis versus adipose tissue: influence of the source of mesenchymal stromal cells in tissue engineering for skin wound healing.

MSc, Anatomy of Domestic and Wild Animals 2012 - 2013
Department of Surgery, University of Sao Paulo, Brazil
Project: Induction of pluripotency in rabbit adipose-derived mesenchymal stromal cells.

DVM, Doctor of Veterinary Medicine 2007 - 2011
Santa Catarina State University, Brazil

PROFESSIONAL EXPERIENCE

Research Assistant Professor 2021 - present
Department of Physiological Sciences, University of Florida, Gainesville, FL

Postdoctoral Research Associate, Laboratory of Dr. Prabhakara Reddi 2018 - 2021
Department of Comparative Biosciences, University of Illinois, Urbana, IL

Graduate Teaching Assistant in Histology 2016
School of Biological Sciences, Federal University of Santa Catarina, Brazil

Graduate Teaching Assistant in Animal Physiology 2013
School of Veterinary Medicine, University of Sao Paulo, Brazil

Veterinary Student Research Assistant 2010 - 2011
Departments of Animal Reproduction and Pathology, Santa Catarina State University, Brazil

OTHER TRAINING

Visiting Scholar at Dr. Ratner Bioengineering Lab - University of Washington, Seattle, WA 2017 - 2018
Visiting Scholar at Dr. Ambrosio Stem cells Lab - University of Sao Paulo, Brazil 2011
Visiting Scholar at Dr. Nardi Stem cells Lab - Brazilian Lutheran University, Brazil 2010
Visiting Scholar at Dr. Pippi Stem cells Lab - Federal University of Santa Maria, Brazil 2010

HONOR AND AWARDS

C.E. Cornelius Young Investigator Award, University of Florida, Gainesville, FL 2024

Best Poster Presentation, Claude D. Pepper Older Americans Independence Centers Meeting, Arlington, VA 2024

Travel Award, Tissue Engineering and Regenerative Medicine International Society (TERMIS) Americas, Boston, MA 2023

Butler-Williams Scholar, National Institute on Aging, National Institutes of Health, Virtual 2022

Distinguished Travel Awardee**,** TERMIS Americas, Toronto, Canada 2022

Burroughs Wellcome Travel Fellowship for Underrepresented Minority, SSR, Saint Louis, MO 2021

Top #3 Trainee Research Award Poster Competition, Society for the Study of Reproduction, Saint Louis, MO 2021

Celebration of Research Top Award, University of Illinois College of Veterinary Medicine, Urbana, IL 2021

Trainee Merit Award Finalist, American Society of Andrology, Virtual 2021

Travel Award, Society for the Study of Reproduction, Virtual 2020

Best Ph.D. thesis of the Department of Cell Biology, Embryology and Genetics from the Federal University of Santa Catarina, selected to the 2018 National Prize for Best Thesis, CAPES, Brazil 2018

Top #2 Best poster, 1st TERMIS Americas Workshop / IV International Meeting of Tissue Engineering and Regenerative Medicine, Brazil 2018

Top #3 Best poster, 1st TERMIS Americas Workshop / IV International Meeting of Tissue Engineering and Regenerative Medicine, Brazil 2018

Ph.D. Internship Abroad Fellowship, Coordination for the Improvement of Higher Education Personnel (CAPES), Brazil 2017-2018

Selected for the Theoretical and Practical Course on Stem Cells: Basics and Biotechnological Aspects, Brazilian-Argentinian Biotechnology Center 2012

RESEARCH

SCIENTIFIC PRODUCTION

1. William H. Walker, **Helena D. Zomer**, Paul S. Cooke. Steroid Hormone Action. Book chapter. Encyclopedia of Endocrine Disease, 3e. Elsevier, 2024. In press.
2. **Helena D. Zomer**, Paul S. Cooke. Advances in drug treatments for companion animal obesity. *Biology (Basel).* 2024. 13(5):335. doi: 10.3390/biology13050335
3. **Helena D. Zomer***, Victor J.S. Lima, Monique C. Bion, Karynne N. L. Brito; Michele Rode, Marcus A. Stimamiglio, Talita S. Jeremias, Andrea G. Trentin. Evaluation of secretomes derived from human dermal and adipose tissue mesenchymal stem/stromal cells for skin wound healing: Not as effective as cells. Stem Cell Research & Therapy, 2024. 15(1):82. doi: 10.1186/s13287-024-03697-1 ***Corresponding Author**
4. Graceli JB*, **Helena D. Zomer***, Medrano TI, Korach K, Rex, HA, Cooke PS. Role for non-genomic estrogen signaling in male fertility. Endocrinology, 2024. 165(3):bqad180. doi: 10.1210/endocr/bqad180. ***Equal first authors**
5. Emily G. Kaye, Kavyashree Basavaraju, Geoffrey M. Nelson, **Helena D. Zomer**, Debarun Roy, Irene I. Joseph, Reza Rajabi-Toustani, Huanyu Qiao, Karen Adelman, Prabhakara Reddi. RNA polymerase II pausing is essential during spermatogenesis for appropriate gene expression and completion of meiosis. Nature Communications, 2024. 15(1):848. doi: 10.1038/s41467-024-45177-3.
6. Leslie A. Goldberg*, **Helena D. Zomer***, Calum McFetridge, Peter S. McFetridge. Silica nanoparticles enhance interfacial self-adherence of a multi-layered extracellular matrix scaffold for vascular tissue regeneration. Biotechnology Letters, 2024. doi: 10.1007/s10529-024-03469-0. Epub ahead of print. ***Equal first authors**
7. Leslie A. Goldberg*, **Helena D. Zomer***, Calum McFetridge, Peter S. McFetridge. Silica nanoparticles enhance the cyto- and hemocompatibility of a multilayered extracellular matrix scaffold for vascular tissue regeneration. Biotechnology Letters, 2024. 46(2):249-261. doi: 10.1007/s10529-023-03459-8. ***Equal first authors**
8. **Helena D. Zomer*,** Paul S. Cooke. Targeting estrogen signaling and biosynthesis for aged skin repair. Frontiers in Physiology, 2023. 31;14:1281071. doi: 10.3389/fphys.2023.1281071. ***Corresponding Author**
9. Jeanini Zimerman, Oscar M. S. Niño, Charles S. da Costa, Jordana F. Zanol, Milena Comério, Letícia N. da Gama de Souza, Leandro Alves-Miranda, Rosiane A. Miranda, Patrícia C. Lisboa, Tays A. Camilo, Rodrigo Rorato, Guilherme Andrade Alves, Renata Frazão, **Helena D. Zomer**, Leandro C. Freitas-Lima, Jones B. Graceli. Subacute high-refined carbohydrate diet leads to abnormal reproductive control of the hypothalamic-pituitary axis in female rats. Reproductive Toxicology, 2023. 119:108410. doi: 10.1016/j.reprotox.2023.108410.

10. **Helena D. Zomer**, Hari P. Osuru, Apoorv Chebolu, Jeremy M. Rayl, Madeline Timken, Prabhakara P. Reddi. Sertoli cells require TDP-43 to support spermatogenesis. Biology of Reproduction, 2022. 14;107(5):1345-1359. doi: 10.1093/biolre/ioac165.

11. Katie Campbell, Yidin Xu, Chin Patel, Jeremy M Rayl, **Helena D. Zomer**, Hari Prasad Osuru, Michael Pratt, Patcharin Pramoonjago, Madeline Timken, Lyndzi M Miller, Abigail Ralph, Kathryn M Storey, Yiheng Peng, Jenny Drnevich, Clotilde Lagier-Tourenne, Philip C Wong, Huanyu Qiao, Reddi PP. Loss of TDP-43 in male germ cells causes meiotic failure and impairs fertility in mice, Journal of Biological Chemistry, 2021. 297(5):101231. doi: 10.1016/j.jbc.2021.101231.

12. Priscilla B. Delben*, **Helena D. Zomer*,** Camila A. Silva, Rogério S. Gomes, Fernanda R. Melo, Patricia Dillenburg-Pilla, Andrea G. Trentin. Human adipose-derived mesenchymal stromal cells from face and abdomen undergo replicative senescence and loss of genetic integrity after long-term culture. Experimental Cell Research, 2021. 1;406(1):112740. doi: 10.1016/j.yexcr.2021.112740. ***Equal first authors.**

13. **Helena D. Zomer*,** Ana Julia G. Goncalves, Jessica Andrade, Aloisio Benedetti, Andrea Trentin. Umbilical cord blood banking: knowledge and attitudes of Brazilian pregnant women. Cell and Tissue Banking, 2021. 22(4):597-607. doi: 10.1007/s10561-021-09903-1.***Corresponding author.**

14. **Helena D. Zomer**, Prabhakara Reddi. Mouse Sertoli cell isolation by lineage tracing and sorting. Molecular Reproduction and Development, 2020. 87(8):871-879. doi: 10.1002/mrd.23406.

15. **Helena D. Zomer**, Prabhakara Reddi. Characterization of rodent Sertoli cell primary cultures. Molecular Reproduction and Development, 2020. 87(8):857-870. doi: 10.1002/mrd.23402.

16. **Helena D. Zomer**, Talita da Silva Jeremias, Buddy Ratner, and Andrea Gonçalves Trentin. Mesenchymal stromal cells from dermal and adipose tissues induce macrophage polarization to a pro-repair phenotype and improve skin wound healing. Cytotherapy, 2020. 22(5):247-260. doi: 10.1016/j.jcyt.2020.02.003.

17. **Helena D. Zomer**, Gisele Kristina dos Santos Varela, Priscilla Barros Delben, Diana Heck, Talita da Silva Jeremias, and Andrea Gonçalves Trentin. In vitro comparative study of human mesenchymal stromal cells from dermis and adipose tissue for application in skin wound healing. Journal of Tissue Engineering and Regenerative Medicine, 2019. 13(5):729-741. doi: 10.1002/term.2820.

18. **Helena D. Zomer**, Kelly C. S. Roballo, Natália N. Gonçalves, Thais B. Lessa, Fabiana F. Bressan, Andrea G. Trentin, Flavio V. Meirelles, Carlos E. Ambrósio. Distinct features of rabbit and human adipose derived mesenchymal stem cells: implications for biotechnology and translational research. Stem Cells and Cloning: Advances and Applications, 2018. 23(11):43-54. doi: 10.2147/SCCAA.S175749.

19. **Helena D. Zomer**, Andrea G. Trentin. Skin wound healing in humans and mice: challenges in translational research. Journal of Dermatological Science, 2018. 90(1):3-12. doi: 10.1016/j.jdermsci.2017.12.009.

20. Gabriela C. Nardelli, **Helena D. Zomer**. Association of low potency laser therapy and mesenchymal stem cells (Portuguese). Nosso Clínico, 2017. 117(6):1-5. ISSN: 1808-7191

21. **Helena D. Zomer**, Atanásio S. Vidane, Natália N. Gonçalves, Carlos E. Ambrósio. Mesenchymal and induced pluripotent stem cells: general insights and clinical perspectives. Stem Cells and Cloning: Advances and Applications, 2015. 28(8):125-34. doi: 10.2147/SCCAA.S88036.

22. Atanásio S. Vidane, **Helena D. Zomer**, Bruna M. M. Oliveira, Carina F. Guimarães, Cláudia B. Fernandes, Felipe Perecin, Luciano A. Silva, Maria A. Miglino, Flávio V. Meirelles, Carlos E. Ambrósio. Reproductive stem cell differentiation: extracellular matrix, tissue microenvironment, and growth factors direct the mesenchymal stem cell lineage commitment. Reproductive Sciences, 2013. 20(10):1137-43. doi: 10.1177/1933719113477484.

23. Marina P. Brólio, Atanásio S. Vidane, **Helena D. Zomer**, Cristiane. V. Wenceslau, Juliana J. Ozório, Daniele. S. Martins, Maria A. Miglino, Carlos E. Ambrósio. Morphological characterization of the progenitor blood cells in canine and feline umbilical cord. Microscopy Research and Technique, 2012. 75(6):766-70. doi: 10.1002/jemt.21123.

24. Dilayla K. Abreu, Thais B. Lessa, Bruno M. Bertassoli, **Helena D. Zomer**, Paula Fratini, Sonia E. A. L. Will, Rose R. E. G. Rici, Antonio C. Assis Neto, Maria A. Miglino, Carlos E. Ambrósio. Picrosirius Staining for Dystrophic Animal Models of Diaphragm Morphology. Current microscopy contributions to advances in science and technology, A. Méndez-Vilas (Ed.), Formatex, 2012. (Book chapter).

ABSTRACTS / POSTERS

1. Priscilla B. Delben, Camila A. Silva, **Helena D. Zomer**, Andrea G. Trentin. Human facial UVA-induced photoaging: a comparative study investigating the decline in regenerative properties and genetic integrity between mesenchymal stem cells derived from dermal and adipose tissues. XXI Congress of the Brazilian Society for Cell Biology, Brazil, 2024.
2. **Helena D. Zomer**, Adriane C. Fagundes, Lais A. Ferreira, Augusto C. Ascitutti, Priscilla B. Delben, Mayara M. da Silva, Talita Jeremias, Andrea G. Trentin. Comparative characterization of human dermal mesenchymal stromal cells from different anatomical locations and across the lifespan. International Society of Cell Therapy, Vancouver, Canada, 2024.
3. **Helena D. Zomer**, Payton Corey, Peter McFetridge, Paul S Cooke. Targeting estrogen signaling for aged skin repair. Claude D. Pepper Older Americans Independence Center Meeting, Arlington, VA, 2024.
4. Paul S. Cooke, Vijay K. Sirohi, **Helena D. Zomer**, Jones B. Graceli, Ana Mesa, Theresa Medrano 17α-Estradiol Signals Primarily Through Nongenomic Mechanisms: Implications For Its Beneficial Longevity Effects. Endocrinology, Chicago, IL, 2023.
5. **Helena D. Zomer**, Vijay Sirohi, Theresa Medrano, Paul S. Cooke. Unraveling nongenomic mechanisms by which 17a-estradiol extends healthspan and longevity. GSA, Tampa, FL, 2023.
6. Leslie A. Goldberg, **Helena D. Zomer**, Calum McFetridge, Peter S. McFetridge. Silica nanoparticles enhance the cyto- and hemocompatibility of a multilayered extracellular matrix scaffold for vascular tissue regeneration. TERMIS-AM, Boston, MA, 2023. Travel award to Calum McFetridge (presenter).
7. **Helena D. Zomer**, Payton Corey, Calum McFetridge, Peter McFetridge, Paul Cooke. A regenerative medicine approach to restore estrogen signaling in older adults' chronic skin wounds. TERMIS-AM, Boston, MA, 2023. Travel award & selected for oral presentation (presented by Calum McFetridge).
8. **Helena D. Zomer**, Rex Hess, Prabhakara Reddi. Deletion of negative elongating factor B (Nelf-b) in Sertoli cells leads to sperm aberrations and infertility in mice. Society for the Study of Reproduction, Saint Louis, MO, 2021. Burroughs Travel Award & Top #3 Award.
9. **Helena D. Zomer**, Prabhakara Reddi. Deletion of negative elongating factor B (Nelf-b) in Sertoli cells leads to sperm aberrations and infertility in mice. Celebration of Research, College of Veterinary Medicine, University of Illinois, 2021. Top Award.
10. **Helena D. Zomer**, Prabhakara Reddi. Deletion of negative elongating factor B (Nelf-b) in Sertoli cells leads to sperm aberrations and infertility in mice. American Society of Andrology Virtual Meeting, 2021. Trainee Merit Award finalist.
11. Priscilla B. Delben, **Helena D. Zomer**, Rogério S. Gomes, Daniel G. Perez, Andrea G. Trentin. Biological responses of mesenchymal stromal cells derived from the human facial dermis and hypodermis against UVA radiation. XI Brazilian Association of Cell and Gene Therapy, Online, 2021.
12. Camila A. Silva, Priscilla B. Delben, **Helena D. Zomer**, Rogério S. Gomes, Andrea G. Trentin. γ-H2AX expression in human adipose tissue derived mesenchymal stromal cells: influence of anatomical region, long-term expansion and UVB radiation stress. XI Brazilian Association of Cell and Gene Therapy, Online, 2021.
13. **Helena D. Zomer**, Jeremy Rayl, Prabhakara Reddi. Loss of TDP-43 in Sertoli cells leads to failure of spermatogenesis in mice. Society for the Study of Reproduction Virtual meeting, 2020. Travel award.
14. **Helena D. Zomer**, Talita S. Jeremias, Andrea G. Trentin. Human dermal and adipose tissue mesenchymal stromal cells versus their corresponding conditioned media: a comparative study of skin wound healing. International Society for Stem Cell Research Virtual meeting, 2020.
15. **Helena D. Zomer**, Ana Julia Girardi, Jessica Andrade, Aloisio Benedetti, Andrea G. Trentin. Knowledge and opinions of Brazilian pregnant women about umbilical cord blood banking. International Society for Stem Cell Research Virtual meeting, 2020.
16. **Helena D. Zomer**, Jeremy Rayl, Prabhakara Reddi. Loss of TDP-43 in Sertoli cells leads to disruption of the blood-testis barrier and infertility. Illinois Symposium for Reproductive Science, Chicago, IL, 2019. Selected for oral presentation.

17. **Helena D. Zomer**, Prabhakara Reddi. Role of TDP-43 in Sertoli cell function. VetMed Research day, University of Illinois, Urbana, IL, 2019.
18. **Helena D. Zomer**, Talita S. Jeremias, Buddy Ratner, Andrea G. Trentin. Macrophage polarization in skin wounds treated with a dermal substitute associated with mesenchymal stem cells. 1st Termis Americas Workshop / 4th International meeting on Tissue Engineering and Regenerative Medicine, Brazil, 2018. 2nd prize in the graduate student's category.
19. **Helena D. Zomer**, Talita S. Jeremias, Andrea G. Trentin. Influence of the source of mesenchymal stem cells for tissue engineering: dermal versus adipose tissue in skin wound healing. 1st Termis Americas Workshop / 4th International meeting on Tissue Engineering and Regenerative Medicine, Brazil, 2018. 3rd prize in graduate student's category.
20. Gisele K. S. Varela, **Helena D. Zomer**, Bianca L. Teixeira, Andrea G. Trentin. Effect of human dermal and adipose derived mesenchymal stromal cells conditioned medium in the skin repair in vitro. XIX Congress of the Brazilian Society for Cell Biology, Brazil, 2018.
21. **Helena D. Zomer**, Gisele K. Varela, Priscilla B. Delben, Rafaela G. Machado, Talita S. Jeremias, Andrea G. Trentin. Dermal versus adipose derived mesenchymal stem cells associated with Integra Matrix® in skin wound healing. 14th Conference of Latin American Society of Biomaterials, Artificial Organs and Tissue Engineering - SLABO (5thWorkshop of Biomaterials, Tissue Engineering and Artificial Organs – OBI), Brazil, 2017.
22. **Helena D. Zomer**, Priscilla B. Delben, Gisele K. Varella, Talita S. Jeremias, Patrícia D. Pilla, Andrea G. Trentin. In vitro comparative study of human mesenchymal stem cells from adipose and dermal tissues for application in cutaneous wound healing. XX Conference of the Brazilian Association of Bone Marrow Transplantation, Brazil, 2016.
23. Priscilla B. Delben, **Helena D. Zomer**, Rogério S. Gomes, Camila Acordi, Debora Cornelio, Talita S. Jeremias, Silvia B. Medeiros, Patrícia D. Pilla, Andrea G. Trentin. Comparative evaluation of genetic integrity and long-term expansion of human adipose-derived stromal cells from face and abdomen. XX Conference of the Brazilian Association of Bone Marrow Transplantation, Brazil, 2016.
24. **Helena D. Zomer**, Gisele K. Varella, Priscilla B. Delben, Maiara Marques, Gabriel S. Pescador. Talita S. Jeremias, Patrícia D. Pilla, Andrea G. Trentin. Characterization of mesenchymal stromal cells derived from human abdominal dermis. XVIII Congress of the Brazilian Society for Cell Biology, Brazil, 2016.
25. Priscilla B. Delben, **Helena D. Zomer**, Camila Acordi, Aruana Hansel, Fernanda R. Melo, Rogério S. Gomes, Talita S. Jeremias, Debora Cornelio, Gabriel S. Pescador, Silvia B. Medeiros, Patrícia D. Pilla, Andrea G. Trentin. Cicatricial potential of ASCS isolated from human facial and abdominal adipose tissues. XVIII Congress of the Brazilian Society for Cell Biology, Brazil, 2016.
26. Gisele K. Varela, **Helena D. Zomer**, Priscilla B. Delben, Maiara Marques, Andrea G. Trentin. Characterization of mesenchymal stromal cells from human abdominal dermis (Portuguese). IV Integrated Symposium of Post graduations in Biological Sciences. Federal University of Santa Catarina, Brazil, 2015.
27. **Helena D. Zomer**, Natália N. Gonçalves, Fabiana Bressan, Carlos E. Ambrósio. Failure in the induction of pluripotency in rabbit adipose derived stem cells: a high proliferation problem? I Latin American VIII Brazilian and I Argentine Congress of Stem Cells and Cell Therapy, Brazil, 2014.
28. **Helena D. Zomer**, Atanásio S. Vidane, Aline F. Souza, Bruna A. Salvato, Juliana B. Casals, Natalia, J. Nardelli, Flavio V. Meirelles, Carlos E. Ambrósio. Isolation and characterization of fibroblasts and adipose derived stem cells from rabbits. IV International Symposium on Animal Biology and Reproduction, Brazil, 2012.
29. **Helena D. Zomer**, Atanásio S. Vidane, Aline F. Souza, Juliana B. Casals, Natalia J. Nardelli, Fabiana Bressan, Flavio V. Meirelles, Carlos E. Ambrosio. Establishment of culture of induced pluripotent stem cells from fibroblasts and adipose derived stem cells of rabbits. VII Brazilian Conference on Stem Cells and Cell Therapy, Brazil, 2012.
30. **Helena D. Zomer,** Lain U. Ohlweiler, Norton Klein, Tiffany C. E. Silva, Thalita C. Cardoso, Matthew B. Wheeler, Aldo Gava, Joana C. Mezzalira, Alceu Mezzalira. Mitotracker® for detection of cell migration after transplant of mice stromal stem cells. VI Brazilian Conference on Stem Cells and Cell Therapy, Brazil, 2012.

INVITED SPEAKER – SCIENTIFIC SEMINARS AND CONFERENCE TALKS

1. Physiological modulation of mesenchymal stem/stromal cells secretome for skin wound healing, Wound Healing Society meeting, Orlando, FL 05/16/24

2. Unraveling nongenomic mechanisms by which 17a alpha-estradiol extends healthspan and longevity. Butler-Williams Alumni Symposium, GSA, Tampa, FL 11/08/23

3. Physiological modulation of mesenchymal stem/stromal cells secretome for skin wound healing, UF Health Shands Burn Center, College of Medicine, University of Florida, FL 07/26/23

4. New strategies in tissue engineering for skin wound healing and regeneration, Department of Physiology and Aging, College of Medicine, University of Florida, Gainesville, FL 02/27/23

5. New strategies in tissue engineering for skin wound healing and regeneration, Department of Physiological Sciences, University of Florida, Gainesville, FL 11/29/22

6. Novel human placental derived extracellular matrix for healing estrogen-deprived elderly chronic skin wounds – Tissue Engineering and Regenerative Medicine International Society (TERMIS) Americas, Toronto, Canada, 2022. Distinguished Travel Award. 07/11/22

7. New strategies in tissue engineering for skin regeneration, DevBio Webinar – available at https://www.youtube.com/watch?v=l3Tg9wNn-ac&t=1503s 06/28/22

8. Stem cells and 25 years of Dolly (Portuguese), interview to Vem Cienciar Podcast – available at https://anchor.fm/vemcienciar/episodes/Episdio-89---Clulas-tronco-e-25-anos-da-Dolly-e1fga00 03/09/22

9. Transcriptional regulation of spermatogenesis: from male infertility to new contraceptives – Department of Cell Biology, Embryology and Genetics, Federal University of Santa Catarina, Brazil (*online*) 12/09/21

10. Transcriptional regulation of spermatogenesis: from male infertility to new contraceptives - Reproductive & Perinatal Biology Seminar Series, University of Florida, Gainesville, FL 11/10/21

11. Applied biotechnology for the study of stem cells – Federal University of Sao Francisco Valley, Brazil (*online*) 11/02/21

12. Transcriptional regulation of spermatogenesis: from male infertility to new contraceptives – Department of Pharmacology, Federal University of Santa Catarina, Brazil (*online*) 08/25/21

13. New strategies in tissue engineering to improve skin wound healing - Department of Biomedical Engineering, Michigan State University, East Lansing, MI (*online*) 03/19/21

14. Lack of information about umbilical cord blood banking leads to decreased donation rates among Brazilian pregnant women. Lutheran University of Brazil, Brazil (*online*) 03/09/21

15. Loss of TDP-43 in Sertoli cells leads to disruption of the blood-testis barrier and infertility. Illinois Symposium for Reproductive Science, Chicago, IL 11/14/19

16. Mesenchymal stromal cells in tissue engineering for skin wound healing. Department of Comparative Biosciences, University of Illinois, Urbana, IL 02/06/19

17. Influence of the source of mesenchymal stem cells to tissue engineering: dermal versus adipose tissue in skin wound healing. Department of Bioengineering, Washington State University, Pullman, WA 02/12/18

18. Skin wound healing in humans and mice: challenges in translational research. Department of Comparative Medicine, University of Washington, Seattle, WA 01/11/18

19. Dermal versus adipose-derived mesenchymal stem cells associated with Integra™ matrix in skin wound healing. Department of Bioengineering, University of Washington, Seattle, WA 10/26/17

20. Stem cells in veterinary medicine (Portuguese), Santa Catarina State University, Brazil 10/19/16

21. Adipose and dermal derived mesenchymal stromal cells in wound healing. Department of Bioengineering, University of Washington, Seattle WA 04/18/16

22. Stem cells in skin regeneration, Department of Cell Biology and Development, Federal University of Santa Catarina, Brazil 02/17/16

23. Pluripotency Induction in rabbit adipose derived stem cells, Department of Cell Biology and Development, Federal University of Santa Catarina, Brazil 12/03/14

TEACHING

INVITED SPEAKER – INSTRUCTIONAL COURSES AND LECTURES

1. Veterinary Regenerative Medicine – Bench to Market – Invited lecture at Bench to Market: Regenerative Medicine - University of Florida, Gainesville, FL 03/25/24
2. Skin physiology, wound healing and regeneration – Invited lecture at VME 5244 Physiology of Mammals - University of Florida, Gainesville, FL 11/20/23
3. Physiology of Reproduction – Invited lecture at VME 5244 Physiology of Mammals - University of Florida, Gainesville, FL 11/27/23
4. Skin physiology, wound healing and regeneration – Invited lecture at VME 5244 Physiology of Mammals - University of Florida, Gainesville, FL 10/27/21
5. II Karyokinesis Symposium - Round table about job market for alumni of the Department of Cell Biology Embryology and Genetics, Federal University of Santa Catarina, Brazil (online) 11/06/20
6. Practical Course of Stem cell isolation, Santa Catarina State University, Brazil 2016
7. II Summer Course in Cell Biology and Development, Federal University of Santa Catarina, Brazil 2016
8. Practical Course for new talents in Science, Federal University of Santa Catarina, Brazil 2016
9. Stem cells in the field of food science and technology, School of Food Engineering, Federal University of Santa Catarina, Brazil 2016
10. Pluripotent stem cells, Department of Cell Biology and Development, Federal University of Santa Catarina, Brazil 10/22/15
11. Short Course of Stem cells from the Laboratory of Stem Cells and Tissue Regeneration, Federal University of Santa Catarina, Brazil 2015
12. Stem cells in Nutritional Sciences, School of Nutrition, Federal University of Santa Catarina, Brazil 2015-2016
13. Veterinarian instructor on Week of Professions for High School Students, Energia School, Brazil 2015-2017
14. Stem cells: concepts and therapeutic perspectives, Veterinary School, University of Sao Paulo, Brazil 08/27/13

COURSE COORDINATION

VME6937L Graduate Seminar Series Spring 2024

GRADUATE STATUS

Department of Physiological Sciences 2023-present

MENTORING

Julia Mitze	DVM student	Florida Veterinary Scholar Program, University of Florida	2024
Gustavo Zamora	DVM student	Florida Veterinary Scholar Program, University of Florida	2024
David Raguindin	Eight Grade Student	Research Advisor – Pinecrest Academy Space Coast	2023-present
Gabbie Robilotto	PhD candidate	Advisory Committee, Physiological Sciences, University of Florida	2023-present
Yiming Lin	Graduate volunteer	Tissue Engineering, University of Florida	2023
Luis Parera	DVM student	Florida Veterinary Scholar Program, University of Florida	2023
Calum McFetridge	Undergraduate student/ graduate volunteer	Tissue Engineering, University of Florida	2021-2023
Payton Corey	DVM student	Florida Veterinary Scholar Program, University of Florida	2022
Audrey McAnally	Undergraduate student	Molecular and cellular biology, University of Florida	2022
Ann Steephen	Undergraduate student	Molecular and cellular biology, University of Illinois	2021

Miles Ham	Undergraduate student	Molecular and cellular biology, University of Illinois	2021
Peyton Hopkins	Undergraduate student	Molecular and cellular biology, University of Illinois	2020-2021
Allison Schierer	Undergraduate student	Molecular and cellular biology, University of Illinois	2018-2021
Saakshi Pothina	Undergraduate student	Molecular and cellular biology, University of Illinois	2019-2021
Jessica Andrade	Medical student	Umbilical cord blood banking outreach project, Federal University of Santa Catarina, Brazil	2015-2018
Ana Julia Goncalves	Medical student	Umbilical cord blood banking outreach project, Federal University of Santa Catarina, Brazil	2015-2018
Sara Elis Schmitt	DVM student	Stem cells and regenerative medicine, Federal University of Santa Catarina, Brazil	2017
Mariana Koursiouni	MD student- International visiting scholar - Greece	Stem cells and regenerative medicine, Federal University of Santa Catarina, Brazil	2017
Maria Carmona	MD student- International visiting scholar - Portugal	Stem cells and regenerative medicine, Federal University of Santa Catarina, Brazil	2017
Tania Monarrez Barron	MD student-International visiting scholar - Mexico	Stem cells and regenerative medicine, Federal University of Santa Catarina, Brazil	2017
Gisele Varela	Undergraduate student	Academic advisor (dissertation), Federal University of Santa Catarina, Brazil	2014-2015
Gabriela Nardelli	Graduate student	Academic advisor (dissertation), Bioethicus Institute, Brazil	2015

SERVICE

EVENT ORGANIZATION / VOLUNTEER

Society for the Study of Reproduction, Saint Louis, MO	2021
Course for new talents in Science CAPES (Portuguese), Department of Cell Biology and Developmental Biology, Federal University of Santa Catarina, Brazil	2016
II Summer Course in Cell Biology and Developmental Biology (Portuguese), Federal University of Santa Catarina, Brazil	2016
Expo Stem cells - Who, what, where? (Portuguese), Federal University of Santa Catarina, Brazil	2015

PROFESSIONAL AFFILIATIONS

Wound Healing Society	2022-Present
American Aging Association	2022-Present
The Gerontological Society of America	2022-Present
University of Florida Institute on Aging	2021-Present
Tissue Engineering and Regenerative Medicine International Society	2020-Present
Society for the Study of Reproduction	2020-Present
American Society of Andrology	2020-2021
International Society for Stem Cell Research	2020-Present

AD-HOC REVIEWER

Stem Cell Research and Therapy
Biology of Reproduction
Experimental Cell Research
PLOS One
Rejuvenation Research
International Wound Journal
Wound Repair and Regeneration
International Journal of Nanomedicine
Critical Care Explorations

OTHER PROFESSIONAL ACTIVITIES

Membership Communications Committee – Wound Healing Society	2024-present
Department of Physiological Sciences Communications Committee	2023-2024
Search committee for Chair of Small Animal Clinical Sciences	2023
Review Editor, Frontiers in Medicine - Dermatology section	2023-Present
Judging committee of Karynne Nazare Lins Brito (PhD Qualifying exam), Federal University of Santa Catarina, Brazil	2023
Judge for 2023 Best in Show Graduate Research Competition – Department of Physiological Sciences, University of Florida, Gainesville, FL	2023
Co-chair, Skin, Wound Healing, and Inflammation Section, Tissue Engineering and Regenerative Medicine - Americas Chapter	2022-Present
Judge for 2022 Best in Show Graduate Research Competition – Department of Physiological Sciences, University of Florida, Gainesville, FL	2022
Judge for the 2020 Undergraduate Research Symposium, University of Illinois, Urbana-Champaign, IL	2020
Treasurer, Research Trainee Group, University of Illinois, Urbana, IL	2020
Founder and member of the outreach project "Therapeutic application of mesenchymal stem cells in veterinary medicine" (Portuguese). Federal University of Santa Catarina, Brazil	2017-2018
Student representative of the Program of Cell Biology and Development, Federal University of Santa Catarina, Brazil	2016-2017
Founder and leader of the outreach project "Evaluation of the knowledge and opinions of Brazilian pregnant women about umbilical cord blood banks" (Portuguese). Federal University of Santa Catarina, Brazil	2015-2018
Judging committee for selection of master's degree candidates for the Program of Cell Biology and Development, Federal University of Santa Catarina, Brazil	2016
Judging committee of Gisele Kristina Varela (Bachelor in Biological Sciences), Federal University of Santa Catarina, Brazil	2016
Judging committee of Priscila Barros Delben (Bachelor in Biological Sciences), Federal University of Santa Catarina, Brazil	2014

RESEARCH SUPPORT

Unraveling nongenomic mechanisms by which 17α-estradiol extends health span and longevity in a sex-specific manner 2024-2028
Hevolution Foundation
Role: Co-Investigator (P. Cooke, PI)
This project received $1,619,870 over 4 years to study whether 17α-estradiol acts through estrogen membrane receptors to promote longevity. We will work in collaboration with Dr. Bowden from our Dept, Michael Stout from Oklahoma, and Hugh Taylor from Yale.

A Regenerative medicine approach to restore estrogen signaling in older adults' chronic skin wounds 2023-2025
University of Florida Claude D. Pepper Older Americans Independence Center P30AG028740
Role: Principal Investigator
This program promotes the development of independent investigators in interdisciplinary research on aging relevant to the independence of older Americans. The total award is $125,000 for 2 years, and includes salary and research support.

Physiological modulation of mesenchymal stem/stromal cells secretome for skin wound healing 2023-2025
Wound Healing Society Research Grant
Role: Principal Investigator
This study was awarded $25,000 to test in vitro modulation of mesenchymal stem/stromal cells for production of efficient secretomes for skin wound healing.

Potential for a novel human-derived extracellular matrix to heal estrogen-deprived skin wounds 2021-2022

University of Florida College of Veterinary Medicine Fall Competition
Role: Principal Investigator
This study was awarded $10,000 to gather preliminary results for an extramural application concerning a novel placental material to promote skin wound healing in elderly chronic wounds.

GnRH Expression in Adult Mice following Intramuscular, Intravenous and Subcutaneous Injection of an Adeno-associated virus type 9 (AAV9) that will produce GnRH 2021-2023
The Michelson Found Animals Foundation
Role: Co-principal investigator
This study was awarded $22,216.00 to test a new gene therapy strategy to induce contraception.

Celebration of Research Top Award 2021
University of Illinois College of Veterinary Medicine
Role: Awardee
The presentation “Deletion of negative elongating factor B (Nelf-b) in Sertoli cells leads to sperm aberrations and infertility in mice” was awarded the top prize of a $1,000.