## Education

- Post-Doctoral fellow Ghent University Faculty of Veterinary Medicine – Reproductive Biology Unit, 2022 - current Supervisor: Prof. Dr. Ann Van Soom
- Post-Doctoral fellow São Paulo State University UNESP Faculty of Veterinary Medicine – Animal Reproduction Laboratory, 2021-2022. Supervisor: Prof. Dr. João Carlos Pinheiro Ferreira.
- PhD in Veterinary Sciences, University of Calgary, Faculty of Veterinary Medicine - 2016-2020.
   Supervisor: Prof. Dr. John P. Kastelic
- Exchange student, University of Calgary, Faculty of Biological Sciences, Calgary, Alberta Canada, 2014-2015.
- Veterinary Medicine, Federal University of Pelotas), UFPEL, School of Veterinary Medicine, Pelotas, Rio Grande do Sul, Brazil, 2010-2015.

# Experience

- Collaborating professor of Animal Reproduction and Scientific Writing

   Graduate program in Veterinary Medicine Federal University of
   Pelotas (UFPEL) 2023 to present.
- Collaborating professor of Animal Reproduction and Physiology for the Graduate Program in Animal Production and Health - Instituto Federal Catarinense (IFSUL) – 2020 to present.
- Collaborating professor of Animal Reproduction and Molecular Biology for the Graduate Program in Animal Biotechnology at São Paulo State University (UNESP) – 2019 to present.
- Teaching assistant Introduction to Statistics UCVM graduate program – 2019.
- Member of SAGES group -Research and new approaches to teaching and communication 2019.
- Kastelic Lab Animal Reproduction Research group. University of Calgary, Calgary, AB, CA. (2014-2020)
- Repropel Animal Reproduction Research Group, UFPEL, Pelotas, RS, Brazil. >Position: Undergraduate trainee. (2011-2014)
- RAC (Comparative Animal Reproduction), Federal University of Rio Grande, FURG, Rio Grande, RS, Brazil. >Position: Undergraduate trainee (2011-2014).

#### Peer-reviewed full-length publication

- 1. **Rizzoto G**, Codognoto VM, Rossi ES, Pupulim AGR, Teixeira MB, Carvalho JC, Rattes PZ, Castilho A, Nunes SG, Denadai R, Kastelic JP, Ferreira JCP. Testicular heat stress impairs Leydig and Sertoli cell function in rams (under review)
- 2. Almeida AB, Hidalgo MMT, Trautwein LGC, Schnitzer JF, Silva LAS, Moraes FLZ, **Rizzoto G**, Ferreira JCP, Martins IMM. The proAKAP4 as a biomarker for the Bos indicus bulls X-sorted sperm quality. Livestock Science (under review).
- 3. Wound inflammation post-orchiectomy affects the social dynamics of Nelore bulls. Marcelino CM, Trindade PHE, Mogollon-Garcia HD, Pupulim AGR, Martins CL, Rizzoto G, Teixeira-Neto FJ, Macitelli F, Kastelic JP, Ferreira JCP. BMC Veterinary Research, 2023;19:84.
- 4. Effects of anethole supplementation on bovine embryo production and quality. Janini LCZ, Dellaqua TT, Membrive CMB, Oba E, Nichi M, **Rizzoto G**, Landim-Alvarenga FC. Livestock Science (*in press*).
- 5. Beker FM, França I, Tomas J, Siqueira HA, Lima GFR, **Rizzoto G**, Peripolli V, Bianchi I. Socioeconomic and investment profile of environment control in a swine integration system. Revista Brasileira de Zootecnia, 51:e20210106, 2023.
- 6. Janini LCZ, Silva MIA, **Rizzoto G**, Fonseca-Alves CE, Camillo BL, Aristizábal VHV, Negreiros NF, Corona LFC, Hara E, Mendonça VH, Mendonça HV, Cipriano RS. The use of prostaglandin applied in Bai Hui Acupoint on mare reproductive efficiency. Equine Veterinary Education 2023;00:1-6.
- 7. Almeida ABM, Hidalgo MMT, Moraes FLZ, Trautwein LGC, Schnitzer JF, Silva AS, **Rizzoto G**, Ferreira JCP, Martins MIM. proAKAP4 concentrations in Nelore bull sperm and their relation to FTAI conception rate results. Animal Reproduction Sciences 2022;247:107156.
- 8. Güths MF, Siqueira HA, Montes JH, Moreira F, **Rizzoto G**, Peripolli V, Tutida YH, Lucia T, Irgang R, Kich JD, Bianchi I. Removal or substitution of in feed antimicrobials in swine production. Prev Vet Med. 2022;205:105696.
- 9. Beker FM, França I, Tomas J, Siqueira HA, Lima GFR, **Rizzoto G**, Peripolli V, Bianchi I. Socioeconomic and investment profile of environment control in a swine integration system. Revista Brasileira de Zootecnia, 2022;51:e20210106.
- 10. Codognoto VM, Souza FF, Salgado LC, **Rizzoto G**, Yamada PH, Marques NFS, Carvalho NAT, Dantas A, Mesquita AVP, Ferreira JCP, Oba E. Can blood progesterone concentration identify non-pregnant buffaloes to support oestrous resynchronization? Reproduction in Domestic Animals, 2022;57:673-677.
- 11. Kastelic JP, **Rizzoto G**, Shahat AM, Ferreira JCP, Thundathil JC. Pathogenesis and mitigation of the deleterious effects of heat stress on bull reproduction. Rev. Bras Reprod Anim, 2021:45(4), 518-24.
- 12. Ferreira JCP, Mogollon Garcia HD, Pupulim AGR, **Rizzoto G**, Kastelic JP. . Rev. Bras Reprod Anim, 2021:45(4), 583-589..
- 13. Yamada PH, Codgnoto VM, Rudiger FR, Trindade PHE, Silva KM, **Rizzoto** G, Maestá SA, Ferreira JCP, Soutello RVG, Oba E. Pain assessment based on facial expression of bulls during castration. Applied Animal Behavioural Sciences, 2021;236, 105258.
- 14. Camargo LS, **Rizzoto G**, Carvalho JC, Cardoso KCF, Tavares CD, Conforti VA, Honsho CS, Souza FF. Ovarian and oocyte morphology during the spring-summer and fall-winterin Queens (*Felis catus*) kept in tropical climate. Topics In Companion Animal Medicine, 2021;43:100510.
- 15. Yamada PH, Codognoto VM, Ruedigier FR, Silva KM, Aristizábal VV, Kastelic JP, **Rizzoto G**, Souza FF, Soutello RVG, Chacur MGM, Oba E. A comparison of immunological, chemical and surgical castration of Nelore bulls. Theriogenology, 2021:169:9-13.
- 16. **Rizzoto G**, Boe-Hansen G, Klein C, Thundathil JC, Kastelic JP. Acute mild heat stress alters gene expression in testes and reduces sperm quality in mice. Theriogenology, 2020:158:375-81.
- 17. Shahat AM, **Rizzoto G**, Kastelic JP. Amelioration of heat-stress damage to testes and sperm quality. Theriogenology, 2020:158:84-96,
- Trevisol E, Mogollón Garcia HD, Ackermann CL, Lacerda W, Pires RML, Laufer-Amorin R, Carvalho RF, Franchi FF, Castilho ACS, **Rizzoto G**, Kastelic JP, Ferreira JCP. Partial luteolysis during early diestrus in cattle downregulates VEGFA expression and reduces large luteal cell and corpus luteum sizes and plasma progesterone concentration. Theriogenology, 2020:158:188-95.

- 19. Mogollón Garcia HD, Ferrazza R, Aristizábal VV, Destro F, Cuervo JO, Nogueira CS, Carvalho R, Moraes L, **Rizzoto G**, Sartori R, Wiltbank M, Ferreira JC. Heat stress does not affect induced luteolysis in Holstein cows. Journal of Dairy Sciences, 2020:103(6):5629-5633.
- 20. **Rizzoto G**, Ferreira JCP, Mogollón Garcia HD, Teixeira-Neto FJ, Bardella LC, Martins CL, Silva JRB, Thundathil JC, Kastelic JP. Short-term testicular warming under anaesthesia causes similar increases in testicular blood flow in *Bos taurus* versus *Bos indicus* bulls, but no apparent hypoxia. Theriogenology, 2020:145:94-99.
- 21. Carvalho CC, Silva FE, **Rizzoto G**, Dadalto CR, Rolim LS, Mamprim MJ, Souza FF, Teixeira CR, Kastelic JP, Ferreira JCP. Semen collection, sperm characteristics and ultrasonographic features of reproductive tissues in crab-eating fox (*Cerdocyon thous*). Theriogenolgy, 2020:155:60-69.
- 22. **Rizzoto G,** Ferreira JCP, Codgnoto VM, Oliveira KC, Mogollón Garcia HD, Pupulim AGR, Teixeira-Neto FJ, Castilho A, Nunes SG, Thundathil JC, Kastelic JP. Testicular hyperthermia reduces testosterone concentrations and alters gene expression in testes of Nelore bulls. Theriogenology, 152:64-68.
- 23. **Rizzoto G** and Kastelic JP. A new paradigm regarding testicular thermoregulation in ruminants? Theriogenology, 2020:147:166-75.
- 24. **Rizzoto G**, Sekhar D, Thundathil JC, Chelikani PK, Kastelic JP. Calorie restriction modulates reproductive development and energy balance in pre-pubertal male rats. Nutrients, 2020:11,1993.
- 25. Kastelic JP, Wilde R, Bielli A, Genovese P, **Rizzoto G**, Thundathil JC. Hyperthermia is more important than hypoxia as a cause of disrupted spermatogenesis and abnormal sperm. Theriogenology, 2019:131:177-181
- 26. **Rizzoto G**, Hall C, Tyberg JV, Thundathil JC, Caulkett NA, Kastelic JP. Increased testicular blood flow maintains oxygen delivery and avoids testicular hypoxia in response to reduced oxygen content in inspired air. Scientific Reports, 2019:8(1):10905.
- 27. **Rizzoto G**, Hall C, Tyberg JV, Thundathil JC, Caulkett NA, Kastelic JP. Testicular hypethermia increases blood flow that maintains aerobic metabolism in rams. Reproduction Fertility and Development, 2018:31(4):683-688.
- 28. Kastelic JP, **Rizzoto G**, Thundathil JC. Testicular vascular cone development and its association with scrotal thermoregulation, semen quality and sperm production in bulls. Animal, 2018;12(1):133-141.
- 29. Ojaghi M, Johnson CT, **Rizzoto G**, Kastelic JP, Thundathil JC. Content and activity of the testes-specific isoform of angiotensin converting enzyme are reduced in frozen-thawed bull sperm. Reproduction Fertility and Development, 2018;30(11), 1575-1583.
- 30. Adwell CMQB, Brito LFC, Oba E, Wilde RE, **Rizzoto G**, Thundathil JC, Kastelic JP. Arterial blood flow is the main source of testicular heat in bulls and higher ambient temperatures significantly increase testicular blood flow. Theriogenology, 2018;116:12-16
- *31.* Gheller SMM, Corcini CD, Pradieé J, **Rizzoto G**, Lucia Jr T, Moreira F, Varela Jr AS. Gelatin protects semen stored for 72 hours at 5ºC. Small Ruminant Research, 2018;158:54-56.
- 32. Kastelic JP, Wilde RE, **Rizzoto G**, Thundathil JC. Hyperthermia and not hypoxia may reduce sperm motility and morphology following testicular hyperthermia. Veterinarni Medicina, 2017;62(8):437-443.
- Moreira F, Cheuiche ZMG, Rizzoto G, Santos MQ, Schuch MS, Flach MJ, Gasperin BG, Bianchi I, Lucia Jr T. Metabolic and reproductive parameters in prepubertal gilts after omega-3 supplementation in the diet. Animal Reproduction Science 2016; 170:178-183.
- 34. **Rizzoto G**, Varela AS, Dode MEB, Goularte KL, Lucia Jr, Corcini CD. Some factors influencing canine sperm motility. Academica 2016;14:69-73.
- 35. **Rizzoto G,** Moreira F, Varela Jr AS, Dode MEB, Nobre MO, Corcini CD. Effect of the addition of glycerol and ethylene glycol in association upon spermatic viability parameters in the cryopreservation of canine semen. Pubvet (Londrina) 2014;8(22).
- 36. Varela Jr AS, Corcini CD, Streit Jr DP, **Rizzoto G,** Jardim RD, Lucia Jr T, Figueiredo MRC. Cryoprotectant Effect of Different Concentrations of DMSO in semen freezing of Tambaqui *Colossoma macropomun*. Atlântica 2012;34:129-37.

## Book chapters

- Ferreira JCP, Pupulim AGR, Rizzoto. Reproductive anatomy, physiology and endocrinology of bulls. In: Reprodução Animal (Animal Reproduction). Ed. Manolo, São Paulo, Brazil, in press.
- Kastelic JP & Rizzoto G. Heat stress and reproduction in section Environment Impacts on Animal Reproduction. Reproduccíon de los animals domésticos (Reproduction of domestic animals), edited by Dr. Rodolfo Ungerfeld. Ed.EDRA, Uruguay, 2022.
- Kastelic JP & Rizzoto G. Thermoregulation of the testes. Bovine Reproduction, edited by Dr. Richard Hopper. Ed. Wiley Blackwell, NJ, USA, 2021.

#### Conference proceedings

1.	<b>Rizzoto G</b> , Rossi ES, Pupulim AGR,Codognoto VM, Teixeira MB, Carvalho JC, Rattes PZ, Oba E, Trindade PHE, Kastelic JP, Ferreira JCP. Efficiency of methods to measure scrotal surface temperature during testicular insulation. Meeting of the Brazilian Association of Animal Andrology, Salvador, Brazil.	2023
2.	Amaral DCV, Secchi RS, Bringhenti, Pereira EDOS, Pessoa GA, <b>Rizzoto G</b> , Cesaro MP, Rauber L. Environment and race effects on scrotal temperature of bulls. Brazilian Buiatrics Congress. Campo Grande, Brazil.	2023
3.	<b>Rizzoto G</b> , Hedia M, Kastelic JP, Van Soom A. Caspase-3 is a testicular apoptotic marker post heat stress exposure in mice. European Symposium in Animal Reproduction, Nantes, France.	2023
4.	Rizzoto G, Van Soom A. Testicular heat stress impairs spermatogenesis: An evolutionary conserved response in mammals. Ghent University research day, Ghent, Belgium.	2023
5.	Ansolin AL, Pimenta AS, Cavalcante Filho RM, Rodrigues LCA, <b>Rizzoto G</b> , Kich JD, Marques MG, Bianchi I. Impact of age, origin at birth and housing system for boars in the bacterial contamination, quality and number of semen doses. International	2023
6.	Conference in Pig Reproduction, Ghent, Belgium. <b>Rizzoto G</b> , Codognoto VM, Rossi ES, Pupulim AGR, Teixeira MB, Carvalho JC, Rates PZ,	2023
	Castilho A, Nunes SG, Van Soom A, Kastelic JP, Ferreira JCP. Heat stress impairs Leydig and Sertoli cell function, leading to decrease in sperm quality in rams (Ovis aries). International Ruminant Reproduction Symposium, Galway, Ireland.	2023
7.	Teixeira MB, Ferreira JCP, Codognoto VM, Rossi ES, Pupulim AGR, Carvalho JC, Rates PZ, Oba E, Navolar FMN, Di Santis GW, Kastelic JP, <b>Rizzoto G</b> . Testicular heat stress reduced testicular weight and spermatid concentration in rams. International	2022
8.	Ruminant Reproduction Symposium, Galway, Ireland. Rizzoto G, Kastelic JP, Van Soom A. Acute heat stress exposure leads to severe sperm	2022
9.	damage in mouse. Belgium Society for Reproductive Medicine, Bruges, Belgium. <b>Rizzoto G</b> , Rossi ES, Pupulim AGR, Codognoto VM, Thundathil JC, Kastelic JP, Ferreira JCP. New insights in testicular and sperm impacts after testicular heat stress in ruminants. Biannual meeting of the Association for Applied Animal Andrology. Bologna, Italy.	2022
10.	<b>Rizzoto G</b> , Rossi E, Pupulim AGR, Codognoto VM, Mogollon Garcia HD, Teixeira MB, Carvalho JC, Rattes PZ, Oba E, Trindade PHE, Kastelic JP, Ferreira JCP. Effects of sperm extender addition in the evaluation of epididymal spermatozoa after heat stress exposure in rams (ovis aries). Meeting of the Brazilian Association of Animal Andrology,	2022
11.	São Paulo, Brazil. Rossi ES, <b>Rizzoto G</b> , Almeida MB, Pupulim AGR, Carvalho JC, Teixeira MB, Denadai R, Oba E, Kastelic JP, Ferreria JCP. Impact of testicular heat stress on echogenicity of testicular parenchyma and sperm quality in rams. Meeting of the Brazilian Association	2022
12.	of Animal Andrology, São Paulo, Brazil. Teixeira MB, Codognoto VM, Rossi ES, Pupulim AGR, Carvalho JC, Rattes PZ, Kastelic JP, Ferreira JCP, <b>Rizzoto G</b> . Immediate impacts of testicular heat stress on the spermatid population in rams (Ovis aries). Meeting of the Brazilian Association of Animal	2022
13.	Andrology, São Paulo, Brazil. Rattes PZ, Pupulim AGR, Gollon Garcia HD, Carvalho JC, Denadai R, Uzae KZ, <b>Rizzoto G</b> , Teixeira MB, Kastelic JP, Ferreira JCP. Evaluation of sperm concentration, morphology and kinetics after sequential testicular biopsies in rams. Meeting of the Brazilian Association of Animal Andrology, São Paulo, Brazil.	2022

		Guilherme Rizzoto
14.	Rossi ES, <b>Rizzoto G</b> , Pupulim AGR, Carvalho JC, Mogollon Garcia HD, Rattes PZ, Uzae KZ,	2021
	Campos ALS, Almeida MB, Teixeira MB, Denadai R, Kastelic JP, Ferreira JCP. Effect of	
	testicular heat stress in sperm kinetics and resistance during storage at 4 °C in rams ( <i>Ovis aries</i> ). International Conference of Animal Biology of Reproduction, Brasilia,	
	Brasil.	
15.	Rizzoto G, Pupulim AGR, Codognoto VM, Teixiera MB, Carvalho JC, Rattes PZ, Campos	2021
	ALS, Shahat Am, Kastelic JP, Ferreira JCP. Heat stress impairs kinetics and morphology of epididymal sperm in rams ( <i>Ovis aries</i> ). International Conference of Animal Biology	2021
	of Reproduction, Brasilia, Brasil.	
16.	Rizzoto G, Mogollon Garcia HD, Pupulim AGR, Rossi ES, Ferreira JCP. New perspectives	
	regarding heat stress impact on fertility of Nelore bulls. Brazilian Association of Animal	2020
17	Andrology, Campo Grande, Brazil. Codognoto VM, Ruediger FR, Yamada P, Dantas A, Ferreira JCP, Carvalho JT, <b>Rizzoto</b> G,	
17.	Vieira AF, Oba E. Ultrasonic Doppler as a tool for early pregnancy diagnosis in	2020
	Buffaloes. Evaluation of blood flow to corpus luteum 20 days after insemination. World	
	Buffalo Conference, Instambul, Turkey.	2019
18.	<b>Rizzoto G</b> , Hall C, Tyberg JV, Thundathil JC, Caulkett NA, Kastelic JP. Aerobic metabolism is maintained in rams under testicular hyperthermia due to increase in	
	testicular blood flow. International Ruminant Reproduction Symposium. Iguaçu Falls,	
	Brazil.	
19.	Rizzoto G, Hall C, Tyberg JV, Thundathil JC, Caulkett N, Kastelic JP. Testicular	2018
	hyperthermia increases blood flow that maintains aerobic metabolism in rams.	
20	Association for Applied Animal Andrology, New Orleans, LA, USA. <b>Expanded abstract.</b> <b>Rizzoto G</b> , Barros CMQ, Brito LFC, Kastelic JP. Thermoregulation of bull testis. The	2018
20.	Summit: International Symposium of Beef Cattle Welfare and UCVM Beef Cattle	
	Conference, Calgary, AB, Canada. Expanded abstract.	2018
21.	Rizzoto G and Kastelic JP. Development of sperm analyses, identification of sperm	2010
	subpopulations and infertility diagnosis in mammals, History of Medicine Days, Calgary, AB, Canada. <b>Expanded abstract.</b>	
22.	<b>Rizzoto G,</b> Hall C, Tyberg JV, Thundathil JC, Caulkett N, Kastelic JP. As testes become	2018
	warmer, testicular blood flow increases to prevent testicular hypoxia, Western	
	Canadian Dairy Seminar, Red Deer, AB, Canada. Expanded abstract.	
23.	Rizzoto G, Hall C, Tyberg JV, Thundathil JC, Caulkett N, Kastelic JP. Testicular blood	2018
	flow increases as testes becomes warmer, UCVM Graduate Research Day, Calgary, AB, Canada. <b>Expanded abstract.</b>	
24.	<b>Rizzoto G,</b> Hall C, Tyberg JV, Thundathil JC, Caulkett N, Kastelic JP. Testicular blood	2018
	flow increases as testes becomes warmer, DRECA, Calgary, AB, Canada. Expanded	
_	abstract.	2016
25.	<b>Rizzoto G,</b> Seckhar D, Thundathil JC, Chelikani P, Kastelic JP. Restricted feeding	2010
	decreases serum IGF-1 and reproductive development in young male rats. AEN Veterinary Epigenetics Symposium. <b>Oral presentation.</b>	
26.	<b>Rizzoto G,</b> Thundathil JC, Kastelic JP. Testicular thermoregulation in bulls: The role of	2016
	arterial blood flow. UCVM Beef Conference. Oral presentation.	
27.	Ferreira CER, Moreira F, <b>Rizzoto G</b> , Gheller SMM, Corcini CD, Lucia Jr T. Retrospectively	2016
	study of total piglet born using homo and heterospermic semen doses in swine females with different number of parities. In: VII Congresso Internacional de Suinocultura (VII	2014
	Swine Production International Congress), <b>Expanded Abstract</b> .	2011
28.	Motta TO, Rizzoto G, Guarise AAC, Ferreira CER, Moreira F, Lucia Jr T. Motility,	2013
	mitochondrial functionality and in vitro penetration test evaluation of swine	2013
	spermatozoa. In: XXIII Congresso de Iniciação Científica da Universidade Federal de	2013
	Pelotas (XXIII Scientific Introduction Congress of UFPEL), Pelotas, RS, Brazil. Expanded Abstract	
29.	Worst MR, Kalb AC, Kalb AL, <b>Rizzoto G,</b> Silva AC, Corcini CD, Varela Jr AS, Martinez PE.	2013
	Effects of the vertical transference of bisphenol in murine semen. In: XLVIII Congresso	2013
	Anual da Sociedade Brasileira de Fisiologia (XLVIII Annual Congress of the Brazilian	
30	Physiology Society), Ribeirão Preto, SP, Brazil. <b>Expanded Abstract</b> . <b>Rizzoto G,</b> Gastal GDA, Silva EF, Cardoso TF, Mion B, Lucia Jr T. Inclusion of a	2012
50.	biopolymer as external cryoprotectant in ovine semen freezing extender. In: XXII	
	Congresso de Iniciação Científica da Universidade Federal de Pelotas (XXII Scientific	2012
	Introduction Congress of UFPEL), Pelotas, RS, Brazil. Expanded Abstract.	2012
31.	Silva EF, Moreira F, <b>Rizzoto G</b> , Colares EP, Lucia Jr T. Relationship of serum leptin with	2012
	fat thickness and discard causes of the female swine in the production system. In: XXI Congresso de Iniciação Científica UFPEL, Pelotas. XXI Congresso de Iniciação Científica	
	UFPEL (XXI Scientific Introduction Congress of UFPEL), Pelotas, XXI Congresso de Iniciação Científica UFPEL (XXI Scientific Introduction Congress of UFPEL), Pelotas, RS, Brazil, <b>Expanded</b>	
	Abstract.	

		Guilherme Rizzoto
32.	<b>Rizzoto G,</b> Moreira F, Mondadori RG, Gheller SMM, Lucia Jr T. Relationship between immunostaining of leptin and its receptor and the discard causes of pubertal swine females. In: XXI Congresso de Iniciação Científica da Universidade Federal de Pelotas	2012
33.	(XXI Scientific Introduction Congress of UFPEL), Pelotas, RS, Brazil. <b>Expanded Abstract</b> . <b>Rizzoto G,</b> Varela Jr AS, Streit Jr DP, Figueredo MC, Corcini CD. <i>Colossoma macropomun</i> semen cryopreservation – comparison of motility and fertilization rates in samples with different concentration of DMSO. In: CIC - XX Congresso de Iniciação Científica da Universidade Federal de Pelotas(XX Scientific Introduction Congress of UFPEL), Pelotas, RS, Brazil. <b>Expanded Abstract</b> .	2012
34.	<b>Rizzoto G,</b> Madeira EM, Pradieé J, Oliveira ÉF, Bianchi I. Investigation of possible contaminants in artificial vagina used for ram semen collection. In: XIX Congresso de Iniciação Científica da Universidade Federal de Pelotas (XIX Scientific Introduction Congress of UFPEL), Pelotas, RS, Brazil. <b>Expanded Abstract</b> .	2012
	<b>Rizzoto G,</b> Moreira F, Lopez RD, Varela Jr AS, Corcini CD. Epidemiologic evaluation of canine female age and litter size. In: XII Mostra da Produção Universitária - FURG (XII MPU - University Production Conference of FURG), Rio Grande, RS, Brazil. <b>Abstract</b> .	2012
36.	Silva EF, <b>Rizzoto G</b> , Cardoso TF, Varela Jr AS, Namba EY, Corcini CD. Semen cryopreservation with DMA: an alternative for the species Prochilodus Lineatus. In: SIEPE - Simpósio Internacional em Educação e Pesquisa de Ecologia (SIEPE - International Symposium in Education and Research in Ecology), Pelotas, RS, Brazil. <b>Abstract.</b>	2012
37.	<b>Rizzoto G,</b> Corcini CD. Comparison of Cryopreservation Methods for <i>Colossoma</i> <i>macropomum</i> Semen. In: II Jornada de Biotecnologia (II Journey of Biotechnology), Pelotas, RS, Brazil. <b>Abstract</b> .	2012
	<b>Rizzoto G,</b> Dode MEB, Cardoso TF, Silva EF, Vieira AD, Moreira F, Corcini CD. Effects of addition of glycerol and ethylene glycol in association upon spermatozoa viability parameters in the cryopreservation of canine semen. In: XXI Salão Universitário UCPEL (XXI Undergraduate Production Fair – UCPEL), Pelotas, RS, Brazil. <b>Abstract</b> .	2012
	Moreira F, Mondadori RG, Mattos M, <b>Rizzoto G,</b> Gheller SSM, Lucia Jr T. Immunostaining of leptin and its receptor in hypothalamus and ovary related to the ovary status in swine females. In: VI Fórum Internacional de Suinocultura Pork Expo (VI International Forum of Swine Production – PorkExpo), Curitiba, PR, Brazil. <b>Abstract</b> .	2012
	Consalter A, Araujo L, Messina SA, <b>Rizzoto G,</b> Zanella E. Short time protocol for estrus synchronization in Suffolk sheep. In: XXII Mostra de Iniciação Científica UPF (XXII Scientific Introduction Fair – UPF), Passo Fundo, RS, Brazil. <b>Abstract</b> .	2011
41.	Consalter A, Araujo L, Messina SA, <b>Rizzoto G</b> , Feranti JPS, Nadal R, Zanella E. Short and long-time protocol for estrus synchronization in Texel sheep. In: XXII Mostra de Iniciação Científica UPF (XXII Scientific Introduction Fair – UPF), Passo Fundo, RS, Brazil. <b>Abstract</b> .	2011
42.	Moreira F, <b>Rizzoto G</b> , Silva EF, Ferreira CER, Corcini CD, Lucia Jr T. Relationship between immunostaining of leptin and its receptor and discard causes in pre-pubertal swine females. In: VI Fórum Internacional de Suinocultura PorkExpo (VI International Forum of Swine Production – PorkExpo), Curitiba, PR, Brazil. <b>Abstract</b> .	2011
43.	<b>Rizzoto G,</b> Silva JF, Lucia Jr T, Corcini CD, Tavares GC, Costa VGG, Nobre MO, Varela Jr, AS. Effects of Addition of DMA in the Canine Semen Cryopreservation. In: XI Mostra de Produção Universitária (XI MPU - University Production Conference of FURG), Rio Grande, RS, Brazil. <b>Abstract</b> .	2011
44.	Gheller SMM, Oliveira ÉF, Moreira F, <b>Rizzoto G</b> , Lucia Jr T, Danieli VM, Corcini CD. Evaluation of discard causes of boars used in reproduction. In: XV Congresso Brasileiro de Veterinários Especialistas em Suínos XV Congresso da ABRAVES (XV Brazilian Congress of Veterinarians Specialized in Swine Production, Fortaleza, CE, Brazil. <b>Abstract</b> .	2011
45.	Gheller SMM, Moreira F, <b>Rizzoto G</b> , Oliveira ÉF, Bianchi I, Danieli VM, Corcini CD. Effect of the season of the year and the semen collector in quantitative parameters in swine semen. XV Congresso Brasileiro de Veterinários Especialistas em Suínos XV Congresso da ABRAVES (XV ABRAVES - Brazilian Congress of Veterinarians Specialized in Swine Production, Fortaleza, CE, Brazil. <b>Abstract</b> .	2010
	<b>Rizzoto G,</b> Gheller SMM, Varela Jr AS, Lucia Jr T, Corcini CD. Effect of the hiposmotic test in swine semen. In: XX Congresso de Iniciação Científica UCPEL, Pelotas. CIC (XX Scientific Introduction Congress of UCPEL), Pelotas, Brazil. <b>Abstract</b> .	2010
47.	<b>RIZZOTO, G.</b> ; Gheller, S.S.M.; GOULARTE, Karina Lemos; DODE, M. E. B.; SÁVIO, D. B.; CORCINI, C. D. Spermatic Motility Variation in Canine Breeders. In: In: XI Mostra de Produção Universitária (X MPU - University Production Conference of FURG), Rio Grande, RS, Brazil. <b>Abstract</b> .	2010

# Presentations

	<b>Rizzoto G</b> , Kastelic JP, Van Soom A. Acute heat stress exposure leads to severe sperm damage in mouse. Belgium Society for Reproductive Medicine, Bruges, Belgium. <b>Oral presentation.</b> <b>Rizzoto G</b> , Hall C, Tyberg JV, Thundathil JC, Caulkett N, Kastelic JP. Testicular hyperthermia	2018
	increases blood flow that maintains aerobic metabolism in rams. Association for Applied Animal Andrology, New Orleans, LA, USA. <b>Oral and poster presentation.</b>	2018
	<b>Rizzoto G</b> and Kastelic JP. Development of sperm analyses, identification of sperm subpopulations and infertility diagnosis in mammals, History of Medicine Days, Calgary, AB, Canada. <b>Oral presentation.</b>	2018
	Rizzoto G, Hall C, Tyberg JV, Thundathil JC, Caulkett N, Kastelic JP. Testicular blood flow	
	increases as testes becomes warmer, UCVM Graduate Research Day, Calgary, AB, Canada. <b>Oral</b> presentation.	2017
5.	<b>Rizzoto G,</b> Hall C, Tyberg JV, Thundathil JC, Caulkett N, Kastelic JP. Testicular blood flow increases as testes becomes warmer, DRECA, Calgary, AB, Canada. <b>Oral presentation.</b>	2016
	Rizzoto G, Seckhar D, Thundathil JC, Chelikani P, Kastelic JP. Restricted feeding decreases serum	
	IGF-1 and reproductive development in young male rats. AEN Veterinary Epigenetics Symposium. <b>Oral presentation.</b>	2016
7.	<b>Rizzoto G,</b> Thundathil JC, Kastelic JP. Testicular thermoregulation in bulls: The role of arterial blood flow. UCVM Beef Conference. <b>Oral presentation.</b>	2013
	Rizzoto G, Moreira F, Lopez RD, Varela Jr AS, Corcini CD. Epidemiologic evaluation of canine	
	female age and litter size. In: XII Mostra da Produção Universitária – FURG (XII MPU – University Production Conference of FURG), Rio Grande, RS, Brazil. <b>Oral presentation</b> .	2012
	<b>Rizzoto G,</b> CORCINI CD. Comparison of cryopreservation methods for <i>Colossoma macropomum</i>	
	semen. In: II Jornada de Biotecnologia (II Journey of Biotechnology), Pelotas, RS, Brazil. Oral presentation.	2012
	<b>Rizzoto G,</b> Silva JF, Lucia Jr T, Corcini CD, Tavares GC, Costa VGG, Nobre, M. O.; Varela Jr, A. S.	
	Effects of addition of DMA in the canine semen cryopreservation. In: XI Mostra de Produção Universitária (XI MPU – University Production Conference of FURG), Rio Grande, RS, Brazil. <b>Oral presentation</b> .	2012
	Rizzoto G, Dode MEB, Cardoso TF, Silva EF, Vieira AD, Moreira F, Corcini CD. Effects of addition	
	of glycerol and ethylene glycol in association upon spermatozoa viability parameters in the cryopreservation of canine semen. In: XXI Salão Universitário UCPEL (XXI Undergraduate Production Fair – UCPEL), Pelotas, RS, Brazil. <b>Oral presentation</b> .	
	Rizzoto G, Moreira F, Mondadori RG, Gheller SMM, Lucia Jr T. Relationship between	
	immunostaining of leptin and its receptor and the discard causes of pubertal swine females. In:	
	XXI Congresso de Iniciação Científica da Universidade Federal de Pelotas (XXI Scientific Introduction 7ongresso f UFPEL), Pelotas, RS, Brazil. <b>Oral presentation</b> .	
	<b>Rizzoto G,</b> Gheller SMM, Varela Jr AS, Lucia Jr T, Corcini CD. Effect of the hiposmotic test in swine	2010
	semen. In: XX Congresso de Iniciação Científica UCPEL, Pelotas. CIC (XX Scientific Introduction Congress f UCPEL), Pelotas, Brazil. <b>Oral presentation.</b>	
	Rizzoto G, Gheller SSM, Goularte KL, Dode MEB, Sávio DB, Corcini CD. Spermatic motility variation	2013
	in canine breeders. In: XI Mostra de Produção Universitária (X MPU – University Production Conference of FURG), Rio Grande, RS, Brazil. <b>Oral presentation</b> .	2013
15.	<b>Rizzoto G,</b> Bongalhardo DC. IV Theoretical and pratical course of semen processing and artificial insemination in poultry, UFPEL, Pelotas, RS. <b>Speaker and Organizer (40hs)</b>	2013
16.	<b>Rizzoto G,</b> Corcini CD. III Workshop – Veterinarian Working in Animal Reproduction, UFPEL, Pelotas, RS. Speaker.	
	Rizzoto G, Corcini CD . Seminars in Animal Reproduction, UFPEL, Pelotas, RS, Brazil. Speaker.	2013
18.	<b>Rizzoto G,</b> Bongalhardo DC . <b>III</b> Seminars in Physiology and Reproduction, UFPEL, Pelotas, RS, Brazil. <b>Speaker.</b>	2012
19	<b>Rizzoto G,</b> Bongalhardo DC. II Seminars in Physiology and Reproduction, UFPEL, Pelotas, RS, Brazil.	-
10.	Speaker.	2012
	Rizzoto G, Corcini CD. II Workshop – Veterinarian Working in Animal Reproduction, UFPEL, Pelotas, RS, Brazil. Speaker	2011
21.	<b>Rizzoto G,</b> Corcini CD. Seminars in Biotechnologies Applied to Animal Reproduction, UFPEL, RS, Pelotas, Brazil. <b>Speaker.</b>	2011
	Rizzoto G, Corcini CD. I Workshop – Veterinarian Working in Animal Reproduction, UFPEL, Pelotas, RS, Brazil. Speaker.	2011
	<b>Rizzoto G,</b> Bongalhardo DC. I Seminars in Physiology and Reproduction, UFPEL, Pelotas, RS, Brazil. <b>Speaker.</b>	2010

## Teaching experience

### São Paulo State University (UNESP), post-graduate program of Animal Biotechnology:

- Basis of Scientific Writing in English (Mar-Apr 2021)
- Impacts of heat stress on male reproduction (May-Jun 2021);
- Application of molecular biology techniques on animal reproduction (Jun-Jul 2021);
- Advanced Scientific Writing and Publishing (Oct-Nov 2021);
- Theoretical and applied competences to review scientific articles (Oct-Nov 2021);
- Basis of Scientific Writing in English (Mar-Apr 2022)
- Impacts of heat stress on male reproduction (Sep-Oct 2022);
- Impacts of heat stress on female reproduction (Oct-Nov 2022).
- Impacts of heat stress on male reproduction (Sep-Oct 2022);
- Theoretical and applied competences to review scientific articles (June-July 2023);

#### Instituto Federal Catarinense (IFSUL), post-graduate program of Animal Production and Health:

- Basis of Scientific Writing in English (Mar-Apr 2021)
- Basis of Scientific Writing in English (Mar-Apr 2021)
- Basis of Scientific Writing in English (Mar-Apr 2021)

#### Federal University of Pelotas (UFPEL), post-graduate program of Veterinary Medicine:

• Basis of Scientific Writing in English (Oct-Nov 2023).

#### Student supervision

- Master's students
  - **Reintje Van Wezel** Lycopene as an alternative antioxidant in polyspermy prevention during *in vitro* production. Ghent University Master Thesis. 2023 Ongoing.
  - Mirthe Meertens Identification of different cooling curves as alternatives for traditional canine sperm freezing method. 2023 – Ongoing.
  - Joke Wollaert Antioxidant potential of melatonin and lycopene in canine sperm extender pre and post-thaw. 2023 Ongoing.
  - Intisar Prio Awal Effect of sperm selection method on the quality of ejaculates of dairy bulls exposed to heat stress. Ghent University Master Thesis. Completed in 2023.
  - Fien Uyttersprot Effect of lycopene on bovine gametes during *in vitro* fertilization under heat stress. Ghent University Master Thesis. Completed in 2023.
- Undergraduate student supervision
  - Marina Belluci Teixeira Testicular hyperthermia impairs spermatogenesis and testicular function in rams. UNESP, São Paulo, Brazil, Completed in 2022.

• **Mirela Bondezam de Almeida** – Effects of acute heat stress on serum testosterone and reproductive behaviour in rams. UNESP, São Paulo, Brazil, Completed in 2022.

## Seminars as invited speaker

- Advancement of livestock in food sustainability worldwide. 4<sup>th</sup> Asia Pacific Regional Conference On Food Security (ARCoFS), Fakulti Industri Asas Tani Universiti Malaysia Kelantan, Malaysia, 2023.
- Opportunities for internationalization and internal collaboration for Brazilian undergraduate and graduate students. Key note speaker Opening class of graduate program in Veterinary Sciences (year of 2023) from the Federal University of Pelotas, Rio Grande do Sul, Brazil, 2023.
- Pathogenesis of heat-induced infertility in production animals. Animal Reproduction seminar series, Faculty of Veterinary Medicine, IFC Instituto Federal Catarinense, Araquari, SC, Brasil, 2018.
- Adverse effects of increased testicular temperature are due to hyperthermia and not hypoxia, Hungarian Meeting of Veterinarians Specialists in Animal Reproduction, Budapest, Hungary, 2018.
- Pathogenesis of heat-induced infertility in male mammals. One Reproduction Health Seminar series, University of Saskatoon, SK, Canada, 2017.

#### Membership in associations

- Association for Applied Animal Andrology (AAAA <u>https://animalandrology.wildapricot.org/</u>). Position Director (2022 – Current).
- European Society for Domestic Animal Reproduction (ESDAR). Position Member (2023 Current).
- Belgium Society for Reproductive Medicine Member (2022 Current).
- Brazilian College of Animal Reproduction Position Member (2021 Current).
- Brazilian Association of Animal Andrology Position Member (2021 Current).

## Successful grant applications

- Heat stress in bulls: impact of DNA methylation, sncRNAs and extracellular vesicles on semen and embryo quality – Subsection of international European co-funding entitled AFRODITA – Co-applicant with Dr. Ann Van Soom and other international researchers.
- Impact of heat stress on male fertility: Elucidating testicular pathophysiology and the role of microRNA from sperm and extracellular vesicles on fertility and embryo development. – Post-doctoral project funding. Main Applicant - Support granted ~130.000 Euros
- Effect of heat stress in males and subsequent impairment on gene expression of bovine testicular mRNA and microRNA of sperm and embryos of Bos taurus and Bos Indicus bulls. – Post-doctoral project funding. Main Applicant - Support granted ~40.000 Euros

# Guilherme Rizzoto

- Effect of heat stress on abundance of testicular transcripts. FAPESP São Paulo state research support agency Co-applicant with Prof. João Carlos Pinheiro Ferreira. Support granted: ~40.000 Euros.
- Evaluation of testicular thermoregulatory efficiency in pre-pubertal Bos taurus, Bos Indicus and crossbred bulls through the utilization of doppler ultrasonography and thermograms in the region of Alto Uruguay Catarinense. Funding Agency – FAPESC – Co-Applicant with Prof.Lucio Rauber, IFSUL Catarinense – SC Brazil. Support granted - ~20.000 Euros.
- Effects of heat stress on bovine testicular blood flow and metabolism: Are there differences between *Bos taurus* and *Bos indicus* breeds? Funding agency: FAPESP São Paulo state research support agency Co-applicant with Prof. João Carlos Pinheiro Ferreira. Support granted: ~40.000 Euros.

# Awards

•	Best Student Presentation – UCVM Graduate Student Research Day-	2020
	University of Calgary.	
•	Best Student Oral and Poster Presentation in the 11th Biennial Meeting of	2018
	the Association for Applied Animal Andrology.	
•	Maxwell Swine Awards – Western Canadian Association of Swine	2010
	Veterinarians (WCASV)	2018
•	University of Calgary - Veterinary Medical Sciences Conference Travel	2018
	Award	2010
•	University of Calgary – Veterinary Medical Sciences Internship Award	2018
•	University of Calgary - Faculty of Graduate Studies Travel Award	2018
•	Platform Presentation Runner Up- UCVM Graduate Student Research Day –	2018
	University of Calgary	
•	Vetoquinol Canada Veterinary Graduate Scholarship in Bovine Reproduction	2017
•	UCVM Eyes High Transferring Scholarship.	2017
•	Gustav Rosenberger Memorial Fund (www.gustavrosenberger.com)	2016
•	UCVM Eyes High – Full tuition scholarship	2016
•	Science Without Borders Scholarship (CNPq Brazil): International	2014-2015
	undergraduate exchange student support at university of Calgary	2014
•	CNPq (Research National Center – Brazil), Research Scholarship	2014
•	CNPq (Research National Center – Brazil), Research Scholarship	2012-2013
•	CNPq (Research National Center – Brazil), Research Scholarship	2011-2012
•	Top Ten Speakers in Agricultural Science Area in XX Scientific Introduction Congress UFPEL, Pelotas, RS, Brazil.	2011

Reviewer for Scientific Journals

	Guilherme Rizzoto
Cells	2023-
Animal Reproduction Science	2023-
BMC	2023-
Frontier in Veterinary Medicine	2023-
Tropical Animal Health and Production	2022-
Journal of Thermal Biology	2022-
Annual Research and Review in Biology	2020-
Veterinární Medicína	2018-
Revista Brasileira de Reprodução Animal	2018-
Theriogenology	2017-
Reproduction in Domestic Animals	2016-
Andrologia	2017-
Journal of Veterinary Andrology	2017-

# References

- Dr. John Kastelic, DVM, PhD, Diplom. ACTH
   Professor of Theriogenology Faculty of Veterinary Medicine University of Calgary Researcher and professor. Department Head Production Animal Health, University of Calgary, Canada. Email: <a href="mailto:jpkastel@ucalgary.ca">jpkastel@ucalgary.ca</a>
- Dr. Herman W. Barkema DVM PhD FCAHS
   Professor of Epidemiology of Infectious Diseases Faculty of Veterinary Medicine and Cumming School of
   Medicine (joint appointment). NSERC Industrial Research Chair in Infectious Diseases of Dairy Cattle.
   Scientific Director, Antimicrobial Resistance One Health Consortium. Director, One Health at
   UCalgary. Lead, University of Calgary Biostatistics Centre, University of Calgary. Email: <u>Barkema@ucalgary.ca</u>
- Dr. Ann Van Soom, DVM, PhD, Diplom. ECAR
   Professor of Animal Reproductive Physiology, Department of internal medicine, reproduction and population medicine. Head of Reproductive Biology Unit. Fac Veterinary Medicine, University Ghent (Belgium). Email: Ann.vansoom@ugent.be

# Active collaborations

- Ghent University, Belgium:
  - Prof. Ann Van Soom: Professor of Animal Reproductive Physiology, Department of internal medicine, reproduction and population medicine. Head of Reproductive Biology Unit. Faculty of Veterinary Medicine, University Ghent, Belgium.
  - **Prof. Tom Hellebuyck:** Professor of herpetology, head of clinics. Department of Pathobiology, Pharmacology and Zoological Medicine. Faculty of Veterinary Medicine, University Ghent, Belgium.
  - **Prof. Katlhyn Laval:** Professor of Virology, Department of Translational Physiology, Infectiology and Public Health Faculty of Veterinary Medicine, University Ghent, Belgium.
- University of Calgary, Canada

- Prof. John P. Kastelic: Professor of Theriogenology Faculty of Veterinary Medicine University of Calgary – Researcher and professor. Department Head – Production Animal Health, University of Calgary, Canada.
- CRV genetics
  - Dr. Marleen Broekhuije: Senior Researcher. HQ GEP Supply Chain general.
- São Paulo State University (UNESP), Brazil
  - Prof. João Carlos Pinheiro Ferreira: Professor of Animal Reproductive Physiology, Department of Veterinary Surgery and Animal Reproduction, Faculty of Veterinary Medicine and Animal Sciences, São Paulo State University (UNESP).
  - Prof. Fabiana Ferreira de Souza: Professor of Animal Reproductive Physiology, Department of Veterinary Surgery and Animal Reproduction, Faculty of Veterinary Medicine and Animal Sciences, São Paulo State University (UNESP).
  - Prof. Eunice Oba: Professor of Animal Reproductive Physiology, Department of Veterinary Surgery and Animal Reproduction, Faculty of Veterinary Medicine and Animal Sciences, São Paulo State University (UNESP).
- University of Antwerp, Belgium
  - **Prof. Jo Leroy:** Professor Veterinary Physiology and Biochemistry, Gamete Research Centre Department of Veterinary Sciences, University of Antwerp, Belgium.
- University of Madrid / INEA
  - **Prof. Julian Santiago Moreno:** Professor of Animal Reproduction. Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria. Department of Animal Reproduction, University of Madrid, Spain.
- University of Missouri
  - **Prof. Rocio M. Rivera:** Professor of animal sciences. Head of the Epigenome lab. Division of Animal Sciences, Missouri University, USA.
- Federal University of Pelotas
  - **Prof. Thomaz Lucia Junior:** Professor of animal reproduction. Coordinator of Repropel Research group. Department of Animal Pathology. Federal University of Pelotas, Brazil.
  - **Prof. Bernardo Garziera Gasperin:** Professor of animal reproduction. Coordinator of FIBRA Research group. Department of Animal Pathology. Federal University of Pelotas, Brazil.

## Other activities

- Member of the UCVM Safety Improvement Team (graduate student representative (2016-2018).
- Member of Action Plan Group Post-Graduate Education for UCVM (2017-2019)

• VIP Academic of the Veterinary Medicine Graduate Student Association. (2016-2018)

# Volunteer experience

Volunteer Teaching Assistant in a course (Obstetrics and Mammary Gland),	2014
Veterinary Medicine Undergraduate Program, UFPEL, RS, Brazil.	March-September
Biology Volunteer Teacher in Desafio - University Admission Test Preparatory Course, Pelotas, RS, Brazil.	2013-2014
Dr. Paulo Sampaio, Small Animal Veterinary Clinic, Pelotas, RS, Brazil.	2012-2014
>Position: Undergraduate trainee.	
Federal University of Pelotas Veterinary Clinical Hospital, Pelotas, RS, Brazil.	2010-2011
>Position: Undergraduate trainee.	