Curriculum vitae Fernando H. Biase, PhD

Address: Virginia Polytechnic Institute and State University
378 Litton-Reaves Hall
175 W Campus Dr
Blacksburg, VA 24061
Email fbiase@vt.edu

EMPLYOMENT AND EDUCATION

ACADEMIC POSITION

- Virginia Polytechnic Institute and State University, Department of Poultry and Animal Sciences
  Assistant Professor - Genomics — August/2019 - present

  Academic affiliations:
  Molecular and Cellular Biology Interdisciplinary Program — March/2020 - present
  Genetics, Bioinformatics and Computational Biology — June/2020 - present
  Center for Advanced Innovation in Agriculture — February/2021 - present

- Auburn University, Department of Animal Sciences
  Assistant Professor - Genomics — June/2015 - August/2019

- University of California San Diego, Department of Bioengineering
  Genomics Research Associate — Feb/2013 - May/2015

- University of Illinois at Urbana Champaign, Institute for Genomic Biology
  Postdoctoral Research Fellow — Feb/2012 - Jan/2013
  Postdoctoral Research Associate — Jun/2008 - Jan/2012

- University of São Paulo, Department of Basic Sciences, Brazil
  Postdoctoral Research Associate — May/2007 - Jun/2008

- University of São Paulo, Department of Genetics, Brazil — Mar/2003 - Apr/2007
  Doctoral Researcher

EDUCATION

- University of São Paulo, Department of Genetics, Brazil
  Doctor of Sciences (Major in Genetics and Cell Biology) — April 2007
  Master of Sciences (Major in Genetics) — February 2003

- Federal University of Uberlandia, Brazil
  Bachelor of Science (Major Molecular genetics) — Summer 2001

HONORS AND AWARDS

AWARDS – SELECTED

Year	Award	Awarder	Amount
2019	Biology of Reproduction Top Reviewer	Biology of Reproduction	-
2019	Burroughs Wellcome Junior Faculty Travel Fellowship	Society for the Study of Reproduction	$1,200
2018	Grantsmanship award	College of Agriculture, Auburn University	-
2018	Summer Course (Re) Design	Biggio Center, Auburn University	$2,500
2016	Burroughs Wellcome Junior Faculty Travel Fellowship	Society for the Study of Reproduction	$1,200
2012	Institute for Genomic Biology Post-Doctoral Fellowship	Institute for Genomic Biology, UIUC	-

AWARDS TO GRADUATE STUDENTS

Year	Awardee	Program	Award	Awarder	Amount
2020	Bailey Walker	PhD	Dean's Graduate Research Fellowship	College of Agriculture and Life Sciences, Virginia Tech	~$54,000 (stipend&tuition)
2018	Sarah Dickinson	PhD	Novus International Research Award	Novus International, Inc.	$5,000
2018	Sarah Dickinson	PhD	Larry Ewing Memorial Trainee Travel Fund	Society for the Study of Reproduction	$150
2018	Sarah Dickinson	PhD	Harry Merriwether Fellowship	Graduate Council, Auburn University	$2,000
2018	Sarah Dickinson	PhD	BCIF Graduate Fellowship	Alabama Beef Cattle Improvement Foundation	$1,000
2018	Katelyn Kimble	MS	BCIF Graduate Fellowship	Alabama Beef Cattle Improvement Foundation	$1,000
2018	Sarah Dickinson	PhD	Larry Ewing Memorial Trainee Travel Fund	Society for the Study of Reproduction	$150

AWARDS TO UNDERGRADUATE STUDENTS

Year	Awardee	Award	Awarder	Amount
2018	Anna Kay Gierow	Undergraduate research fellowship	Office of the Undergraduate research, Auburn University	$4,800
2016	Griffin Wright	Undergraduate research fellowship	Office of the Undergraduate research, Auburn University	$2,800

RESEARCH

PEER-REVIEWED PUBLICATIONS

Moorey SE, Walker BN, Elmore MF, Elmore JB, Rodning SP, **Biase FH**. Rewiring of gene expression in circulating white blood cells is associated with pregnancy outcome in heifers (Bos taurus). Sci Rep 10, 16786 (2020). https://doi.org/10.1038/s41598-020-73694-w.

Moorey SE, **Biase FH**. Beef heifer fertility: importance of management practices and technological advancements. J Anim Sci Biotechnol. 2020 Oct 1;11:97. doi: 10.1186/s40104-020-00503-9.

Walker BN, **Biase FH**. The blueprint of RNA storages relative to oocyte developmental competence in cattle (Bos taurus). Biol Reprod. 2020 Apr 15;102(4):784-794. doi: 10.1093/biolre/ioaa015.

Biase FH, Hue I, Dickinson SE, Jaffrezic F, Laloe D, Lewin HA, Sandra O. Fine-tuned adaptation of embryo-endometrium pairs at implantation revealed by transcriptome analyses in Bos taurus. PLoS Biol. 2019 Apr 12;17(4):e3000046. doi: 10.1371/journal.pbio.3000046.

Dickinson SE, Elmore MF, Kriese-Anderson L, Elmore JB, Walker BN, Dyce PW, Rodning SP, **Biase FH**. Evaluation of age, weaning weight, body condition score, and reproductive tract score in pre-selected beef heifers relative to reproductive potential. J Anim Sci Biotechnol. 2019 Feb 26;10:18. doi: 10.1186/s40104-019-0329-6.

Biase FH, Wu Q, Calandrelli R, Rivas-Astroza M, Zhou S, Zhong S. Rainbow-Seq: combining cell lineage tracking with single-cell RNA sequencing in preimplantation embryos. iScience. 2018 Sep 28;7:16-29

Biase FH, Kimble KM. Functional signaling and gene regulatory networks between the oocyte and the surrounding cumulus cells. BMC Genomics. 2018 May 10; 19(1):351.

Dickinson SE, **Biase FH**. Transcriptome data of peripheral white blood cells from beef heifers collected at the time of artificial insemination. Data in Brief. 2018 Jun; 18:706-709.

Kimble KM, Dickinson SE, **Biase FH**. Extraction of total RNA from single-oocytes and single-cell mRNA sequencing of swine oocytes. BMC Res Notes. 2018 Feb 27;11(1):155.

Dickinson SE, Griffin BA, Elmore MF, Kriese-Anderson L, Elmore JB, Dyce PW, Rodning SP, **Biase FH**. Transcriptome profiles in peripheral white blood cells at the time of artificial insemination discriminate beef heifers with different fertility potential. BMC Genomics. 2018 Feb 9;19(1):129.

Phillips KM, Read CC, Kriese-Anderson LA, Rodning SP, Brandebourg TD, **Biase FH,** Marks ML, Elmore JB, Stanford MK, Dyce PW. Plasma metabolomic profiles differ at the time of artificial insemination based on pregnancy outcome, in Bos taurus beef heifers. Sci Rep. 2018 Sep 4;8(1):13196

Biase FH. Oocyte Developmental Competence: Insights from Cross-Species Differential Gene Expression and Human Oocyte-Specific Functional Gene Networks. OMICS. 2017 Mar;21(3):156-168.

Carvalho ME, Eler JP, Bonin MN, Rezende FM, **Biase FB**, Meirelles FV, Regitano LCA, Coutinho LL, Balieiro JCC, Ferraz JBS. Genotypic and allelic frequencies of gene polymorphisms associated with meat tenderness in Nellore beef cattle. Genet Mol Res. 2017 Feb 16;16(1).

Biase FH, Rabel C, Guillomot M, Hue I, Andropolis K, Olmstead CA, Oliveira R, Wallace R, Le Bourhis D, Richard C, Campion, E, Chaulot-Talmon A, Giraud-Delville C, Taghouti G, Jammes H, Renard JP, Sandra O, Lewin, HA. Massive dysregulation of genes involved in cell signaling and placental development in cloned cattle conceptus and maternal endometrium. Proc Natl Acad Sci U S A. Dec 20;113(51):14492-14501.

Nguyen TC, Cao X, Yu P, Xiao S, Lu J, **Biase FH**, Sridhar B, Huang N, Zhang K, Zhong S. Mapping RNA-RNA interactome and RNA structure in vivo by MARIO. Nat Commun. 2016 Jun 24;7:12023.

Adona PR, Leal CL, **Biase FH**, De Bem TH, Mesquita LG, Meirelles FV, Ferraz AL, Furlan LR, Monzani PS, Guemra S. In vitro maturation alters gene expression in bovine oocytes. Zygote. 2016 Aug;24(4):624-33

Biase FH, Cao X, Zhong S. Cell fate inclination within 2-cell and 4-cell mouse embryos revealed by single-cell RNA sequencing. Genome Research. 2014 Nov;24(11):1787-96. (cover article)

Huang W, Cao X, **Biase FH**, Yu P, Zhong S. A time-variant clustering model for understanding cell fate decisions. Proc Natl Acad Sci U S A. 2014 Nov 4;111(44):E4797-806.

Guillomot M, Campion E, Prézelin A, Sandra O, Hue I, Le Bourhis D, Richard C, **Biase FH**, Rabel C, Wallace R, Lewin H, Renard JP, Jammes H. Spatial and temporal changes of Decorin, Type I collagen and Fibronectin expression in normal and clone bovine placenta. Placenta. 2014 Sep;35(9):737-47.

Biase FH, Rabel C, Guillomot M, Sandra O, Andropolis K, Olmstead C, Oliveira R, Wallace R, Le Bourhis D, Richard C, Campion E, Chaulot-Talmon A, Giraud-Delville C, Taghouti G, Jammes H, Hue I, Renard JP, Lewin HA. Changes in WNT signaling-related gene expression associated with development and cloning in bovine extra-embryonic and endometrial tissues during the peri-implantation period. Mol Reprod Dev. 2013 Dec;80(12):977-87.

Biase FH, Everts, RE, Oliveira R, Santos-Biase WKF, Merighe GKF, Smith LC, Martelli L, Lewin H, Meirelles FV. Messenger RNAs in metaphase II oocytes correlate with successful embryo development to the blastocyst stage. Zygote. 2014 Feb;22(1):69-79.

Santos-Biase WKF, **Biase FH**, Buratini-Jr J, Balieiro J, Watanabe YF, Accorsi M F, Ferreira CR, Stranieri P, Caetano AR, Meirelles FV. Single nucleotide polymorphisms in the bovine genome are associated with number of oocytes collected by ovum pick up. Animal Reproduction Science. 2012 Oct;134(3-4):141-9.

Biase FH, Martelli L, Puga R, Giuliatti S, Santos-Biase WK, Merighe GKF, Meirelles FV. Messenger RNA expression of Pabpnl1 and Mbd3l2 genes in oocytes and cleavage embryos. Fertil Steril. 2010 May 15;93(8):2507-12.

Cesar ASM, **Biase FH**, Ripamonte P, Luchiari AF, Merighe GKF, Meirelles FV. Nuclear and mitochondrial DNA markers in traceability. Brazilian Journal of Veterinarian Research 2010; 30:783-786.

Biase FH, Martelli L, Merighe GK, Santos Biase WK, Miranda M, Smith LC, Meirelles FV. A retrospective model of oocyte competence: global mRNA and housekeeping transcripts are not associated with in vitro developmental outcome. Zygote. 2009 Nov;17(4):289-95.

Merighe GFK, **Biase FH**, Santos-Biase WK, Miranda MS, de Bem TH, Watanabe YF, Meirelles FV. Gene silencing during development of in vitro-produced female bovine embryos. Genet Mol Res. 2009 Sep 15;8(3):1116-1127.

Bovine Genome Sequencing and Analysis Consortium, Elsik CG, Tellam RL, Worley KC. et al. The genome sequence of taurine cattle: a window to ruminant biology and evolution. Science. 2009 Apr 24;324(5926):522-8.

Biase FH, Merighe GFK, Santos Biase WK, Martelli L, Meirelles FV. Global poly(A) mRNA expression profile measured in individual bovine oocytes and cleavage embryos. Zygote. 2008 Feb;16(1):29-38.

de Souza FR, Dentillo DB, Meola J, **Biase FH**, Andréa MV, Vozzi PA, Lôbo RB, Martelli LR. The polymorphism in MUC1 gene in Nelore cattle. J Anim Breed Genet. 2007 Feb;124(1):42-6.

Biase FH, Meirelles FV, Gunski R, Vozzi PA, Bezerra LAF, Vila RA, Rosa AJM, Lôbo RB, Martelli L. Mitochondrial DNA single nucleotide polymorphism associated with weight estimated breeding values in Nelore cattle (Bos indicus). Genetics and Molecular Biology. 2007; 30(4): 1058-1063.

Santana BAA, **Biase FH**, Antunes, RC Borges, M Franco, MM Goulart, LR. Association of the estrogen receptor gene Pvu II restriction polymorphism with expected progeny differences for reproductive and performance traits in swine herds in Brazil. Genetics and Molecular Biology. 2006;29(2): 273-277.

Biase FH, Garnero ADelV, Bezerra LAF, Rosa AJM, Lôbo RB, Martelli L. Analysis of restriction fragment length polymorphism in the kappa-casein gene related to weight expected progeny difference in Nellore cattle. Genetics and Molecular Biology. 2005;28(1):84:87.

Franco MM, Antunes RC, Oliveira KM, Pereira CD, **Biase FH**, Nunes FMF, Goulart LR. Association of a PIT1 gene polymorphism with growth hormone mRNA levels in pig pituitary glands. Genetics and Molecular Biology. 2005; 28(1):16-21.

Santana BAA, Antunes RC, Silva HD, Franco MM, Borges M, Souza GRL, **Biase FH**, Goulart LR. Determination of Halotane gene frequencies in different pig races in Brazil. MEDVEP. Revista Cientifica de Medicina Veterinaria. 2003;1(3): 212-218.

Biase FH, Franco, MM, Goulart, LR, Antunes, RC. Protocol for extraction of genomic DNA from swine solid tissues In Genetics and Molecular Biology. 2002; 25(3), 313-315.

Antunes RC, Borges M, Goulart LR, Franco MM, **Biase FH**, Santana BAA. A new methodology for a quick, simple and confident prediction of lean meat percent in swine carcasses. TEC Meat Journal. 2001;3(1), 27-32.

PATENTS

Biase FH, Dickinson S, Dyce PW, Elmore J, Rodning S, Elmore M. Gene Expression profile for Prognostic of heifer pregnancy outcome. Provisional Application No.: 62/587,775

Dyce PW, **Biase FH**, Kriese-Anderson L, Rodning. Metabolomic profiling of blood plasma for the prediction of heifer pregnancy outcomes. Provisional Application No.: 62/710,378

Zhong S, **Biase FH**. Single molecule RNA detection. No.: 62/053,595

RESEARCH SUPPORT

- **Principal investigator, extramural**

NIFA-USDA 2020-67015-31616 $475,000
9/01/2020 – 08/31/2024
Identification of gene expression profiles in peripheral white blood cells predictive of heifer pregnancy success

NIFA-USDA 2018-67015-27596 $400,000
3/01/2018 – 2/28/2022
Systems Biology Approach to Understanding Conceptus-Uterine Interactions in Cattle

Alabama Cattleman Association $ 11,000
01/2016-12/2016
Genetic biomarkers of infertility in heifers, Alabama Cattleman Association

- **Principal investigator, intramural**

College of Agriculture and Life Sciences Innovative and Transformative Graduate and Undergraduate Education Initiative
01/28/2021 $ 1,500

Virginia Tech Open Access Subvention Fund
10/06/2020 $ 1,500
8/12/2020 $ 1,500

Faculty Mentoring Project $ 1,500
03/13/2020

Auburn University Alabama Agricultural Experiment Station-equipment grant $ 7,532
08/02/2018
Improving the accuracy of reproductive related measurements using an ultrasound

Auburn University Alabama Agricultural Experiment Station $ 49,553
5/01/2017 – 4/30/2019
Identification of performance phenotypes and gene expression profiles as predictors of heifer infertility for enhancing beef production systems in Alabama.

Auburn University Alabama Agricultural Experiment Station $ 49,992
5/01/2017 – 4/30/2019
Are dysfunctional WNT-signaling pathways associated with conceptus loss in beef cattle?

- **Co-investigator, extramural**

Virginia Agricultural Council PI: Mercadante $ 12,000
09/01/2020 - 08/21/2021
Exploring Genetic Markers for Estrus Behavior and increased Fertility in Beef Females.

Alabama Cattleman Association PI: Soren Rodning $ 10,000
01/2020-12/2021
Identification of Genetic Markers in Cows for Selection of Reproductive Potential

NIFA-USDA 2021-67015-33503 PI: Vitor Mercadante $500,000
07/01/2021-06/30/2025
Unravelling the resilience of Bos indicus cattle to improve early embryonic survival

Alabama Cattleman Association PI: Soren Rodning $ 10,000
01/2018-12/2018
Improving the reproductive efficiency of heifers using a combination of estrus synchronization, natural service, and fixed-time artificial insemination

Alabama Cattleman Association PI: Paul Dyce $ 10,000
01/2016-12/2016
Identification of metabolomic markers for farm selection of heifers with high reproductive potential

- **Co-investigator, intramural**

John Lee Pratt Equipment Funds PI: Alan Ealy $ 44,000
03/13/2020
Using assisted reproductive technology equipment for nutrition- and reproduction-based research, teaching and outreach activities

John Lee Pratt Equipment Funds PI: Vitor Mercadante $ 42,100
03/13/2020
Streamlining data collection, security and accuracy for Virginia Tech Beef Cattle operations

Auburn University Alabama Agricultural Experiment Station PI: Paul Dyce $ 40,000
10/01/2018 - 09/30/2020
Identification of metabolomic markers for on farm selection of heifers with high reproductive potential

Auburn University Alabama Agricultural Experiment Station PI: Paul Dyce $ 34,894
5/01/2017 – 4/30/2019
Identification of metabolomic markers for on farm selection of heifers with high reproductive potential

Auburn University Alabama Agricultural Experiment Station PI: Paul Dyce $ 50,000
5/01/2016 – 4/30/2018
Identification of metabolomic markers for on farm selection of heifers with high reproductive potential

- **In-kind gifts received**

Date received	Item	Donor	Value
07/12/2016	20 straws of semen	ABS Global, Inc	$600
11/05/2015	40 straws of semen	V8 Ranch	$4,000

INVITED TALKS AND PRESENTATIONS

10/30/2020 Small RNA-mRNA parallel single-cell sequencing reveals potential regulatory roles for small RNAs in oocytes. Reproductive Biology Club, Virginia Tech, Blacksburg, VA.

03/26/2019 Transcriptome profiling of cell lineage at single cell resolution with Rainbow-Seq. Annual Meeting of the Association of Biomolecular Resource Facilities, Austin, TX.

01/14/2019 Broken Conceptus-Maternal Communication and the Consequences for Cloned Animals. Plant and Animal Genome Conference XXVII, San Diego, CA

08/11/2017 Searching Beyond the Phenotypes for Improved Pregnancy Rates in Beef Heifers. Beef Cattle Conference. Auburn University

02/27/2017 Pregnancy Loss in Cattle. Auburn CVM Chapter of the American Association of Bovine Practitioners. Auburn University

02/24/2017 Hacking the Messages in the Egg and Embryos with Systems Biology Approaches. Biomedical Sciences Seminar. Auburn University

09/30/2015 Mapping Gene Regulatory Networks in Early Stages of Development in Cattle. Faculty symposium. Auburn University

NON-PEER REVIEWED ARTICLE ON CONFERENCE PROCEEDINGS

Biase FH, Rodning S, Dyce P, Elmore J, Elmore M, Dickinson S. Searching beyond the phenotypes for improved heifer fertility. 2017 AU Animal Sciences Beef Cattle Conference

Dyce PD, Phillips K, Read C, Moisa SJ, Kriese-Anderson L, Rodning S, **Biase FH**, Marks ML, Elmore J, Stanford K. Can we improve heifer selection through identifying differences in metabolite levels present in the blood? 2017 AU Animal Sciences Beef Cattle Conference.

ABSTRACTS PRESENTED IN CONFERENCES

Walker BA, Dickinson SE, Kimble, K, **Biase FH**. Gene regulatory networks between porcine oocytes and surrounding cumulus cells. 2019. 52nd Annual Meeting of the Society for the Study of Reproduction. San Jose, CA.

Dickinson SE, Walker BA, Elmore MF, Elmore JE, Dyce PW, Rodning SP, **Biase FH**. Bloodborne mRNA and miRNA Profiles Discriminate Beef Heifers of Differing Reproductive Success in the First Breeding Season. 2019. 52nd Annual Meeting of the Society for the Study of Reproduction. San Jose, CA.

Biase, FH. Broken Conceptus-Maternal Communication and the Consequences for Cloned Animals. 2019. Plant and Animal Genome Conference XXVII, San Diego, CA.

Dickinson SE, Griffin BA, Elmore MF, Elmore JE, Dyce PW, Rodning SP, **Biase FH**. Differential Co-expression Analysis of Transcriptome Data from Beef Heifers of High and Low Fertility. 2018. 51st Annual Meeting of the Society for the Study of Reproduction. New Orleans, LA.

Biase FH, Kimble KM. Functional signaling and gene regulatory networks between the oocyte and the surrounding cumulus cells. 2018. 51st Annual Meeting of the Society for the Study of Reproduction. New Orleans, LA.

Kimble KM, Wright G, **Biase FH**. Distinct Gene Regulatory Networks Between Oocytes and Surrounding Cumulus Cells. 2017. 50th Annual Meeting of the Society for the Study of Reproduction. Washington, DC, p244.

Dickinson SE, Griffin BA, Elmore JE, Dyce PW, Rodning SP, **Biase FH**. Differential Gene Expression in Peripheral White Blood Cells at the Time of Artificial Insemination Discriminates Pregnant from Non-Pregnant Beef Heifers. 2017. 50th Annual Meeting of the Society for the Study of Reproduction. Washington, DC, p331.

Phillips KM, Read CC, Moisa SJ, Kriese-Anderson LA, Rodning SP, **Biase FH**, Marks ML, Elmore JB, Stanford MK, Dyce PW. Metabolomic Profiles Differ in the Blood Plasma, Based on Reproductive Outcome, in Heifers Undergoing Artificial Insemination. 2017. 50th Annual Meeting of the Society for the Study of Reproduction. Washington, DC, p102-103.

Gard J; Roberts J; **Biase FH**; Mansour M; Wenzel J; Edmondson M; Genetic Comparison of Florida beef cows with and without ovarian follicular dysplasia. 2017. American Association of Bovine Practitioners Annual Conference Proceedings. Phoenix, AZ.

Biase FH, Rabel C, Guillomot M, Hue I, Andropolis K, Olmstead CA, Oliveira R, Wallace R, Le Bourhis D, Richard C, Campion, E, Chaulot-Talmon A, Giraud-Delville C, Taghouti G, Jammes H, Renard JP, Sandra O, Lewin, HA. 2016. Massive dysregulation of genes involved in cell signaling and placental development in cloned cattle conceptus and maternal endometrium. 50th Annual Meeting of the Society for the Study of Reproduction. San Diego, CA,

Biase FH, Cao X, Zhong S. Cell fate inclination within 2-cell and 4-cell mouse embryos revealed by single-cell RNA sequencing. 2014 Proceedings of the 7th Annual RECOMB/ISCB Conference on Regulatory & Systems Genomics with DREAM Challenges & Cytoscape Workshops. San Diego, USA, p102.

Biase F, Rabel C, Guillimot M, Sandra O, Andropolis K, Olmestead C, Wallace R, Oliveira R, Boissy L, Campion E, Chaulot-Talmon A, Giraud-Deville C, Taghouti G, Jammes H, Hue I, Renard JP, Lewin HA. 2011. Transcript related to WNT non-canonical signaling are active in the trophoblast following cell differentiation. 3rd Embryo Genomics Meeting, Bonn, Germany. p47.

Guillomot M, Sandra O, Campion E, Taghouti G, **Biase F**, Rabel C, Hue I, Gall L, Richard C, Jammes H, Renard JP, Oliveira R, Wallace R, Lewin H. 2010. Atlas of expression of candidate genes at the utero-conceptus interface during early pregnancy in the cow: A comparative analysis between normal and cloned pregnancies. 8th International Ruminant Reproduction Symposium. Anchorage, AK. p91.

Biase FH, Everts RE, Oliveira R, Sommers A, Merighe GKF, Biase WKFS, Miranda M, Martelli L, Smith LC, Lewin HA, Meirelles FV. Retrospective model to study gene expression in in vitro matured bovine oocytes. 2007. Proceedings of the 2nd International Meeting on Mammalian Embryogenomcs. Paris, France. p70.

Adona PR, **Biase FH**, Braga FC, De Bem THC, Rochetti R, Leal CLV. Expression of the genes Hsp70,1, Zar-1 and Mater in bovine oocytes submitted to prematuration and/or in vitro maturation. 2007. Proceedings of the Annual Conference of the International Embryo Transfer Society, Kyoto, Japan. p198

Perecin F, Meo SC, Yamazaki W, Ferreira CR, **Biase FH**, Merighe GKF, Meirelles FV, Garcia JM. 2007. Imprinted gene expression in in vivo- and in vitro-produced bovine fetuses and placentas. Proceedings of the Annual Conference of the International Embryo Transfer Society, Kyoto, Japan. p173.

Biase FH, Martelli L, Rosa AJM, Nunes FMF, Garnero AV, Gunski RJ, Bezerra LAF, Lobo RB. 2002. New allele for PIT 1 locus in Nellore cattle breed (*Bos indicus*). Proceedings of the 7th World Congress on Genetics Applied to Livestock Production. Montpelliler, France. p11-39.

TEACHING

TEACHING – INSTRUCTOR OF RECORD

Course	Title	Semester	Credit hours	Enrollment	Lect. Hours/week	Lab. Hours/week
ALS3104	Animal Breeding	Spring 2021	3	108	3	0
APSC4045	Genomics	Fall 2020	3	8	3	0
APSC4004	Contemporary issues in APSC – recitation section	Spring 2020		18	2	0
ANSC 3500	Animal Breeding	Spring 2018	3	61	3	0
ANSC 3500	Animal Breeding	Fall 2017	3	56	3	0
ANSC 3500	Animal Breeding	Spring 2017	3	49	3	0
ANSC 3500	Animal Breeding	Fall 2016	3	35	3	0
ANSC 3500	Animal Breeding	Spring 2016	3	38	3	0
ANSC 4980	Undergraduate research	Spring 2018	2	1	0	6
ANSC 4980	Undergraduate research	Fall 2016	2	1	0	6
ANSC 4980	Undergraduate research	Spring 2016	2	1	0	6
ANSC 4980	Undergraduate research	Fall 2015	2	1	0	6
ANSC 7970	Special Topics in Animal Sciences: Introduction to computational biology: Analysis of transcriptome data	Summer 2018	1	1	0	6

TEACHING – GUEST LECTURES

Date	Level	Institution	Course	Host	Title
10/22/2018	Graduate	Auburn University	VMED 9820 Advanced Repro	Dr. Julie Gard	Cloning
02/09/2018	Undergraduate	Auburn University	ANSC 4000 Modern Livestock Systems	Dr. Donald Mulvaney	General principles of using EPDs and Genomic Enhanced EPDs in selection management
11/16/2017	Undergraduate	Auburn University	ANSC 3800 Careers in Animal Sciences	Dr. Carolyn Huntington	Research in Animal Sciences
11/06/2017	Postgraduate	Tuskegee University	APSC 600 Advanced	Dr. Olga Bolden-Tiller	Cell-cell interactions in reproductive tissues – focus on the interaction between embryo and endometrium
09/23/2016	Undergraduate	Auburn University	ANSC 3800 Careers in Animal Sciences	Ms. Alese Parks	Research in Animal Sciences

GRADUATE STUDENTS COMPLETED

Student	Degree	Start	End	Dept.[a]	Role	Next Position
Bailey Walker	MS	08/2018	12/2020	APSC	Chair	Embryologist at the Alabama Center for Reproductive Medicine
Sarah Dickinson	PhD	08/2016	08/2019	ANSC	Chair	Assistant Professor, University of Tennessee

Zachary Dye	MS	08/2017	08/2019	ANSC	Committee member	Embryologist at ART Fertility Program of Alabama
Katlyn Phillips	MS	08/2016	09/2018	ANSC	Committee member	-
Katelyn Kimble	MS	08/2016	05/2018	ANSC	Chair	DVM program, Texas A&M
Casey Read	MS	07/2016	05/2018	ANSC	Committee member	PhD program, University of Toronto
Wenshan Liu	MS	08/2015	07/2017	ENTM	Committee member	PhD program, Auburn University
Kayla Golson	MAg	08/2015	08/2016	ANSC	Committee member	-

[a] ANSC: Auburn University, Department of Animal Sciences

GRADUATE STUDENTS IN PROGRESS

Student	Degree	Start	Expected conclusion	Dept.[a]	Role	Progress
Chace Wilson	PhD	08/2020	05/2024	APSC	Chair	- sample collection in progress.
Savannah Speckhart	PhD	08/2019	05/2023	APSC	Committee member	
Nicholas Wege Dias	PhD	08/2019	12/2022	APSC	Committee member	

[a] APSC: Virginia Polytechnic Institute and State University, Department of Poultry and Animal Sciences

UNDERGRADUATE RESEARCH ADVISING

09/2020 -	Mackenzie Marrela
05/2018 - 08/2019	Margaret Tanner
05/2018 - 08/2019	Anna Kay Gierow
08/2017 - 07/2018	Bailey Walker
02/2016 - 07/2017	Griffin Wright
08/2015 - 05/2016	Morgan Read

SERVICE

ACADEMIC SERVICE

- College of Agriculture and Life Sciences, Virginia Tech

CALS Beef Cattle Advisory Council
Role: Member
12/04/2019 – present

- Department of Animal and Poultry Sciences, College of Agriculture and Life Sciences, Virginia Tech

Search and hire committee: Research Assistant Professor of Animal Biosciences
Role: Member
02/2021- present

Search and hire committee: Ovary Technician
Role: Member
07/2020-07/2020

- Auburn University

This is Research: Student Symposium
03/26/2018 Role: Judge of Oral presentations
04/13/2017 Role: Judge of Oral presentations

- College of Agriculture, Auburn University

Search and Hire committee for Assistant Director EV Smith Beef Unit
Role: Member
05/2017- 07/2017

COA Graduate Poster Showcase
10/26/2017 Role: Judge of Poster presentations

- Department of Animal Sciences, College of Agriculture, Auburn University

Academic Program Review
Role: Member
10/2018 - present

Beef Cattle Conference Program Committee
Role: Member
2017 - 2019

Search and hire committee: Metabolomics faculty position
Role: Member
08/2016-02/2017

Search and hire committee: Beef Cattle Production and Management faculty position
Role: Member
07/2015-04/2016

Graduate Student Affairs Committee
Role: Member
Period: 01/2016- present

Seminar Committee
Role: Member
Period: 01/2016-12/2018

Nominations and Awards Committee
Role: Member
Period: 01/2016-12/2018

WebPage/Social Media Committee
Role: Member
Period: 01/2016-12/2018

- University of Illinois at Urbana-Champaign

University Fulbright Interview Committee, National and International Scholars Program
Role: Member

MEMBER OF EDITORIAL BOARD

09/2019 - present Scientific Reports
05/2018 - present BMC Genomics
11/2017 - present OMICS: A journal of Integrative Biology

AD HOC REVIEWER – SCIENTIFIC JOURNALS

Animal and Veterinary Sciences, Annual Review & Research in Biology, Bioinformatics and Biology Insights, Biology of Reproduction, BMC Genomics, FASEB journal, Journal of Animal Sciences, Gene Regulation and Systems Biology, Genetics and Epigenetics, Genetics and Molecular Biology, International Journal of Genetics and Genomics, Livestock Science, Molecular Reproduction and Development, OMICS: A journal of Integrative Biology, Proceedings of the National Academy of Sciences, Reproduction, Fertility and Development, Research Reports in Biology, Scientific Reports, Theriogenology

AD HOC REVIEWER – GRANT PANELS

2020 BARD - The US-Israel Agricultural Research & Development Fund
Role: Ad-hoc reviewer

2020 Bilateral BBSRC-FAPESP
Role: Ad-hoc reviewer

2019 National Science Foundation, Graduate Research Fellowship Program, USA
Role: Member of the review panel

2019 NIH-USDA R01 dual purpose with dual benefit, USA
Role: Member of the review panel

2019 USDA exploratory grant
Role: Reviewed one application

2019 Foundation for Food and Agriculture Research
Role: Reviewed one application.

2018 NIFA-USDA AFRI, USA
Role: Member of the review panel

2018 NIH-USDA R01 dual purpose with dual benefit, USA
Role: Member of the review panel

2017 Medical Research Council, United Kingdom
Role: Member of the review panel

AD HOC REVIEWER – CONFERENCE ABSTRACTS

2021 - ASAS-CSAS-SSASAS Annual Meeting
2020 - 53rd Annual meeting, Society for the Study of Reproduction
2018 - 51st Annual meeting, Society for the Study of Reproduction

PROFESSIONAL AFFILIATIONS

Member: Society for the Study of Reproduction
American Society for Animal Science
American Society for the Advancement of Science

SERVICE TO PROFESSIONAL SOCIETIES

2021 Breeding and Genetics Program Committee. Southern Section ASAS annual conference
Role: Member
Period: 06/2020-present

Publications committee, Society for the Study of Reproduction

Role: Member
Period: 06/2020-present

Awards committee, Society for the Study of Reproduction
Role: Member
Period: 06/2018-present