



I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at **Dipartimento di Health, Animal Science and Food Safety**

Scientist- in - charge: Prof. Dr.ssa Federica Franciosi - Prof. Alberto Maria Luciano

Fernanda Fagali Franchi

CURRICULUM VITAE

PERSONAL INFORMATION

Surname	Fagali Franchi
Name	Fernanda
Date of birth	07/29/1988

PRESENT OCCUPATION

Appointment	Structure
PhD student	São Paulo State University (UNESP)

EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Degree	Biological Sciences	São Paulo State University (UNESP)	2014
Specialization			
PhD			
Master	Pharmacology and Biotechnology	São Paulo State University (UNESP)	2016
Degree of medical specialization			
Degree of European specialization			
Other			

REGISTRATION IN PROFESSIONAL ASSOCIATIONS



Date of registration	Association	City

FOREIGN LANGUAGES

Languages	level of knowledge
English	B2 independent user

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2012-2013	Internship Scholarship - São Paulo Research Foundation (FAPESP)
2014-2016	Master Scholarship - Coordination of Superior Level Staff Improvement (CAPES)
2017-2020	PhD Scholarship - Coordination of Superior Level Staff Improvement (CAPES)
2017	Work title: "Toxic effect of A-L-Fucosidase added during in vitro fertilization of bovine embryos", 3 rd place in XIX Pharmaceutical Congress of São Paulo and XI international seminar on pharmaceutical sciences.

TRAINING OR RESEARCH ACTIVITY

<ul style="list-style-type: none">- Training: Fundamentals in real-time quantitative PCR (qPCR): a theoretical and practical approach on the QuantStudio 7TM Flex system platform;- Media preparation and cell culture maintenance;- Gametes manipulation: follicular aspiration, oocyte selection and classification, and semen preparation;- Bovine in vitro production of embryos: zygote denudation, embryo culture, morphological classification;- Embryo cryopreservation;- Exosomes recovery and identification: Ultracentrifugation, electron microscopy;- Fluorescence microscopy: nuclear maturation, DNA fragmentation, reactive oxygen species, and mitochondrial analysis;- Molecular Biology: RNA extraction, cDNA synthesis, RT-qPCR;- Proficient user of Ms. Office- Independent user of JMP[®] and Prism (statistical program)- Independent user of Leica Application Suite (LAS Imaging software)

PROJECT ACTIVITY

Year	Project



2011-2013	The FGF2, FGF10 and BMP-15 effects on nuclear maturation of bovine oocytes during in vitro maturation
2014-2016	Ovarian superstimulation effects on oocyte and embryonic competence in cattle: possible participation of exosomes from follicular fluid

PATENTS

Patent

CONGRESSES AND SEMINARS

Date	Title	Place
May 14 and 16, 2019	General notions of assisted human reproduction biotechnologies (Workshop speaker)	Bauru, São Paulo, Brazil
May 7 and 14, 2018	Biotechnics applied to human reproduction assisted (Workshop speaker)	Bauru, São Paulo, Brazil
May 10, 2018	1° Workshop Pharmabiotch: In vitro embryo production (participation)	Botucatu, São Paulo, Brazil
September 16-20, 2018	10 th International Ruminant Reproduction Symposium (IRRS)(participation)	Foz do Iguaçu, Paraná, Brazil
April 10 and 11, 2017	How to do a blastocyst? (participation)	Botucatu, São Paulo, Brazil
April 10 and 11, 2017	Extracellular vesicles of follicular fluid from superstimulated cows and its effects on in vitro embryo production (Workshop Speaker)	Botucatu, São Paulo, Brazil
April 27, 2018	We need to talk about gender and sexuality (Speaker)	Bauru, São Paulo, Brazil
May 15 and 22, 2017	Human Reproduction Assisted (Workshop speaker)	Bauru, São Paulo, Brazil
August 17-19, 2017	XXXI Brazilian society of embryo technology (SBTE)	Cabo de Santo Agostinho, Pernambuco, Brazil
August 29, 2017	Introduction to the in vitro embryo production technique (Workshop speaker)	Bauru, São Paulo, Brazil
October 6, 2017	Oogenesis and oocyte maturation (Lecture)	Presidente Prudente, São Paulo, Brazil
August 25-27, 2016	XXX Brazilian society of embryo technology (SBTE) (participation)	Foz do Iguaçu, Paraná, Brazil
August 20-23, 2015	XXX Brazilian society of embryo technology	Gramado, Rio Grande do Sul, Brazil



(SBTE) (participation)

PUBLICATIONS

Books

RENIN-ANGIOTENSIN SYSTEM ON REPRODUCTIVE BIOLOGY. In: Renin-Angiotensin System - Past, Present and Future. 1ed.: InTech, 2017, p. 71-81. CASTILHO, ANTHONY C.S.; FONTES, PATRICIA K.; FRANCHI, FERNANDA F.; SANTOS, PRISCILA H.; RAZZA, EDUARDO M.

Articles in reviews

Fractal analysis and histomolecular phenotyping provides insights into extracellular matrix remodeling in the developing bovine fetal ovary. Biochemical and Biophysical Research Communications, v. 523, p. 823-828, 2020. FRANCHI, F.F.; HERNANDES, M.P.; COALHO FERREIRA, A.L.; VIEIRA DE LIMA, V.A.; DE OLIVEIRA MENDES, L.; MUSA DE AQUINO, A.; SCARANO, W.R.; CÉSAR DE SOUZA CASTILHO, A.

Equine chorionic gonadotropin drives the transcriptional profile of immature cumulus-oocyte complexes and in vitro-produced blastocysts of superstimulated Nelore cows. Molecular Reproduction and development, v. 86, p. 1639, 2019. FRANCHI, FERNANDA FAGALI; SATRAPA, RAFAEL AUGUSTO; FONTES, PATRÍCIA KUBO; SANTOS, PRISCILA HELENA; RAZZA, EDUARDO MONTANARI; EMANUELLI, ISABELE PICADA; ERENO, RONALDO LUIZ; MARECO, EDSON ASSUNÇÃO; NOGUEIRA, MARCELO FÁBIO GOUVEIA; BARROS, CIRO MORAES; SOUZA CASTILHO, ANTHONY CÉSAR.

Use of pregnancy-associated plasma protein-A during oocyte in vitro maturation increases IGF-1 and affects the transcriptional profile of cumulus cells and embryos from Nelore cows. Molecular reproduction and development, v. 86, p. 1694, 2019. GIROTO, ALAN B.; FONTES, PATRÍCIA K.; FRANCHI, FERNANDA F.; DOS SANTOS, PRISCILA H.; RAZZA, EDUARDO M.; NOGUEIRA, MARCELO F. G.; MAIOLI, MARCOS A.; NOGUEIRA, GUILHERME P.; NUNES, GIOVANA B.; MINGOTI, GISELE Z.; MARECO, EDSON A.; CASTILHO, ANTHONY C. S.

Expression of fibroblast growth factor 22 (FGF22) and its receptor, FGFR1B, during development and regression of bovine corpus luteum. Theriogenology, v. 125, p. 1-5, 2019. CASTILHO, A.C.S.; DALANEZI, F.M.; FRANCHI, F. F.; PRICE, C.A.; FERREIRA, J.C.P.; TREVISOL, E.; BURATINI, J.

Extracellular vesicles of follicular fluid from heat-stressed cows modify the gene expression of in vitro-matured oocytes. Animal reproduction science, v. 205, p. 94-104, 2019. MORALES DALANEZI, FELIPE; MOGOLLON GARCIA, HENRY DAVID; DE ANDRADE FERRAZZA, RODRIGO; FAGALI FRANCHI, FERNANDA; KUBO FONTES, PATRICIA; DE SOUZA CASTILHO, ANTHONY CESAR; GOUVEIA NOGUEIRA, MARCELO FÁBIO; DOS SANTOS SCHMIDT, ELIZABETH MOREIRA; SARTORI, ROBERTO; PINHEIRO FERREIRA, JOÃO CARLOS.

Treatment with cyclic adenosine monophosphate modulators prior to in vitro maturation alters the lipid composition and transcript profile of bovine cumulus-oocyte complexes and blastocysts. Reproduction fertility and development, v. 31, p. xx, 2018. RAZZA, E.M.; SUDANO, M. J.; FONTES, P.K.; FRANCHI, F.F.; BELAZ, K. R. A.; SANTOS, P.H.; CASTILHO, A. C. S. ROCHA, D. F.; MACHADO, M. F.; NOGUEIRA, MARCELO FÁBIO GOUVEIA.

Effect of superstimulation on the expression of microRNAs and genes involved in steroidogenesis and ovulation in Nelore cows. Theriogenology, v. 110, p. 192-200, 2018. SANTOS, P.H.; SATRAPA, R.A.; FONTES, P.K.; FRANCHI, F.F.; RAZZA, E.M.; MANI, F.; NOGUEIRA, M.F.G.; BARROS, C.M.; CASTILHO, A.C.S.

Lipid profiles of follicular fluid from cows submitted to ovarian superstimulation. Theriogenology, v. 94, p. 64-70, 2017. SANTOS, P.H.; FONTES, P.K.; FRANCHI, F.F.; NOGUEIRA, M.F.G.; BELAZ, K.R.A.; TATA, A.; EBERLIN, M.N.; SUDANO, M.J.; BARROS, C.M.; CASTILHO, A.C.S.

Congress proceedings

Ovarian superstimulation down-regulates expression of follicular fluid-derived exosomal microRNAs in



Nelore cows. FERNANDA FRANCHI, PRISCILA DOS SANTOS, PATRICIA FONTES, ANA CLARA DE ÁVILA, JULIANO DA SILVEIRA, EDSON MARECO, ANTHONY CASTILHO. In 52nd Society for the Study of Reproduction Annual Meeting, 2019, San Jose, California, USA. Proceedings of the 52nd SSR Annual Meeting, 2019, P525

Equine chorionic gonadotropin (eCG) impacts the transcriptional profile of genes involved with competence of cumulus-oocyte complexes and embryo quality in superstimulated Nelore cows. FRANCHI, F. F.; SANTOS, P. H.; FONTES, P. K.; RAZZA, E. M.; MARECO, E.; NOGUEIRA, M. F. G.; CASTILHO, A. C. S. In: 10th International Ruminant Reproduction Symposium, 2018, Foz do Iguaçu - Brazil. Proceedings of the 10th International Ruminant Reproduction Symposium, 2018. v. 15. p. 1122.

Transcripts abundance modulation by AREG and FSH treatments during the in vitro maturation of bovine cumulus-oocyte complexes. PRONUNCIATE, M.; PIOLTINE, E. M.; GUILHERME, V. B.; FRANCHI, F. F.; FONTES, P. K.; NOGUEIRA, M. F. G. In: 10th International Ruminant Reproduction Symposium, 2018, Foz do Iguaçu - Brazil. Proceedings of the 10th International Ruminant Reproduction Symposium, 2018. v. 15. p.1067.

HSPA5 and in vitro embryo production: effect of addition of the protein during in vitro embryo culture in cattle. SANTOS, P. H.; FONTES, P. K.; FRANCHI, F. F.; GIROTO, A. B.; NUNES, S. G.; GUILHERME, V. B.; CASTILHO, A. C. S. In: 10th International Ruminant Reproduction Symposium, 2018, Foz do Iguaçu - Brazil. Proceedings of the 10th International Ruminant Reproduction Symposium, 2018. v. 15. p. 1070.

Evidence that pregnancy-associated plasma protein-A (PAPP-A) plays a role in bovine in vitro-embryo production. GIROTO, A. B.; AMORIS, J. V.; FRANCHI, F. F.; FONTES, P. K.; SANTOS, P. H.; MAIOLI, M. A.; NOGUEIRA, G. P.; NUNES, G. B.; MINGOTI, G. Z.; NOGUEIRA, M. F. G.; CASTILHO, A. C. S. In: 10th International Ruminant Reproduction Symposium, 2018, Foz do Iguaçu - Brazil. Proceedings of the 10th International Ruminant Reproduction Symposium, 2018. v. 15. p. 1123.

Gene expression related to meiosis resumption after associated use of NPPC and rhFSH during in vitro prematuration of bovine cumulus-oocyte complexes. PIOLTINE, E. M.; SAWA, A. G.; ALMEIDA JUNIOR, A. M.; PRONUNCIATE, M.; FRANCHI, F. F.; NOGUEIRA, M. F. G. In: 10th International Ruminant Reproduction Symposium, 2018, Foz do Iguaçu - Brazil. Proceedings of the 10th International Ruminant Reproduction Symposium, 2018. v. 15. p. 1059.

Expression of bta-miR-222 in bovine granulosa cells: effect of follicle deviation and regulation by FSH/insulin in vitro. SANTOS, P. H.; FRANCHI, F. F.; MENDES, L. O.; FONTES, P. K.; PINHEIRO, V. G.; CASTILHO, A. C. S. In: XXXII Annual Meeting of the Brazilian Embryo Technology Society (SBTE), 2018, Florianópolis - Brazil. Proceedings of the 32nd Annual Meeting of the Brazilian Embryo Technology Society, 2018. v. 15. p. 453.

Evidence that Pregnancy-Associated Serum Protein-A (PAPP-A) Plays Role on Bovine In Vitro Embryo Production. GIROTO, A. B.; FRANCHI, F. F.; FONTES, P. K.; MAIOLI, M. A.; NOGUEIRA, G. P.; NOGUEIRA, M.F.G.; CASTILHO, A.C.S. In: IETS, 2018, Bangkok. 44^o Annual Conference of the International Embryo Technology Society, 2018. v. 30. p. 204.

Pregnancy-associated plasma protein-A (PAPP-A) added during in vitro maturation: effects on meiosis progression, oocyte DNA fragmentation and gene expression in bovine cumulus-oocyte complexes. F. F. FRANCHI, P. K. FONTES, P. H. SANTOS, E. M. RAZZA, R. B. RODRIGUES, A. CARVALHO, M. F. G. NOGUEIRA, A. C. S. CASTILHO. In: XXXI Annual Meeting of the Brazilian Embryo Technology Society (SBTE), 2017, Cabo de Santo Agostinho - Brazil. Proceedings of the 31st Annual Meeting of the Brazilian Embryo Technology Society, 2017. Anim. Reprod., v.14, n.3, p.830.

Pregnancy-associated plasma protein-A (PAPP-A) increases free IGF-1 on in vitro maturation medium and modulates important genes related to embryonic development in bovine in vitro-produced blastocysts. A. B. Giroto, P. K. FONTES, F. F. FRANCHI, E. M. RAZZA, M. Maioli, G. P. Nogueira, M. F. G. NOGUEIRA, A. C. S. CASTILHO. In: XXXI Annual Meeting of the Brazilian Embryo Technology Society (SBTE), 2017, Cabo de Santo Agostinho - Brazil. Proceedings of the 31st Annual Meeting of the Brazilian Embryo Technology Society (SBTE), 2017. v. 14, n.3, p. 831.

Changes in MicroRNAs expression in granulosa cells from superstimulated cows. P. H. SANTOS, P. K. FONTES, F. F. FRANCHI, V. B. GUILHERME, M. F. G. NOGUEIRA, C. M. BARROS, A. C. S. CASTILHO. In: XXXI Annual Meeting of the Brazilian Embryo Technology Society (SBTE), 2017, Cabo de Santo Agostinho -



Brazil. Proceedings of the 31 st Annual Meeting of the Brazilian Embryo Technology Society (SBTE), 2017. v. 14, n.3, p.786.
The addition of exosomes from superstimulated Nelore cows during in vitro oocyte maturation modulates embryo gene expression. <u>FRANCHI, F. F.</u> ; FONTES, P. K.; SANTOS, P. H.; LOUREIRO, B.; SILVEIRA, J. C.; NOGUEIRA, M. F. G.; BARROS, C. M.; CASTILHO, A. C. S. In: 18 th International Congress on Animal Reproduction (ICAR), 2016, Tours - France. Abstract Book, 2016. p. 415-415.
Effects of ovarian superstimulation on follicular microenvironment: profile of phospholipids in follicular fluid and regulation of CPT1B mRNA abundance in granulosa cells from Nelore cows. SANTOS, P. H.; FONTES, P. K.; <u>FRANCHI, F. F.</u> ; NOGUEIRA, M. F. G.; BARROS, C. M.; SUDANO, M. J.; BELAZ, K. R. A.; TATA, A.; BERLIN, M. N.; CASTILHO, A. C. S. In: 18 th International Congress on Animal Reproduction (ICAR), 2016, Tours - France. Abstract Book, 2016. p. 26-26.
Modulation of genes related to the expansion of the cumulus cells by the use of oocyte maturation mean supplemented with bovine extracellular vesicles under heat stress. DALANEZI, F. M.; GARCIA, H. D. M.; FERRAZZA, R. A.; ARISTIZABAL, V. H. V.; DESTRO, F. C.; CUERVO, J. C. O.; SARTORI FILHO, R.; JUNIOR, L. R. P. A.; <u>FRANCHI, F. F.</u> ; FONTES, P. K.; CASTILHO, A. C. S.; SILVA, L. F. M. C.; NUNES, S.; ARAUJO, E. A. B.; PINTO, B. M.; HAYASHI, R. M.; FERREIRA, J. C. P. In: 18 th International Congress on Animal Reproduction (ICAR), 2016, Tours - France. Abstract Book, 2016. p. 255-256.
Expression and regulation of btamir222 in bovine antral follicles. SANTOS, P. H.; FONTES, P. K.; <u>FRANCHI, F. F.</u> ; RAZZA, E. M.; NOGUEIRA, M. F. G.; AMBROZIO-NETO, C.; BARROS, C. M.; CASTILHO, A. C. S. In: VI International Symposium on Animal Biology of Reproduction (ISABR), 2016, Campos do Jordão - Brazil. Animal Reproduction, 2016. v. 14, p. 262.
Bovine oocyte prematuration with cyclic adenosine monophosphate modulators: in vitro performance and semi-quantitative lipid evaluation. RAZZA, E. M.; SUDANO, M. J.; FONTES, P. K.; <u>FRANCHI, F. F.</u> ; SANTOS, P. H.; VILELA, J.; MACHADO, M. F.; NOGUEIRA, M. F. G. In: VI International Symposium on Animal Biology of Reproduction (ISABR), 2016, Campos do Jordão - Brazil. Animal Reproduction, 2016. v. 14, p. 242.
Pregnancy associated plasma proteina improves oocyte maturation and modulates transcription pattern in bovine in vitro-produced embryos. FONTES, P. K.; <u>FRANCHI, F. F.</u> ; RODRIGUES, R. B.; CARVALHO, A.; SANTOS, P. H.; RAZZA, E. M.; NOGUEIRA, M. F. G.; CASTILHO, A. C. S. In: VI International Symposium on Animal Biology of Reproduction (ISABR), 2016, Campos do Jordão - Brazil. Animal Reproduction, 2016. v.14, p. 277.

OTHER INFORMATION

Staff in: 10 th International Ruminant Reproduction Symposium (IRRS). September 2018, Foz do iguaçu - PR - Brazil.
Staff in: XXXI Brazilian society of embryo technology (SBTE). August 2017, Cabo de Santo Agostinho, PE - Brazil.
Organization of: 1 st Workshop PHARMABIOTECH: "in vitro embryo production". May 2018, Sao Paulo State University (UNESP), Botucatu, SP - Brazil.
Member of examining board: completion of course work; Title: Effects of PAPP-A addition on molecular and cellular aspects of the bovine oocyte's in vitro maturation. August 2017, Bauru, SP - Brazil.
Member of examining board: completion of course work; Title: Effects of PAPP-A addition during in vitro maturation on in vitro produced embryos. August 2017, Bauru, SP - Brazil.
Organization of "VIII Symposium of Pharmacology and Biotechnology". March 2019, Sao Paulo State University (UNESP), Botucatu, SP - Brazil.
Organization of "VII Symposium of Pharmacology and Biotechnology". March 2018, Sao Paulo State University (UNESP), Botucatu, SP - Brazil.

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of



DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Place and date: Botucatu, 06 April 2020

SIGNATURE

Fernanda Jagali Franchi