Ximena M. Bustamante Marin, PhD
Research Assistant Professor
Department of Nutrition at the University of North Carolina at Chapel Hill

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EDUCATION

PhD in Biological Sciences with mention in Physiological Sciences
Pontificia Universidad Católica de Chile, December, 2009.
Degree was conferred with two votes of distinction
Thesis Title: Role of metabolic substrates in the regulation of physiological apoptosis in rat spermatogenesis.

MS in Biological Sciences
Pontificia Universidad Católica de Chile, April, 2009.
Thesis Title: Differential role of glucose and lactate on rat's spermatocytes survival

Professional Degree: Biochemist
Pontificia Universidad Católica de Valparaíso, Chile, April 2006.
Thesis Title: Substrate cycles during glycolysis in rat spermatocytes: Activity of 6 phosphofructose-2 kinase, fructose-1,6-bisphosphatase and fructose-2,6-bisphosphatase.

B. S. Biochemistry
Pontificia Universidad Católica de Valparaíso, Chile, December, 2004.

PROFESSIONAL EXPERIENCE

Current Position

Research Assistant Professor
Department of Nutrition, University of North Carolina, Chapel Hill, NC 2019-present

- To investigate the implication of obese-derived EVs in lipid metabolism and lipid trafficking during lung inflammation.
- Proteomics and microRNA analysis of extracellular vesicles isolated from different tissues from obese and non-obese mice.
- To determine how obese-derived EVs increase pro-inflammatory response in lung endothelial and epithelial cells.

Previous Professional Experience

Research Associate, University of North Carolina, Chapel Hill, NC 2017 – 2019
Cystic Fibrosis Center and Pulmonary Diseases

- Investigated the role of ciliary clearance in neonatal respiratory distress associated with Primary ciliary dyskinesia.
- Characterized the gene expression pattern of different ciliated cells across the tissues using a mouse model expressing *Foxj1-GFP.*

Postdoctoral Associate, University of North Carolina, Chapel Hill. 2014 – 2017
Cystic Fibrosis Center and Pulmonary Diseases.
Advisor: Lawrence Ostrowski, PhD

- Uncovered pathogenic genetics variants in *GAS2L2* associated with the development of Primary Ciliary Dyskinesia.
- Developed a novel methodology to expand and culture human nasal epithelial cells and mouse embryonic trachea cells to perform *in vitro* analysis of ciliary function.
- Discovered new ciliated-cells-specific proteins using proteomic and super-resolution confocal imaging.
- Collaboration with Dr. Knowles and Dr. Zariwala to discover multiple genetic variants in cilia-specific genes that cause Primary Ciliary dyskinesia.

Postdoctoral Research Scholar, Duke University, Durham 2010 – 2014
Cell Biology Department.
Advisor: Blanche Capel

- Demonstrated that metabolic differences arise from body axis asymmetry in male germ cells. Established a collaboration with Dr. Newgard at Duke University.
- Developed a methodology to evaluate differences in oxygen availability in mouse testes associated with left/right body asymmetry.
- Investigated how hypoxia controls signaling pathways that regulate germ cell fate decisions leading to teratoma formation or cell death in *Dnd1*$^{Ter/+}$ mice. Established a collaboration with Dr. Piantadosi at Duke University.
- Developed a methodology to rescue ovary function after chemotherapy.

Research Assistant, Pontificia Universidad Católica de Chile, Santiago, Chile. 2006 – 2008
Laboratory of Embryology.
Advisor: Ricardo Moreno Mauro

- Investigated the glucose–dependent generation of reactive oxygen species sensibility in rat spermatocytes and the increase of Fas-mediated apoptosis.
- Evaluated the role of p38 Map kinase activation on physiological and stress-induced germ cell apoptosis during rat spermatogenesis.

Doctoral Training, Pontificia Universidad Católica de Chile, Santiago, Chile. 2005 - 2009

- Investigated the role of metabolic substrates in regulating physiological apoptosis during rat spermatogenesis.

Undergraduate Research, Universidad Católica de Valparaíso, Chile. 2000 – 2004

- Measured substrate cycles during glycolysis in rat spermatocytes: Activity of 6 phosphofructose-2 kinase, fructose-1,6-bisphosphatase and fructose-2,6-bisphosphatase.

HONORS, AWARDS & FELLOWSHIPS

- **INSPIRE Scholar**, January 2024 – December 2024 the goal of the **INter NORC SPeaking Scholar InitiativE (INSPIRE)** is to promote the careers of early career faculty by creating speaking and scholarship opportunities outside of the scholar's respective NORC site.
- **SPLENDOR Scholar**, January 2023 – December 2024.
- **Marilyn Gentry Fellowship**, Research Assistant Professor, 2019 - 2021.
- **Lalor Foundation**, Research Fellowship, 2011 – 2012.
- **CONICYT**, Postdoctoral Fellowship Chile 2011 – 2012 (declined).
- **World Health Organization** to attend the course "Frontiers in Reproductions," Marine Biological Laboratory, Woods Hole, USA., May 2008.
- **United Nations University/Biotechnology for Latin America and the Caribbean** to attend the course "Influence of Genes Microenvironment in Regulation of Proliferation versus Apoptosis in Tumoral Cells." IVIC, Caracas, Venezuela, 2005.
- **MESESUP** to attend the course "Generation and Analysis of mice genetically Modified" CECS, Valdivia, Chile 2005.
- **Pontificia Universidad Católica de Chile**, PhD Fellowship, Chile, 2005 – 2009
- **Pontificia Universidad Católica de Valparaíso**, Scholarship, Biochemistry, Chile, 1997 – 2004.
- **Travel Award**, Gordon Research Conference Cilia, Mucus & Mucociliary Interactions 2017
- **Best Poster Award**, Gordon Research Conference Cilia, Mucus & Mucociliary Interactions 2015

RESEARCH GRANTS

Ongoing Research Support

SPLENDOR Program, $ 10, 000 03/01/2024 – 02/28/2025

- Lipidomic composition of adipose-derived EVs from obese mice supplemented with DHA and their control on endothelial cell inflammatory response.

UNC Nutrition Obesity Research Center, $40,000 03/14/2023 - 08/30/2024
Pilot & Feasibility (P&F) Program

- Impact of adipose and tumor-derived-EVs from obese and nonobese mice on triple-negative breast cancer cell metabolism and metastasis

Previous Research Support

NCI Diversity Supplement 10/01/2021 - 01/31/2023

- To determine the impact of extracellular vesicles isolated from a mouse model of obesity and TNBC on PC activity, tumor metabolism, and activation of EMT.

2020 Junior Faculty Development Award 01/01/2020 - 08/30/2021
Office of Executive Vice Chancellor and Provost
The University of North Carolina at Chapel Hill

- A Cilia Biosensor to Investigate Cilia-Specific Calcium Dynamics in Breast Cancer Cells

Contributions to prior Funded Research

Project Title: Functional Studies of Novel Genes Mutated in Primary Ciliary Dyskinesia.
R01-HL117836-02
Advisor: Lawrence Ostrowski, University of North Carolina at Chapel Hill.
Role: Postdoc

Project Title: Regulation of germ cell pluripotency through RNA Binding protein.
R01-GM087500-001A2, NIH
Advisor: Blanche Capel, Duke University.
Role: Postdoc
Project Title: Rescue of Fertility and ovarian Function after chemotherapy. Chancellor's Discovery Grant
Advisor: Blanche Capel, Duke University.
Role: Postdoc

MENTORING & TEACHING EXPERIENCE

Mentoring

Undergraduate Students' Honor Thesis

- 2023 – present, Cameron Grant, Nutrition Department, UNC
- 2022 – 2024, Laith Rayyan, Honor Thesis Award (Fall 2023) Nutrition Department, UNC
- 2019 – 2023, Emma Grindstaff, Nutrition Department, UNC
- 2021 – 2022, Sarah Tian, Nutrition Department, UNC
- 2021 – 2022, Sylvia Wang, Nutrition Department, UNC
- 2018 – 2022, Jenna Merlino, Nutrition Department, UNC

Teaching

- **Director of NUTR-240 Introduction to Human Health**
    - University of North Carolina at Chapel Hill

- **Guest Lecturer Nutrition-845 Nutritional Metabolism**
  - University of North Carolina at Chapel Hill
  - Topic: Proteomic analysis of extracellular vesicles isolated from the visceral and subcutaneous adipose tissue.
- **Guest Lecturer Nutrition-600 Human Metabolism: Macronutrients**
  - University of North Carolina at Chapel Hill
  - Topic lecture 1: Hormonal regulation of human metabolism.
  - Topic lecture 2: Body weight maintenance, metabolic set point, and measurements of energy expenditure
- **Teacher's Assistant** for Dr. Brenda Temple, Fall 2018
  - University of North Carolina at Chapel Hill
  - Biochemistry-107
- **Instructor** March to August 2010
  - Universidad de Antofagasta Chile
  - Embryology
- **Instructor** March to July 2009
  - University Católica Silva Henríquez.
  - Biological bases of Neuroscience
- **Instructor** March 2007 - December 2008
  - Universidad Andrés Bello.
  - Seminars of Neurophysiology
- **Teaching Assistant** for Dr. Ricardo Moreno, March to December 2006
  - Pontificia Universidad Católica de Chile
  - Animal Reproduction
- **Laboratory Teaching Assistant** for Dr. Gareth Owen, March to December 2006
  - Pontificia Universidad Católica de Chile
  - Molecular and Cell Biology

SERVICE/LEADERSHIP/MEMBERSHIP

- **Co-Director of the BSPH/MS Nutrition Program** 2023 – present
- **Co-chair of DEI subcommittee Nutrition Department** 2022 - 2023
- **Obesity Society** 2024 - present
- **American Association for Cancer Research** 2019 - Present

PROFESSIONAL DEVELOPMENT

- **Leadership Peer Coaching Program.** Center for Faculty Excellence, University of North Carolina at Chapel Hill, September 2022 – Present.
- **Faculty Mentor Training Workshop.** Center for Faculty Excellence, University of North Carolina at Chapel Hill, Spring 2024.

- **Faculty Showcase on Teaching.** Center for Faculty Excellence, University of North Carolina at Chapel Hill, March 2023.
- **Leadership Fundamentals Program.** Center for Faculty Excellence, University of North Carolina at Chapel Hill, September 2021 – May 2022.
- **Epidemiology: The Basic Science of Public Health**. University of North Carolina at Chapel Hill, August 2019.
- **Academic English, Writing.** University of California, May 2018.
- **Assessments of honors theses as part of the NSF grant "*Understanding the Role of Writing in Promoting Learning and Engagement for Diverse Undergraduate Thesis Writers*."** Duke University, June 2014. Dr. Julie Reynolds.

PUBLICATIONS

Regulation of IGF1R by MicroRNA-15b Contributes to the Anticancer Effects of Calorie Restriction in a Murine C3-TAg Model of Triple-Negative Breast Cancer.
Bustamante-Marin X. M., Devlin K. L., McDonell S.B., Dave O., Merlino J.L., Grindstaff E.J., Ho A.N., Rezeli E.T., Coleman M.F., Hursting S.D. Cancers 2023, 15, 4320. https://doi.org/10.3390/cancers15174320

Low oxygen availability during embryonic male germ cell development increases the incidence of testicular teratomas in *Dnd1*$^{Ter/+}$ 129 SvJ mice.
Bustamante-Marin X. M. and Capel B. Frontiers in Genetics, 2023 26;14:1179256. doi: 10.3389/fgene.2023.1179256. PMID: 37180974; PMCID: PMC10169730.

The role of SPAG1 in the assembly of axonemal dyneins in human airway epithelia.
Smith A. J., **Bustamante-Marin X**. M., Yin W, Sears P. R., Herring L. E., Dicheva N. N., López-Giráldez F., Mane S., Tarran R., Leigh M. W., Knowles M. R., Zariwala M. A., Ostrowski L. E. J Cell Sci. 2022 Mar 15;135(6):jcs259512. doi: 10.1242/jcs.259512. Epub 2022 Mar 31. PMID: 35178554

Expression of a Truncated Form of ODAD1 Associated with an Unusually Mild Primary Ciliary Dyskinesia Phenotype.
Ostrowski L. E., Yin W., Smith A. J., Sears P. S., **Bustamante-Marin X. M**, Dang H., Hildebrandt F., Daniels L. A., Capps N. A, Sullivan K. M., Leigh M. W., Zariwala M. A. Knowles M. R. Int. J. Mol. Sci. 2022, 23(3), 1753; https://doi.org/10.3390/ijms23031753 - 03 Feb 2022.

Mechanistic Targets and Nutritionally Relevant Intervention Strategies to Break Obesity-Breast Cancer Links.
Bustamante-Marin X. M., Merlino J.L., Devericks E., Carson M.S., Hursting S.D., Stewart D.A. Front Endocrinol (Lausanne). 2021 Mar 17;12:632284. doi: 10.3389/fendo.2021.632284. PMID: 33815289 Free PMC article. Review.

Induction of Ciliary Orientation by Matrix Patterning and Characterization of Mucociliary Transport.
Sears P. R., **Bustamante-Marin X. M.,** Gong H., Markovetz M. R., Superfine R., Hill D. B., Ostrowski L. E. "." Biophys J. 2021 Apr 20;120(8):1387-1395. doi: 10.1016/j.bpj.2021.01.041. Epub 2021 Mar 9. PMID: 33705757.

Mutation of CFAP57, a protein required for the asymmetric targeting of a subset of inner dynein arms in Chlamydomonas, causes primary ciliary dyskinesia.
Bustamante-Marin X. M., Horani A., Stoyanova M., Charng W. L., Bottier M., Sears P. R., Yin W. N., Daniels L. A., Bowen H., Conrad D. F., Knowles M. R., Ostrowski L. E., Zariwala M. A., Dutcher S. K. PLoS Genet. 2020 Aug 7;16(8):e1008691. doi: 10.1371/journal.pgen.1008691. PMID: 32764743; PMCID: PMC7444499.

Identification of Genetic Variants in CFAP221 as a Cause of Primary Ciliary Dyskinesia.
Bustamante-Marin X. M., Shapiro A., Sears P. R., Charng W-L., Conrad D., Margaret L., Knowles M. R., Zariwala M. A. Ostrowski L. E. J Hum Genet. 2020 Jan;65(2):175-180.doi: 10.1038/s10038-019- 0686-1. Epub 2019 Oct 21.

Lack of GAS2L2 Causes PCD by Impairing Cilia Orientation and Mucociliary Clearance
Bustamante-Marin X. M., Yin W. N., Sears P. R., Werner M. E., Brotslaw E. J., Mitchell B. J., Jania C. M., Zeman K. L., Rogers T. D., Herring L. E., Refabért L., Thomas L., Amselem S., Escudier E., Legendre M., Grubb B. R., Knowles M. R., Zariwala M. A., Ostrowski L. E. Am J Hum Genet. 2019 Feb 7;104(2):229-245. doi: 10.1016/j.ajhg.2018.12.009. Epub 2019 Jan 18.

Quantitative Proteomic Analysis of Human Airway Cilia Identifies Previously Uncharacterized Proteins of High Abundance.
Bustamante-Marin X., Blackburn K. Yin W., Goshe M. B., Ostrowski L. E. J Proteome Res. 2017 Apr 7;16 (4):1579-1592.

Cilia and Mucociliary Clearance
Bustamante-Marin X. M. and Ostrowski L. E. Cold Spring Harb Perspect Biol. 2017 Apr 3;9 (4). Review.

Role of Spdef in the Regulation of Muc5b Expression in the Airways of Naïve and Muco-obstructed Mice.
Chen G., Volmer A. S., Wilkinson K. J., Deng Y., Jones L.C., Yu D., **Bustamante-Marin X. M.**, Burns K. A., Grubb B. R., O'Neal W. K., Livraghi-Butrico A., Boucher R. C. Am J Respir Cell Mol Biol. 2018 Mar 26. doi: 10.1165/rcmb.2017-0127OC.

A grafted Ovarian Fragment Rescues Host Fertility after Chemotherapy.
Batchvarov IS, Taylor RW, **Bustamante-Marín X.**, Czerwinski M., Johnson E. S., Kornbluth S., Capel B. Mol Hum Reprod. 2016 Dec;22(12):842-851.

Left-Biased Spermatogenic Failure in 129/SvJ Dnd1Ter/+ Mice Correlates with Differences in Vascular Architecture, Oxygen Availability, and Metabolites.
Bustamante-Marin X., Cook M. S., Gooding J., Newgard C. and Capel B. Biol Reprod. 2015 Sep;93 (3):78.

Testicular Teratomas: An intersection of Pluripotency, Differentiation, and Cancer Biology.
Bustamante-Marín X., Garness J. A., and Capel B. Int J Dev Biol. 2013; 57(2-4):201-10. Review.

Triangle Consortium for Reproductive Biology 22nd Annual Meeting.
Bernhardt ML, **Bustamante-Marín X**. Mol Reprod Dev. 2013 Jul;80 (7):504-7.

Apoptosis, Necrosis and Autophagy are Influenced by Metabolic Energy Sources in cultured Rat spermatocytes.
Bustamante-Marín X., Quiroga C, Lavandero S, Reyes JG, Moreno RD. Apoptosis. 2012 Jun;17 (6):539-50.

Molecular Basis of Heat Stress Damage in Mammalian Testis" In: Heat Stress: Causes, Treatment, and Prevention.
Moreno R. D., Lagos-Cabré R., Buñuay J., Urzúa N., and **Bustamante-Marin X.** Editor(s) Stanislas Josipovic and Elias Ludwig Publisher Nova Science Publishers. 2012; Begin-End page 127-156 ISBN Code 978-1-62100-288-8.

TACE/ADAM17 is involved in Germ Cells Apoptosis during rat Spermatogenesis.
Lizama C, Rojas-Benítez D, Antonelli M, Ludwig A, **Bustamante-Marín X.**, Brouwer-Visser J and Moreno R.D. 2010 Aug;140 (2):305-17.

Expression of key Substrate cycle Enzymes in rat Spermatogenic cells: Fructose-1,6-Bisphosphatase and 6-Phosphofructose 1-Kinase.
Yañez A., **Bustamante X.**, Bertinat R, Werner E, Rauch MC, Concha II, Reyes JG, Slebe JC. J Cell Physiol. 2007 Sep;212 (3):807-16.

Signs of Death in Spermatocytes of Rat Testis, Glucose as a Possible Modulator.
Marin X. B., Lizama C., Moreno R. D Placenta 2005, 27: A.1 - A.72.

PRESENTATIONS & POSTERS

Bustamante-Marin X. M., (Talk) NCDRC Faculty Development Workshop. “Extracellular vesicles mediate intercellular and interorgan communication in obesity”, March 28, 2024.

Bustamante-Marin X. M., Grindstaff E.J., Rayyan L. Teegarden D. Hursting S. D. (Poster) “Proteomics and microRNA characterization of mammary tumor and adipose tissue-derived EVs and their combined impact on cancer cell metabolism” American Association for Cancer Research, April 14-19, 2023.

Bustamante-Marin X., Devlin K. L., Dave O, Merlino J. L., McDonell S., Coleman M. F., Hursting. S. (Poster) "Anticancer effects of calorie restriction in a murine C3-TAg model of triple-

negative breast cancer: the role of miR-15b". American Association for Cancer Research, April 10-15; Week 2: May 17-21, 2021.

Ostrowski L. E., **Bustamante-Marin X. M.**, Smith A. J., Yin W., Sears P. R., Daniels L., Knowles M. R., Zariwala M. (Poster) "Low Levels of Correctly Spliced CCDC114 Mitigate Disease Severity in Primary Ciliary Dyskinesia". American Thoracic Society, May 2020.

Smith A., **Bustamante-Marin X. M.**, Herring L. E., Yin W. N., Sears P. R., Leigh M. W., Knowles M. R., Zariwala M. A., Ostrowski L. E. (Poster) "Investigating the Role of SPAG1 in the Cytoplasmic assembly of Axonemal Dynein Arms: Genotypic and Phenotypic Variability of SPAG1 Mutations in Primary Ciliary Dyskinesia". American Thoracic Society, May 2020.

Bustamante-Marin X. M., Yin W. N., Sears P. R., Werner M. E., Brotslaw E. J., Mitchell B. J., Jania C. M., Zeman K. L., Rogers T. D., Herring L. E., Refabért L., Thomas L., Amselem S., Escudier E., Legendre M., Grubb B. R., Knowles M. R., Zariwala M. A., Ostrowski L. E. (Poster) "Lack of GAS2L2 Causes PCD by Impairing Cilia Orientation and Mucociliary Clearance". Gordon Research Conference Cilia, Mucus & Mucociliary Interactions. Galveston, Lucca, Italy. February 17-22, 2019.

Bustamante-Marin X., Werner M. Zariwala M.A., Yin W., Sears P.R., Knowles M. R. and Ostrowski L. E. (Talk and Poster) "GAS2L2, a gene related to PCD, is required for proper ciliary function and orientation in human, mouse and *Xenopus*" Gordon Research Conference Cilia, Mucus & Mucociliary Interactions. Galveston, TX, USA. February 12-17, 2017.

Bustamante-Marin X., Zariwala M.A., Yin W., Sears P.R., Knowles M. R. and Ostrowski L. E. (Poster) "Characterization of GAS2L2, a gene associated with PCD with normal ciliary structure**"** PCD on the Move! Advances in Primary Ciliary Dyskinesia Research, Diagnosis & Care. Bloomington, MN, USA. August 26-28, 2015.

Bustamante-Marin X., Zariwala M.A., Yin W., Sears P.R., Knowles M. R. and Ostrowski L. E. (Poster) "Expression and localization of GAS2L2, a gene possibly associated with PCD" Gordon Research Conference Cilia, Mucus & Mucociliary Interactions Galveston, TX, USA. February 08-13, 2015.

Bustamante-Marin X., Marchal C., Piantadosi C. And Capel B. (Poster). Testicular teratoma development in *DND1* heterozygous mice. Society for the Study of Reproduction, Palais des congrès de Montréal, Montréal, Québec, Canada, July 22–26, 2013.

Bustamante-Marin X and Capel B. (Talk) Asymmetric Development of Spermatogenic Failure and Testicular Teratoma in 129 *Dnd1*$^{Ter/+}$ mice; Deciphering the Causes. Cell Biology Seminar, Duke University, Durham, NC, USA. February 2013.

Bustamante-Marin X and Capel B. (Poster) Gradual Loss of Germ Cells in *DND1* Heterozygous Mice. Triangle Consortium for Reproductive Biology, Duke University, Durham, NC, USA. March 1-2, 2013.

Bustamante-Marin X. and Capel B. (Talk) Left/Right asymmetry in tumor development and spermatogenic failure in 129/SVJ *Dnd1*$^{Ter/+}$ mice. Cell Biology Seminar, Duke University, Durham, NC, USA. April 2012.

Bustamante Marin X and Blanche Capel (Poster). Spermatogenesis failure in *Dnd1* heterozygous mice. VI International Symposium on Vertebrate Sex Determination, Kona, Hawaii, USA. April 23-27, 2012.

Bustamante-Marin X, Cook, M and Capel, B. (Poster). Characterization of the Spermatogenesis in 129/SvJ *Dnd1*$^{Ter/+}$ mice Gordon Research Conference Mammalian Gametogenesis & Embryogenesis Waterville Valley Resort Waterville Valley, NH., USA. August 21-26, 2011.

Bustamante – Marin X., Reyes J. G, and Moreno R. D. (Poster) Glucose and Lactate modulate c-kit and Fas levels through ROS production in cultured rat spermatocytes.

Bustamante-Marín X, Quiroga C. Lavanderos S. Reyes J.G. and Moreno R.D.(Poster) "Lactate, Survival Factor in Spermatocytes primary culture" LII Annual meeting Chilean Society of Biology, II Iberoamerican meeting of Physiological Sciences, XXIV Annual meeting of the Chilean Society of Physiology and 16ª Symposium on Ca^{+2} Binding Proteins and Ca^{+2} Functions in Health and Disease. Pucón, Chile. November 2009.

Bustamante-Marín X., Quiroga C., Lavanderos S., Reyes JG and Moreno R. (Talk) Lactate, survival factor of cultured rat spermatocytes. XX Annual meeting Chilean Society of Reproduction and Development. La Serena, Chile, September 2009.

Bustamante-Marín X., Gutierrez J., Quest A. and Moreno R. D. (Poster) "Inhibition of protein kinase C (PKC) prevents the death of spermatocytes in culture. VIII meeting of the International Society of Andrology and Gametology. Pucon, Chile January 2009.

Bustamante-Marín X, Lagos R. and Moreno R.D (Poster) Apoptosis and Reactive Oxygen Species Induced by Glucose in Cultured of Rat Spermatocytes.
Lagos-Cabre R, **Bustamante-Marín X** and Moreno R.D (Poster) p38 MAP Kinase is involved in Physiological and Stress-Induced Germ Cell Apoptosis during Rat Spermatogenesis.
XIX Annual meeting of the Chilean Society of Reproduction and Development. Chillan, Chile September 2008.

Bustamante-Marín X. and Moreno R.D. (Talk) Apoptosis and Reactive Oxygen Species Induced by Glucose in Cultured Rat Spermatocytes. XI Annual Symposium of de Frontiers in Reproduction Woods Hole, USA, June 2008.

Bustamante-Marín X. and Moreno R.D. (Poster) Lactate and Glucose, control Apoptosis of Rat Spermatocytes. XVIII Annual meeting of the Chilean Society of Reproduction and Development. Chillan, Chile September 2007.

Lagos-Cabre R, **Bustamante-Marín X** and Moreno R.D. (Poster) p38 MAP Kinase is involved in Physiological and Stress-Induced Apoptosis in male Germ Cell during the First Round of Spermatogenesis in the Rat International Workshop, Chillan, Chile, November 2007.

Bustamante-Marín X. and Moreno R. D. (Poster) Differential effects of Lactate and Glucose on Rat Spermatocyte Viability. V meeting of the International Society of Andrology and Gametology. Santiago, Chile. January 2009.

Bustamante-Marín X. Lizama C. and Moreno R. D. Signs of Death in Spermatocytes of the rat Testis: Glucose as a Possible Modulator. XIX Annual meeting of the Chilean Society of Physiology Santiago, Chile. August 2005.

Bustamante-Marín X. and Reyes JG (Poster) Activity of 6 Phosphofructose 2-kinase, Fructose-1,6-bisphosphatase and Fructose-2,6-bisphosphatase. XXI National Meeting of Biochemistry students. Valdivia, Chile. August 2004.