Gerardo C. Mamani August 2018

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Research Interestes I worked in rural development projects with alpacas, llamas and guinea pigs systems of production. Actually, I am a Ph.D. student in Animal Bioscience. My interest in Genetics and Animal Breeding, Statistics and Animal Reproduction.

**EDUCATION** 

## University of Nebraska - Lincoln, Lincoln, NE, USA

Visitor Scholar, 4/2017 - 12/2017

- Project: "Genomic prediction in Nellore cattle"
- Supervisor: Prof. Dr. Gota Morota

# University of Sao Paulo, Pirassununga, Sao Paulo, Brazil

Ph.D. student, Animal Bioscience, September 2014 - actually

- Project of Thesis: "Association between inbreeding genomics coefficients and productive traits in Nellore cattle and Santa Ines sheep"
- Advisor: Prof. Dr. Jose Bento Sterman Ferraz

# University National Agrarian La Molina, Lima, Peru

Magister Scientiae, Animal Production, March 2013

- Thesis: "Genetic structure and genetic trend of birth weight in alpacas of the Germoplasm Bank of Quimsachata Puno - Peru".
- Advisor: Prof. Dr. Gustavo Gutierrez Reynoso
- Committee: Drs. Juan Chavez Cossio, Jorge Aliaga and Edwin Mellisho Salas

### University National of the Altiplano, Puno, Peru

Veterinary Doctor, Marzo 2005

- Tesis: "Relationship between sperm morphology, motility and vigor and the enzymatic activity of GOT and GPT transaminases in alpacas".
- Advisor: Prof. Dr. Pedro Coila
- Committee: Drs. Maximo Melo, Guido Perez and Zenon Maquera

Work EXPERIENCE Project: Improving Alpaca Systems Production in Highland of the Central Sierra of Peru

University National of La Molina - VLIR, Lima - Pasco, Peru

Cargo: Research assistant 08/2013 - 08/2014

Elaboration of baseline and technical expedient of livestock development in Orcopampa, Arequipa IPTIG, Lima, Peru

Cargo: Consultant 05/2013 - 06/2013

Project: Improvement of the capacity and employment for the alpaca production in the Northeast of Puno, Peru

CECOALP, Puno, Peru

Cargo: Extension. 04/2010 - 08/2010 Study of baseline and elaboration of the project for the development of South American domestic camelids in Antauta and Ajoyani, Puno.

ONG DESCO, Puno, Peru

Cargo: Consultant. 03/2010

Project: Development of productive and commercial capacities of the small breeders of alpacas of Manazo and Cabanillas, Puno.

ONG CEDER, Puno, Peru

Cargo: Extension.

01/2008 - 12/2009

Project: Desarrollo de capacidades productivas y comerciales de los pequenos criadores de alpacas de las comunidades altoandinas de Moquegua y Arequipa.

ONG CEDER - CESVI, Puno, Peru

Cargo: Extension.

11/2006 - 12/2007

Programa de Apoyo a Campesinos Pastores de Alturas PROALPACA-Huancavelica.

ONG Vecinos Peru, Ayacucho-Huancavelica, Peru

Cargo: Extension.

11/2005 - 10/2006

Elaboracion de linea de base del Project de desarrollo de capacidades, incremento productivo y mercadeo de leche y derivados de las comunidades campesinas del altiplano de Puno CARITAS- Puno.

ONG DESCO, Puno, Peru

Cargo: Encuestador.

10/2005

Inversiones Doria SRLtda. Santa Lucia - Puno.

Project de Desarrollo Corredor Puno -Cusco, Puno, Peru

Cargo: Extension.

10/2005

### Preprints

- 5. <u>Mamani GC</u>, Santana B, Oliveira G, Mattos E, Eler J, Morota G, Ferraz JBS. Effect of genomic inbreeding en productive traits in Santa Ines sheep.
- 4. <u>Mamani GC</u>, Santana B, Oliveira G, Mattos E, Eler J, Morota G, Mourao G, Ferraz JB. Effect of genomic inbreeding en productive traits in Nellore cattle.
- **3.** <u>Mamani GC</u>, Santana B, Berton M, Mattos E, Eler J, Morota G, Dias L, Molento M, Ferraz JB. Runs of homozygosity and copy number variation in Thoroughbred horses in Brazil.
- 2. <u>Mamani GC</u>, Zimmerman M, Mamani-Cato RH, Huanca T, Gutierrez G, Gutierrez JP. Population structure in the Germoplasm Bank of Alpacas in Peru.
- 1. Mamani GC, Zimmerman M, Gutierrez G. Genetic parameters in growth traits in Guinea Pigs.

Journal Papers

2017

3. Santana B, <u>Mamani GC</u>, Oliveira G, Castro L, Molento M, Ventura R, and Ferraz JBS. Characterization of runs of homozygosity in a population of Thoroughbred Horses. *Revista Ciencia Tecnologia*.v9.2017.

**2.** Santana B, Fonseca R, Matos M, <u>Mamani GC</u>, Eler J and Ferraz JBS. Feasibility of using "days to a specific weight" traits in Nellore cattle breeding programs. *Revista Brasileira de Saude e Producao Animal.* **18**.2

2015

1. Vargas A, Gutierrez G. and <u>Mamani GC</u>. An application of Gibbs sampling for genetic parameters estimation in guinea pigs using MCMCglmm. *Revista de Investigaciones Veterinarias del Peru.* 26.2

# Proceedings abstract

2018

- 17. <u>Mamani GC</u>, Santana B, Sartorello GL, Abreu Silva BA, Mattos E, Eler J, Morota G, Ferraz JBS. Economic impact of inbreeding over weaning weight, yearling weight and cow productivity in Nellore. EAAP Annual Meeting 2018, Dubrovnik, Croatia.
- 16. <u>Mamani GC</u>, Santana B, Mattos E, Eler J, Morota G, Ferraz JBS. Effect of genomic inbreeding in productive traits in Santa Ines sheep. XXVI Reunion de la Asociacion Latinoamericana de Produccion Animal. Guayaquil, Ecuador.
- 15. Santana B, <u>Mamani GC</u>, Mattos E, Eler J, Ferraz JBS. Estrutura populacional em racas bovinas usando dados genomicos. XXVI Reunion de la Asociacion Latinoamericana de Produccion Animal. Guayaquil, Ecuador.
- 14. <u>Mamani GC</u>, Santana B, Oliveira G, Ventura R, Mattos E, Eler J, Morota G, Ferraz JBS. Effect of inbreeding in productive traits in Nellore cattle. XI World Congress on Genetics Applied to Livestock Production. Auckland, New Zeland.
- 13. Santana B, <u>Mamani GC</u>, Oliveira G, Ventura R, Mattos E, Eler J, Ferraz JBS. Association of levels of homozygosity in Nellore bulls with high and low variability of estimated breeding values of their progenies. XI World Congress on Genetics Applied to Livestock Production. Auckland, New Zeland.

2017

- 12. <u>Mamani GC</u>, Santana B, Ventura R, Ferraz JBS. Caracterizacao de segmentos de homozigose en bovinos, ovinos, porcinos e equinos. VI Simposio de Biociencia Animal . September 5, Pirassununga, SP, Brazil.
- 11. Santana B, <u>Mamani GC</u>, Oliveira G, Ventura R, Ferraz JBS. Efeitos da endogamia sobre a uniformidade de progenie de touros nelore.. VI Simposio de Biociencia Animal. September 5, Pirassununga, SP, Brazil.

2016

10. <u>Mamani GC</u>, and Santana B, Aguirre L, Mattos EC, Ferraz JBS. Estructura genetica de ovinos Santa Ines por analise de pedigree. III Simposio de Biociencia Animal. Setiembre 8, Pirassununga, SP, Brazil.

2015

**9.** Mamani-Cato RH, Huanca T, Condori-Rojas N, <u>Mamani GC</u>. Estructura genetica de la poblacion de llamas del Banco de Germoplasma del INIA Peru Reunion Cientifica Anual de la Asociacion Peruana de Produccion Animal. Agosto 7-9, Ayacucho, Peru.

- 8. Mamani-Cato RH, Huanca T, <u>Mamani GC</u> y Condori-Rojas N. Modelacion de curvas de crecimiento de llamas Qara utilizando modelos de crecimiento no lineales Reunion Científica Anual de la Asociacion Peruana de Produccion Animal. Agosto 7-9, Ayacucho, Peru.
- 7. <u>Mamani GC</u> y Ferraz JBS. Associacao entre coeficientes de endogamia genomicos e caracteristicas reprodutivas em bovinos Nelore. II Simposio de Biociencia Animal . Setiembre 11, Pirassununga, SP, Brazil.
- **6.** Quina E, Renieri C, Pena Y, <u>Mamani GC</u>. Tendencias geneticas para peso de vellon, diametro y coeficiente de variabilidad de fibra de alpacas del Centro de Desarrollo Alpaquero Toccra VII Congreso Mundial en Camelidos Sudamericanos. Octubre 28-30, Puno, Peru.
- Mamani Torreblanca C, <u>Mamani GC</u>, Chavez J. La llama carguera: cronicas contadas por um llamero del Peru VII Congreso Mundial en Camelidos Sudamericanos. Octubre 28-30, Puno, Peru.
- 4. Gutierrez G, Candio J, Ruiz J, <u>Mamani GC</u>, Corredor A, Flores E. Performance of alpacas from a dispersed open nucleus in Pasco region, Peru. 64 th EAAP Annual meeting. Symposium on South American Camelids and other Fibre Animals. August 25-30, Nantes, Francia.
  - 3. <u>Mamani GC</u>, Huanca T, Gutierrez G. Heredabilidad y tendencias geneticas para el peso al nacimiento en alpacas (*Vicugna pacos*) del CIP Quimsachata-INIA, Puno. XXXVI Reunion Cientifica Anual de la Asociacion Peruana de Produccion Animal. Diciembre 4-6, Lima, Peru.
  - 2. Quina E, <u>Mamani GC</u>. Indices reproductivos y caracterización fenotopica de llamas (*Lama glama*) en Centro de Desarrollo Alpaquero Toccra Yanque -Caylloma VI Congreso Mundial en Camelidos Sudamericanos. Arica, Chile.
  - 1. <u>Mamani GC</u>, Coila A. Relacion de la morfologia, motilidad y vigor espermatico de semen de alpacas con la actividad enzimatica de las transaminasas GOT y GPT. IV Congreso Mundial en Camelidos Sudamericanos. Noviembre, Santa Maria, Salta, Argentina.

# ADITIONAL TRAINING

2018

2017

2012

2006

- Topicos especiais: "Genome Sequencing for Genomic Studies". University of State of Sao Paulo. Jaboticabal-Brazil. May 18-22. Taught by Ben Hayes.
- Course: "Controle do desenvolvimento folicular e da ovulação". University of Sao Paulo. Butanta-SP-Brazil. Apr 16-27. Taught by Pietro Baruselli.
- Course: "Population Genetics". University of Nebraska-Lincoln. Lincoln, USA. August-December. Taught by Jessica Petersen

- Course: "Linear Models in Animal Breeding". University of Nebraska-Lincoln. Lincoln, USA. August-December. Taught by Matt Spangler
- Course: "Statistical Method I". University of Nebraska-Lincoln. Lincoln, USA. August-December. Taught by Walter Stroup
- Short course: "Introduction to Graphical Models with Applications to Quantitative Genetics and Genomics". Iowa State University. Ames-Iowa. June 19-23. Taught by Guillherme J.M. Rosa and Francisco Penagaricano
- Short course: "Topicos Especiais sobre Crescimento e Desenvolvimento Animal". University of Sao Paulo. Pirassununga, Brazil. October 24 -30. Taught by David Gerrard

2016

2015

2014

- Course: "Modelagem Estatistico aplicado ao Melhoramento Animal". University of State of Sao Paulo. Jaboticabal-Brazil. November 21-25. Taught by Guillherme J.M. Rosa.
- Short course: "Iniciacao aos programas da familia BLUPF90". University of Sao Paulo. Pirassununga-Brazil. September 20 21. Taught by Mario Luiz Santana Junior.
- Short course: "Quantitative Genetics and Genomics". University of Sao Paulo. Piracicaba-Brazil. Mayo 16 25. Taught by Gota Morota and Matt Spangler.
- Course: "Genetica dos Processos Fisiologicos em Animais Domesticos". University of Sao Paulo.
  Piracicaba-Brazil. March to June. Taught by Luiz Coutinho and Gerson Mourao.
- Course: "Analise de Dados Genomicos". University of Satate of Sao Paulo. Jaboticabal Brazil. March to June. Taught by Roberto Carvalheiro.
- Short course: "Prediction of Complex Traits" (on-line). Universidad Politecnica de Valencia . Valencia-Spain. September 7-9. Taught by Daniel Gianola.
- Course: "Principios de Associacao e Selecao Genomica". University of State of Sao Paulo. Jaboticabal-Brazil. August to December. Taught by Fernando Baldi.
- Course: "Introducao a Inferencia Bayesiana aplicada ao Melhoramento Animal". University of State of Sao Paulo. Jaboticabal-Brazil. August to December. Taught by Henrique Nunes de Oliveira.
- Short course: "Livestock Conservation Genomics: Data, Tools and Trends". University of State of Sao Paulo. Jaboticabal-Brazil. August 17-22. Taught by Ino Curik, Johann Solkner, Yuri Utsunomiya and Adam Utsunomiya
- Course: "Endocrinologia Molecular dos Processos Reprodutivos". University of Sao Paulo. Pirassununga-Brazil. September to October. Taught by Mario Binelli.
- Course: "Ferramentas para Avaliacao Espermatica: Sondas Fluorescentes e Sistema Compu-

tadorizado da Motilidade (CASA). University of Sao Paulo. Pirassununga-Brazil. October to November. Taught by Rubens Paes de Arruda.

2013

• Course: "Genetica Aplicada al Manejo de los Recursos Zootecnicos". University National Agrarian La Molina. Lima-Peru. December 9-14. Taught by Abel Ponce de Leon.

2012

• Course: "Biotecnologia Reproductiva en Animales de Granja". University National Agrarian La Molina. Lima-Peru. September to December. Taught by Edwin Mellisho Salas and others.

#### Teaching

College of Animal Science, University of Sao Paulo, SP, Brazil

Speaker

Course: Genetic Basic Semester 2016-II

Pedagogical preparation

Course: Estatistics II Semester 2016-I

College of Animal Science, University National Agraria La Molina, Lima, Peru. Practical assistant

Course: Population genetics Semester 2013-II

### Computer Skills

- Programing languages: Python and C++
- Statistical Computational Tools: R, Asreml, SAS, Plink, Beagle and FImpute
- Simulation programs: Vensim, QMsim
- Content-description Languages: LATEX
- Operting systems: Mac Os X, Windows and Linux

# LANGUAGES

- Spanish
- Quechua
- Portuguese
- English

#### References

References available upon request.