



Curriculum Vitae

Nestor L. Lopez Corrales

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Personal information

Surname: Lopez Corrales

Forename(s): Nestor Luis

Title: Dr. (PhD), DVM, MSci.

Status: Married

Address:

Home:

Rua da Campina 140 apt 903, Ponta Negra, Natal, RN, Brazil,

Postcode: 59090480

Contact Telephone: 0055 84 20108493/ 005584 99732079/0034 651910082

Email:

nllc1959@gmail.com

lopeznlc@hotmail.com

**Languages: Spanish (mother language)
English
Portuguese**

HIGHER EDUCATION & QUALIFICATIONS

- 1989 1993 Universidad de Zaragoza, Facultad de Veterinaria, Spain. PhD.Doctor en Genética PhD.Courses and develop research activities to obtain the PhD.

- 1985 1988 CIHEAM, IAMZ Zaragoza Spain MSci. on Animal Production Postgraduate Courses and MSci. Thesis

- 1978 1984 Universidad Nacional del Centro de la Provincia de Buenos Aires, Republica Argentina Degree in Veterinary, Medicine.DVM Graduate education

CURRENT/LAST EMPLOYEMENT

**Visiting Scientist. Fellowship DFG Germany (May-August 2011)
Molecular Cytogenetics Laboratory, Fredrich Schiller Universtiy Jena, Germany.**

- Developing research projects to detect structural genomics abnormalities in induced pluripotent stem cells IPS. Application of high resolution methodologies for chromosomal analysis and copy number variations

PREVIOUS WORKING EXPERIENCE

**April 2010-May 2011.Foreign Visiting Professor (C APES fellowship)
University Federal of Minas Gerais, Belo Horizonte.UFMG Brazil**

Duties:

- Organizing and Teaching postgraduate courses at the UFMG at the Post-Graduate Programme in Genetics

Sept-2004-Maio 2009 Senior Scientist, (2003-2004 Ramon Cajal's Program)

Universidad Publica de Navarra, UPNA,Depto.Produccion Agraria, Campus de Arrosadía s/n Pamplona, Navarra, Espanha

Duties: Hired as independent scientist to organize and develop research activities/projects on molecular genetics. Originally the post was created to work at the Animal Science Group, allowing to develop and collaborate with different research groups.

The applicant developed 75% of his time performing research on the following projects: a) genome instabilities in stem cells b) molecular basis of cell differentiation (2 different groups in USA) c) bioinformatics tools for genome analysis , and 25% teaching: Sustainability on Animal Production Systems (general concepts)

2) Sept..2002 – April-2004.Senior Scientist

UdL-IRTA,Lleida.Animal Breeding and Genetics Group. Lleida, Spain..

Duties: to design, organize, and develop a molecular genetics laboratory to support research projects on animal breeding (to set structural and functional genomics methodologies,up)

3) Jan.2001 Sept.t.2002 Postdoctoral Associate Research

Cancer Cytogenetics Lab. Institute of Human Genetics, International Centre for Life, Newcastle upon Tyne, UK.

Duties: Analysis of structural genetic abnormalities on Neuroblastoma tumours using molecular cytogenetics and CGH (Comparative Genomic Hybridization) tools. Molecular Cytogenetics of human solid tumours (FISH, cell cultures, general molecular biology methods)

4) Dec.1999 Dec..2000

Not working Attending family-related issues

5) October 1997 November1999. Postdoctoral Associate Research

Roslin Institute, Roslin, Edinburgh, UK

Duties: Developing a Hybrid Radiation Map system in Pigs. Molecular cytogenetics: physical assignments of markers and genes to the Pig genome.Comparative Physical Mapping in domestic animals

6) June 1995 Oct.1997. Associate Research

USDA-ARS Roman L Hruska Meat Animal Research Center, Clay Center Nebraska. USA

Duties: Cytogenetics and physical mapping in domestic Animals: cattle, sheep and pigs. Physical mapping of genes and markers (FISH).

7) Sept1991-Sept-1995. Associate Professor

Universidad de Zaragoza, Spain. Faculty of Veterinary. Department of Animal Science and Food Technology .Associated Professor.

Duties: Organize and teach theoretical and practical classes on System of Animal Production on Domestic species issues.

POSTGRADUATE STUDENT SUPERVISION

1 student holding a fellowship to develop MSci.

Field: genomic instabilities and epigenetic modifications in colon tumour cells .Public University of Navarra, Spain MSci. in progress

1 postgraduate student holding fellowship to develop PhD

Field of animal farmacology: sequencing and synthesis of bacteriocines isolated from enterocous faecalis. Universidad Nacional del Centro R.Argentina PhD in progress (this is a co-supervision)

RESEARCH FUNDING OBTAINED

Within the last five years.

1-2002 2003 Ministry of Science and Technology, Spain

Genetic architecture of lipid components in meat (porcine specie): implications in meat quality and human health.

Funds: 25000 E

2- 2005 2007 Ministry of Science and Technology.Spain

Gene expression profiles of undifferentiated stem cell (mammals): comparison and use of different bioinformatics tools

Funds: 15000 E

3- 2006 2009 Ministry of Science and Technology.Spain Modulación nutricional de enfermedades neoplásicas y alérgicas mediante probióticos y prebióticos, ref 11/2004

Funds: 98000 Eu

4- 2008 2011 Ministry of Science and Technology.Spain Obtención y ensayo industrial de nuevas variedades de *Pleurotus ostreatus*. Evaluación de genes de importancia agronómica y actividades enzimáticas de degradación del sustrato de cultivo.

Funds: 350000 Euros.

5- February 2011. Grant obtained from the Deutsche Forschungsgemeinschaft (Germany) to develop molecular cytogenetics and arrayCGH analysis of stem cell lines at the Laboratory of Molecular Cytogenetics, Dr. Thomas Liehr, Institute of Human Genetics at the Friedrich Schiller University of Jena, Germany.

TEACHING EXPERIENCE

1- 1991 1995 Universidad de Zaragoza, Spain. Department of Animal Science Associate Professor.

Teaching duties to 100 students/year on Animal Science at The Superior Agriculture School.

Graduate Level

2- 2004-2009. Universidad Pública de Navarra, Spain. Department of Agriculture. Animal Science Groups

Teaching duties to students on Sustainability on Animal Production Systems at the Agriculture School.

Graduate Level

PUBLISHED PAPERS

Induction of Chromosomal Fragile Sites in goats: a preliminary study (1996). López-Corrales, N.L. and Arruga, M.V. *Genetics, Selection and Evolution*, France, issue 2 vol 28, pg 129-139.

An integrated genetic and physical map of the bovine X chromosome (1997). Sonstegard, T.S.; López-Corrales, N.L.; Kappes, S.M.; Stone, R.T.; Ambady, F.A.; Ponce De Leon, A.; Beattie, C.W. *Mammalian Genome* 8, 16-20

A Second Generation Linkage Map of The Bovine Genome. (1997). S.M.Kappes, J.W. Keele, R. Stone, R.A. McGraw; T. Sonstegard, T. P.L. Smith, N. López-Corrales, and C.W. Beattie. *Genome Research*, 7: 235- 249

Anchoring of bovine chromosomes 4,6,7, 10, 14 linkage group telomeric ends via FISH of lambda clones. (1997). TPLSmith; N López-Corrales; MD.Grosz; CW. Beattie and S M.Kappes. *Mammalian Genome*, 8, 336-338.

Physical assignment of Glucagon and Nebulin in Cattle, Sheep and Goat. (1997).López-Corrales, N.L.; Sonstegard, TS.; TPL .Smith and Beattie, C.W. *Mammalian Genome*, 8:428-429.

Directed Cosmid Isolation for Physical Assignment by FISH: PCR-Based Iterative Screening of Random Genomic Libraries. (1997). M.P.Heaton; NL López Corrales; T.P.L. Smith; S.M. Kappes, and C.W. Beattie. *Animal Biotechnology*, 8 (2), 167-177.

SCEs induction in goats: analysis of methodological variation factors.(1997) NL López Corrales. *Archivos de Zootecnia* , vol 2, 47: 225-232, (Spain).

Comparative mapping of human Chromosome 2 identifies segments of conserved synteny near the bovine mh locus. (1997). TS Sonstegard, N L. López-Corrales, S M. Kappes, CW.Beattie, Timoty P.L. Smith. *Mammalian Genome* 8, 751-755.

Myostatine maps to the interval containing the bovine mh locus.(1997). T.P.L. Smith, N L. López-Corrales, S M.Kappes, TS Sonstegard . *Mammalian Genome*, 8, 742-744.

Comparative mapping: cytogenetic location of PRO C, EN-1, ALPL, TNP-1 and IL1- genes in cattle and sheep reveals a conserved rearrangement relative to human genome (1998). NL.López-Corrales, TS Sonstegard and TPL Smith .*Cytogenetic Cell Genetics* vol 83, 1-2 pp35-38.

Cytogenetic assignment of 55 microsatellites to the USDA-MARC Porcine Map (1999). NL.López-Corrales, G.A. Rohrer and CW Beattie . *Cytogenetic Cell Genetics*, vol 84 140-144.

Physical mapping of the human Paired Box Gene 8, PAX 8, in cattle, sheep and goat. (1999) N.L. López-Corrales, TS Sonstegard and TPL Smith *Cytogenet.Cell Genet* 84:179-181

Chromosomal localization of four HSA2 type I loci in river buffalo (*Bubalus bubalis*, 2n = 50) chromosomes 2q and 12. Iannuzzi L, Di Meo GP, Perucatti A, Incarnato D, Lopez-Corrales N, Smith J. *Mamm Genome*. 2000 Mar;11(3):241-2.

Physical mapping of porcine seasonality genes. Skinner TM, Lopez-Corrales NL, Anderson SI, Yerle M, Archibald A. *Anim Biotechnol* 1999;10(3):143-6

Genetic and Physical Mapping of the Porcine Melatonin receptor 1B (MTNR 1B) to chromosome 9 T.M Skinner; NL Lopez-Corrales, S.A. Anderson.; A.L.Loudon, C.S. Haley and A.L. Archibald. *Cytogenet CellGenet*. 2000;90(1-2):53-5.

A large fragment porcine genomic library resource in a BAC vector. Anderson SI, Lopez-Corrales NL, Gorick B, Archibald AL. *Mammalian Genome*. 2000 Sep;11(9):811-4.

Assignment of ppk98 (TRA1) to pig chromosome 5 by fluorescent in situ hybridisation and confirmed by somatic cell hybrid panel. J.H Calvo, A.Robic, N.L. Lopez-Corrales, S.I Anderson, P Zaragoza, A.L Archibald and R. Osta. (2000). Accepted for publication: *Cytog. Cell Genet*.

Assignment of acetyl-coenzyme A carboxylase alpha (ACACA) to pig chromosome 12 (12p13-->p12) by fluorescence in situ hybridization and confirmation by genetic mapping. Calvo, JH, Lopez-Corrales NL, Anderson SI, Skinner TM, Marcos S, Osta R, Archibald,AL,Zaragoza,P. *CytogenetCellGenet*.2001;90(3-4):238-9.

Assignment of maltase glucoamylase (MGAM) to pig chromosome 2 (2q21) by fluorescence in situ hybridization and confirmation by genetic mapping. CalvoJH, Lopez-Corrales NL, Osta R, Skinner TM, Anderson SI, Rodellar C, Zaragoza P, Archibald. *Cytogenet Cell Genet*. 2001;90(3-4):236-7.

Genetic, physical mapping and expression analysis and partial sequence of porcine PER1. TM Skinner, SI

Anderson, NL Lopez-Corrales, S Lowdon, A. Loudon, C Haley and A. Archibald. *Cytogenet CellGenet.* 2001: 90(3-4):241-42.

Human embryonic Stem Cells passaged using enzymatic methods retain a normal karyotype and express CD30 Thompson A.; Wojtachal D. Hewittl Z. Priddle H, Sottile V. Di Comenico, A. Waterfall M. Lopez Corrales N, Ansell R and McWhir J. *Cloning and Stem Cells*, 2008, Vol 10, issue 1:1-17.

Characterization of histone H3 lysine 27 tri-methylation and polycomb group gene expression in bovine fertilized, parthenogenetic, and cloned embryos. Ross PJ, Ragina N, Rodríguez RM, Siripattarapavat K, Lopez-Corrales N, Iager AE, and Cibelli JB. *Reproduction, Fertility and Development* 2008; 20(1):51.

Reprogramming polycomb group genes expression and Histone H3 Lysine 27 tri-methylation after somaticcell nuclear transfer . Ross PJ, Rodriguez RM, Regina N, Siripattarapavat K, *Lopez-Corrales N*, Iager A, and Cibelli JB *Reproduction*.Vol 136, part 62008.

Comparative genomics of TLR signalling in five species. Oliver C. Jann, Annemarie King, *Lope Corrales N.*, Susan I. Anderson, Kirsty Jensen, Tahar Ait-ali, Haizhou Tang, C. Wu, Noelle E. Cockett & Elizabeth J. Glass *BMC Genomics* 2009, **10**:216
doi:10.1186/1471-2164-10-216)

In press

Chapter: Omics and Toxicology. NL López Corrales et al. in **OMICS: Biomedical Perspectives and Applications** ISBN: 9781439850084 ISBN10: 1439850089 **Publication Date:** estimated November, 2011

Abstracts (oral presentations, abstracts and posters in meetings and congress)

Abstract at the Keystone Symposium on Muscle Development, USA, April, 3, 1997.

Abstract at the 10Th North American Colloquium on Gene Mapping and Cytogenetics, July, 14-18, 1997, Apalachicola, FL, USA, pg 8.

10Th North American Colloquium on Gene Mapping and Cytogenetics, July, 14-18, 1997, Apalachicola, FL, USA, pg 31.

Abstracts Plant and Animal Genome IV, January 18- 22, 1998, San Diego, CA, USA.

Abstracts of Plant and Animal Genome IV, January 18- 22, 1998, San Diego, CA, USA, pg 32 (W20)

Abstracts of the of 13th European Colloquium on Cytogenetics of domestic Animals. Hungary Academy of Sciences, Budapest, Hungary, 1-6 June, 1998

Abstracts of the of 13th European Colloquium on Cytogenetics of domestic Animals. Hungary Academy of Sciences, Budapest, Hungary, 1-6 June, 1998, pg19.

Abstracts of the of 13th European Colloquium on Cytogenetics of domestic Animals. Hungary Academy of Sciences, Budapest, Hungary, 1-6 June, 1998, pg 27.

IETS meeting, Australia 2007

31st Conference of the International Society of Animal Genetics July 20-24, Amsterdam, The Netherlands (EU) 2008

REFERENCES

1) **Thomas Liehr**, PD Dr. Rer nat/ med habil. Head of Molecular Cytogenetic Group, Institute of Human Genetics, Friedrich Schiller University of Jena, Jena. Germany.

i8lith@mti.uni-jena.de

ph:0049 3641 9 35533

2) **José Bernardo Cibelli, DVM, PhD.** Professor, Director of The Cell Reprogramming Laboratory 1230 Anthony Hall Michigan State University East Lansing, MI 4882. USA mail jcibelli@msu.edu phone: (517) 432 9206 fax: (517) 432 8206

3) **Vasco Azevedo, DVM, M.Sc, Ph.D,** Livre docente, Professor Titular Depto de Biologia Geral, ICB/UFMG. Av. Antonio Carlos, 6627. Pampulha, Belo Horizonte, Minas Gerais, Brazil. CP 486 CEP 31270-901 Tel/FAX 005531 3409 2610 Endereço para acessar CV: <http://lattes.cnpq.br/1020477751003832>

4) Juan Dominguez Bendala, MSci. PhD.

Associate Professor, Department of Surgery Pancreatic Development & Stem Cell Laboratory Diabetes Research Institute University of Miami School of Medicine 1450 NW 10th Ave Miami, FL 33136 USA

Email: juan_bendala@hotmail.com

Tel. (305) 243 4092

Fax (305) 243 4404