



BRIEF CURRICULUM VITAE

Name: Ana Isabel Fernández Ávila

Date of birth: 21-06-1976

Contact: avila@inia.es; +34 913478717

Qualifications: Degree in Biological Sciences (Universidad Complutense de Madrid – Spain, 1999); PhD in Biology - Genetic Program (Universidad Complutense de Madrid - España, 2003)

Current position: Senior scientist (INIA, Dpto Mejora Genética Animal, since 2007)

Main research areas:

Molecular genetics technologies applied to animal breeding and conservation: molecular marker development, genome scans, candidate gene analyses and transcriptome and genome analyses.

Main research projects

- National Project: AGL2014-56369-C2-1-R: “Genetic and functional validation of QTLs, genes and gene networks and study of microbiome effect on growth, fatness and meat quality in swine”
- National Project: RZ2010-00009-00-00: “Developing a reduced SNP panel for breed authentication of Iberian pigs registered in the Herd book of the Iberian pig breed”
- National Project: AGL2011-29821-C02-02: “Application of Genomics and Massive Parallel Sequencing methods to the study of genetic variants that regulate growth, conformation and meat quality in pigs”
- EU project: EU613611: “Improving European aquaculture by advancing selective breeding to the next level for the six main finfish species”
- National project S2009/AGR-1704: “New production systems to maximize the meat quality and welfare”
- National project: RTA2011-00113-00-00: “Application of new genomic tools for Iberian pig selection”

Main peer-reviewed publications

- Silió L. et al (2015) Assessing effective population size, coancestry and inbreeding effects on litter size using the pedigree and SNP data in closed lines of the Iberian pig breed. *J Anim Breed Genet*. doi: 10.1111/jbg.12168.
- Pérez-Montarelo D. et al (2015) Haplotypic diversity of porcine LEP and LEPR genes involved in growth and fatness regulation. *J Appl Genet*. doi 10.1007/s13353-015-0284-7
- Fernández A.I. et al (2014) Copy number variants in a highly inbred Iberian porcine strain. *Animal Genetics* 45(3):357-66.
- Silió L. et al (2013). Measuring inbreeding and inbreeding depression on pig growth from pedigree or SNP-derived metrics. *J Anim Breed Genet* 130: 349-360.

- Pérez-Montarelo D. *et al* (2013). Identification of genes regulating growth and fatness traits in pig through hypothalamic transcriptome analysis. *Physiological Genomics* 00151.2013.
- Muñoz M. *et al* (2013). Genome-wide analysis of porcine backfat and intramuscular fat fatty acid composition using high-density genotyping and expression data. *BMC Genomics* 14(1):845.
- Fernández AI. *et al* (2012). Genome-wide linkage analysis of QTL for growth and body composition employing the PorcineSNP60 BeadChip. *BMC Genetics* 13:41.
- Pérez-Montarelo D. *et al* (2012). Porcine Tissue-Specific Regulatory Networks Derived from Meta-Analysis of the Transcriptome. *PlosOne* 7:e46159.
- Muñoz M. *et al* (2011). Recombination rates across porcine autosomes inferred from high-density linkage maps. *Animal Genetics* 43:620-623.
- Fernández-Rodríguez A. *et al* (2011). Differential gene expression in ovaries of pregnant pigs with High and Low prolificacy levels and identification of candidate genes for litter size. *Biology of Reproduction* 84:299-307.
- Fernández A.I. *et al* (2011). Divergence time estimates of East Asian and European pigs based on multiple near complete mitochondrial DNA sequences. *Animal Genetics* 42:86 -88.
- Sahana G. *et al* (2008). Fine mapping QTL for mastitis resistance on BTA9 in Three Nordic Red Cattle Breeds. *Animal Genetics* 39: 354-62.
- Óvilo, C. *et al* (2005). Fine mapping of porcine chromosome 6 QTL and LEPR effects on body composition in multiple generations of an Iberian by Landrace intercross. *Genetical Research* 85: 57- 67.
- Fernández A. *et al* (2004) DNA test based on coat color genes for authentication of the raw material of meat products from Iberian pigs. *Journal of the Science of Food and Agriculture* 84: 1855-186.

S.C.I. publications: 43

Total citations: 360

h index:13

PhD thesis supervisor:

- Dr. Amanda Fernández Rodríguez. Title: “Mapeo e identificación de genes que afectan a caracteres reproductivos y de supervivencia en porcino utilizando un cruce F2 (Meishan x Ibérico) mediante técnicas de expresión diferencial y genes candidato. Universidad Complutense de Madrid Facultad de Ciencias Biológicas. October 2009
- Dr. Dafne Pérez Montarelo Title: “Identificación genómica de loci y rutas génicas que afectan al crecimiento y deposición grasa en porcino” Universidad Complutense de Madrid. Facultad de CC Biológicas. December de 2013
- PhD student Ángel Martínez Montes. Title: “Aplicación de métodos de secuenciación paralela masiva y genómica al estudio de variantes génicas que regulan: crecimiento, conformación y calidad de carne en cerdo.” Universidad Complutense de Madrid. Facultad de CC Biológicas. Since december 2012
- PhD student Raquel de Paz del Río. Title: “Identificación de alelos raros en una población española de vacuno Holstein.” Escuela Politécnica de Madrid. Politécnica de Agrónomos. Since September 2014