

Principal Investigator/Program Director (Last, first, middle): Larzul, Catherine

BIOGRAPHICAL SKETCH

Provide the following information for the Principal Investigator.

DO NOT EXCEED FOUR PAGES.

NAME LARZUL Catherine	POSITION TITLE Research scientist
eRA COMMONS USER NAME	

EDUCATION/TRAINING

(Begin with baccalaureate or other initial professional education, such as nursing, and including postdoctoral training.)

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
INA-PG (Paris, France)	Ph. D.	1997	Animal Genetic
INA-PG (Paris, France)	Agronomic Engineer	1993	Animal Science
St. Vincent Providence (Rennes, France)	Baccalaureate	1988	Animal Science

A. Personal Statement

Dr. Larzul is a research scientist in quantitative genetics, coordinator of the pig breeding team in an INRA laboratory. Her research activities are dedicated to genetic determinism of pig traits, focusing on pork quality. She is also involved in the partnership with IFIP and French breeding companies for the organization of selection schemes. She has been involved in several European projects (such as SABRE, Q-Porckchains) in relationship with pig meat quality.

B. Positions and Honors

Positions

Permanent research scientist at INRA since 1998.

Professional Associations

- Member of the Scientific Committee on Users of Pig Test Station, INRA de Rheu (2008-2011)
- Leader of the Scientific Committee on Users of the UE Pectoul (2010-)

- Elected member of the Scientific Council in the Département Génétique Animale of the INRA (2006-2011)
- Appointed member of the Scientific Council of the Research Center in Jouy-en-Josas of the INRA (2008-2011)
- Member of the Scientific Council of the GIS pôle viande in France (2008-)
- Member of the Advisory Committee for pigs, rabbits, poultries, and aquaculture species in the National Commission on Genetic Improvement, (2007-)
- Appointed member of the Section 6 of the CNECA (2007-2009 permanent; 2010- substitute)
- Member of the Technical Committee on Collectives of Pig Herds Books (2005-)
- Member of selection boards in INRA (CIPP IR 2006 ; IE 2007 ; CR2 and IE 2010)

C. Published Work (*indicates primary author(s)):

- Shumbusho*, F., G. Le Mignon, Y. Billon, J.-P. Bidanel, N. Iannuccelli, and **C. Larzul**. 2011. Genome-wide association study for carcass and meat quality traits in the French Large White pigs. BMC Genetics (submitted).
- Larzul***, C., H. Garreau, F. Tudela, H. Juin, and V. Ducrocq. 2011. The length of productive life can be improved through selection: an experimental demonstration in the rabbits. J. Anim. Sci. (submitted)
- Robic*, A., G. Le Mignon, K. Fève, **C. Larzul**, and J. Riquet. 2011. New investigations around CYP11A1 and its possible involvement in an androstenone QTL characterised in Large White pigs. Genet. Sel. Evol. 43:15.
- Robic*, A., K. Fève, **C. Larzul**, Y. Billon, M. van Son, L. Liaubet, J. Sarry, D. Milan, E. Grindflek, J.-P. Bidanel, and J. Riquet. 2011. Expression levels of 25 genes in liver and testis located in a QTL region for androstenone on SSC7q1.2. Animal Genetics (published online - doi:10.1111/j.1365-2052.2011.02195.x).
- Trefan*, L., L. Bünger, J. Bloom-Hansen, J. Rooke, B. Salmi, **C. Larzul**, C. Terlouw, and A. Doeschl-Wilson. 2011. Meta-analysis of the effects of dietary vitamin E supplementation on α -tocopherol concentration and lipid oxidation in pork. Meat Sci. 87: 305–314.
- Sanchez*, M.-P., N. Iannuccelli, B. Basso, A. Foury, Y. Billon, G. Gandemer, H. Gilbert, P. Mormède, J.-P. Bidanel, **C. Larzul**, J. Riquet, D. Milan, and P. Le Roy. 2011. Microsatellite mapping of quantitative trait loci affecting meat quality, stress hormones and production traits in Duroc x Large White F2 pigs. Animal 5: 167-174.

- Trefan*, L., L. Bünger, J. Rooke, J. Bloom-Hansen, B. Salmi, **C. Larzul**, C. Terlouw, and A. Doeschl-Wilson. 2010. Meta-analysis of effects of dietary vitamin E and post slaughter storage conditions on changes of redness (a*) of pork. *Archiv Tierzucht* 53 : 564-577.
- Bodin*, L., G. Bolet, M. Garcia, H. Garreau, **C. Larzul**, and I. David. 2010. Robustesse et canalisation : vision de généticiens. *INRA Prod. Anim.* 23: 11-22.
- Salmi*, B., L. Trefan, J. Bloom-Hansen, J.-P. Bidanel, A. Doeschl-Wilson, and **C. Larzul**. 2010. Meta-analysis of the halothane gene effect on six parameters of pig meat quality traits and on carcass leanness. *J. Anim. Sci.* 88: 2841-2855.
- Arnaud*, I., S. Mignon-Grasteau, **C. Larzul**, G. Guy, J. M. Faure, and D. Guémené. 2008. Behavioural and physiological fear responses in ducks: genetic cross effects. *Animal* 10: 1518-1525.
- Combes*, S., I. Gonzalez, N. Jehl, L. Cauquil, B. Darche, F. Lebas, A. Baccini, and **C. Larzul**. 2008. Relationship between sensorial and physicochemical measurements in meat of rabbit from three different breeding systems using canonical correlation analysis. *Meat Sci.* 80: 835-841.
- Garreau*, H., G. Bolet, **C. Larzul**, C. Robert-Granié, G. Saleil, M. SanCristobal, and L. Bodin. 2008. Results of four generations of a canalising selection for rabbit birth weight. *Livest. Sci.* 119: 55-62.
- Marie-Etancelin*, C., H. Chapuis, J. M. Brun, **C. Larzul**, M. M. Mialon-Richard, and R. Rouvier. 2008. Genetics and selection of mule ducks in France: a review. *World's Poultry Sci. J.* 64: 187-208.
- Robic*, A., **C. Larzul**, and M. Bonneau. 2008. Genetic and metabolic aspects of androstenone and skatole deposition in pig adipose tissue: a review. *Genet. Sel. Evol.* 40: 129-143.
- Robic*, A., **C. Larzul**, and M. Bonneau. 2008. Genetic and metabolic aspects of androstenone and skatole deposition in pig adipose tissue: a review. Erratum. *Genet. Sel. Evol.* 40: 581-582.
- Sanchez*, M.-P., N. Iannuccelli, B. Basso, J.-P. Bidanel, Y. Billon, G. Gandemer, H. Gilbert, **C. Larzul**, C. Legault, J. Riquet, D. Milan, and P. Le Roy. 2007. Identification of QTL with effects on intramuscular fat content and fatty acid composition in a Duroc x Large White cross. *BMC Genet.* 8 : 55.
- Laville*, E., T. Sayd, C. Terlouw, C. Chambon, M. Damon, **C. Larzul**, P. Le Roy, J. Glénisson, and P. Chérel. 2007. Comparison of sarcoplasmic proteomes between two groups of pig muscles selected for shear force of cooked meat. *J. Agri. Food Chem.* 55: 5834-5841.
- Combes*, S., **C. Larzul**, N. Jehl, L. Cauquil, B. Gabinaud, and F. Lebas. 2007. Ability of physicochemical measurements to discriminate rabbit meat from three different breeding systems. *J. Sci. Food Agric.* 87: 2302-2309.

- Brun*, J. M., M. Theau-Clément, F. Falières, G. Saleil, and **C. Larzul**. 2006. Semen production in two rabbit lines divergently selected for 63-d body weight. *Theriogenology* 66: 2165-2172.
- Chantry-Darmon*, C., C. Urien, H. de Rochambeau, D. Allain, B. Pena, H. Hayes, M. Bertaud, C. Grohs, E. P. Crihiu, S. Deretz-Picoulet, **C. Larzul**, J. C. Save, A. Neau, P. Chardon, and C. Rogel-Gaillard. 2006. A first microsatellite-based integrated genetic and cytogenetic map for the European rabbit (*Oryctolagus cuniculus*): application to the localization of angora and albino characters. *Anim. Genet.* 37 : 335-341.
- Chartrin*, P., T. Bordeau, K. Méteau, H. Juin, M. D. Bernadet, G. Guy, **C. Larzul**, J. Mourot, M. J. Duclos, and E. Baéza. 2006. Foie gras de canards : Canards de Barbarie, mulard et hinny : quelles sont les particularités sensorielles de leur foie gras? *Viandes et Produits Carnés* 25 : 13-17.
- Chartrin* P., K. Méteau, H. Juin, M. D. Bernadet, G. Guy, **C. Larzul**, H. Rémignon, J. Mourot, M. J. Duclos, and E. Baéza. 2006. Effect of Intramuscular Fat Level on Sensory Characteristics of Duck Breast Meat. *Poultry Sci.* 85 : 914-922.
- Clop*, A., F. Marcq, H. Takeda, D. Pirottin, J. Tobin, B. Bibé, J. Bouix, F. Caiment, J. M. Elsen, F. Eychenne, **C. Larzul**, E. Laville, F. Meish, D. Milenkovic, X. Tordoir, C. Charlier, and M. Georges. 2006. A mutation creating a potential illegitimate miRNA target site in the myostatin gene affects muscularity in sheep. *Nature Genet.* 38: 813-818.
- Larzul*, C.**, B. Imbert, M. D. Bernadet, G. Guy, and H. Rémignon. 2006. Meat quality in an intergeneric factorial crossbreeding between Muscovy (*Cairina moschata*) and Pekin (*Anas platyrhynchos*) ducks. *Anim. Res.* 55: 219-229.
- Piles*, M., H. Garreau, O. Rafel, **C. Larzul**, J. Ramon, and V. Ducrocq. 2006. Survival analysis in two lines of rabbits selected for reproductive traits. *J. Anim. Sci.* 84: 1658-1665.
- Sayd*, T., M. Morzel, C. Chambon, M. Franck, **C. Larzul**, P. Le Roy, G. Monin, P. Chérel, and E. Laville. 2006. Proteome analysis of the sarcoplasmic fraction of pig semimembranosus muscle: implications on meat colour development. *J. Agri. Food Chem.* 54: 2732-2737.