

ANNEXE 4 – Sélection des produits et activités de la recherche

CAMPAGNE D'ÉVALUATION 2018-2019

VAGUE E

Nom de l'équipe: **Différenciation Gonadique et ses Perturbations**

Acronyme : **DGP**

Responsable d'équipe pour le contrat en cours : **Eric PAILHOUX**

Responsable d'équipe pour le contrat à venir : **Eric PAILHOUX**

I - PRODUCTION DE CONNAISSANCES ET ACTIVITÉS CONOURANT AU RAYONNEMENT ET A L'ATTRACTIVITE SCIENTIFIQUE

1- Journaux / Revues

Articles scientifiques

2017

1. David, SA., Hennequet-Antier, C., **Pannetier, M.**, Aguirre-Lavin, T., Crochet, S., Bordeau, T., Couroussé, N., Brionne, A., Collin, A., Coustham, V. 2017. An assessment of fixed and native chromatin preparation methods to study histone post-translational modifications at a whole genome scale in skeletal muscle tissue. Biol Proced Online, 19: 10
2. De Cian, M-C., **Pauper, E.**, Bandiera, R., Vidal, VPI., Sacco, S., Gregoire, EP., Chassot, AA., Panzolini, C., Wilhelm, D., **Pailhoux, E.**, Youssef, SA., De Brui, A., De Teerds, K., Schedl, A., Gillot, I., Chaboissier, M.C., 2017. Amplification of R-spondin1 signaling induces granulosa cell fate defects and cancers in mouse adult ovary. Oncogene, 36 (2): 208-218
3. Deckert, V., Lemaire, S., Ripoll, P-J, Pail de Barros, J-P., Labbé, J., Chabert-Le Borgne, C., Turquois, V., Maquart, G., Larose, D., Desroche, N., Ménétrier, F., Le Guern, N., Lebrun, L.J., Desrumeaux, C., Gautier, T., Grober, J., Thomas, C., Masson, D., **Houdebine, L-M.**, Lagrost, L., 2017. Recombinant human plasma phospholipid transfer protein (PLTP) to prevent bacterial growth and to treat sepsis. Sci Reports, 7 (1): 3053
4. Rahmoun, M., Lavery, R., Laurent-Chaballier, S., Bellora, N., Philipp, GK., Rossitto, M., **Pailhoux, E.**, Cammas, F., Chung, J., Bagheri-Fam, S., Murphy, M., Bardwell, V., Zarkower, D., Boizet-Bonhoure, B., Clair, P., Harley, VR., Poulat, F., 2017. In mammalian foetal testes, SOX9 regulates expression of its target genes by binding to genomic regions with conserved signatures. Nucleic Acids Res, 45 (12): 7191-7211

2016

5. **Allais-Bonnet, A.**, Castille, J., **Pannetier, M.**, Passet, B., **Elzaïat, M.**, **André, M.**, **Montazer-Torbati, F.**, Moazami-Goudarzi, K., Vilotte, J-L., **Pailhoux, E.**, 2016. A specific role for PRND in goat fetal Leydig cells is suggested by prion family gene expression during gonad development in goats and mice. FEBS Open Bio, 6 (1): 4-15

6. Bellingham, M., Fowler, P. A., MacDonald, E.S., **Mandon-Pepin, B., Cotinot, C.**, Rhind, S., Sharpe, R.M., Evans, N.P., 2016. Timing of maternal exposure and fetal sex determine the effects of low-level chemical mixture exposure on the fetal neuroendocrine system in sheep. *J Neuroendocrinol*, 28 (12)
7. Lea, R.G., Amezaga, M.R., **Loup, B., Mandon-Pépin, B.**, Stefansdottir, A., Filis, P., Kyle, C., Zhang, Z., Allen, C., Purdie, L., Jouneau, L., **Cotinot, C.**, Rhind, M.S., Sinclair, D. K., Fowler, P.A., 2016. The fetal ovary exhibits temporal sensitivity to a 'real-life' mixture of environmental chemicals. *Sci Rep-UK*, 6: 22279
8. Michot, P., Chahory, S., Marete, A., Grohs, C., Dagios, D., Donzel, E., Aboukadiri, A., Deloche, M.C., **Allais-Bonnet, A.**, Chambrial, M., Barbey, S., Genestout, L., Boussaha, M., Danchin-Burge, C., Fritz, S., Boichard, D., Capitan, A., 2016. A reverse genetic approach identifies an ancestral frameshift mutation in RP1 causing recessive progressive retinal degeneration in European cattle Breeds. *Genet Sel Evol*, 48 (1): 56

2015

9. **Bonnet, A.**, Servin, B., Mulsant, P., **Mandon-Pepin, B.**, 2015. Spatio-temporal gene expression profiling during in vivo early ovarian folliculogenesis: integrated transcriptomic study and molecular signature of early follicular growth. *Plos One*, 10 (11): e141482
10. **Luangpraseuth-Prosper, A., Lesueur, E., Jouneau, L., Pailhoux, E., Cotinot, C., Mandon-Pepin, B.**, 2015. TOPAZ1, a germ cell specific factor, is essential for male meiotic progression. *Dev Biol*, 406 (2): 158-171
11. Michot, P., Fantini, O., Braque, R., **Allais-Bonnet, A.**, Saintilan, R., Grohs, C., Barbieri, J., Genestout, L., Danchin-Burge, C., Gourreau, J-M., Boichard, D., Pin, D., Capitan, A., 2015. Whole-genome sequencing identifies a homozygous deletion encompassing exons 17 to 23 of the *integrin beta 4* gene in a Charolais calf with junctional epidermolysis bullosa. *Genet Sel Evol*, 47(37): 1-7
12. Sarradin, P., **Viglietta, C.**, Limouzin, C., Andréoletti, O., **Daniel-Carlier, N.**, Barc, C., **Leroux-Coyau, M.**, Berthon, P., Chapuis, J., Rossignol, C., Gatti, J-L., Belghazi, M., Labas, V., Vilotte, J-L., Beringue, V., Lantier, F., Laude, H., **Houdebine, L-M.**, 2015. Transgenic rabbits expressing ovine PrP are susceptible to scrapie. *Plos Pathogens*, 11 (8): e1005077
13. Sartelet, A., Wanbo, L., **Pailhoux, E., Richard, C.**, Tamma, N., Karim, L., Fasquelle, C., Druet, T., Coppieters, W., Georges, M., Charlier, C., 2015. Genome-wide next generation DNA and RNA sequencing reveals a mutation that perturbs splicing of the phosphatidylinositol glycan anchor biosynthesis class H gene (PIGH) and causes arthrogryposis in Belgian Blue cattle. *BMC Genomics*, 16: 316

2014

14. **Boulanger, L., Pannetier, M., Gall, L., Allais-Bonnet, A., Elzaïat, M., Le Bourhis, D., Daniel, N., Richard, C., Cotinot, C.**, Ghyselinck, N.B., **Pailhoux, E.**, 2014. FOXL2 is a female sex-determining gene in the goat. *Curr Biol*, 24 (4): 404-408
15. **Elzaïat, M., Jouneau, L., Thépot, D.**, Klopp, C., **Allais-Bonnet, A.**, Cabau, C., **André, M., Chaffaux, S.**, Crihiu, E-P., **Pailhoux, E., Pannetier, M.**, 2014. High-Throughput sequencing analyses of XX genital ridges lacking FOXL2 reveal DMRT1 Up-regulation before SOX9 expression during the sex-reversal process in goats. *Biol Reprod*, 91 (6): 153, 1-14
16. Frewer, L.J., Coles, D., **Houdebine, L.M.**, Kleter, G.A., 2014. Attitudes towards genetically modified animals in food production. *British Food J*, 116 (8): 1291-1313

17. **Jolivet, G.**, Braud, S., DaSilva, B., Passet, B., **Harscoët, E.**, Viglietta, C., Gautier, T., Lagrost, L., **Daniel-Carlier, N.**, **Houdebine, L.M.**, Harosh, I., 2014. Induction of body weight loss through RNAi-knockdown of APOBEC1 gene expression in transgenic rabbits. PLoS One, 9 (9): e106655
18. **Leveillé, P.**, **Tarrade, A.**, **Dupont, C.**, Larcher, T., **Dahirel, M.**, **Poumerol, E.**, **Cordier, A-G.**, Picone, O., **Mandon-Pepin, B.**, **Jolivet, G.**, Lévy, R., **Chavatte-Palmer, P.**, 2014., Maternal high-fat diet induces follicular atresia but does not affect fertility in adult rabbit offspring. J Dev Orig Hlth Dis, 5 (2): 88-97
19. Nguyen, M., Boutinaud, M., Pétridou, B., **Gabory, A.**, **Pannetier, M.**, Chat, S., Bouet, S., Jouneau, L., Jaffrezic, F., Laloë, D., Klopp, C., Brun, N., Kress, C., **Jammes, H.**, Charlier, M., Devinoy, E., 2014. DNA methylation and transcription in a distal region Upstream from the bovine AlphaS1 casein gene after once or twice daily milking. Plos One, 9 (11): e 111556
20. Suurväli, J., Jouneau, L., **Thépot, D.**, Grusea, S., Pontarotti, P., Du Pasquier, L., Boudinot, S. R., Boudinot, P., 2014. The Proto-MHC of Placozoans, a Region Specialized in Cellular Stress and Ubiquitination/Proteasome Pathways. J Immunol, 193: 2891-2901
21. Tosser-Klopp, G., Bardou, P., Bouchez, O., Cabau, C., Crooijmans, R., Dong, Y., Donnadiou-Tonon, C., Eggen, A., Heuven, H.C., Jamli, S., Jiken, A.J., Klopp, C., Lawley, C.T., McEwan, J., Martin, P., Moreno, C.R., Mulsant, P., Nabilhoudine, I., **Pailhoux, E.**, Palhière, I., Rupp, R., Sarry, J., Savre, B.L., Tircazes, A., Jun Wang, Wang, W., Zhang, W., 2014. Design and Characterization of a 52K SNP Chip for Goats. Plos One, 22 (9): e86227
- 2013**
22. **Allais-Bonnet A.**, Grohs C., Medugorac I., Krebs S., Djari A., Graf A., Fritz S., Seichter D., Baur A., Bouet S., Wahlberg P., Esquerré D., Hoze C., Boussaha M., Weiss B., **Thépot D.**, Venot E., Fouilloux M.-N., Rossignol M.-N., Marle-Köster E., Hreiðarsdóttir G. E., Barbey S., Dozias D., Cobo E., Reversé P., Catros O., Marchand J.-L., Soulas P., Roy P., **Marquant-Leguienne B.**, **Lebourhis D.**, **Pannetier M.**, Phocas F., Klopp C., Rocha D., Fouchet M., Journaux L., Bernard-Capel C., Eggen A., Förster M., Gallard Y., Boichard D., **Pailhoux E.**, Capitan A., 2013. Novel insights into the bovine polled phenotype and horn ontogenesis in *Bovidae*. PLoS One, 8 (5): e63512
23. Bellingham, M., Amezcaga, M.R., **Mandon-Pepin, B.**, Speers, J.B., Kyle, C.E., Evans, N.P., Sharpe, R.M., **Cotinot, C.**, Rhind, S.M., Folwer, P.A., 2013. Exposure to chemical castrants before or after conception: the effect of timing on ovarian development. Mol Cell Endocrinol, 376 (1-2): 156-172
24. **Bonnet, A.**, Cabau, C., Bouchez, O., Sarry, J., Marsaud, N., Foissac, S., Woloszyn, F., Mulsant, P., **Mandon-Pepin, B.**, 2013. An overview of gene expression dynamics during early ovarian folliculogenesis: specificity of follicular compartments and bi-directional dialog. BMC Genomics, 14(1): 904
25. **Cordier, A-G.**, **Léveillé, P.**, **Dupont, C.**, **Tarrade, A.**, **Picone, O.**, Larcher, T., **Dahirel, M.**, **Poumerol, E.**, **Mandon-Pepin, B.**, Lévy, R., **Chavatte-Palmer, P.**, 2013. Dietary lipid and cholesterol induce ovarian dysfunction and abnormal LH response to stimulation in rabbits. PLOS One, 8: e63101
26. **Daniel-Carlier, N.***, **Sawaf, A.***, Passet, B., **Thépot, D.**, **Leroux-Coyau, M.**, Lefevre, F., **Houdebine, L.M.**, **Jolivet, G.**, 2013. Viral infection resistance conferred on mice by siRNA transgenesis. Transgenic Res, 22 (3): 489-500
27. **Daniel-Carlier, N.**, **Harscoët, E.**, **Thépot, D.**, **Auguste, A.**, **Pailhoux, E.**, **Jolivet, G.**, 2013. Gonad Differentiation in the Rabbit: Evidence of Species-Specific Features. PLoS One, 8 (4): e60451

28. Hombach-Klonisch, S., Danescu, A., Begum, F., Amezaga, MR., Rhind, SM., Sharpe, RM., Evans, NP., Bellingham, M., **Cotinot, C.**, **Mandon-Pepin, B.**, Fowler, PA., Klonisch, T., 2013. Peri-conceptual changes in maternal exposure to sewage sludge chemicals disturbs fetal thyroid gland development in sheep. *Mol Cell Endocrinol*, 367 (1-2): 98-108
29. Rousseau, S., Iannuccelli, N., Mercat, M-J., Naylies, C., Thouly, J-C., Servin, B., Milan, D., **Pailhoux, E.**, Riquet, J., 2013. A genome-wide association study points out the causal implication of SOX9 in the Sex-Reversal phenotype in XX Pigs. *Plos One*, 8 (11): e79882
30. Ruscanu, S., Jouneau, L., Urien, C., Bourge, M., Lecardonnel, J., Moroldo, M., **Loup, B.**, Dalod, M., Elhmozi-Younes, J., Bevilacqua, C., Hope, J., Vitour, D., Zientara, S., Meyer, G., Schwartz-Cornil, I., 2013. Dendritic cell subtypes from lymph nodes and blood show contrasted gene expression programs upon Bluetongue virus infection. *J Virol* 87 (16): 9333-9343
31. Vázquez-Salat, N., **Houdebine, L-M.**, 2013. Will GM animals follow the GM plant fate? *Transgenic Res*, 22 (1): 5-13

Articles scientifiques en dernier auteur

2018

1. **Bourdon, M.**, Torres-Rovira, L., Monniaux, D., Faure, C., Levy, R., **Tarrade, A.**, **Rousseau-Maillard, D.**, **Chavatte-Palmer, P.**, **Jolivet, G.** 2018. Impact of a gestational exposure to diesel exhaust on offspring gonadal development: experimental study in the rabbit. *J Dev Orig Health Dis*, *in press*

2016

2. **Allais-Bonnet, A.**, Castille, J., **Pannetier, M.**, Passet, B., **Elzaïat, M.**, **André, M.**, **Montazer-Torbati, F.**, Moazami-Goudarzi, K., Vilotte, J-L., **Pailhoux, E.**, 2016. A specific role for PRND in goat fetal Leydig cells is suggested by prion family gene expression during gonad development in goats and mice. *FEBS Open Bio*, 6 (1): 4-15

2015

3. **Bonnet, A.**, Servin, B., Mulsant, P., **Mandon-Pepin, B.**, 2015. Spatio-temporal gene expression profiling during in vivo early ovarian folliculogenesis: integrated transcriptomic study and molecular signature of early follicular growth. *Plos One*, 10 (11): e141482
4. **Luangpraseuth-Prosper, A.**, **Lesueur, E.**, **Jouneau, L.**, **Pailhoux, E.**, **Cotinot, C.**, **Mandon-Pepin, B.**, 2015. TOPAZ1, a germ cell specific factor, is essential for male meiotic progression. *Dev Biol*, 406 (2): 158-171
5. Sarradin, P., **Viglietta, C.**, Limouzin, C., Andréoletti, O., **Daniel-Carlier, N.**, Barc, C., **Leroux Coyau, M.**, Berthon, P., Chapuis, J., Rossignol, C., Gatti, J-L., Belghazi, M., Labas, V., Vilotte, J-L., Beringue, V., Lantier, F., Laude, H., **Houdebine, L-M.**, 2015. Transgenic rabbits expressing ovine PrP are susceptible to scrapie. *Plos Pathogens*, 11 (8): e1005077

2014

6. **Boulanger, L.**, **Pannetier, M.**, **Gall, L.**, **Allais-Bonnet, A.**, **Elzaïat, M.**, **Le Bourhis, D.**, **Daniel, N.**, **Richard, C.**, **Cotinot, C.**, Ghyselinck, N.B., **Pailhoux, E.**, 2014. FOXL2 is a female sex-determining gene in the goat. *Curr Biol*, 24 (4): 404-408

7. **Elzaïat, M., Jouneau, L., Thépot, D.,** Klopp, C., **Allais-Bonnet, A.,** Cabau, C., **André, M., Chaffaux, S.,** Cribiu, E-P., **Pailhoux, E., Pannetier, M.,** 2014. High-Throughput sequencing analyses of XX genital ridges lacking FOXL2 reveal DMRT1 Up-regulation before SOX9 expression during the sex-reversal process in goats. *Biol Reprod*, 91 (6): 153, 1-14

2013

8. **Bonnet, A.,** Cabau, C., Bouchez, O., Sarry, J., Marsaud, N., Foissac, S., Woloszyn, F., Mulsant, P., **Mandon-Pepin, B.,** 2013. An overview of gene expression dynamics during early ovarian folliculogenesis: specificity of follicular compartments and bi-directional dialog. *BMC Genomics*, 14(1): 904
9. **Daniel-Carlier, N.* , Sawafta, A.* ,** Passet, B., **Thépot, D., Leroux-Coyau, M.,** Lefevre, F., **Houdebine, L-M., Jolivet, G.,** 2013. Viral infection resistance conferred on mice by siRNA transgenesis. *Transgenic Res*, 22 (3): 489-500
10. **Daniel-Carlier, N., Harscoët, E., Thépot, D.,** Auguste, A., **Pailhoux, E., Jolivet, G.,** 2013. Gonad Differentiation in the Rabbit: Evidence of Species-Specific Features. *PLoS One*, 8 (4): e60451
11. **Vàzquez-Salat, N., Houdebine, L-M.,** 2013. Will GM animals follow the GM plant fate? *Transgenic Res*, 22 (1): 5-13

Articles de synthèse / revues bibliographiques

2016

1. Bertho, S., Pasquier, J., Pan, Q., Le Trionnaire, G., Bobe, J., Postlewait, J., **Pailhoux, E.,** Scharl, M., Herpin, A., Guigen, Y., 2016. Foxl2 and its relatives are evolutionary conserved players in gonadal sex differentiation. *Sex Dev*, 10 (3): 111-129
2. **Pannetier, M.,** Chassot, A-A., Chaboissier, M-C., **Pailhoux, E.,** 2016. Involvement of FOXL2 and RSPO1 in ovarian determination, development, and maintenance in mammals. *Sex Dev*, 10 (4): 167-184
3. Parma, P., Veyrunes, F., **Pailhoux, E.,** 2016. Sex reversal in non-human placental mammals. *Sex Dev*, 10 (5-6): 326-344

2014

4. **Allais-Bonnet, A., Pailhoux, E.,** 2014. Role of the prion protein family in the gonads. *Front Cell Dev Biol*, 2, n° 560
5. Evans, N.P., Bellingham, M., Sharpe, R.M., **Cotinot, C.,** Rhind, S.M., Kyle, C., Erhard, H., Hombach-Klonisch, S., Lind, P.M., Fowler, P. A., 2014. Does grazing on biosolids treated pasture pose a pathophysiological risk associated with increased exposure to endocrine disrupting compounds. *J Anim Sci*, 92 (8): 3185-3198

2013

6. Frewer, L.J., Kleter, G.A., Brennan, M., Coles, D., Fischer, A.R.H., **Houdebine, L.M.,** Mora, C., Millar, K., Salter, N., 2013. Genetically modified animals from life-science, socio-economic and ethical perspectives: examining issues in an EU policy context. *New Biotechno*, 30 (5): 447-460

Autres articles (articles publiés dans des revues professionnelles ou techniques, etc.)

2015

1. Saby-Chaban, C., Broussou, D., Bras, S., **Pailhoux, E., Lesueur, E.**, Pinton, A., Burger, M., Lucas, M-N., Chastant-Maillard, S., 2015. Particularité du freemartinisme chez les ovins: à propos d'un cas d'intersexualité. Le point Vét, octobre 2015, N°359: 72-77

2014

2. **Cotinot, C.**, 2014. Perturbateurs endocriniens et fertilité féminine. Newsletter - juin 2014 - www.gynecologie-pratique.com, 2 pages

2013

3. **Cotinot, C.**, 2013. Perturbateurs endocriniens et fertilité féminine. Gyn Obstét Pratique, N°260, décembre 2013, 8-9

2- Ouvrages

Direction et coordination d'ouvrages / édition scientifique

2016

1. **Pailhoux, E.**, 2016. Sex Reversal in vertebrates. In: "Sex Development", Eds Karger, 10 (5-6): 217-346

Chapitres d'ouvrage

2016

1. **Pailhoux, E.**, 2016. Preface. In: "Sex Development", Eds Karger, 10 (5-6): 221-222

2014

2. **Pailhoux, E., Pannetier, M., Mandon-Pépin, B.**, 2014. La différenciation sexuelle des gonades et de l'appareil génital. In: « La reproduction animale et humaine » Chastant-Maillard, S., Saint-Dizier, M. (coord), Editions Quae, 2014, chapitre 1: 19-39

3- Colloques / congrès, séminaires de recherche

Éditions d'actes de colloques / congrès

1. **Pailhoux, E.**, 2017. 1st European Symposium on Sex Determination in Vertebrates, Dinard, France, 1-4 mars 2017. Abstracts Book, 47 pages

Articles publiés dans des actes de colloques / congrès

Avec ISSN

2017

International

1. Odening, K.E., Bodi, I., Rieke, R., Franke, G., Ryan de Medeiros, A., Perez Felix, S., Zur Hausen, A., **Jolivet, G.**, Bode, C., Brunner, M., 2017. Electrico-Mechanical remodeling in transgenic short QT 1 rabbits. Heart Rhythm 2017, Chicago, Etats-Unis, 10-13 mai 2017. Heart Rythm, 14 (suppl5): S327, C-PO04-0

2016

International

2. Pavlovic, G., Mercier, P., Risson, V., Schmitt, P., Birling, M-C., Langa, F., Markossian, S., Teboul, L., **Harscoet, E.**, Lipson, K., Offner, S., Angelis, F., Barde, I., Bringart, M., Concordet, J-P., Fiore, F., Jagla, T., Tesson, L.,

- Joly, Hérault, Y., 2016. The questions you should ask yourself for efficient CRISPR/Cas9 genome editing. 13th Transgenic Technology Meeting, Prague, République Tchèque, 20-23 mars 2016. *Transgenic Res*, 25 (2): 255
3. Steinfurt, J., Brunner, M., Franke, G., Perez Felix, S., Bodi, I., Pantulu, N.D., Lang, C.N., Ziupa, D., Zehender, M., Zur Hausen, A., **Jolivet, G.**, Bode, C., Odening, K.E., 2016. In vivo EP studies in transgenic short QT rabbits reveal shortened atrial and ventricular refractory periods and higher atrial and ventricular tachyarrhythmia inducibility. *Heart Rhythm* 2016, 37th Annual Scientific Sessions, San Francisco, Etats-Unis, 4-7 mai 2016. *Heart Rhythm*, 13 (5): S548, PO06-87
 4. **Valentino, S., Duranthon, V., Tarrade, A., Rousseau-Ralliard, D., Mourier, E., Richard, C., Dahirel, M., Aioun, J., Daniel, N., Archilla, C., Peynot, N.**, Fournier, N., Guinot, M., **Jolivet, G.**, Faure, C., Bourdon, M., Torres-Rovira, L., Jouneau, L., Charlier, M., Aujean, E., Boere, J., Agier, L., Casse, F., Slama, R., **Chavatte-Palmer, P.**, 2016. Reproductive effects of gestational exposure to diesel exhaust in a rabbit model. XIV International Congress of Toxicology, In conjunction with the X Mexican Congress of Toxicology, Merida, Mexique, 2-6 octobre 2016. *Toxicol Lett*, 259 (Suppl S1-S248): 72, RT2-3

2015

International

5. Evans, N. P., Bellingham, M., **Cotinot, C.**, Rhind, S. M., Sharpe, R., Fowler, P.A., 2015. Potential effects of real life exposure to environmental contaminants on reproductive health. 2015 Joint Annual Meeting, ADSA-ASAS, Orlando, Floride, USA, 12-16 juillet 2015. *J Anim Sci*, 93: suppl2, 3/*J Dairy Sci*, 98: E-Suppl.1
6. **Mauffré, V., Sandra, O., Giraud-Delville, C.**, Urien, C., Jouneau, L., **Loup, B., Valour, D., Cotinot, C.**, Schwartz-Cornil, I., **Grimard, B., Constant F.**, 2015. Comparison of transcriptome profiles from endometrial caruncles and peripheral blood mononuclear cells reveal common and tissue-specific biological processes regulated at implantation in sheep. 41st Annual Conference of the International Embryo Transfer Society, Versailles, France, 10-13 janvier 2015. *Reprod Fertil Dev*, 27 (1): 151, 118

2014

International

7. Lea, R. G., Byers A.S., Bellingham, M., **Cotinot, C.**, Evans, N., **Mandon-Pepin, B.**, Sinclair, K. D., Fowler, P. A., 2014. Endocrine disruptors and ovine reproductive development, 9th International Ruminant Reproduction Symposium, 3-7 septembre 2014, Hkaido, Japon. Society of Reproduction and Fertility, suppl., *Reproduction in Domestic Ruminants VIII*, 209-227
8. Odening, K.E., Franke, G., Rieke, R., Aguiar de Medeiros, A., Bodi, I., Perez Felix, S., Pantulu, N.D., Lang, C.N., Ziupa, D., Zehender, M., Zur Hausen, A., Bode, C., **Jolivet, G.**, Brunner, M., 2014. Transgenic short QT type 1 rabbits (HERG-N588K) exhibit shortened cardiac repolarization, ventricular fibrillation, and sudden death. American Heart Association, Chicago, Etats-Unis, 15-19 novembre 2014. *Circulation*, 130, suppl2, A15529

2013

International

9. **Camous, S., Rosefort, A.**, Berthelot, V., **Pailhoux, E.**, Hassoun, P., Debus, N., **Chavatte-Palmer, P.**, 2013. Effect of perinatal undernutrition in Merinos D'Arles ewes on physiology and reproductive function. Proceedings of the founding meeting of SF-DOHAD, Paris, France, 8-9 novembre 2012, *J DOHAD*, 4 (Suppl1): S12: P51
10. **Cotinot, C., Mandon-Pepin, B., Loup, B.**, Amezzaga, M.R., Lea, R.G., Sinclair, K.D., Rhind, S.M., Fowler, P.A., 2013. In vitro exposure to environmental doses of BPA, MEHP and PCBs results in few transcriptions

alterations in the fetal sheep ovary. 46th SSR Annual Meeting, Montréal, Canada, 22 au 26 juillet 2013. Biol Reprod, Suppl: 325-326, 721

11. **Eozenou, C., Mauffré, V., Reinaud, P., Camous, S., Bolifraud, P., Albert, J-P., Shimizu, T., Miyamoto, A., Pannetier, M., Constant, F., Al-Gubory, K.H., Sandra, O.**, 2013. FOXL2 is inhibited by progesterone in ruminant endometrium. 46th SSR Annual Meeting, Montréal, Canada, 22 au 26 juillet 2013. Bio Reprod, Suppl: 337, 749

[Book of Abstracts Sans ISSN](#)

[2018](#)

[International](#)

12. **Jolivet, G., Harscoët, E., Daniel-Carlier, N., Boulanger, L., Pailhoux, E.** 2018. Estrogens are key differentiating hormones in rabbits. Eighth International Symposium on Vertebrate Sex Determination, Kona, Hawaii, 16-20 April 2018.

[2017](#)

[International](#)

13. **Bertho, S., Herpin, A., Jouanno, E., Yano, A., Muller, T., Nicol, B., Pannetier, M., Pailhoux, E., Scharl, M., Guiguen, Y.**, 2017. "SdY", the bizarre master sex determinant of salmonids, triggers its action by directly hijacking the conserved gonadal differentiation pathway. 1st European Symposium on sex Determination in Vertebrates, Dinard, France, 1-4 mars 2017 Abstracts Book, 33
14. **Daniel-Carlier, N., Harscoët, E., Boulanger, L., Daniel, N., Pailhoux, E., Jolivet, G.**, 2017. The rabbit as a model for the study of genes involved in the mechanisms of sex differentiation: phenotype of the aromatase knockout (ArKO) rabbit. 1st European Symposium on sex Determination in Vertebrates, Dinard, France, 1-4 mars 2017. Abstracts Book, 20
15. **Galio, L., Al-Gubory, K., Cognié, J., Reinaud, P., Giraud-Delville, C., Sohary, J-R., Raliou, M., Lesage Padilla, A., Charpigny, G., Péchoux, C., Adenot, P., Cotinot, C., Sandra, O.**, 2017. Extracellular vesicles from early pregnant uterine fluids promote expression of implantation-related markers in ovine endometrium. 50th Annual Meeting of the Society for the Study of reproduction, Washington, Etats-Unis, 13-16 juillet 2017. Abstracts Book SSR 2017, 305: P84
16. **Galio, L., Al-Gubory, K., Cognié, J., Reinaud, P., Giraud-Delville, C., Sohary, J-R., Raliou, M., Lesage Padilla, A., Charpigny, G., Péchoux, C., Adenot, P., Cotinot, C., Sandra, O.**, 2017. Extracellular vesicles from early pregnant uterine fluids promote expression of implantation-related markers in ovine endometrium. 50th Annual Meeting of the Society for the Study of reproduction, Washington, Etats-Unis, 13-16 juillet 2017. Abstracts Book, FT4.3, oral
17. **Gobé, C., Daniel-Carlier, N., Andre, M., Thépot, D., Jolivet, G., Pailhoux, E., Pannetier, M.**, 2017. Long range regulation of *FOXL2* expression by epigenome editing. 1st European Symposium on sex Determination in Vertebrates, Dinard, France, 1-4 mars 2017. Abstracts Book, 22

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18. **Dubois, O., Reinaud, P., Boulanger, L., Sandra, O., Jolivet, G., Charpigny, G.**, 2017. Caractérisation de la 12-s-lipoxigénase dans l'endomètre ovin pendant la gestation précoce: mise en évidence de l'existence de deux transcrits. 2^{èmes} Journées Scientifiques du GdR Repro « Approche intégrative et translationnelle de la reproduction animale et humaine », Tours, France, 10-12 avril 2017. Abstracts Book, 31: P-9
19. **Galio, L., Al-Gubory, K.H., Cognié, J., Reinaud, P., Giraud-Delville, C., Jean-René, S., Raliou, M., Lesage-Padilla, A., Charpigny, G., Péchoux, C., Adenot, P., Cotinot, C., Sandra, O.**, 2017. Implantation-related

- genes in the ovine endometrium are regulated by extracellular vesicles from earlypregnant uterine fluids. First meeting of French Society for Extracellular Vesicles, Paris, France, 06-07 novembre 2017. Abstracts Book, 39
20. **Gobé, C., Daniel-Carlier, N., André, M., Thépot, D., Jolivet, G., Pailhoux, E., Pannetier, M.,** 2017. In vitro studies of the distal regulation of FOXL2 expression by epigenome editing. 2èmes Journées Scientifiques du GdR Repro « Approche intégrative et translationnelle de la reproduction animale et humaine », Tours, France, 10-12 avril 2017. Abstracts Book, 40: P-28
21. **Mandon-Pepin, B., Luangpraseuth-Prosper, A., Chadourne, M., Lesueur, E.,** Jouneau, L., **Pailhoux, E., Cotinot, C.,** 2017. Topaz1: an actor of the spermatogenesis. 2èmes Journées Scientifiques du GdR Repro « Approche intégrative et translationnelle de la reproduction animale et humaine », Tours, France, 10-12 avril 2017. Abstracts Book, 23

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22. **Dubé, D., Kiefer, H., Vitorino Carvalho, A., Aguirre-Lavin, T., Pannetier, M.,** Le Bourhis, D., **Ruffini, S., Archilla, C., Brochard, V., Laffont, L., Gall, L., Jouneau, L., Jammes, H., Duranthon, V.,** 2016. Difference in fibroblasts'ability to be reprogrammed by the oocyte cytoplasm : study of differential situation in bovine. 18th International Congress on Animal Reproduction, Tours, France, 26-30 juin 2016. Abstracts book, 412-413: PW1217, poster
23. **Dubois, O., Renaud, P., Boulanger, L., Jolivet, G., Charpigny, G.,** 2016. Identification of a platelet-type of 12-lipoxygenase in ovine uterus involved in high level production of 12-S-HETE during oestrous cycle and early pregnancy. 18th International Congress on Animal Reproduction, Tours, France, 26-30 juin 2016. Abstracts Book, 462: PW1308, poster
24. **Panneau, B., Mandon-Pepin, B., Pannetier, M., Jouneau, L., Cotinot, C.,** 2016. Effects of low dose of bisphenol A on sheep fetal testis and ovary. 18th International Congress on Animal Reproduction, Tours, France, 26-30 juin 2016. Abstracts Book, 399: PW1106, poster
25. Steinfurt, J., Brunner, M., Franke, G., Perez Felix, S., Bodi, I., Pantulu, N.D., Lang, C.N., Ziupa, D., Zehender, M., Zur Hausen, A., **Jolivet, G.,** Bode, C., Odensing, K.E., 2016. In vivo EP studies in transgenic short QT rabbits reveal shortened atrial and ventricular refractory periods and higher atrial and ventricular tachyarrhythmia inducibility. 82nd Annual Meeting of the German Cardiac Society, Mannheim, Allemagne, 30 mars-2avril 2016. Abstracts Book, V1606
26. **Valentino, S., Duranthon, V., Tarrade, A., Rousseau-Ralliard, D., Mourier, E., Richard, C., Dahirel, M., Aioun, J., Daniel, N., Archilla, C., Peynot, N.,** Fournier, N., **Guinot, M., Jolivet, G.,** Faure, C., Bourdon, M., **Torres-Rovira, L., Jouneau, L.,** Charlier, M., Aujean, E., Boere, J., Agier, L., Casse, F., Slama, R., **Chavatte-Palmer, P.,** 2016. Reproductive effects of gestational exposure to diesel exhaust in a rabbit model. 18th International Congress on Animal Reproduction, Tours, France, 26-30 juin 2016. Abstracts Book, 398-399: W115, oral

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27. **Valentino, S., Tarrade, A., Rousseau-Ralliard, D., Mourier, E., Richard, C., Dahirel, M., Aioun, J., Daniel, N., Archilla, C., Peynot, N.,** Fournier, N., **Guinot, M., Jolivet, G.,** Faure, C., Bourdon, M., **Torres-Rovira, L., Jouneau, L.,** Charlier, M., Aujean, E., Boere, J., Agier, L., Casse, F., Slama, R., **Chavatte-Palmer, P.,** 2016. Reproductive effects of gestational exposure to diesel exhaust in a rabbit model. 3^{ème} congrès de la SF-DOHaD « in utero », Paris, France, 1-2 décembre 2016. Programme et résumés, 9-10

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28. Bertho, S., Herpin, A., Yano, A., Mueller, T., Collet, B., **Pailhoux, E.**, Scharl, M., Guiguen, Y., 2015. How does, SDY, the unusual master sex determining factor of salmonids, triggers testicular differentiation? Seventh International Symposium on Vertebrate Sex Determination, Kona, Hawaii, 13-17 avril 2015
29. Filis, P., Eaton-Turner, E., Bellingham, M., Amezcaga, M., **Mandon-Pepin, B.**, Evans, N., Sharpe, R., **Cotinot C.**, Rhind, S., O'Shaughnessy, P., Fowler, P., 2015. Lifelong exposure to sewage sludge chemicals causes proteome-wide and sex-specific disturbances in the liver. Society for Endocrinology British Endocrinology Societies 2015, Edinburgh, Royaume-Uni, 2-4 novembre 2015. Endocrine Abstracts, 38: 250
30. **Pannetier, M., Boulanger, L., Jouneau, L., Thépot, D., Pailhoux, E.**, 2015. Genetic cascade of sex determination in goats. Seventh International Symposium on Vertebrate Sex Determination, Kona, Hawaii, 13-17 avril 2015. Abstracts Book, 22-23
31. Rahmoun, M., Lavery, R., Chaballier, S., **Pailhoux, E.**, Cammas, F., Bagheri-Fam, S., Murphy, M., Bardwell, V., Zarkower, D., Boizet, B., Clair, P., Harley, V. H., Poulat, F., 2015. Conserved genomic signature defines fetal sertoli cell fate in mammals. Seventh International Symposium on Vertebrate Sex Determination, Kona, Hawaii, 13-17 avril 2015. Abstracts Book, 20

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32. **Daniel-Carlier, N., Harscoët, E., Thépot, D., Auguste, A., Pailhoux, E., Jolivet, G.**, 2015. The rabbit as a model for the study of gene pathways involved in gonad differentiation in fetal development. 1^{ères} journées scientifiques du GdR Repro 2015, Rennes, France, 13-15 avril 2015. Abstracts Book, P-57
33. **Elzaïat, M., Gobé, C.**, Passet, B., Meunier, N., **André, M.**, Jouneau, L., Congar, P., **Allais-Bonnet, A., Pailhoux, E., Pannetier, M.**, 2015. Dmx2 is involved in follicle formation in the mouse. 1^{ères} journées scientifiques du GdR Repro 2015, Rennes, France, 13-15 avril 2015. Abstracts Book, P-62
34. **Gobé, C., Elzaïat, M., André Marjolaine, Allais-Bonnet, A., Pailhoux, E., Pannetier, M.**, 2015. Invalidation of Dmxl2 in female germ cells and fertility trouble. 1^{ères} journées scientifiques du GdR Repro 2015, Rennes, France, 13-15 avril 2015. Abstracts Book, P-69
35. **Lesage-Padilla, A., Eozenou, C.**, Healey, G., Shmizu, T., **Oudin, J-F.**, Vaiman, D., Myamoto, A., Sheldon, M., **Reinaud, P., Charpigny, G., Pannetier, M., Sandra, O.**, 2015. FOXL2 is a new progesterone-regulated gene in the endometrium. 1^{ères} journées scientifiques du GdR Repro 2015, Rennes, France, 13-15 avril 2015. Abstracts Book, P-76
36. **Luangpraseuth, A., Husson, F., Lesueur, E., Cotinot, C., Mandon-Pepin, B.**, 2015. Topaz1: a new actor of the spermatogenesis. 1^{ères} journées scientifiques du GdR Repro 2015, Rennes, France, 13-15 avril 2015. Abstracts Book, P-76

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37. **Boulanger, L., Pannetier, M., Gall, L., Allais-Bonnet, A., Elzaïat, M.**, Le Bourhis, D., **Daniel, N., Cotinot, C.**, Ghyselink, N.B., **Pailhoux, E.**, 2014. Foxl2 is a female sex-determining gene in the goat. Conference COST Action BM1308, SALAAM, Munich, Allemagne, 15-17 décembre 2014. Proceedings of the COST Action BM1308, Sharing Advances on Large Animal Models, OR10
38. **Sandra, O., Lesage-Padilla, A., Mauffré, V.**, Healey, G., **Camous, S.**, Shimizu, T., Miyamoto, A., **Al-Gubory, KH., Constant, F.**, Sheldon, IM., **Charpigny, G., Pannetier, M., Eozéno, C.**, 2014. FOXL2 is a progesterone-

regulated gene in the endometrium of ruminants. 4th Ovarian Club Meeting “Blastocysts development and the process of implantation”, Paris, France, 15-16 novembre 2014, P-16

Communications sans actes (poster ou présentations orales)

2017

International

1. **Galio, L., Al-Gubory, K.H., Cognié, J., Renaud, P., Giraud-Delville, C., Jean-René, S., Raliou, M., Lesage-Padilla, A., Charpigny, G., Péchoux, C., Adenot, P., Cotinot, C., Sandra, O.**, 2017. Implantation-related genes in the ovine endometrium are regulated by extracellular vesicles from early pregnant uterine fluids. First meeting of French Society for Extracellular Vesicles, Paris, France, 06-07 novembre 2017, présentation orale
2. **Mandon-Pépin, B., Allais-Bonnet, A., André, M.**, Calvel, P., Sellem, E., Chrystelle Le Danvic, C., **Prézelin, A., Jammes, H., Pailhoux, E., Kiefer, H., Pannetier, M.**, 2017. Epigenetic reprogramming in the male germ line of ruminants. France Japan Epigenetics Workshop 2017, Paris, France, 6-8 novembre 2017, présentation orale

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3. **Lesage-Padilla, A., Renaud, P., Raliou, M., Galio, L., Bolifraud, P., Giraud-Delville, C., Al-Gubory, KH., Charpigny, G., Eozéno, C., Pannetier, M., Sandra, O.**, 2015. Regulator and target genes of FOXL2 in bovine endometrium. Journée de l'ED419-Biosigne, Kremlin Bicetre, France, 1^{er} juillet 2015, poster
4. **Lesueur, E.**, 2015. TOPAZ1, un gène clé de la spermatogenèse chez la souris. Réunion transversale "Différenciation des Gonades chez les Vertébrés", Nice, France, 11 décembre 2015, présentation orale

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5. **Elzaïat, M., JounEAU, L., Thépot, D., Klopp, C., Allais-Bonnet, A., Cabau, C., André, M., Chaffaux, S., Cribiu E., Pailhoux, E., Pannetier, M.**, 2014. DMRT1 turns on testicular differentiation during XX sex-reversal in the goat. 18th European Testis Workshop, Elsinore, Danemark, 13-17 mai 2014, présentation orale
6. **Luangpraseuth-Prosper, A., Pomerol, E., Baillet, A., Cotinot, C., Mandon-Pépin, B.**, 2014. The topaz1 gene is necessary for spermatogenesis. 18th European Testis Workshop, Elsinore, Danemark, 13-17 mai 2014, poster

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7. **Elzaïat, M.**, 2014. DMXL2: un nouveau gène impliqué dans la fertilité ? Etude d'un modèle murin. Réunion transversale : « Différenciation des gonades chez les vertébrés », Montpellier, France, 11 juin 2014, présentation orale
8. **Luangpraseuth-Prosper, A.**, 2014. TOPAZ1: Un gène indispensable à la fertilité masculine. Réunion transversale : « Différenciation des gonades chez les vertébrés », Montpellier, France, 11 juin 2014, présentation orale
9. **Pannetier, M., Elzaïat, M., Boulanger, L., Allais-Bonnet, A., Gall, L., Pailhoux E.**, 2014. FOXL2, a critical regulator of steroid synthesis, acts as a female sex-determining gene in goats. 27th Conference of European Comparative Endocrinologists, Rennes, France, 25-29 Aout 2014, présentation orale

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10. **Mandon-Pepin, B., Loup, B.,** Amezaga, MR, Lea, RG, Sinclair, KD, Rhind, SM, Fowler, PA, **Cotinot, C.** 2013. Comparison of sheep foetal ovarian development after in vivo and in vitro exposure to DEHP/MEHP, PCBs (101+118) and a mixture of both. 7th Copenhagen Workshop on Endocrine Disrupters. Copenhagen, Denmark, 28-31 Mai 2013, poster
11. **Pannetier, M.,** Jouneau, L., Klopp, C., Laloe, D., **El Zaiat, M., Sandra, O.,** Devinoy, E., **Pailhoux, E.,** 2013. Genome-wide analysis of long non-coding RNAs expression during gonad differentiation in bovine. EMBO EMBL symposia "The Non-Coding Genome", Heidelberg, Allemagne, 9-12 octobre 2013, poster
12. Rousseau, S., Servin, B., Iannuccelli, N., **Pailhoux, E.,** Riquet, J., 2013. Positional cloning of genes involved in major congenital diseases in pig. Plant and Animal Genome XXI Conference, San Diego, USA, 12-16 janvier 2013, poster

France

13. **Vittorino-Carvalho, A., Jolivet, G., Kara-Ali, K., Eozenou, C., Giraud-Delville, C., Gall, L.,** Krauss, D., **Richard, C., Pannetier, M.,** Klopp, C., **Hue, I., Sandra, O.,** 2013. CHIPSTRAFFIC: identification des genes cibles de facteurs de transcription bovins par CHIP et CHIP-seq dans l'endomètre et les tissus extra-embryonnaires à l'implantation. Séminaire AIP Bioressource, Paris, France, 7-8 février 2013, poster

Invitations à des colloques / congrès à l'étranger

Pailhoux, E., Orateur invité au Seventh International Symposium on the biology of vertebrate sex determination, 13-17 Avril 2015, Kona, Hawaii

Pailhoux, E., Orateur invité à la Gordon Research Conference "Mammalian Reproduction", 29 juillet au 3 août 2018; Lucca; Italie

II - INTÉRACTION AVEC L'ENVIRONNEMENT, IMPACTS SUR L'ÉCONOMIE, LA SOCIÉTÉ, LA CULTURE, LA SANTÉ

1- Interactions avec les acteurs socio-économiques

Contrats de R&D avec des industriels

Deux contrats APIS-Gene dont un en coordination.

2- Produits destinés au grand public

Émissions radio, TV, presse écrite

Interviews avec des journalistes de divers média (Le Quotidien du médecin, Science & Vie, Bionieus, Le Monde – Cahiers Science & médecine)

Deux articles sur le déterminisme du sexe dans Le Monde – Cahiers Science & médecine. (30/04/2014 : « Le chromosome Y est-il en sursis » ; Le Monde du 07/05/2014 : « Lois du Sexe, Lois du Genre »)

Produits de vulgarisation : articles, interviews, éditions, vidéos, etc.

Article de vulgarisation dans Géo Ado Hors-Série en 2014 (Science-fiction : Rêve ou réalité ?)

Débats science et société

Participation aux journées "portes ouvertes" du centre de Jouy en Josas (Octobre 2016). Animation d'un Quizz/débat sur la différenciation du sexe. Animation d'un débat sur la "modification ciblée du génome et biotechnologies de la reproduction

Présentation d'un café des sciences aux journées « portes ouvertes » à l'occasion des 70 ans de l'INRA sur le thème de l'édition des génomes.

Animation d'une journée de formation "Genome Editing" pour les enseignants du secondaire à Caen (Mars 2018)

Présentation des recherches de l'unité BDR à des élèves de 3^{ième}. Jouy en Josas. 19 Décembre. 2013

Présentation des recherches de l'unité BDR à une délégation Sud-Africaine en visite à l'INRA (Dr Shadrack MOEPHULI, President and chief Executive Officer, Agriculture Research Council, South Africa). Jouy en Josas. 28 Février 2014

III - IMPLICATION DANS LA FORMATION PAR LA RECHERCHE

1- Suivi des doctorants en liaison avec les écoles doctorales et attention portée à l'insertion professionnelle des docteurs

Participation à 13 comités de thèse de doctorants

2- Mobilisation des chercheurs dans le montage de formation de niveau master

Co-responsabilité dans la construction d'un module nommé "adaptation" dans le M2 PRIAM (Predictive and Integrative AniMal biology). Université Paris-Saclay. Une semaine de cours. Participation de 7 enseignants (AgroParisTech, INRA, Museum National d'Histoire Naturelle, CNRS). Environ 10 étudiants par an.

En moyenne 20 d'heures de cours en master sont donnés chaque année par des membres de l'équipe.