



Senior Research Engineer (IR1) Genomics & Bioinformatics

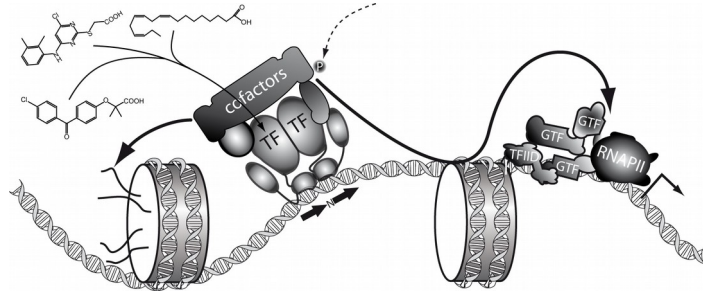
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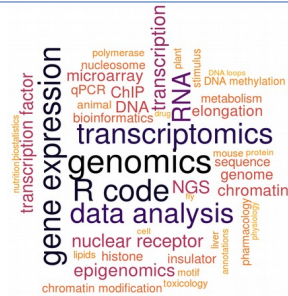
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Research interests

- Regulation of gene expression
- Transcription & RNA polymerases
- Chromatin organization
- NGS-based approaches
- Bioinformatics & biostatistics
- R and Bioconductor



Career summary

2019-20.....Research Specialist I, HHMI / Indiana University, USA, [Pikaard lab](#)

2017-19.....Senior Research Engineer (IR1) INRA [ToxAlim](#) Toulouse

2015-17.....[Agreenskills+](#) fellow, Indiana University, USA [Scott Michaels'](#) lab

2013-15.....Visiting Scientist, [LBME](#), CNRS-Univ. Toulouse, O. [Cuvier](#)

2011-15.....Founder and Head of transcriptomic facility [GeT-TRiX](#)

2007-11.....Co-head of Integrative Toxicology & Metabolism [group](#)

2004-07.....Junior Research Engineer (IR2) INRA ToxAlim Toulouse

Academic training

2007.....PhD in Pharmacology, [Univ. Toulouse](#)

2000.....MSc in Animal biology & production, [Univ. Rennes I](#)

2000.....MSc in Agricultural Engineering, [Agrocampus Ovest](#)

1999.....BSc in Agricultural Engineering, Agrocampus Ovest

Summary of scientific production [2000-2018]

- ➔ 57 peer-reviewed international publications in the field of biology (transcriptomics, functional genomics, nuclear receptors, toxicology, nutrition, metabolism), biostatistics and bioinformatics (h-index: 31 / i10-index: 48)
- ➔ Author and co-author of several lectures, communications and posters
- ➔ Leader and contributor for several competitive research grants (EU, [ANR](#), Ministry, etc.)

Other professional activities – Awards & honors





- Agreenskills+ fellowship recipient (EU, Marie Curie, 2015-17)
- Supervision of 3 PhD students
- Teaching in genomics, bioinformatics & biostatistics (professional, PhD and MSc levels)
- Scientific boards (INRA [Animal Health](#) Dep., [@BRIDGe](#) and [GenoToul](#) core facilities)
- Scientific evaluation committees (ANR, INRA recruitment & promotions)
- Grant evaluations and article reviews for international journals
- PhD scholarships (2000-2003: [Ministère](#), 2004: [Ligue contre le cancer](#)).

Research activities and productions









Publications (2000-2020)

Original articles, reviews, book chapters

Corresponding author underlined. [5 year-impact factor, journal category and ranking, quartile]

-  Major contribution. Major involvement in research funding, study design, management and supervision, data acquisition, data analysis and major contribution to article writing.
-  Decisive contribution. Important involvement in study design, PhD supervision, data acquisition, data analysis and article writing.
-  Focused contribution. Most often a strong involvement in genomic/transcriptomic data acquisition, analysis and interpretation. Contribution to article writing
-  Minor contribution to the article. Most often a technical contribution (animal study, expertise in qPCR, etc.) or reagents/models (plasmid, primers, knockout mice, etc.).

These categories represent a self-assessment of my role in these publications and the associated research. They are only provided as a guide to facilitate the evaluation of my work and do not represent my opinion on the quality of these publications.

-  1. **Martin PGP**, Dupouy V, Leghait J, Pineau T, Polizzi A, Lasserre F, Roques BB, Viguié C. (2020) Transcriptomic modifications of the thyroid gland upon exposure to phytosanitary-grade fipronil : Evidence for the activation of compensatory pathways. *Toxicol Appl Pharmacol.* Jan 15;389:114873. [IF: 3.8, 6th/73 in Toxicology, Q1]
-  2. Yu X*, **Martin PGP***, Michaels SD (2019) BORDER proteins protect expression of neighboring genes by promoting 3' PolII pausing in plants. *Nature Communications.* Sep 25;10(1):4359. [5Y-IF: 11.0, Multidisciplinary Sciences 3/55, Q1] * Co-first authors
-  3. Khoshal AK, Novak B, **Martin PGP**, Jenkins T, Neves M, Schatzmayr G, Oswald IP, Pinton P. (2019) Co-occurrence of DON and emerging mycotoxins in worldwide finished feed and their combined toxicity in intestinal cells. *Toxins (Basel).* Dec 11;11(12):727. [IF: 3.5, Toxicology]
-  4. Podechard N, Ducheix S, Polizzi A, Lasserre F, Montagner A, Legagneux V, Fouché E, Saez F, Lobaccaro JM, Lakhal L, Ellero-Simatos S, **Martin PG**, Loiseau N, Bertrand-Michel J, Guillou H. (2018) Dual extraction of mRNA and lipids from a single biological sample. *Sci Rep.* May 4;8(1):7019 [5Y-IF: 4.6, Multidisciplinary Sciences 12/64, Q1]
-  5. Ducheix S, Montagner A, Polizzi A, Lasserre F, Régnier M, Marmugi A, Benhamed F, Bertrand-Michel J, Mselli-Lakhal L, Loiseau N, **Martin PG**, Lobaccaro JM, Ferrier L, Postic C, Guillou H. (2017) Dietary oleic acid regulates hepatic lipogenesis through a liver X receptor-dependent signaling. *PLoS One.* Jul 21;12(7):e0181393 [5Y-IF: 3.4, Multidisciplinary Sciences 15/64, Q1]
-  6. Hermier D, Guelzim N, **Martin PG**, Huneau JF, Mathé V, Quignard-Boulangé A, Lasserre F, Mariotti F. (2016) NO synthesis from arginine is favored by α -linolenic acid in mice fed a high-fat diet. *Amino Acids.* 48(9):2157-68 [5Y-IF: 3.2, Biochemistry & Molecular Biology 121/290, Q2]
-  7. SanCristobal M, Rohart F, Lascor C, Bouffaud M, Trouilh L, **Martin PG**, Lippi Y, Tribout T, Faraut T, Mercat MJ, Milan D, Liaubet L. (2015) Exploring transcriptomic diversity in muscle revealed that cellular signaling pathways mainly differentiate five Western porcine breeds. *BMC Genomics.* 16:1055 [5Y-IF: 4.3, Biotechnology & Applied Microbiology 35/160, Q1]
-  8. Roux PF, Frésard L, Boutin M, Leroux S, Klopp C, Djari A, Esquerré D, **Martin PG**, Zerjal T, Gourichon D, Pitel F, Lagarigue S. (2015) The Extent of mRNA Editing Is Limited in Chicken Liver and Adipose, but Impacted by Tissue Context, Genotype, Age, and Feeding as Exemplified with a Conserved Edited Site in COG3. *G3 (Bethesda).* 6(2):321-35 [5Y-IF: 3.4, Genetics & Heredity 71/167, Q2]

9. Meslin C, Desert C, Callebaut I, Djari A, Klopp C, Pitel F, Leroux S, **Martin P**, Froment P, Guilbert E, Gondret F, Lagarrigue S, Monget P. (2015) Expanding Duplication of Free Fatty Acid Receptor-2 (GPR43) Genes in the Chicken Genome. *Genome Biol Evol*. 7(5):1332-48 [5Y-IF: 4.0, Genetics & Heredity 42/167, **Q2**]
10. Stadelmayer B, Micas G, Gamot A, **Martin P**, Malirat N, Koval S, Raffel R, Sobhian B, Severac D, Rialle S, Parrinello H, Cuvier O, Benkirane M. (2014) Integrator complex regulates NELF-mediated RNA Polymerase II pause/release and processivity at coding genes. *Nature Communications*. Nov 20;5:5531. [5Y-IF: 11.0, Multidisciplinary Sciences 3/55, **Q1**]
11. Voilet V, SanCristobal M, Lippi Y, **Martin PGP**, Iannuccelli N, Lascor C, Vignoles F, Billon Y, Canario L, Liaubet L. (2014) Muscle transcriptomic investigation of late fetal development identifies candidate genes for piglet maturity. *BMC Genomics*. Sep 17;15:797. [5Y-IF: 4.5, Biotechnology & Applied Microbiology 29/165, **Q1**]
12. Marmugi A, Lasserre F, Beuzelin D, Ducheix S, Huc L, Polizzi A, Chetivau M, Pineau T, **Martin P**, Guillou H, Mselli-Lakhal L. (2014) Adverse effects of long-term exposure to bisphenol A during adulthood leading to hyperglycemia and hypercholesterolemia in mice. *Toxicology*. Nov 5 ; 325:133-43 [5Y-IF: 3.9, Toxicology 14/87, **Q1**]
13. Labialle S, Marty V, Bortolin-Cavaillé ML, Hoareau-Osman M, Pradère JP, Valet P, **Martin PGP**, Cavaillé J. (2014) The miR-379/miR-410 cluster at the imprinted Dlk1-Dio3 domain controls neonatal metabolic adaptation. *EMBO J*. Oct 1;33(19):2216-30 [5Y-IF: 10.2, Biochemistry & Molecular Biology 15/291, **Q1**]
14. Moussaoui N, Braniste V, Ait-Belgnaoui A, Gabanou M, Sekkal S, Olier M, Théodorou V, **Martin PG**, Houdeau E. (2014) Changes in intestinal glucocorticoid sensitivity in early life shape the risk of epithelial barrier defect in maternal-deprived rats. *PLoS One*. 9(2):e88382. [5Y-IF: 4.0, Multidisciplinary Sciences 08/55, **Q1**]
15. Liang J, Lacroix L, Gamot A, Cuddapah S, Queille S, Lhoumaud P, Lepetit P, **Martin PG**, Vogelmann J, Court F, Hennion M, Micas G, Urbach S, Bouchez O, Nöllmann M, Zhao K, Emberly E, Cuvier O. (2014) Chromatin Immunoprecipitation Indirect Peaks Highlight Long-Range Interactions of Insulator Proteins and Pol II Pausing. *Mol Cell*. 53(4):672-81. [5Y-IF: 15.3, Biochemistry & Molecular Biology 05/291, **Q1**]
16. Cadoudal T, Buléon M, Sengenès C, Diene G, Desneulin F, Molinas C, Eddiry S, Conte-Auriol F, Daviaud D, **Martin PG**, Bouloumié A, Salles JP, Tauber M, Valet P. (2014) Impairment of adipose tissue in Prader-Willi syndrome rescued by growth hormone treatment. *Int J Obes (Lond)*. Sep;38(9):1234-40. [5Y-IF: 5.9, Endocrinology & Metabolism 18/123, **Q1**]
17. Roques BB, Leghait J, Lacroix MZ, Lasserre F, Pineau T, Vigué C, **Martin PG**. (2013) The nuclear receptors pregnane X receptor and constitutive androstane receptor contribute to the impact of fipronil on hepatic gene expression linked to thyroid hormone metabolism. *Biochem Pharmacol*. 86(7):997-1039. [5Y-IF: 4.5, Pharmacology & Pharmacy 29/261, **Q1**]
18. Ducheix S, Montagner A, Polizzi A, Lasserre F, Marmugi A, Bertrand-Michel J, Podechard N, Al Saati T, Chétiveaux M, Baron S, Boué J, Dietrich G, Mselli-Lakhal L, Costet P, Lobaccaro JM, Pineau T, Theodorou V, Postic C, **Martin PG**, Guillou H. (2013) Essential fatty acids deficiency promotes lipogenic gene expression and hepatic steatosis through the liver X receptor. *J Hepatol*. 58(5):984-92. [5Y-IF: 8.9, Gastroenterology & Hepatology 5/74, **Q1**]
19. Ducheix S, Podechard N, Lasserre F, Polizzi A, Pommier A, Murzilli S, Di Lisio C, D'Amore S, Bertrand-Michel J, Montagner A, Pineau T, Loiseau N, Lobaccaro JM, **Martin PG**, Guillou H. (2013) A systems biology approach to the hepatic role of the oxysterol receptor LXR in the regulation of lipogenesis highlights a cross-talk with PPARα. *Biochimie*. 95(3):556-67. [5Y-IF: 3.6, Biochemistry & Molecular Biology 119/290, **Q2**]
20. Gonzalez I, Eveillard A, Canlet C, Paris A, Pineau T, Besse P, **Martin P**, Déjean S. (2013) Selecting the good level of details in undecimated wavelet transform improves the classification of samples from metabolomic data. *JP Journal of Biostatistics*. 10(2):61-79.

21. Roques BB, Lacroix MZ, Puel S, Gayrard V, Picard-Hagen N, Jouanin I, Perdu E, **Martin PG**, Viguié C. (2012) CYP450-dependent biotransformation of the insecticide fipronil into fipronil sulfone can mediate fipronil-induced thyroid disruption in rats. *Toxicol Sci.* 127(1):29-41. [5Y-IF: 4.8, Toxicology 8/85, **Q1**]
22. Marmugi A, Ducheix S, Lasserre F, Polizzi A, Paris A, Priymenko N, Bertrand-Michel J, Pineau T, Guillou H, **Martin PG**, Mselli-Lakhal L. (2012) Low doses of bisphenol A induce gene expression related to lipid synthesis and trigger triglyceride accumulation in adult mouse liver. *Hepatology.* 55(2):395-407. [5Y-IF: 11.4, Gastroenterology & Hepatology 2/74, **Q1**]
23. Foucaud-Vignault M, Soayfane Z, Ménez C, Bertrand-Michel J, **Martin PG**, Guillou H, Collet X, Lespine A. (2011) P-glycoprotein dysfunction contributes to hepatic steatosis and obesity in mice. *PLoS One.* 6(9):e23614. [5Y-IF: 4.2, Multidisciplinary Sciences 07/56, **Q1**]
24. Solinhac R, Mompert F, **Martin P**, Robelin D, Pinton P, Iannuccelli E, Lahbib-Mansais Y, Oswald IP, Yerle-Bouissou M. (2011) Transcriptomic and nuclear architecture of immune cells after LPS activation. *Chromosoma.* 120(5):501-20. [5Y-IF: 3.5, Biochemistry & Molecular Biology 107/290, **Q2**]
25. Ducheix S, Lobaccaro JM, **Martin PG**, Guillou H. (2011) Liver X Receptor: an oxysterol sensor and a major player in the control of lipogenesis. *Chem Phys Lipids.* 164(6):500-14. Review. [5Y-IF: 2.4, Biochemistry & Molecular Biology 196/290, **Q3**]
26. N. Guelzim, JF Huneau, V Mathé, A Quignard-Boulangé, **PG Martin**, D Tomé, Hermier D. (2011) Consequences of PPAR(α) Invalidation on Glutathione Synthesis: Interactions with Dietary Fatty Acids. *PPAR Res.* 2011:256186. [5Y-IF: 2.4, Medecine, Research & Experimental 51/121, **Q2**]
27. N. Guelzim, F. Mariotti, **P.G. Martin**, F. Lasserre, T. Pineau, D. Hermier. (2011) A role for PPAR α in the regulation of arginine metabolism and nitric oxide synthesis. *Amino Acids.* 41(4):969-79. [5Y-IF: 3.9, Biochemistry and Molecular Biology 79/283, **Q2**]
28. A. Montfort, **P.G. Martin**, T. Levade, H. Benoist, B. Ségui. (2010) FAN (factor associated with neutral sphingomyelinase activation), a moonlighting protein in TNF-R1 signaling. *J Leukoc Biol.* 88(5):897-903. [5Y-IF: 4.6, Immunology 23/128, **Q1**]
29. C. Dray, C. Debard, J. Jager, E. Disse, D. Daviaud, **P. Martin**, C. Attané, E. Wanecq, C. Guigné, F. Bost, J.F. Tanti, M. Laville, H. Vidal, P. Valet, I. Castan-Laurell. (2010) Apelin and APJ regulation in adipose tissue and skeletal muscle of type 2 diabetic mice and humans. *Am J Physiol Endocrinol Metab.* 298(6):E1161-9. [5Y-IF: 4.4, Endocrinology & Metabolism 22/105, **Q1**]
30. V. Braniste, A. Jouault, E. Gaultier, A. Polizzi, C. Buisson-Brenac, M. Leveque, **P.G. Martin**, V. Theodorou, J. Fioramonti, E. Houdeau. (2010) Impact of oral bisphenol A at reference doses on intestinal barrier function and sex differences after perinatal exposure in rats. *Proc Natl Acad Sci USA.* 107(1), 448-53. [5Y-IF: 10.3, Multidisciplinary Sciences 3/50, **Q1**]
31. M. Giantin, R.M. Lopparelli, V. Zancanella, **P.G. Martin**, A. Polizzi, G. Gallina, F. Gottardo, C. Montesissa, L. Ravarotto, T. Pineau, M. Dacasto. (2010) Effects of illicit dexamethasone upon hepatic drug metabolizing enzymes and related transcription factors mRNA and their potential use as biomarkers in cattle. *J Agric Food Chem.* 58, 1342-49. [5Y-IF: 3.1, Food Science & Technology 10/118, **Q1**]
32. Chamouton J, Hansmannel F, Bonzo JA, Clémencet MC, Chevillard G, Battle M, **Martin P**, Pineau T, Duncan S, Gonzalez FJ, Latruffe N, Mandard S, Nicolas-Francès V. (2010) The Peroxisomal 3-ketoacyl-CoA thiolase B Gene Expression Is under the Dual Control of PPAR α and HNF4 α in the Liver. *PPAR Res.* 2010:352957. [5Y-IF: 2.4, Medecine, Research & Experimental 51/121, **Q2**]
33. H. Guillou, D. Zadavec, **P.G. Martin**, A. Jacobsson. (2010) The key roles of elongases and desaturases in mammalian fatty acid metabolism: Insights from transgenic mice. *Prog Lipid Res.* 49(2):186-99. Review [5Y-IF: 13.2, Biochemistry & Molecular Biology 24/283, **Q1**]
34. A. Montfort, B. de Badts, V. Douin-Echinard, **P.G.P. Martin**, J. Iacovoni, C. Nevoit, N. Therville, V. Garcia, M.-A. Bertrand, M.-H. Bessières, M.-C. Trombe, T. Levade, H. Benoist and B. Ségui (2009).

FAN stimulates TNFalpha-induced gene expression, leukocyte recruitment, and humoral response. *J Immunol.* 183(8), 5369-78. [5Y-IF: 6.2, Immunology 16/121, Q1]

35. P. Blavy, F. Gondret, H. Guillou, S. Lagarrigue, **P.G. Martin**, J. van Milgen, O. Radulescu and A. Siegel (2009). A minimal model for hepatic fatty acid balance during fasting: Application to PPAR alpha-deficient mice. *J Theor Biol.* 261(2), 266-78. [5Y-IF: 2.5, Mathematical and Computational Biology 6/28, Q1]
36. I. González, S. Dejean, **P.G.P. Martin**, O. Gonçalves, P. Besse and A. Baccini (2009). Highlighting Relationships Between Heterogeneous Biological Data Through Graphical Displays Based On Regularized Canonical Correlation Analysis. *J Biol Syst.* 17(2), 173-199. [5Y-IF: 0.6, Mathematical and Computational Biology 28/28, Q4]
37. A. Eveillard, L. Mselli-Lakhal, A. Mogha, F. Lasserre, A. Polizzi, J.M. Pascussi, H. Guillou, **P.G.P. Martin** and T. Pineau (2009). Di-(2-ethylhexyl)-phthalate (DEHP) activates the constitutive androstane receptor (CAR): a novel signaling pathway sensitive to phthalates. *Biochem Pharmacol.* 77(11), 1735-1746. [IF. 4.5, Pharmacology & Pharmacy 29/261, Q1]
38. K.A. Le Cao, **P.G. Martin**, C. Robert-Granie and P. Besse (2009). Sparse canonical methods for biological data integration: application to a cross-platform study. *BMC Bioinformatics.* 10, 34. [IF. 3.5, 3rd/26 in Mathematical and Computational Biology, Q1]
39. M. Cantiello, M. Giantin, M. Carletti, R.M. Lopparelli, F. Capolongo, F. Lasserre, E. Bollo, C. Nebbia, **P.G. Martin**, T. Pineau and M. Dacasto (2009). Effects of dexamethasone, administered for growth promoting purposes, upon the hepatic cytochrome P450 3A expression in the veal calf. *Biochem Pharmacol.* 77(3), 451-463. [IF. 4.0, 32nd/205 in Pharmacology and Pharmacy, Q1]
40. A. Eveillard, F. Lasserre, M. de Teyrac, A. Polizzi, S. Claus, C. Canlet, L. Mselli-Lakhal, G. Gotardi, A. Paris, H. Guillou, **P.G. Martin** and T. Pineau (2009). Identification of potential mechanisms of toxicity after di-(2-ethylhexyl)-phthalate (DEHP) adult exposure in the liver using a systems biology approach. *Toxicol Appl Pharmacol.* 236(3), 282-292. [IF. 3.8, 6th/73 in Toxicology, Q1]
41. D. Bellocq, J. Molina, E. Rathahao, C. Canlet, S. Tache, **P.G. Martin**, F. Pierre and A. Paris (2008). High potency of bioactivation of 2-amino-1-methyl-6-phenylimidazo[4,5-b]pyridine (PhIP) in mouse colon epithelial cells with Apc(Min) mutation. *Mutat Res.* 653(1-2), 34-43. [IF. 2.3, 15th/73 in Toxicology, Q2]
42. I. González, S. Déjean, **P.G.P. Martin** and A. Baccini (2008). CCA: An R Package to Extend Canonical Correlation Analysis. *J Stat Softw.* 23(12). [IF. 1.6, 13th/91 in Statistics and Probability, Q1]
43. Y. Lecarpentier, X. Krokidis, **P. Martin**, T. Pineau, J.L. Hebert, J. Quillard, M. Cortes-Morichetti and C. Coirault (2008). Increased entropy production in diaphragm muscle of PPAR alpha knockout mice. *J Theor Biol.* 250(1), 92-102. [IF. 2.3, 5th/26 in Mathematical and Computational Biology, Q1]
44. M. Giantin, M. Carletti, F. Capolongo, S. Pegolo, R.M. Lopparelli, F. Gusson, C. Nebbia, M. Cantiello, **P. Martin**, T. Pineau and M. Dacasto (2008). Effect of breed upon cytochromes P450 and phase II enzyme expression in cattle liver. *Drug Metab Dispos.* 36(5), 885-893. [IF. 3.9, 34th/205 in Pharmacology and Pharmacy, Q1]
45. M. Cantiello, M. Carletti, M. Dacasto, **P.G. Martin**, T. Pineau, F. Capolongo, G. Gardini and C. Nebbia (2008). Cytochrome P450 inhibition profile in liver of veal calves administered a combination of 17beta-estradiol, clenbuterol, and dexamethasone for growth-promoting purposes. *Food Chem Toxicol.* 46(8), 2849-2855. [IF. 2.2, 28th/73 in Toxicology, Q2]
46. S. Dejean, **P.G. Martin**, A. Baccini and P. Besse (2007). Clustering time-series gene expression data using smoothing spline derivatives. *EURASIP J Bioinform Syst Biol.* 70561. [no IF for 2007]
47. V. Petit, L. Arnould, **P. Martin**, M.C. Monnot, T. Pineau, P. Besnard and I. Niot (2007). Chronic high-fat diet affects intestinal fat absorption and postprandial triglyceride levels in the mouse. *J Lipid Res.* 48(2), 278-287. [IF. 4.3, 62nd/263 in Biochemistry and Molecular Biology, Q1]
48. **P.G. Martin**, H. Guillou, F. Lasserre, S. Dejean, A. Lan, J.M. Pascussi, M. Sancristobal, P. Legrand, P. Besse and T. Pineau (2007). Novel aspects of PPARalpha-mediated regulation of lipid and xenobiotic metabolism revealed through a nutrigenomic study. *Hepatology.* 45(3), 767-777. [IF. 10.7, 2nd/50 in Gastroenterology & Hepatology, Q1]

49. N. Loiseau, L. Debrauwer, T. Sambou, S. Bouhet, J.D. Miller, **P.G. Martin**, J.L. Viadere, P. Pinton, O. Puel, T. Pineau, J. Tulliez, P. Galtier and I.P. Oswald (2007). Fumonisin B1 exposure and its selective effect on porcine jejunal segment: sphingolipids, glycolipids and trans-epithelial passage disturbance. *Biochem Pharmacol.* 74(1), 144-152. [IF. 4.0, 32nd/205 in Pharmacology and Pharmacy, **Q1**]
50. P.H. Villard, S. Caverni, A. Baanannou, A. Khalil, **P.G. Martin**, C. Penel, T. Pineau, E. Seree and Y. Barra (2007). PPARalpha transcriptionally induces AhR expression in Caco-2, but represses AhR pro-inflammatory effects. *Biochem Biophys Res Commun.* 364(4), 896-901. [IF. 2.7, 124th/263 in Biochemistry and Molecular Biology, **Q2**]
51. J.M. Pascussi, A. Robert, M. Nguyen, O. Walrant-Debray, M. Garabedian, **P. Martin**, T. Pineau, J. Saric, F. Navarro, P. Maurel and M.J. Vilarem (2005). Possible involvement of pregnane X receptor-enhanced CYP24 expression in drug-induced osteomalacia. *J Clin Invest.* 115(1), 177-186. [5Y-IF: 17.1, IF-2008: 16.6, 2nd/82 in Medicine, Research & Experimental, **Q1**]
52. C. Gondcaille, M. Depreter, S. Fourcade, M.R. Lecca, S. Leclercq, **P.G. Martin**, T. Pineau, F. Cadepond, M. ElEtr, N. Bertrand, A. Beley, S. Duclos, D. De Craemer, F. Roels, S. Savary and M. Bugaut (2005). Phenylbutyrate up-regulates the adrenoleukodystrophy-related gene as a nonclassical peroxisome proliferator. *J Cell Biol.* 169(1), 93-104. [5Y-IF: 10.1, IF-2008: 9.1, 17th/157 in Cell biology, **Q1**]
53. **P.G. Martin**, F. Lasserre, C. Calleja, A. Van Es, A. Roulet, D. Concordet, M. Cantiello, R. Barnouin, B. Gauthier and T. Pineau (2005). Transcriptional modulations by RXR agonists are only partially subordinated to PPARalpha signaling and attest additional, organ-specific, molecular cross-talks. *Gene Expr.* 12(3), 177-192. [5Y-IF: 1.5, IF-2008: 1.5, 92nd/144 in Biotechnology & Applied Microbiology, **Q3**]
54. A Baccini, P. Besse, S. Déjean, **P.G.P. Martin**, C. Robert-Granié and M. sanCristobal (2005) Stratégies pour l'analyse statistique de données transcriptomiques. *J. Soc. Fr. Statistique.* 146(1-2):5-44
55. Le Josic-Corcus C, Duclos S, Ramirez L, Zaghini I, Chevillard G, **Martin P**, Pineau T, Bournot P. (2004) Effects of Peroxisome proliferator-activated receptor alpha (PPARalpha) activation on pathways contributing to cholesterol homeostasis in rat hepatocytes. *Biochim. Biophys. Acta.(Mol. Cell. Biol. L.)*. 1683:49-58.
56. Chevillard G, Clémencet M-C, Etienne P, **Martin P**, Pineau T, Latruffe N, Nicolas-Frances V. (2004) Molecular cloning, gene structure and expression profile of the two mouse peroxisomal 3-ketoacyl-CoA thiolase genes. *BMC Biochem.* 5:3.
57. Guillou H, **Martin P**, Jan S, D'Andrea S, Roulet A, Catheline D, Rioux V, Pineau T, Legrand P. (2002) Comparative effect of fenofibrate on hepatic desaturases in wild-type and peroxisome proliferator-activated receptor alpha-deficient mice. *Lipids.* 37(10):981-9.
58. Lambert G., Amar M. J.A., **Martin P.**, Fruchart-Najib J., Föger B., Shamburek R.D., Brewer H.B. Jr. and Santamarina-Fojo S. (2000) Hepatic lipase deficiency decreases the selective uptake of HDL-cholesteryl esters in vivo. *J. Lipid Res.* 41:667-672

Book chapter:

1. H. Guillou, **P.G.P. Martin** and T. Pineau (2009). Transcriptional regulation of hepatic fatty acid metabolism. *Subcellular Biochemistry: Lipids in Health and Disease*. P. J. Quinn and X. Wang, Eds. Springer. Vol 49: 3-47.

Software development (2018-2020)

1. **P.G.P. Martin**. NanoBAC R package for the assembly of BAC sequences obtained with Oxford Nanopore long read sequencing technology. <https://github.com/pgpmartin/NanoBAC> . I also developed a Snakemake pipeline for this task, based on the NanoBAC R package (pipeline currently private on github)
2. **P.G.P. Martin**. GeneNeighborhood R package. <https://github.com/pgpmartin/GeneNeighborhood>

NOTE : I also developed the core scripts that are still used by the Get-TRiX transcriptomic facility to generate analysis reports from transcriptomic studies.

Invited lectures & seminars (2008-2018)

1. **P.G.P. Martin**, X Yu, SD Michaels (2018) A family of negative transcription elongation factors regulates defense response genes and protects the genome of *A. thaliana* from transcriptional interferences. *Center for Integrative Biology – Seminar series of the Genome Dynamics axis (invitation A Henras)*. Toulouse. France. Jan 22.
2. **P.G.P. Martin**, X Yu, SD Michaels (2018) A family of negative transcription elongation factors regulates defense response genes and protects the genome of *A. thaliana* from transcriptional interferences. *Séminaires du laboratoire GenePhySE INRA (invitation G Tosser-Klopp)*. Toulouse. France. Jan 15.
3. **P.G.P. Martin**, X Yu, SD Michaels (2017) A family of negative transcription elongation factors regulates defense response genes and protects the genome of *A. thaliana* from transcriptional interferences. *Séminaires de la Fédération de Recherche Agrobiosciences, Interactions & Biodiversité (invitation C Bruand)*. Toulouse. France. Nov 16.
4. **P.G.P. Martin** (2016) Core Bioconductor packages for NGS data analysis. *5èmes Rencontres R (invitation N Villa-Vialaneix)*. Toulouse. France. Jun 22-24.
5. **P.G.P. Martin**, **Y. Lippi** (2014). The GeT-TRiX facility : automated processing of expression microarrays - from samples to data analysis reports. *First Agilent AgroBio symposium (invitation: F. Brun)*. Amsterdam. Netherlands. Feb 25-26.
6. **P.G.P. Martin** (2012). RNA-seq analysis of sex-dependent gene expression in the liver and white adipose tissue of 3 species: pig, chicken and mouse. *Workshop on new technologies for the study of gene expression (invitation: Genome & Transcriptome platform GenoToul)*. Toulouse, France. July 2nd.
7. **P.G.P. Martin** (2012). Toxicogenomics: definitions, tools and application to the study of bisphenol A. *Workshop on Endocrine and metabolic disruptors (invitation: JP Cravedi, leader of CT4 scientific axis for the Nutrition, Chemical Food Safety and Consumer Behaviour department at INRA)*. Dijon, France. March 29-30
8. **P.G.P. Martin** (2011). Sex-dependent gene expression in metabolic tissues from 3 species: pig, chicken and mouse. *Workshop on pilot projects using the HiSeq2000 (invitation: Genome & Transcriptome platform GenoToul)*. Toulouse, France. Oct 7
9. **P.G.P. Martin** (2010). keynote lecture and chairman of the scientific session on “Endocrine disruptors and chronic metabolic diseases”. *Workshop on Food Toxicology in ToxAlim*. Toulouse, France. Dec 2-3.
10. **P.G.P. Martin**, **H. Guillou** (2011). Regulation of hepatic lipid metabolism: effect of dietary fatty acids and effect of bisphenol A. *Seminar at the Centre Intégratif de Génomique, Université de Lausanne (invitation: Pr Walter Wahli)*. Lausanne, Suisse. March 1st
11. **P.G.P. Martin** (2010). Added value of the collaborations between biologists and statisticians in integrative toxicology and omics data analysis. *Workshop on Biostatistics and Medical statistics in honor of Alain Baccini and Gérard Tap (invitation : Pr A Baccini)*. Toulouse, France. Sep. 28.
12. **P.G.P. Martin** (2009). Endocrine and metabolic disruptors from plastic products: impact assessment. *4th congress of the French Society of Nutrition (invitation: Pr Jean Dallongeville)*. Montpellier, France. Dec. 10-12.
13. **P.G.P. Martin** (2009). Integration of omics data to decipher the effects of nutrients and food contaminants. *Workshop MIBS Mathematics, Informatics, Physics and Integrative Biology: a step towards systems biology (invitation : Pr P Besse)*. Univ. Toulouse, France. June 18.
14. **P.G.P. Martin** (2008). Integration of omics data to decipher the effects of nutrients and food contaminants . *GenoToul 2008, 5th edition : Où va la génomique? (invitation: Dr C Chevalet)* Toulouse, France. Dec. 11.

15. **P.G.P. Martin**. (2008) Nutrigenomics: definition, challenges, tools and research subjects Workshop on gene-nutrients interactions organized by INRA Nutrition, Chemical Food Safety and Consumer Behaviour Department (*invitation: Nutrition, Chemical Food Safety and Consumer Behaviour Dep. INRA*). Paris, France. May 23.

Oral communications with proceedings (2007-2014)

1. N. Moussaoui, A. Ait-Belgnaoui, V. Braniste, E. Gaultier, S. Ménard, M. Olier, V. Théodorou, **P.G. Martin**, and **E. Houdeau**. (2014) Premature gut and neonatal stress: high intestinal glucocorticoid responsiveness in early life shapes the risk of epithelial barrier defect in response to maternal separation. Digestive Disease Week. Chicago, IL, USA. May 3-6. **Gastroenterology**. 146(5), Supplement 1, Pages S-59.
2. **B.B. Roques**, M.Z. Lacroix, N. Moussaoui, J. Leghait, S. Puel, F. Lasserre, H. Guillou, C. Viguié, **P.G.P. Martin** (2012). Contribution of the nuclear receptors PXR and CAR to gene expression modulations induced by fipronil in rodent liver. 12th International Congress of the European Association for Veterinary Pharmacology and Toxicology EAVPT. Noordwijkerhout, The Netherlands. July 8-12. **J. Vet. Pharmacol. Therap**. 35(Suppl. 3), 43-44.
3. **N. Moussaoui**, V. Braniste, A. Ait-Belgnaoui, Y. Lippi, S. Sekkal, V. Théodorou, **P.G. Martin**, **E. Houdeau**. A. (2012) short-time maternal separation in early neonate rats markedly increases intestinal permeability, induces bacterial translocation in the liver and impacts hepatic gene expression. Digestive Disease Week. San Diego, CA, USA. May 19-22. **Gastroenterology**. 142(5), Supplement 1, Pages S-91-S-92
4. **L. Bailly-Chouriberry**, F. Kieken, F. Cormant, **P.G.P. Martin**, M. Grall, V. Mercadier, G. Pinel, P. Garcia, J.P. Antignac, P.L. Toutain, **T. Pineau**, M.A. Popot, B. Le Bizec and Y. Bonnaire (2008). Detection of recombinant equine growth hormone administrations: innovative methods in equine doping control. 17th International Conference of Racing Analysts and Veterinarians. Antalya (Turkey). Oct. 11-17. **Proceedings of the 17th International Conference of Racing Analysts and Veterinarians**. R and W Publications 2008. 51-57
5. **M. Cantiello**, M. Carletti, M. Dacasto, F. Capolongo, G. Gardini, **P.G.P. Martin**, **T. Pineau** and C. Nebbia (2006). Catalytic, immunochemical and molecular characterization of the xenobiotic-metabolising enzyme induction by phenobarbital in the bovine liver. 10th International Congress of the European Association for Veterinary Pharmacology and Toxicology EAVPT. Torino, Italy. Sept 17-22. **J. vet. Pharmacol. Therap**. 29(Suppl. 1), 115-116. Award: best oral communication of the session.
6. **P. Blavy**, F. Gondret, **H. Guillou**, S. Lagarrigue, **P. Martin**, O. Radulescu, A. Siegel and J. Van Milgen (2008). A minimal and dynamical model for fatty acid metabolism in mouse liver. Journées Ouvertes Biologie Informatique Mathématiques. Lille, France. June 30th-July 2nd. **Jobim 2008**. 83-88.

Oral communications without proceedings (2007-2018)

1. **P.G.P. Martin**. (2018) GeneNeighborhood : an R package to explore the direct neighbors of your favorite gene set. Journée GenoToul de Biostatistique et Bioinformatique. Toulouse (France). Dec 13.
2. **P.G.P. Martin**, X. Yu, S.D. Michaels. (2018) A family of negative transcription elongation factors protects the genome of Arabidopsis thaliana from transcriptional interferences. 2nd RNAToul symposium. Toulouse (France). June 20.
3. **B.B. Roques**, M.Z. Lacroix, H. Guillou, E. Perdu, S. Puel, V. Gayrard, N. Picard-Hagen, J. Leghait, **P.G.P. Martin**, C. Viguié. (2012) Hepatic thyroid hormone transport and thyroid hormone metabolism interplay might be involved in fipronil-induced disruption of thyroid homeostasis. Programme National de Recherche sur les Perturbateurs Endocriniens (PNRPE). International Conference 2012. Paris (France) Dec 10-11.
4. **N. Moussaoui**, V. Braniste, A. Ait-Belgnaoui, M. Olier, Y. Lippi, S. Sekkal, V. Théodorou, **P.G.P. Martin**, **E. Houdeau**. (2012) A short-time maternal separation in early neonate rats markedly increases

- intestinal permeability, induces bacterial translocation in the liver, and impacts hepatic gene expression. *Groupe Français de Neuro-Gastroentérologie*, Clermont Ferrand (France) Jun 14-15.
5. N. Moussaoui, V. Braniste, A. Ait-Belgnaoui, M. Olier, Y. Lippi, S. Sekkal, V. Théodorou, **P.G. Martin**, E. Houdeau. (2012) Une séparation maternelle de courte durée chez le rat nouveau-né augmente la perméabilité intestinale, induit une translocation bactérienne et modifie le profil d'expression génique du foie. *Journées francophones d'hépatogastroentérologie et d'oncologie digestive* (JFHOD). Paris (France) Mar 15-18.
 6. N. Podechard, S. Ducheix, J. Bertrand-Michel, A. Marmugi, F. Lasserre, A. Polizzi, A. Pommier, F. Saez, J.-M. Lobaccaro, **P.G. Martin**, H. Guillou. (2010) Dual extraction of both lipid and mRNA from a single sample. 7ème congrès de lipidomique. Groupe d'Etude et de Recherche en Lipidomique (GERLI). Anglet-Biarritz (France), Oct 3-6.
 7. Ducheix S, Podechard N, Bertrand-Michel J, Polizzi A, Lasserre F, Marmugi A, Baron S, Lobaccaro JM, **Martin P.**, Guillou H. (2010) A nutrigenomic approach reveals that LXR is required for hepatic steatosis induced by essential fatty acid deficiency. 9th Conference of the International Society for the Study of Fatty Acids and Lipoproteins (ISSFAL), Maastricht (Pays-Bas), May 29 – Jun 2.
 8. Eveillard A., Marmugi A., Lakhal L., Lasserre F., Polizzi A., Pineau T., Guillou H., **Martin P.** Assessing the impacts of food contaminants from plastic products and their effects on energy metabolism. Colloque ARET 2010 « Toxicology in the omics era », Muséum d'Histoire Naturelle, Paris, 10-11 Juin 2010.
 9. Podechard N., Ducheix S., Bertrand-Michel J., Marmugi A., Lasserre F., Polizzi A., Pommier A., Lobaccaro J.-M., **Martin P.**, Guillou H. Dual extraction of both lipid and mRNA from a single sample. 9th 7th Congrès de Lipidomique (GERLI), Anglet-Biarritz (France), 3 - 6 Octobre 2010.
 10. Ducheix S., Podechard N., Bertrand-Michel J., Lasserre F., Polizzi A., Lobaccaro J.-M., Pineau T., **Martin P.**, Guillou H. Oxysterol signaling in fatty acid metabolism. LipidomicNet-ENOR Joint Workshop, Munich (Allemagne), 19-20 November 2010.
 11. A. Balbo, A. Polizzi, **P.G.P. Martin**, M. Cantiello, D. Bertarelli, G. Gardini, T. Pineau and C. Nebbia (2008). The application of microarrays to food safety issues: gene expression analysis in circulating lymphocytes from cattle illegally treated with dexamethasone for growth promoting purposes. *Xth National Biotechnology Congress*. Perugia, Italy. Sept. 17-19.
 12. C. Robert-Granie, S. Dejean, L. Liaubet, **P.G.P. Martin** and M. Sancristobal (2008). Kinetics analysis of microarray data : modelling and clustering of gene expression profiles. *6th workshop on statistical methods for post-genomic data*. Rennes, France. Jan. 31-Feb. 1.
 13. K.A. Le Cao, **P.G.P. Martin**, C. Robert-Granie and P. Besse (2008). A sparse method to handle two high-dimensional symmetric datasets. *6th workshop on statistical methods for post-genomic data*. Rennes, France. Jan. 31-Feb. 1.
 14. S. Dejean, **P.G.P. Martin**, I. González and A. Baccini (2008). Highlighting relations between two sets of temporal profiles. *6th workshop on statistical methods for post-genomic data*. Rennes, France. Jan. 31-Feb. 1.

Posters (2007-2018)

3. **P.G.P. Martin**, X. Yu, S.D. Michaels. (2018) A family of negative transcription elongation factors protects the genome of *Arabidopsis thaliana* from transcriptional interferences. *EMBL Transcription & Chromatin*. Heidelberg (Germany). Aug 25-28.
4. **Y. Lippi**, E. Craciun, J. Cavaillé, **P.G.P. Martin**. (2013) The GeT-TRiX transcriptomic facility: Tools, expertise and services for genome-wide or targeted transcriptomic studies. *XIth scientific meeting of INRA Animal Health Department*. Cap d'Agde, France. 15-18 octobre.
5. **N. Moussaoui**, V. Braniste, A. Ait-Belgnaoui, M. Olier, **Y. Lippi**, S. Sekkal, V. Theodorou, **P.G.P. Martin**, E. Houdeau. (2012). A short-time maternal separation in early neonate rats markedly increases intestinal permeability, induces bacterial translocation in the liver and impacts hepatic gene expression. *Colloque fondateur de la Société Francophone pour la recherche et l'éducation sur les origines développementales, environnementales et épigénétiques de la santé et des maladies*

(SF-DOHaD). Paris (France) 8-9 novembre.

6. **N. Moussaoui**, V. Braniste, A. Ait-Belgnaoui, M. Olier, **Y. Lippi**, S. Sekkal, V. Theodorou, **P.G.P. Martin**, E. Houdeau. (2012) A short-time maternal separation in early neonate rats markedly increases intestinal permeability, induces bacterial translocation in the liver and impacts hepatic gene expression. 4th Health Food Symposium – SAS 2012. Pôle Aliment, Sécurité Sanitaire et Santé, Toulouse (France). 18-19 Juin. *Best poster award*.
7. A. Marmugi, A. Montagner, A. Goron, A. Polizzi, S. Ducheix, J.M. Pascussi, **P.G.P. Martin**, M. Moldes, C. Postic, H. Guillou, L. Mselli-Lakhal. (2012) Regulation of adiponutrin/Pnpla3 gene expression by the constitutive androstane nuclear receptor. 4th Health Food Symposium – SAS 2012. Pôle Aliment, Sécurité Sanitaire et Santé, Toulouse (France). 18-19 Juin.
8. F. Lasserre, A. Marmugi, S. Ducheix, A. Polizzi, N. Primenko, C. Canlet, T. Pineau, A. Paris, **P. Martin**, H. Guillou, L. Mselli-Lakhal. (2012) Co-exposure to DEHP influences the hepatic effects of BPA. 4th Health Food Symposium – SAS 2012. Pôle Aliment, Sécurité Sanitaire et Santé, Toulouse (France). 18-19 Juin.
9. S. Ducheix, N. Podechard, F. Lasserre, A. Polizzi, A. Pommier, J. Bertrand-Michel, N. Loiseau, A. Montagner, T. Pineau, J.M. Lobaccaro, A. Moschetta, **P. Martin**, H. Guillou. (2012) A systems biology approach to the hepatic role of the oxysterol sensor LXR highlights cross-talk with PPAR α signaling. 4th Health Food Symposium – SAS 2012. Pôle Aliment, Sécurité Sanitaire et Santé, Toulouse (France). 18-19 Juin
10. **C. Viguié**, V. Dupouy, J. Leghait, **F. Lasserre**, P.L. Toutain, **B.B. Roques**, **P.G.P. Martin**. (2012) Evidence for compensatory mechanisms within the thyroid gland in response to fipronil-induced thyroid disruption: transcriptional response of the thyroid gland. *8th Gordon Research Conference on Environmental Endocrine Disruptors*. West Dover, VT, USA, June 2-3.
11. A. Polizzi, N. Podechard, S. Ducheix, J. Bertrand-Michel, F. Lasserre, N. Loiseau, J.-M. Lobaccaro, T. Pineau, **P.G. Martin**, H. Guillou. (2011) Extract RNAs but keep the lipids: a useful trick in the field of nuclear receptors biology. EMBO Conference Series. Barcelona (Spain), Sept 16-20.
12. S. Ducheix, A. Montagner, N. Podechard, J. Bertrand-Michel, A. Polizzi, C. Postic, J.-M. Lobaccaro, T. Pineau, **P. Martin**, H. Guillou. (2011) A nutrigenomic approach reveals that LXR is required for hepatic steatosis induced by essential fatty acid deficiency. EMBO Conference Series. Barcelona (Spain), Sept 16-20.
13. **N. Moussaoui**, **A. Polizzi**, **A. Marmugi**, **C. Bétoulières**, **C. Sommer**, **P.G.P. Martin**. (2011) The GeT-TRiX transcriptomic facility: Tools, expertise and services for genome-wide or targeted transcriptomic studies. *Xth scientific meeting of INRA Animal Health Department*. Fréjus, France. 23-25 mai.
14. **Ducheix S.**, Bertrand-Michel J., Lobaccaro J.-M., **Martin P.**, **Guillou H.** (2010) A role for Liver X Receptor in steatosis induced by dietary fatty acids. *3ème Colloque de Génomique Fonctionnelle du Foie*, Rennes, 11-12 Mars.
15. **Marmugi A.**, **Mselli-Lakhal L.**, **Ducheix S.**, **Guillou H.**, **Martin P.** (2010) A potential role for PPAR α in the regulation of thyroid hormone levels. *3ème Colloque de Génomique Fonctionnelle du Foie*, Rennes, 11-12 Mars.
16. **Podechard N.**, Bertrand-Michel J., Lobaccaro J.-M., **Martin P.**, **Guillou H.** (2010) A dual extraction of both mRNAs and lipids from a single liver sample. *3ème Colloque de Génomique Fonctionnelle du Foie*, Rennes, 11-12 Mars.
17. **Podechard N.**, **Ducheix S.**, Bertrand-Michel J., **Marmugi A.**, **Lasserre F.**, **Polizzi A.**, Pommier A., Lobaccaro J.-M., **Martin P.**, **Guillou H.** (2010) Analysis of LXR-dependent biological signatures after a dual extraction of both mRNAs and lipids from a single liver sample. *9th Conference of the International Society for the Study of Fatty Acids and Lipoproteins (ISSFAL)*, Maastricht (Pays-Bas), 29 Mai- 2 Juin.
18. **Marmugi A.**, **Ducheix S.**, **Lasserre F.**, **Polizzi A.**, Paris A., **Pineau T.**, **Guillou H.**, **Martin P.**, **Mselli-Lakhal L.** (2010) Non-monotonic effects of Bisphenol A low doses on hepatic lipid metabolism. *Gordon Conference on Environmental Endocrine Disruptors*, Les Diablerets (Suisse), 30 Mai-4 Juin.
19. Solinhac R., Mompert F., Pinton P., Robelin D., **Martin P.**, Iannuccelli E., Gellin J., Oswald I., Yerle M. (2010) Innate immune response in swine: expression and nuclear organisation of target genes in

macrophages. *75th Symposium: Nuclear Organization & Function*. Cold Spring Harbor (USA). 2-7 Juin.

20. **Ducheix S., Podechard N.,** Bertrand-Michel J., **Polizzi A., Lasserre F., Marmugi A.,** Baron S., Lobaccaro J.M., **Martin P., Guillou H.** (2010) A nutrigenomic approach reveals that LXR is required for steatosis induced by essential fatty acid deficiency. *FEBS/IUBMB Workshop "Eukaryotic lipids; Treasure of regulatory information"*, Spetes (Grèce), 19-24 Juin.
21. M. Giantin, R.M. Lopparelli, **P.G.P. Martin, A. Polizzi,** C. Montesissa, L. Ravarotto, **T. Pineau** and M. Dacasto (2008). Effects of Dexamethasone illicit treatments upon cattle liver drug metabolizing enzymes gene expression and regulation. *Xth European Meeting of the International Society for the Study of Xenobiotics*. Vienna, Austria. May 18-21.
22. **P.G.P. Martin, H. Guillou, F. Lasserre,** P. Legrand and **T. Pineau** (2008). Fatty acid composition in low fat diets influences hepatic fat stores and gene expression partially via PPARalpha. *2ème colloque sur la génomique fonctionnelle du foie*. Paris, France. Jan 16-18.
23. I. González, S. Déjean, **P. Martin,** O. Gonçalves, A. Baccini and P. Besse (2007). Mise en relation du niveau d'expression d'ABC transporteurs humains avec l'efficacité de molécules candidates dans des lignées cellulaires cancéreuses. *3ème journée du Cancéropôle Grand Sud Ouest*. Bordeaux, France. Oct. 5.

Supervision of PhD students (2016-2018)

1. **Nabila Moussaoui** (2010-2014, co-advisor with Eric Houdeau). « Effect of maternal separation on the development and maturation of the gut-liver axis ». Funding: INRA Animal Health Department / Région Midi-Pyrénées.
2. **Béatrice Roques** (2009-2012, co-advisor with Catherine Viguié). « Impact of fipronil on thyroid function ». Funding: Ministère de l'éducation nationale, de l'enseignement supérieur et de la recherche.
3. **Alexandre Eveillard** (2006-2009, co-advisor with Thierry Pineau). « Identification of biological networks targeted by *di(2-ethylhexyl)phtalate (DEHP)*, a plasticizer acting as endocrine and metabolic disruptor: combined transcriptomic and metabolomic investigations. ». Funding: Ministère de l'éducation nationale, de l'enseignement supérieur et de la recherche.

Supervision of Master students (2005-2018)

Master diploma (MSc or equivalent) (2nd year, M2): Nabila Moussaoui (2010, Univ. Toulouse III, supervisor), Frédéric Lasserre (2008, EPHE, co-supervisor with T. Pineau), Alexandre Eveillard (2005, Univ. Toulouse III, co-supervisor with T. Pineau), Marie De Tayrac (2005, Agrocampus Ouest, co-supervisor with T. Pineau)

MSc 1st year (M1): Mathilde Gorieu (2016-17), Alice Vigneron (2006, Univ. Toulouse, chairman), Morgan Gueritault & Emilie Belkaï (2005, Univ. Toulouse, co-chairman with T. Pineau).

Research funding (2007-2018)

Amounts indicated are those dedicated to me or my research group only.

1. Agreenskills+ Fellowship. June 2015-June 2017. Indiana University. Laboratory of Pr Scott D Michaels. 72K€.
2. Ministère de l'écologie, du développement durable et de l'énergie. GMO90+ Project (2014-2016): Improved predictability of sub-chronic GMO toxicity by identification of early biomarkers of toxicity. Contributor in charge of all transcriptomic analyses (gene expression and miRNA). 450K€. 5 academic and 4 private partners. Leader: B. Salles.
3. Institut Carnot en Santé Animale (ICSA). Research collaboration with 1 private partner (2013-2014). Multi-tissue transcriptomic analysis of the response variability to a high-fat diet. Leader. 240K€.

4. Institut Carnot en Santé Animale (ICSA). Research collaboration with 1 private partner (2012). Multi-tissue analysis of the transcriptomic effects of a diet inducing metabolic disruptions. Leader. 42K€
5. INRA Bioresource (2011). SOS-RNAseq: sex- organ- and species-specific transcriptomes by RNA-seq. Leader. 29K€. 4 academic partners.
6. ANR CES (Contaminants, Ecosystèmes, Santé) Program (2011-2014) . Perinatox: early life effects of bisphenol A (BPA) on the maturing gut barrier and metabolic programming in the liver and adipose tissue: long term consequences in adulthood. Contributor. 114K€. 7 academic partners. Leader E. Houdeau.
7. INRA-FORMAS (France-Sweden Cooperation) Open call (2009-2010). Regulation and significance of very long chain polyunsaturated fatty acids synthesis. Contributor. 120K€. 2 academic partners. Leader: T. Pineau.
8. INRA Nutrition, Chemical Food Safety and Consumer Behaviour Department Priority Action (2008-2010). Effects of chronic exposure to low BPA doses in the gestating and lactating female rat on the integrity of the gut epithelial barrier: consequences for the immune functions of the adult offspring. Contributor. 30 K€. 4 academic partners. Leader: E. Houdeau.
9. Région Midi-Pyrénées – Recherche en Transfert Clinique et Normalisation (2008-2009). Contribution to the assessment of the risk to human health of an agro-veterinary insecticide acting as a potential thyroid disruptor. Contributor. 25K€. 3 academic partners. Leader: C. Viguié.
10. ANR PNRA (Programme National de Recherche en Alimentation) (2007-2009). PlastImpact: Metabolic and endocrine impacts of two plastic industry-related contaminants of the food chain: BPA and DEHP. Contributor. 130K€. 7 academic partners. Leader: T. Pineau.
11. PNRPE (Programme Nationale de Recherche sur les Perturbateurs Endocriniens). Fipronil and brominated flame retardants: exposure and disruption of thyroid and corticosteroid functions. Contributor. 30K€. 6 academic partners. Leader: C Viguié.
12. PhD fellowship (2000-2003: [Ministère](#), 2004: [Ligue contre le cancer](#)).

Teaching activities (2005-2018)

Academic Training:

- Master of Bioinformatics, Univ. Toulouse III. R and Bioconductor for NGS data analysis (8h in 2018). RNA-seq and ChIP-seq data analysis (8h in 2018). Courses available on [Github](#).
- Summer School EU ITN ProTectED. Introduction to Functional Genomics ([slides](#))
- Master of Bioinformatics, Univ. Toulouse III. Workshop on "ChIP-seq *data analysis*" (8h in 2015)
- Master (MSc) "Genes, cells and development", Univ. Toulouse III. Workshop on "*Bioinformatics for NGS data analysis*" (2 x 4h with S. Déjean in 2014)
- DU (University Diploma) of Medical Toxicology, Univ Toulouse III "*Models in toxicology*" and "*Omic approaches in toxicology*" (2 x 3h in 2012)
- Licence (BSc) "Statistics and informatics for decision-making", Univ. Perpignan. "*High throughput analysis of gene expression*"(4h in 2008)
- Master (MSc) "Animal Biology and Production", Agrocampus Ouest, Rennes. "*Gene expression analysis: from bench to data analysis in R/Bioconductor*" (20h in 2006).
- Master (MSc) "Bioengineering", Univ. Toulouse III. "*Analysis of gene expression*", (4h/year, 2005-2012).
- Master (MSc) "Pharmacological innovations", Univ. Toulouse III. Workshop on "*Biostatistics for the analysis of omics data*", (5h/year with S. Déjean, 2005-2012).
- Master (MSc) "Food products quality and food safety", Univ. Toulouse III. "Technologies for the analysis of gene expression", "Nuclear receptors in nutrition, pharmacology and toxicology" and "Biostatistics for the analysis of omics data" (12h/year, 2008-2011).

Professional education:

(For researchers, post-docs and PhD students, both lectures and hands-on computer sessions)

- Training session at Agrocampus Ouest, Rennes, France. "Biostatistics for the analysis of omics data with R/Bioconductor" (organized by S. Lagarrigue, ~20h/year from 2007 to 2015)
- Training session of the biostatistics facility of GenoToul, Toulouse, France. "Biostatistics for the analysis of omics data with R/Bioconductor" (~10h/year from 2007 to 2015).
- Training session of INSERM, Toulouse, France. "Applied statistics" and "Initiation to R" (~16h/year with S. Déjean, 2009-2013)
- European course "Genomics on obesity", Hepadip & DioGenes EU FP6 projects, "Statistics and bioinformatics applied to omics data", Toulouse (4h in 2007)

- Training session CNRS, Toulouse, France. "Analysis of omics data" (32h with S. Déjean in 2011)

Science outreach (2010-2014)

1. Interview for the exposition "Les métiers de la science" ("Jobs in the science field") and contribution to the production of a leaflet presenting my function as a research engineer.
2. Press conference at INRA Paris followed by several interviews concerning our investigations on the effects of bisphenol A on liver lipid storage (Marmugi *et al.*, Hepatology, 2012)
3. Paris A, Domange C, Eveillard A, Canlet C, Martin P, Pineau T, Priymenko N. "Metabolomics and the concerns about food security and consumer's health protection" **OCL** (Oléagineux Corps gras Lipides). 15(5), 300-304.
4. Invited conference on "Food contaminants: which impacts on health ?" within the framework of the conference series "Quand les sciences s'en mêlent" (Médiathèque Toulouse, 04 nov. 2010).
5. Interview by Evelyne Gogien published in "Le Généraliste" (22/01/2010) entitled "Haro sur les phtalates et le bisphénol A" (Evelyne Gogien).
6. Contribution with H. Guillou to the writing of an insert entitled "Endocrine disruptors as environmental obesogens" in the framework of a report from the office parlementaire d'évaluation des choix scientifiques et technologiques (OPECST) written by Mrs Brigitte Bout (Senator)

Education and employment

- 2019-2020:** Research Specialist I, HHMI / Indiana University, IN, USA. Lab of [Pr Craig Pikaard](#). *Long read sequencing for the assembly of ribosomal DNA in Arabidopsis thaliana. Development of new assays and bioinformatic pipelines.*
- 2017-2019:** Senior Research Engineer at [ToxAlim](#) INRA/INPT (head: V. Theodorou). Team E5 BioToMyc: Biosynthesis & Toxicity of Mycotoxins. *Role of transcription elongation factors in the regulation of gene clusters responsible for the production of mycotoxins.*
- 2015-2017:** Agreenskills+ fellow. [Scott Michaels](#) lab at [Indiana University](#). IN, USA. *Genome-wide functions of a new family of negative transcription elongation factors in Arabidopsis thaliana.*
- 2013-2015:** Visiting scientist. "Cell cycle chromatin genomics" group (O. Cuvier) at [LBME CNRS](#)-Univ. Toulouse (head: P.-E. Gleizes). *Links between chromatin organization by insulators and RNA polymerase II transcription in Drosophila cells. NGS approaches. Bioinformatics training.*
- 2004-15:** Research Engineer at [ToxAlim](#) INRA/INPT (head: B. Salles)
- **2011-15:** Founder and head of the "Transcriptomic Impact of Xenobiotics" facility (3 permanents, see [TRiX](#) and [GeT](#) websites)
 - **2014:** Research Engineer INRA – internal promotion (IR1)
 - **2007-11:** Joint-head of the "[Integrative Toxicology & Metabolism](#)" group with T. Pineau and then H. Guillou (8-9 permanents). *Regulation of hepatic gene expression related to metabolic pathways by nuclear receptors.*
 - **2007:** PhD in Biology, Health & Biotechnologies (option: Pharmacology), [Univ. Toulouse](#)
 - **2004-07:** Research Engineer (IR2) in the Molecular Pharmacology group (T. Pineau)
- 2000-2004:** PhD student ("*PPAR α -mediated transcriptional regulations*", supervisor: T.Pineau). Laboratory of Pharmacology & Toxicology (UR66, INRA)
- 1998-2000:** Student at [Agrocampus Ouest](#) (French "Grande Ecole" or Elite Institution) and [Univ. Rennes](#)
- **2000:** MSc (DEA) in Animal Biology and Production (option: Biochemistry and Genetics applied to Animal Sciences)

- ➔ **2000:** MSc in Agricultural Engineering / Diplôme d'ingénieur agronome & diplôme d'agronomie approfondie (major: Science and engineering in animal production)
- ➔ **1999:** Voluntary 4 months internship at the National Heart, Lung and Blood Institute, NIH, Bethesda, USA (*supervisor: G. Lambert, Lab: H.B. Brewer*)
- ➔ **1999:** BSc in Agricultural Engineering / Diplôme d'Agronomie Générale

Skills and qualifications

1. Molecular biology and biochemistry.
2. Genomics and transcriptomics (qPCR, microarrays, NGS). Chromatin biology.
3. Animal studies including supervision (Level 1 in 2005, rodent surgery diploma in 2013)
4. Cell culture and biology.
5. Basics in plant science and physiology.
6. Microbiology (bacteria and molds).
7. Biostatistics and Bioinformatics:
 - Advanced level in [R/Bioconductor](#) programming, including data wrangling, data analysis and data integration, tidyverse, ggplot2 graphics, NGS / sequence data analysis
 - Rmarkdown
 - R package development. Continuous integration. Code coverage.
 - Unix environment. Unix/Ubuntu OS user since 2013.
 - Parallel computing. Computer cluster use: SGE / PBS-Torque / SLURM
 - Versioning with git and Github
 - Workflow development: Snakemake
 - Conda package management and Singularity/Docker containers
8. Management (project, group) and supervision
9. Teaching (lectures and hands-on)
10. Scientific communication: writing, conferences, teaching and training, websites.
11. Languages : French (native) ; English and Italian (fluent) ; German and Spanish (basics).

Scientific boards and committees / reviewing activities

1. Evaluation committee for INRA promotions as Study Engineer ([CIPP](#) 2018)
2. Recruitment jury for research technicians positions at INRA (2015)
3. Scientific board of the [Animal Health Department](#) of INRA (elected member, 2011-2015)
4. Scientific advisory board of the [CRB GADIE](#) / [@BRIDGe](#) facility (2009-2015)
5. Coordinator of the GenoToul [biostatistics](#) platform with Dr S. Déjean (2008-2012)
6. Membre of INRA Bioinformatics advisory board (2008-2011)
7. Advisory board of [GenoToul](#) core facilities (biochips 2006-2015, functional exploration 2007-2015, bioinformatics 2012-present)
8. Scientific committee of the [ANR](#) CESA Program (2012). Review of 29 pre-proposals in 2013.
9. Evaluation of scientific projects for funding bodies (ANR, DFG, Region, Univ., INRA)
10. Article reviews for international journals