Liste PFIE 2022

Articles :

Chopin N, Bosson J, Iikawa S, Picot S, Bienvenu AL, Lavoignat A, Bonnot G, **Riou M**, **Beaugé C,** Guillory V, Biot C, Pilet G, Chessé M, Davioud-Charvet E, Elhabiri M, Bouillon JP, Médebielle M. Evaluation of ferrocenyl-containing γ-hydroxy-γ-lactam-derived tetramates as potential antiplasmodials. *European Journal of Medicinal Chemestry,* 2022, 243: art 114735. PMID: 36122550. ⟨10.1016/j.ejmech.2022.114735⟩. ⟨hal-03798632⟩

Desmarchais A, Téteau O, **Kasal-Hoc N**, Cognié J, Lasserre O, Papillier P, Lacroix M, Vignault C, Jarrier-Gaillard P, Maillard V, Binet A, Pellicer-Rubio MT, Fréret S, Elis S. Chronic low BPS exposure through diet impairs in vitro embryo production parameters according to metabolic status in the ewe. *Ecotoxicology and Environmental Safety*, 2022, 229 : art 113096. ⟨10.1016/j.ecoenv.2021.113096⟩. ⟨hal-03500231⟩

Kraimi N, Lormant F, Calandreau L, Kempf F, Zemb O, Constantin P, Parias C, Germain K, Rabot S, Philippe C, Foury A, Moisan M-P, Vitorino Carvalho A, Coustham V, Dardente H, Velge P, **Chaumeil T**, Leterrier C. Microbiota and stress: a loop that impacts memory. *Psychoneuroendocrinology*, 2022, 136 : art 105594. ⟨10.1016/j.psyneuen.2021.105594⟩. ⟨hal-03448777⟩

Thieulent C, Sutton G, Toquet M-P, Fremaux S, Hue E, Fortier C, **Pléau A**, **Deslis A**, **Abrioux S**, **Guitton E**, Pronost S, Paillot R. Oral Administration of Valganciclovir Reduces Clinical Signs, Virus Shedding and Cell-Associated Viremia in Ponies Experimentally Infected with the Equid Herpesvirus-1 C2254 Variant. *Pathogens*, MDPI, 2022, 11 (5), 17 p. ⟨10.3390/pathogens11050539⟩. ⟨hal-03665741⟩

Chapitre d'ouvrage :

Velge P, Menanteau P, **Chaumeil T**, Barilleau E, Trotereau J, Virlogeux-Payant I. Two In Vivo Models to Study Salmonella Asymptomatic Carrier State in Chicks. Ohad Gal-Mor. *Bacterial Virulence : Methods and Protocols*, 2427, Humana Press, 2022, Methods in Molecular Biology, 978-1-0716-1970-4. ⟨10.1007/978-1-0716-1971-1_20⟩. ⟨hal-03736628⟩

Koczerka M, Lantier I, **Pinard A**, Morillon M, Deperne J, Gal-Mor O, Grépinet O, Virlogeux-Payant I. *In Vivo* Tracking of Bacterial Colonization in Different Murine Models Using Bioluminescence: The Example of Salmonella. Ohad Gal-Mor. *Bacterial Virulence: Methods and Protocols*, 2427, Humana Press, 2022, Methods in Molecular Biology, 978-1-0716-1970-4. ⟨10.1007/978-1-0716-1971-1_19⟩. ⟨hal-03699898⟩

Matériel et méthodes :

Allaoua M, Bonnafé E, Etienne P, Noirot V, Gabarrou J-F, Castinel A, Pascal G, Darbot V, Treilhou M, Combes S. A carvacrol-based product reduces Campylobacter jejuni load and alters microbiota composition in the caeca of chickens. *Journal of Applied Microbiology*. 2022, 132 (6) : pp.4501-4516.

⟨10.1111/jam.15521⟩.⟨hal-03607325⟩ *[The in vivo assay was conducted … in the facilities of the UE-1277* ***Plateforme d'Infectiologie Experimentale*** *(****PFIE****, INRAE, 2021. Infectiology of the farm, model and wild animal facility, Centre Val de Loire, Nouzilly, France)]*

Lantier I, Mallet C, Souci L, Larcher T, Conradie AM, Courvoisier K, Trapp S, Pasdeloup D, Kaufer BB, Denesvre C. In vivo imaging reveals novel replication sites of a highly oncogenic avian herpesvirus in chickens. *PLoS Pathogens*, 2022, 18 : e1010745. doi: https://doi.org/10.1371/journal.ppat.1010745 PMID: 36037230 ⟨hal-03775131⟩ [*Specific pathogen-free WL chickens (B13/B13 haplotype) (named WL B13) were obtained from the* ***PFIE*** *animal experimental platform, INRAE Centre Val de Loire*]

Mallet C, Souci L, Ledevin M, Georgeault S, Larcher T, Denesvre C. Establishment of a culture model for the prolonged maintenance of chicken feather follicles structure in vitro. *PLoS ONE*, Public Library of Science, 2022, 17 (10), 21 p. ⟨10.1371/journal.pone.0271448⟩. ⟨hal-03838659⟩ [*The SPF White Leghorn chickens used in this study were provided by the* ***infectiology platform (PFIE)*** *of INRAe (Tours-France) (https://www6.val-de-loire.inrae.fr/pfie_eng/). The chickens were offsprings from breeder replacement hatchs of SPF WL population. The chickens were bred until and euthanized at the* ***PFIE platform****, according to protocols and procedures approved by the Departemental Directorate for the Protection of Populations (DDPP), for the French Ministry of Agriculture and Food (Agreement #D-37-175-3). The* ***PFIE*** *is part of the international network VetBioNet (2017-)]*

Saint-Martin V, Quéré P, Trapp S, Guabiraba R. Uncovering the core principles of the gut-lung axis to enhance innate immunity in the chicken. *Frontiers in Immunology*, Frontiers, 2022, 13, 16 p. ⟨10.3389/fimmu.2022.956670⟩. ⟨hal-03850987⟩ [*Briefly, eggs of an inbred white leghorn layer chicken line (PA12) were obtained from specific pathogen free (SPF) hens kept at standard breeding conditions (INRAE,* ***Plateforme d'Infectiologie Experimental, PFIE****, Nouzilly, France)]*

Remerciements :

Allaoua M, Bonnafé E, Etienne P, Noirot V, Gabarrou J-F, Castinel A, Pascal G, Darbot V, Treilhou M, Combes S. A carvacrol-based product reduces Campylobacter jejuni load and alters microbiota composition in the caeca of chickens. *Journal of Applied Microbiology*. 2022, 132 (6) : pp.4501-4516. ⟨10.1111/jam.15521⟩.⟨hal-03607325⟩
*[The authors are grateful to the members of the scientific and animal staff of the Plateforme d'Infectiologie Expérimentale (****PFIE****, INRAE, 2021. Infectiology of farm, model and wild animal's facility, (INRAE, 2021) https://doi.org/10.15454/1.5572352821559333e12), UE-1277 PFIE, INRAE Centre Val de Loire, Nouzilly, France, especially to the study manager* ***Mickaël Riou*** *and the zootechnicians in charge of this project:* ***Sylvain Breton****,* ***Alexis Pléau*** *and* ***Guillaume Martin****]*

Cazals A, Estellé J, Bruneau N, Coville JL, Menanteau P, Rossignol MN, Jardet D, Bevilacqua C, Rau A, Bed'Hom B, Velge P, Calenge F. Differences in caecal microbiota composition and Salmonella carriage between experimentally infected inbred lines of chickens. *Genetics Selection Evolution.* 2022, 54(1), art 7 : 15 p. (10.1186/s12711-022-00699-6) ⟨hal-03551157⟩ *[We also thank colleagues from the experimental unit* ***PFIE****, who efficiently monitored the experiments and collected the samples]*

Cazals A, Rau A, Estellé J, Bruneau N, Coville JL, Menanteau P, Rossignol MN, Jardet D, Bevilacqua C, Bed'Hom B, Velge P, Calenge F. Comparative analysis of the caecal tonsil transcriptome in two chicken lines experimentally infected with Salmonella Enteritidis. *PLoS One.* 2022, 17(8), art e0270012 :19 p. ⟨10.1371/journal.pone.0270012⟩.⟨hal-03771102⟩
[We also thank colleagues from the experimental unit ***PFIE****, who efficiently monitored the experiments and collected the samples]*

Kraimi N, Lormant F, Calandreau L, Kempf F, Zemb O, Constantin P, Parias C, Germain K, Rabot S, Philippe C, Foury A, Moisan M-P, Vitorino Carvalho A, Coustham V, Dardente H, Velge P, **Chaumeil T**, Leterrier C. Microbiota and stress: a loop that impacts memory. *Psychoneuroendocrinology*, 2022, 136 : art 105594.⟨10.1016/j.psyneuen.2021.105594⟩. ⟨hal-03448777⟩ [*We thank Sandrine Rivière and Michael Troquet for providing germ-free eggs and conducting blood sampling (UE PEAT, INRAE, 2018. Experimental Poultry Facility, DOI: 10.15454/1.5572326250887292E12) and Sébastien Lavillatte, Patrice Cousin, Maud Renouard and Edouard Guitton (PFIE, INRA, 2018. Infectiology of Farm, Model and Wild Animals Facility, https://doi.org/10.15454/1. 5572352821559333E12) in charge of maintenance of the isolators and animal care.]*

Lantier I, Mallet C, Souci L, Larcher T, Conradie AM, Courvoisier K, Trapp S, Pasdeloup D, Kaufer BB, Denesvre C. In vivo imaging reveals novel replication sites of a highly oncogenic avian herpesvirus in chickens. *PLoS Pathogens*, 2022, 18 : e1010745. doi: https://doi.org/10.1371/journal.ppat.1010745 PMID: 36037230 ⟨hal-03775131⟩ [*We are grateful to **Anne Pinard**, **Noémie Perrot** and **Sébastien Lavillatte** (PFIE,INEAE Centre Val de Loire) for their assistance with the bird management and handling*]

Mallet C, Souci L, Ledevin M, Georgeault S, Larcher T, Denesvre C. Establishment of a culture model for the prolonged maintenance of chicken feather follicles structure in vitro. *PLoS ONE*, Public Library of Science, 2022, 17 (10), 21 p. ⟨10.1371/journal.pone.0271448⟩. ⟨hal-03838659⟩ [*We also thank … and the **PFIE** (INRAE, Centre Val de Loire, FR) for providing the chickens*]

Saint-Martin V, Quéré P, Trapp S, Guabiraba R. Uncovering the core principles of the gut-lung axis to enhance innate immunity in the chicken. *Frontiers in Immunology*, Frontiers, 2022, 13, 16 p. ⟨10.3389/fimmu.2022.956670⟩. ⟨hal-03850987⟩ [*We thank Vanaique Guillory (ISP, INRAE), **the staff from the Plate-forme d'Infectiologie Expérimentale (PFIE, INRAE**), and our colleagues from the Centre International de Ressources Microbiennes - Bactéries Pathogènes (CIRM-BP, ISP, INRAE) for providing technical support, animals and sterility checks, respectively*.]

Velge P, Menanteau P, Chaumeil T, Barilleau E, Trotereau J, Virlogeux-Payant I. Two In Vivo Models to Study Salmonella Asymptomatic Carrier State in Chicks. Ohad Gal-Mor. *Bacterial Virulence : Methods and Protocols*, 2427, Humana Press, 2022, Methods in Molecular Biology, 978-1-0716-1970-4. ⟨10.1007/978-1-0716-1971-1_20⟩. ⟨hal-03736628⟩
*[We also thank the members of the Experimental Infectiology Platform (UE-1277 PFIE, INRAE Centre Val de Loire, Nouzilly, France, https://doi.org/10.15454/1.5535888072272498e12) and particularly **Stéphane Abrioux, Mickaël Riou, Laurence Merat; Sylvain Breton, Alexis Pléau, Arnaud Faurie, Olivier Dubès, Mylène Girault**]*

Communications orales :

Creach P, Pajusco N, Brouard B, Simon L, **Riou M**, El Jabri M, Doutart E, Ayoub K, Travel A. Développement de mesures automatisées d'indicateurs sonores pour la détection précoce de troubles respiratoires chez les volailles : cas de la Bronchite Infectieuse. *14. Journées de la Recherche Avicole et Palmipèdes à Foie-Gras (JRA)*, Mar 2022, Tours, France. ⟨hal-03771907⟩

Creach P, Pajusco N, Brouard B, Simon L, **Riou M**, El Jabri M, Doutart E, Ayoub K, Travel A.. Development of automated measurements of sound indicators for the early detection of health disorders in poultry: the case of infectious Bronchitis. *World's Poultry Congress* (WPC), Aug 2022, Paris, France. ⟨hal-03845353⟩

León-Janampa N, Caballero-Posadas I, **Barc C**, Darrouzain F, Gatault P, **Riou M**, **Pinard A**, **Pezant J**, Rossignol C, Gaudy-Graffin C, Brand D, Marletet J. A new immunosuppressed pig model to study chronic Hepatitis E infection and the genetic viral diversity. 17. Congrès national de la SFM - Microbes 2022, Société Française de Microbiologie, Oct 2022, Montpellier, France. ⟨hal-03908226⟩

Marlet J, León Janampa N, Caballero-Posadas I, **Barc C**, Darrouzain F, Gatault P, **Riou M**, **Pinard A**, **Pezant J**, Rossignol C, Gaudy-Graffin C, Brand D. A new immunosuppressed pig model to study chronic Hepatitis E infection and its impact on host innate immune responses. *Journées d'Animation Scientifique de la FéRI 2022 - FéRi Scientific Days 2022*, Fédération de Recherche en Infectiologie (FéRI), Centre Val de Loire, Jul 2022, Joué-Lès-Tours, France. ⟨hal-03735443⟩

Sadrin G, Sedano L, **Chaumeil T**, Le Vern Y, Sausset A, Rossignol C, Larcher T, Barbier E, Lacroix-Lamandé S, Laurent F, Bussière FI. Microbiota involvement in the pathophysiology of Eimeria tenella infection: focus of the γδ T cells immune response. 16. Meeting of the Avian Immunology Research Group (AIRG), Sep 2022, Newark, DE, United States. ⟨hal-03824126⟩

Posters :

Abrioux S, Audoin M, Barc C, Boulesteix O, Branger L, Kasal-Hoc N, Niepceron A, Perrot N, Pezant J, Pinard A, Pleau A, Verrier L. Mise en place du modèle furet pour l'étude des maladies infectieuses. Journées d'Animation Scientifique du Département Santé Animale (JAS SA), Oct 2022, Anglet, France. ⟨hal-03908458⟩

Baillou A, **Chaumeil T**, **Barc C**, Le Vern Y, Sausset A, Schulthess J, Peltier-Pain P, Laurent F, Lacroix-Lamandé S. Characterization of Intestinal mononuclear phagocyte subsets of young lamb at homeostasis by single cell RNA-Seq and during Cryptosporidium parvum infection by flow cytometry. *ApicoWplexa 2022 - 6. International Meeting on Apicomplexan Parasites in Farm Animals*, Oct 2022, Bern, Switzerland. ⟨hal-03808384⟩

Cauty A, **Kasal-Hoc N**, **Beaugé C**, **Mérat L**, Rossignol C, **Riou M**. Développement d'un modèle murin de plaies chroniques et soins péri-opératoires associés. 17. Congrès national de la SFM - Microbes 2022, Oct 2022, Montpellier, France. AA-P28. ⟨hal-03908297⟩

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Guillon A, Pardessus J, L'Hostis G, Fevre C, **Barc C**, Dalloneau E, Jouan Y, Bodier-Montagutelli E, Perez Y, Thorey C, Mereghetti L, Cabrera M, **Riou M**, Vecellio L, Le Guellec S, Heuzé-Vourc'h N. Inhaled bacteriophage therapy in a porcine model of pneumonia caused by Pseudomonas aeruginosa during mechanical ventilation. *Journées d'Animation Scientifique de la FéRI 2022- FéRI Scientific Days 2022, Région Centre Val de Loire*, Jul 2022, Tours, France. ⟨hal-03735811⟩

Kempf F, Menanteau P, Rychlik I, Trotereau J, Virlogeux-Payant I, Schaeffer S, Schouler C, Drumo R, **Guitton E,** Velge P. Key role of the gut microbial composition in the occurrence of Salmonella super- and low-shedder phenotypes in chicken. *International Symposium Salmonella and Salmonellosis (I3S) 2022*, Jun 2022, Saint-Malo, France. ⟨hal-03729396⟩

Lorna A, Menanteau P, **Gauthier D**, **Perrot N**, **Deslis A**, **Riou M**, Raspoet R, Schouler C, Peltier P, Velge P. Evaluation of the prophylactic and therapeutic effect of a phage cocktail to control Salmonella Enteritidis. *Viruses of Microbes 2022*, Jul 2022, Guimaraes, Portugal. ⟨hal-03729513⟩

Nicolas M, Menanteau P, **Girault M**, **Faurie A**, **Chaumeil T**, **Riou M**, Velge P, Schouler C. Evaluation of phage cocktails to prevent avian colibacillosis. *Viruses of Microbes 2022*, Jul 2022, Guimaraes, Portugal. ⟨hal-03729546⟩

Sadrin G, Sedano L, **Chaumeil T**, Le Vern Y, Sausset A, Rossignol C, Larcher T, Barbier E, Lacroix-Lamandé S, Laurent F, Bussière F I. Influence of the microbiota in the physiopathology of Eimeria tenella infection: focus on γδ T cells. *Journées d'animation scientifique du Département Santé Animale (JAS SA)*, Oct 2022, Anglet, France. ⟨hal-03852908⟩

Sutton G, Carnet F, Normand C, Thieulent C, Hue E, Fortier C, **Pléau A**, **Deslis A**, **Guitton E**, Buisson B, Paillot R, Pronost S. Développement d'un test de neutralisation en temps réel utilisant la technologie xCELLigence® (Real Time Cell Analysis, RTCA) pour titrer les anticorps neutralisant l'herpèsvirus équin 1 chez les chevaux après infection et/ou vaccination. XXIVèmes Journées Francophones de Virologie, Apr 2022, Strasbourg, France. ⟨hal-03653120⟩

Productions à destination de l'institut :

Rouet N. Substitution d'un biocide utilisé lors du nettoyage des véhicules de transport d'animaux. Lettre de la CNUE (LUE), 2022, n°28 : 7-8.
Pailly O, **Rouet N**, **Abrioux S.** Démarche qualité dans les Unités Expérimentales. Interview vidéo, réalisée par A Etayo, INRAE Intranet Qualité : Qualité INRAE - Vidéos

Productions à destination des professionnels :

Créach P. Automatiser la détection des symptômes respiratoires. Réussir Volailles, novembre-décembre 2022, 278 : 26
[*L'expérimentation a été menée à Nouzilly en Indre-et-Loire, au sein de la* ***plateforme d'infectiologie expérimentale*** *de l'Inrae, avec l'enregistrement de poulets durant la nuit, pour limiter le bruit de fond et les piaillements*]