UFAW International Conference:
Advancing Animal Welfare Science
The Royal College of Physicians, Edinburgh, UK

List of posters

1. **Evidence for multiple temperament traits in sheep**
   Leigh Atkinson, Rebecca Doyle, Andrew Woodward and Ellen Jongman *(University of Melbourne, Australia)*

2. **Preliminary investigation on the effect of housing system and stocking density on behavioural response of farmed rabbit *Oryctolagus cuniculus* in humid tropics**
   Mathew Ayoola, Mobolaji Alabi and Oguntunji Abel O *(Bowen University, Nigeria)*

3. **Effects of weaning regimes on growth performance and stress response in weanling pigs**
   Temitope Bankole, Olufemi Adebiyi, Emmanuel Ewuola, Ayoola Oluyemi and Olusoji Abioloa *(University of Ibadan, Nigeria)*

4. **Effect of positive human interaction on attention bias and affective states of commercial breeding dogs**
   Uri Baqueiro-Espinosa, Tsz Lo, Victoria McEvoy, Rachel Hunter and Gareth Arnott *(Queen's University Belfast, UK)*

5. **Risk factors for integumentum alterations in the carpal region of Norwegian dairy cows**
   Conor Barry and Camilla Kielland *(Norwegian University of Life Sciences (NMBU), Norway)*

6. **Does canine osteoarthritis affect step count?**
   Leanne Blake, Jack O’Sullivan, Cameron Smith and Lucy Asher *(Newcastle University, University of Lincoln and University College London, UK)*

7. **Pandemic puppies: A canine welfare timebomb?**
   Claire Brand, Dan O’Neill, Zoe Belshaw, Camilla Pegram, Fiona Dale, Kim Stevens and Rowena Packer *(The Royal Veterinary College and EviVet Evidence-based Veterinary Consultancy, UK)*

8. **Salivary biomarkers of acclimatization in dairy cows with different milk yield potential**
   Liliana Cachucho, Flávio Silva, Catarina Matos, Ana Geraldo, Lénia Rodrigues, Cristina Conceição, Fernando Capela e Silva, Elsa Lamy and Alfredo Pereira *(University of Évora, Alentejo Biotechnology Center for Agriculture and Agro-food (CEBAL), Polytechnic Institute of Beja (IPBeja), Centre for Interdisciplinary Research in Animal Health (CIISA) and University of Trás-os-Montes e Alto Douro, Portugal)*

9. **The impact of the COVID-19 pandemic on cat and dog relinquishment and abandonment**
   Grace Carroll, Alice Torjussen and Catherine Reeve *(Queen’s University Belfast and University of Sussex, UK)*

10. **Proximity interactions in a permanently housed dairy herd: Network structure, consistency, and individual differences**
    Kareemah Chopra, Holly Hodges, Zoe Barker, Jorge Vázquez Diosdado, Jonathon Amory, Tom Cameron, Darren Croft, Nick Bell and Edward Codling *(University of Essex, Writtle University College, University of Exeter and Royal Veterinary College, UK)*

11. **Tell me how you feel – Using a modified novel arena test (MNAT) to assess sow welfare in three different post-weaning housings**
    Jen-Yun Chou and Thomas Parsons *(University of Pennsylvania, USA; University of Veterinary Medicine, Austria; Teagasc, Ireland)*
12. **Automatic detection of enrichments usage in Rhesus monkeys**
   Giulia Ciminelli, Claire Witham and Melissa Bateson (Newcastle University and MRC Harwell, UK)

13. **Untwisting questions about nesting materials and laboratory mouse welfare**
    Kendall Coden, Jerome Geronimo, Michael Gutierrez, Kyna Byrd and Joseph Garner (Stanford University, USA)

14. **The growing trend of intraorgan euthanasia injections in companion animals**
    Kathleen Cooney (Companion Animal Euthanasia Training Academy and Colorado State University, USA)

15. **Lame cow welfare: What is the mobility team thinking? Or who sees pain how?**
    Emily Craven, Jenny Stavisky, Natalie Robinson and Rachel Dean (Oakwood Veterinary Group and VetPartners, York, UK)

16. **Getting close to animals at the zoo: Impacts on animal welfare and human psychology**
    Katherine Cronin, Stephen Ross and Maureen Leahy (Lincoln Park Zoo, USA)

17. **Puppy separation related behaviour: Effect of preventative advice on puppy behaviour when left alone**
    Fiona Dale, Charlotte Burn and Rachel Casey (Royal Veterinary College and Dogs Trust, UK)

18. **An investigation into Sus scrofa domesticus and milk replacer pre-weaning, focusing on size and social behaviours in the farrowing crate**
    Holly Deacon and Jonathan Amory (Writtle University College, UK)

19. **Associations between behaviour modification program progression, cat stress score, and latency to emerge from hiding in shelter cats (Felis catus) from hoarding environments**
    Bailey Eagan, Karen van Haaften and Alexandra Protopopova (University of British Columbia and The British Columbia Society for the Prevention of Cruelty to Animals, Canada)

20. **“End the cage age” - Is it possible to manage gestating sows without individual stalls?**
    Maria Costanza Galli, Claudio Mazzoni, Federica Mereghetti, Elena Bordignon, Barbara Contiero and Flaviana Gottardo (University of Padova, Swivet Research snc and Azienda agricola Lucrezia, Italy)

21. **Measuring affective state in the horse (Equus caballus): The emotional response to a reward prediction error paradigm**
    Julia Gerke, Claire O’Brien, Ourania Kyrozi and Sebastian McBride (Aberystwyth University, UK)

22. **Facial expressions of acute pain in Japanese macaques: Development of an assessment tool**
    Vanessa Gris, Takako Miyabe-Nishiwaki, Nelson Broche Jr., Akihisa Kaneko, Munehiro Okamoto, Juri Suzuki and Daniel Mills (Kyoto University, Japan and University of Lincoln, UK)

23. **Friends? – Effects of gilts’ social experiences and genetic line when meeting an unfamiliar pig at 5 and 20 weeks of age**
    Linda Marie Hannius, Linda Keeling, Claes Anderson, Daiana de Oliveira, Stina Emriksson and Anna Wallenbeck (Swedish Universities of Agricultural Sciences, Sweden)

24. **Does regenerative agriculture address animal welfare, human well-being, and environment conservation (One Welfare approach)? – A review**
    Matías Hargreaves-Méndez and María Hötzel (Universidade Federal de Santa Catarina, Brazil)

25. **Changes in prevalence of owner reported separation related behaviour with time dogs left alone during COVID restrictions**
    Naomi Harvey, Robert Christley, Rebecca Mead, Jane Murray, Melissa Upjohn and Rachel Casey (Dogs Trust, UK)
26. Welfare considerations for chickens used as laboratory animals
Lindsay Henderson, Kris Hogan, Amanda Novak, Adrian Sherman and Helen Sang (University of Edinburgh, UK)

27. Bowls are boring: Investigating the use of enrichment feeding for pet dogs and the associated perceived benefits and challenges
Madeline Heys, Imogen Lloyd and Carri Westgarth (University of Liverpool, UK)

28. The effect of sleep quantity and quality on the affective state of the horse
Sophie Hicks, Gianluca Tucci, Aleksandra Mikolajczak, Rachel Anstey, Gabby Dickson, Ceris Owen-Fraser, Eloise Bournes, Linda Greening, Claire O’Brien and Sebastian McBride (Aberystwyth University and Hartpury University, UK)

29. Investigating the relationship between recumbence and the frequency of stereotypical and feeding behaviour in two captive African elephants (Loxodonta africana) at night
Amber Ianniello (Oxford Brookes University and Abingdon and Witney College, UK)

30. Welfare and scientific limitations of the forced swim test
Kimberley Jayne, Julia Baines and Emily Trunnell (People for the Ethical Treatment of Animals (PETA) UK and USA)

31. Avoiding frustration by providing a cheap alternative – Using a novel maximum price paid test to quantify the maternal motivation in dairy cows (Bos taurus taurus)
Emma Jensen, Melissa Bateson, Heather Neave and Margit Jensen (Aarhus University, Denmark; Newcastle University, UK)

32. The structure and temporal changes in brokerage typologies applied to a dynamic sow herd
Sarah Jowett, Zoe Barker and Jonathan Amory (Writtle University College and University of Reading, UK)

33. Light and larvae for layers: Early-life interventions to prevent feather pecking in laying hens
Saskia Kliphuis, Maëva Manet, Vivian Goerlich, Rebecca Nordquist, Frank Tuyttens and Bas Rodenburg (Utrecht University and Wageningen University & Research, Netherlands; Flanders Research Institute for Agriculture, Fisheries and Food (ILVO) and Ghent University, Belgium)

34. Towards the study of boredom in pigs – Developing a task to assess pigs’ time perception
Kristina Kull, Christoph Winckler and Sara Hintze (University of Natural Resources and Life Sciences (BOKU), Austria)

35. Piglets’ reaction to human after weaning is linked to the response of their sow to the same human during gestation
Mathilde Lanthony, Marek Špinka and Céline Tallet (INRAE, France; Czech University of Life Sciences, Czech Republic)

36. Using horses’ facial expressions to assess pain levels automatically through deep learning-based modeling
Gabriel Lencioni, Rafael Sousa, Edson Sardinha, Rodrigo Corrêa and Adroaldo Zanella (University of São Paulo (USP), Brazil)

37. The importance of comprehensive species-specific datasets in animal welfare research: An example with donkeys
Holly Little, Stuart Norris, Linda Evans, Andrew Judge and Sarah Tulloch (The Donkey Sanctuary, UK)

38. The PDSA Animal Wellbeing (PAW) report 2021: The impact of COVID-19 on UK pet wellbeing
Rachel Malkani, Emma Tipton, Rebecca Ashman, Lynne James and Sean Wensley (PDSA and University of Surrey, UK)
39. **Primary validation and reliability testing of the animal welfare assessment grid for dogs**  
Rachel Malkani, Sarah Wolfensohn and Sharmi Paramasivam (*University of Surrey, UK*)

40. **MANYGOATS - A network to promote open and reproducible research on goat behaviour and welfare**  
ManyGoats, Federica Amici, Okan Atay, Mario Balaro, Monica Battini, Joao HC Costa, Ruan Daros, Shai David, Özal Gökdal, Edna Hillmann, Nina Keil, Whitney Knauer, Lorena Lacuesta, Serge-Yan Landau, Rebecca Meagher, Carly Moody, Christian Nawroth, Heather Neave, Tjasa Pangerl, Fernanda Sanchez-Davila, Janko Skok, Jenny Stracke, Jordan Tonooka, Rodolfo Ungerfeld, Beth Ventura, Arantxa Villagrán, Susanne Waiblinger and Gosia Zobel (*Leipzig University, Max Planck Institute for Evolutionary Anthropology, Humboldt-Universität zu Berlin and Research Institute for Farm Animal Biology and University of Bonn, Germany; Aydin Adnan Menderes University, Turkey; Universidade Federal Fluminense and Pontificia Universidade Católica do Paraná, Brazil; University of Milan, Italy; University of Kentucky, University of Minnesota and UC Davis, USA; Zoological Center Ramat Gan and Agricultural Research Organization, Rishon LeZion, Israel; Centre of Proper Housing of Ruminants and Pigs, Switzerland; Universidad de la República, Uruguay; Dalhousie University, Canada; Aarhus University, Denmark; University of Maribor, Slovenia; Universidad Autonoma de Nuevo Leon, Mexico; Instituto Valenciano de Investigaciones Agrarias, Spain; University of Veterinary Medicine, Austria; AgResearch Ltd, New Zealand*)

41. **Effect of weaning age on various measures of health in Rhesus macaques (*Macaca mulatta*): A retrospective study**  
David Massey, Claire Witham and Melissa Bateson (*Newcastle University and MRC Harwell Institute, UK*)

42. **Trap-Neuter-Adopt (TNA) as a welfare friendly solution for improving unwanted dogs welfare**  
Liat Morgan, Naama Shir-Nissan, Rune Birkler, John Boone, Andrew Rowan, Wiessam Abu Ahmed, Amir Steinman, Boris Yakobson, Ehud Gazit and Melissa Bateson (*Tel Aviv University, The Hebrew University of Jerusalem and Kimron Veterinary Institute, Israel; Newcastle University, UK; Great Basin Bird Observatory and Wellbeing International, USA*)

43. **Ethic assessment when publishing animal welfare research in an international scientific world**  
Birte Nielsen, Anna Olsson, Irene Camerlink, Péter Pongrácz, Jen-Yun Chou, Maria Camila Ceballos, Alexandra Whittaker and Huw Gollede (*UFAW, UK; Universidade do Porto, Portugal; Polish Academy of Sciences, Poland; Eötvös Loránd University, Hungary; Teagasc, Ireland; University of Calgary, Canada; University of Adelaide, Australia*)

44. **Does affective state alter the hedonic value of a social reward in laboratory mice?**  
Ryan Nolan, Candy Rowe, Matthew Leach and Jane Hurst (*University of Liverpool and Newcastle University, UK*)

45. **Handling method affects anxiety-like behaviour but not measures of chronic stress**  
Janja Novak, Ivana Jaric, Marianna Rosso, Reto Rufener, Chadi Touma and Hanno Würbel (*University of Bern, Switzerland; University of Osnabrück, Germany*)

46. **Are palatability assessments a valid measure of hedonic responses in *Equus callabus*?**  
Claire O’Brien, Sebastian MacBride and Matthew Parker (*Aberystwyth University and University of Portsmouth, UK*)

47. **Manual and precision livestock farming (PLF) assisted welfare comparison between two housing systems used in organic egg production**  
Michael Odintsov Vaintrub and Pierfrancesco Di Giuseppe (*Università Politecnica delle Marche and Università di studi di L’Aquila, Italy*)
48. **Weekly alternation and continuous presentation of environmental enrichment on behaviour of grower pigs**
Ayoola Oluyemi, Olufemi Adebiyi and Temitope Bankole (University of Ibadan, Nigeria)

49. **Implementation and use of a novel welfare assessment tool to improve primate behavioural management programs**
Carly O’Malley, Emilie Paterson and Patricia Turner (Charles River and University of Guelph, Canada)

50. **The effect of dog colour, size and environment on a human approach-stop task using videos of a simulated dog model displaying aggressive behaviours**
James Oxley, Helena Ransome-Prince, Georg Meyer, Iain Cant, Giuseppe Ballantuono, Matthew Butcher Andrew, Levers and Carri Westgarth (University of Liverpool and Virtual Engineering Centre, UK)

51. **Automated labelling of facial features in domestic dogs**
Marie-Claire Pagano, Cameron Smith and Lucy Asher (Newcastle University and University College London, UK)

52. **Grazing restriction induces wool pulling behaviour in sheep and it can be evaluated through wool inspection**
Ricard Pares, Pol Llonch, Xavier Manteca and Xavier Such (Universitat Autònoma de Barcelona, Spain)

53. **Early behavioural indicators of gastrointestinal parasitism in extensively farmed sheep for a precision livestock approach to welfare management**
Michelle Reeves, Heather McDougall, Fiona Kenyon, Jessica Martin, Emma Baxter and Cathy Dwyer (Moredun Research Institute, University of Edinburgh and SRUC, UK)

54. **Progress of primate environmental enrichment literature 1978 – 2019**
Samuel Richardson

55. **A five domains approach to assessing the welfare of dairy donkeys**
Karen Rickards, Fiona Cooke and Stuart Norris (The Donkey Sanctuary, UK)

56. **Dam (Canis familiaris) welfare throughout the peri-parturient period in commercial-breeding kennels**
Aynsley Romaniuk, Shanis Barnard, Jennifer Weller, Hsin-Yi Weng, Sriveny Dangoudoubiyam and Candace Croney (Purdue University, USA; Agri-Food & Biosciences Institute, UK)

57. **A humane death for black soldier fly larvae (Hermetia illucens) used in food and feed**
Lizzie Rowe, Erika de Castro and Miha Pipan (Better Origin, UK)

58. **Human-animal relationships in animal agriculture: Evolving perspectives on developing respectful relationships with animals**
Erin Ryan, Daniel Weary and Becca Franks (University of British Columbia, Canada; New York University, USA)

59. **Not good on foot? The occurrence of claw asymmetries during the lifetime of fattening pigs (Sus scrofa)**
Sarah Seufert, Nina Volkmann, Johannes Schmidt-Mosig and Nicole Kemper (University of Veterinary Medicine Hannover and vetvise GbR, Germany)

60. **Development and encoding of arousal in Mongolian gerbil and Djungarian hamster infant vocalisations**
Yara Silberstein and Marina Scheumann (University of Veterinary Medicine Hannover, Germany)

61. **Influence of bedding hygiene and colostrum management in dairy calves’ health**
Flávio Silva, Cristina Conceição, Severiano Silva, Pedro Caetano, Joana Ramalho, Sofia Pedro, Inês Azevedo, Luís Martins, Alfredo Pereira and Joaquim Cerqueira (University of Trás-os-Montes e Alto Douro, University of Évora and Agrarian School of Viana do Castelo Polytechnic Institute, Portugal)
| 62. | A guide to practical tools for improving scientific validity, animal welfare and health & safety | Adrian Smith and Bente Bergersen (Norecopa, Norway) |
| 63. | The use of companion animals in media: Welfare implications and a possible regulatory solution | Ira Snir, Liran Plitman and Yael Arbel (Israeli Veterinary Services and Animal Health, Israel) |
| 64. | (Anti-) social animal. Is sociality a matter of the rearing process in turkeys? | Jenny Stracke, Alicia Krasny, Stefanie Tensfeldt and Nicole Kemper (University of Bonn and University of Veterinary Medicine Hannover, Germany) |
| 65. | Analysis of dairy cows’ activity using a hybrid modelling approach for the early detection of health problems | Masoomeh Taghipoor, Severine Bord, Laure Sansonnet, Quentin Bulk and Joon Kwon (Université Paris-Saclay and Ferme expérimentale AgroParisTech, France) |
| 66. | The use of pigs vocalisations structure to assess the quality of human-pig relationship | Céline Tallet and Avelyne Villain (PEGASE, INRAE, France) |
| 67. | Operationalize stunning of captured plaice (Pleuronectes platessa) and turbot (Scophthalmus maximus) at sea: Provisions to ensure improved welfare | Hans van de Vis, Michelle Boonstra and Hendrik Kramer (Wageningen Livestock Research, Wageningen Marine Research and MDV-Beheer, The Netherlands) |
| 68. | The use of body surface temperature to detect valence of affective state and magnitude of food reward | Chanakarn Wongsaengchan, Ruedi Nager, Dominic McCafferty and Dorothy McKeegan (University of Glasgow, UK) |
| 69. | Changing human behaviour for animal welfare: The case of sheep tail docking length in Australia | Madeleine Woodruff, Carolina Munoz, Rebecca Doyle, Grahame Coleman and Stuart Barber (University of Melbourne, Australia; University of Edinburgh, UK) |
| 70. | How Japanese people make decisions about the happiness of zoo animals – A comparison between zoo visitors and professionals | Yumi Yamanashi, Yuko Ikikatai, Rie Akami, Nahoko Tokuyama, Moe Honjo and Duncan Wilson (Kyoto City Zoo, Kyoto University, Kanazawa University, Japan Monkey Centre and Nagasaki University, Japan) |
| 71. | Difficult paradigm shift? Reasons for continued animal use for educational purposes revealed in non-technical summaries | Miriam Zemanova, Andrew Knight and Susanna Lybæk (Animalfree Research and University of Fribourg, Switzerland; Oxford Centre for Animal Ethics and University of Winchester, UK; Griffith University, Australia; The Norwegian Animal Protection Alliance (Dyrevernalliansen), Norway) |