Bibliografía

Referencias

1. Welfare Quality R Consortium, Lelystad N. Welfare Quality Protocols. (2009). Available online at: http://www.welfarequalitynetwork.net/en-us/reports/assessment-protocols/ (accessed June 15, 2020).

2. Scharf SH, Schmidt MV. Animal models of stress vulnerability and resilience in translational research. Curr Psychiatry Rep. (2012) 14:159–65. doi: 10.1007/s11920-012-0256-0

3. Ellen ED, Bas Rodenburg T, Albers GAA, Elizabeth Bolhuis J, Camerlink I, Duijvesteijn N, et al. The prospects of selection for social genetic effects to improve welfare and productivity in livestock. Front Genet. (2014) 5:377. doi: 10.3389/fgene.2014.00377

4. Colditz IG, Hine BC. Resilience in farm animals: biology, management, breeding and implications for animal welfare. Anim Prod Sci. (2016) 56:1961–83. doi: 10.1071/AN15297

5. Sánchez-Hidalgo M, Bravo V, Gallo C. Behavior and health indicators to assess cull cow's welfare in livestock markets. Front Vet Sci. (2020) 7:471. doi: 10.3389/fvets.2020.00471

6. Munoz CA, Campbell AJD, Hemsworth PH, Doyle RE. Evaluating the welfare of extensively managed sheep. PLoS ONE. (2019) 14:e0218603. doi: 10.1371/journal.pone.0218603

7. Vasdal G, Granquist EG, Skjerve E, De Jong IC, Berg C, Michel V, et al. Associations between carcass weight uniformity and production measures on farm and at slaughter in commercial broiler flocks. Poult Sci. (2019) 98:4261–8. doi: 10.3382/ps/pez252

8. Chulayo AY, Muchenje V. Activities of some stress enzymes as indicators of slaughter cattle welfare and their relationship with physico-chemical characteristics of beef. Animal. (2017) 11:1645–52. doi: 10.1017/S1751731117000222

9. Chen Y, Stookey J, Arsenault R, Scruten E, Griebel P, Napper S. Investigation of the physiological, behavioral, and biochemical responses of cattle to restraint stress. J Anim Sci. (2016) 94:3240–54. doi: 10.2527/jas.2016-0549

10. Wein Y, Geva Z, Bar-Shira E, Friedman A. Transport-related stress and its resolution in Turkey pullets: activation of a pro-inflammatory response in peripheral blood leukocytes. Poult Sci. (2017) 96:2601–13. doi: 10.3382/ps/pex076

11. Sejian V, Bhatta R, Gaughan JB, Dunshea FR, Lacetera N. Review: adaptation of animals to heat stress. Animal. (2018) 12:S431–44. doi: 10.1017/S1751731118001945

12. Grandin T, Shivley C. How farm animals react and perceive stressful situations such as handling, restraint, and transport. Animals. (2015) 5:1233–51. doi: 10.3390/ani5040409

13. Qu H, Ajuwon KM. Metabolomics of heat stress response in pig adipose tissue reveals alteration of phospholipid and fatty acid composition during heat stress. J Anim Sci. (2018) 96:3184–95. doi: 10.1093/jas/sky127

14. Li J, Wijffels G, Yu Y, Nielsen LK, Niemeyer DO, Fisher AD, et al. Altered fatty acid metabolism in long duration road transport: an NMR-based metabonomics study in sheep. J Proteome Res. (2011) 10:1073–87. doi: 10.1021/pr100862t

15. Cornale P, Macchi E, Miretti S, Renna M, Lussiana C, Perona G, et al. Effects of stocking density and environmental enrichment on behavior and fecal corticosteroid levels of pigs under commercial farm conditions. J Vet Behav Clin Appl Res. (2015) 10:569–76. doi: 10.1016/j.jveb.2015.05.002

16. Fustini M, Galeati G, Gabai G, Mammi LE, Bucci D, Baratta M, et al. Overstocking dairy cows during the dry period affects dehydroepiandrosterone and cortisol secretion. J Dairy Sci. (2017) 100:620–8. doi: 10.3168/jds.2016-11293

17. Marco-Ramell A, Arroyo L, Peña R, Pato R, Saco Y, Fraile L, et al. Biochemical and proteomic analyses of the physiological response induced by individual housing in gilts provide new potential stress markers. BMC Vet Res. (2016) 12:265. doi: 10.1186/s12917-016-0887-1

18. Díaz Carrasco, I., Guisado Rasco, A., & Ordoñez Fernández, A. (2016). ¿Qué son los micro-RNA? ¿Para qué sirven? ¿Qué potenciales beneficios podrían tener en el contexto asistencial?. Cardiocore, 51(4), 161-166. doi: 10.1016/j.carcor.2015.02.002

19. Jung, H., & Suh, Y. (2015). Regulation of IGF -1 signaling by microRNAs. Frontiers In Genetics, 5. doi: 10.3389/fgene.2014.00472

20. Zhang Z, Cao Y, Zhai Y, Ma X, An X, Zhang S, et al. MicroRNA-29b regulates DNA methylation by targeting Dnmt3a/3b and Tet1/2/3 in porcine early embryo development. Dev Growth Differ. (2018) 60:197–204. doi: 10.1111/dgd.12537

21. Fleming DS, Miller LC. Differentially expressed miRNAs and tRNA genes affect host homeostasis during highly pathogenic porcine reproductive and respiratory syndrome virus infections in young pigs. Front Genet. (2019) 10:691. doi: 10.3389/fgene.2019.00691

22. Wright K, Plain K, Purdie A, Saunders BM, De Silva K. Biomarkers for detecting resilience against mycobacterial disease in animals. Infect Immun. (2020) 88:e00401-19 doi: 10.1128/IAI.00401-19

23. Miretti S, Volpe MG, Martignani E, Accornero P, Baratta M. Temporal correlation between differentiation factor expression and microRNAs in Holstein bovine skeletal muscle. Animal. (2017) 11:227–35. doi: 10.1017/S1751731116001488

24. Erdos Z, Barnum JE, Wang E, Demaula C, Dey PM, Forest T, et al. Evaluation of the relative performance of pancreas-specific micrornas in rat plasma as biomarkers of pancreas injury. Toxicol Sci. (2020) 173:5–18. doi: 10.1093/toxsci/kfz184

25. Laterza OF, Lim L, Garrett-Engele PW, Vlasakova K, Muniappa N, Tanaka WK, et al. Plasma microRNAs as sensitive and specific biomarkers of tissue injury. Clin Chem. (2009) 55:1977–83. doi: 10.1373/clinchem.2009.131797

26. Lecchi C, Zamarian V, Gini C, Avanzini C, Polloni A, Rota Nodari S, et al. Salivary microRNAs are potential biomarkers for the accurate and precise identification of inflammatory response after tail docking and castration in piglets. J Anim Sci. (2020) 98:skaa153. doi: 10.1093/jas/skaa153

27. Samir M, Pessler F. Small non-coding RNAs associated with viral infectious diseases of veterinary importance: potential clinical applications. Front Vet Sci. (2016) 3:22. doi: 10.3389/fvets.2016. 00022

28. Weber JA, Baxter DH, Zhang S, Huang DY, Huang KH, Lee MJ, et al. The microRNA spectrum in 12 body fluids. Clin Chem. (2010) 56:1733–41. doi: 10.1373/clinchem.2010.147405

29. Correia CN, Nalpas NC, McLoughlin KE, Browne JA, Gordon S V., MacHugh DE, et al. Circulating microRNAs as potential biomarkers of infectious disease. Front Immunol. (2017) 8:118. doi: 10.3389/fimmu.2017.00118

30. Lecchi C, Catozzi C, Zamarian V, Poggi G, Borriello G, Martucciello A, et al. Characterization of circulating miRNA signature in water buffaloes (Bubalus bubalis) during Brucella abortus infection and evaluation as potential biomarkers for non-invasive diagnosis in vaginal fluid. Sci Rep. (2019) 9:1945. doi: 10.1038/s41598-018-38365-x

31. Stenfeldt C, Arzt J, Smoliga G, Larocco M, Gutkoska J, Lawrence P. Proof-of-concept study: profile of circulating microRNAs in Bovine serum harvested during acute and persistent FMDV infection. Virol J. (2017) 14:71. doi: 10.1186/s12985-017-0743-3

32. Zhou C, Cai G, Meng F, Xu Z, He Y, Hu Q, et al. Deep-sequencing identification of MicroRNA biomarkers in serum exosomes for early pig pregnancy. Front Genet. (2020) 11:536. doi: 10.3389/fgene.2020.00536

33. Ioannidis J, Donadeu FX. Changes in circulating microRNA levels can be identified as early as day 8 of pregnancy in cattle. PLoS ONE. (2017) 12:e0174892. doi: 10.1371/journal.pone.0174892

34. Chen RJ, Kelly G, Sengupta A, Heydendael W, Nicholas B, Beltrami S, et al. MicroRNAs as biomarkers of resilience or vulnerability to stress. Neuroscience. (2015) 305:36–48. doi: 10.1016/j.neuroscience.2015.07.045

35. Xu YY, Xia QH, Xia QR, Zhang XL, Liang J. Microrna-based biomarkers in the diagnosis and monitoring of therapeutic response in patients with depression. Neuropsychiatr Dis Treat. (2019) 15:3583–97. doi: 10.2147/NDT.S237116

36. Jacobsen DP, Eriksen MB, Rajalingam D, Nymoen I, Nielsen MB, Einarsen S, et al. Exposure to workplace bullying, microRNAs and pain; evidence of a moderating effect of miR-30c rs928508 and miR-223 rs3848900. Stress. (2020) 23:77–86. doi: 10.1080/10253890.2019.1642320

37. Nordquist RE, van der Staay FJ, van Eerdenburg FJCM, Velkers FC, Fijn L, Arndt SS. Mutilating procedures, management practices, and housing conditions that may affect the welfare of farm animals: implications for welfare research. Animals. (2017) 7:12. doi: 10.3390/ani7020012

38. Carvalho RR, Palme R, da Silva Vasconcellos A. An integrated analysis of social stress in laying hens: the interaction between physiology, behaviour, and hierarchy. Behav Processes. (2018) 149:43–51. doi: 10.1016/j.beproc.2018.01.016

39. Proudfoot K, Habing G. Social stress as a cause of diseases in farm animals: current knowledge and future directions. Vet J. (2015) 206:15–21. doi: 10.1016/j.tvjl.2015.05.024

40. Koolhaas JM, Bartolomucci A, Buwalda B, de Boer SF, Flügge G, Korte SM, et al. Stress revisited: a critical evaluation of the stress concept. Neurosci Biobehav Rev. (2011) 35:1291–301. doi: 10.1016/j.neubiorev.2011.02.003