

## **Edinburgh Infectious Diseases publications in 2016**

1. Adu, B., Cherif, M.K., Bosomprah, S., Diarra, A., Arthur, F.K., Dickson, E.K., Corradin, G., Cavanagh, D.R., Theisen, M., Sirima, S.B., et al. (2016). Antibody levels against GLURP R2, MSP1 block 2 hybrid and AS202.11 and the risk of malaria in children living in hyperendemic (Burkina Faso) and hypo-endemic (Ghana) areas. *Malaria journal* 15, 123.
2. Ahlstrom, C., Barkema, H.W., Stevenson, K., Zadoks, R.N., Biek, R., Kao, R., Trewby, H., Haupstein, D., Kelton, D.F., Fecteau, G., et al. (2016). Genome-Wide Diversity and Phylogeography of *Mycobacterium avium* subsp. *paratuberculosis* in Canadian Dairy Cattle. *PLoS One* 11, e0149017.
3. Al-Rubaye, D.S., Henihan, G., Al-Abasly, A.K., Seagar, A.L., Al-Attraqchi, A.A., Schulze, H., Hashim, D.S., Kamil, J.K., Laurenson, I.F., and Bachmann, T.T. (2016). Genotypic assessment of drug-resistant tuberculosis in Baghdad and other Iraqi provinces using low-cost and low-density DNA microarrays. *Journal of medical microbiology* 65, 114-122.
4. Alderton, S., Macleod, E.T., Anderson, N.E., Schaten, K., Kuleszo, J., Simuunza, M., Welburn, S.C., and Atkinson, P.M. (2016). A Multi-Host Agent-Based Model for a Zoonotic, Vector-Borne Disease. A Case Study on Trypanosomiasis in Eastern Province, Zambia. *PLoS Negl Trop Dis* 10, e0005252.
5. Alexander, K.A., Raggatt, L.J., Millard, S., Battoon, L., Chiu-Ku Wu, A., Chang, M.K., Hume, D.A., and Pettit, A.R. (2017). Resting and injury-induced inflamed periosteum contain multiple macrophage subsets that are located at sites of bone growth and regeneration. *Immunol Cell Biol* 95, 7-16.
6. Alberti, S., Hill, A.T., Mantero, M., Battaglia, S., Centanni, S., Cicero, S.L., Lacedonia, D., Saetta, M., Chalmers, J.D., and Blasi, F. (2016). Quality standards for the management of bronchiectasis in Italy: a national audit. *Eur Respir J* 48, 244-248.
7. Alibhai, J., Blanco, R.A., Barria, M.A., Piccardo, P., Caughey, B., Perry, V.H., Freeman, T.C., and Manson, J.C. (2016). Distribution of Misfolded Prion Protein Seeding Activity Alone Does Not Predict Regions of Neurodegeneration. *PLoS Biol* 14, e1002579.
8. Allen, R.C., McNally, L., Popat, R., and Brown, S.P. (2016). Quorum sensing protects bacterial co-operation from exploitation by cheats. *The ISME journal* 10(7), 1706-1716.
9. Alpren, C., Sloan, M., Boegler, K.A., Martin, D.W., Ervin, E., Washburn, F., Rickert, R., Singh, T., and Redd, J.T. (2016). Notes from The Field: Ebola Virus Disease Cluster - Northern Sierra Leone, January 2016. *MMWR. Morbidity and mortality weekly report* 65, 681-682.
10. Amanfo, S.A., Mduluza, T., Midzi, N., Cavanagh, D.R., and Mutapi, F. (2016). Seroepidemiology of *Plasmodium* species infections in Zimbabwean population. *Malaria journal* 15, 267.
11. Amin, N., Allebrandt, K.V., van der Spek, A., Muller-Myhsok, B., Hek, K., Teder-Laving, M., Hayward, C., Esko, T., van Mill, J.G., Mbarek, H., et al. (2016). Genetic variants in RBFOX3 are associated with sleep latency. *European journal of human genetics : EJHG* 24, 1488-1495.
12. Amyes, S.G. (2016). Editorial. *International journal of infectious diseases : IJID : official publication of the International Society for Infectious Diseases*.
13. Amyes, S.G. (2016). Corrigendum to 'Editorial' [International Journal of Infectious Diseases 50 (2016) 83-84]. *International journal of infectious diseases : IJID : official publication of the International Society for Infectious Diseases* 51, 109.
14. Anastasi, E., MacArthur, I., Scortti, M., Alvarez, S., Giguere, S., and Vazquez-Boland, J.A. (2016). Pan-genome and Phylogenomic Analysis of the Pathogenic Actinobacterium *Rhodococcus equi*. *Genome biology and evolution* 8, 3140-3148.
15. Anderson, C., Khan, M.A., Wong, F., Solovieva, T., Oliveira, N.M., Baldock, R.A., Tickle, C., Burt, D.W., and Stern, C.D. (2016). A strategy to discover new organizers identifies a putative heart organizer. *Nat Commun* 7, 12656.
16. Anderson, N.E., Bessell, P.R., Mubanga, J., Thomas, R., Eisler, M.C., Fevre, E.M., and Welburn, S.C. (2016). Ecological Monitoring and Health Research in Luambe National Park, Zambia: Generation of Baseline Data Layers. *EcoHealth* 13, 511-524.
17. Andrews, C.P., Kruuk, L.E., and Smiseth, P.T. (2017). Evolution of elaborate parental care: phenotypic and genetic correlations between parent and offspring traits. *Behavioral ecology : official journal of the International Society for Behavioral Ecology* 28, 39-48.
18. Anichini, G., Iqbal, M., Rafiq, N.M., Ironside, J.W., and Kamel, M. (2016). Sacrificing the superior petrosal vein during microvascular decompression. Is it safe? Learning the hard way. Case report and review of literature. *Surgical neurology international* 7, S415-420.
19. Armstrong, S.D., Xia, D., Bah, G.S., Krishna, R., Ngangyung, H.F., LaCourse, E.J., McSorley, H.J., Kengne-Ouafou, J.A., Chounna-Ndongmo, P.W., Wanji, S., et al. (2016). Stage-specific proteomes from *Onchocerca ochengi*,

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- sister species of the human river blindness parasite, uncover adaptations to a nodular lifestyle. *Mol Cell Proteomics* 15, 2554-2575.
20. Auten, R., Schwarze, J., Ren, C., Davis, S., and Noah, T.L. (2016). Pediatric Pulmonology year in review 2015: Part 1. *Pediatr Pulmonol* 51, 733-739.
21. Auty, H., Cleaveland, S., Malele, I., Masoy, J., Lembo, T., Bessell, P., Torr, S., Picozzi, K., and Welburn, S.C. (2016). Quantifying Heterogeneity in Host-Vector Contact: Tsetse (*Glossina swynnertoni* and *G. pallidipes*) Host Choice in Serengeti National Park, Tanzania. *PLoS One* 11, e0161291.
22. Baele, G., Suchard, M.A., Rambaut, A., and Lemey, P. (2016). Emerging concepts of data integration in pathogen phylodynamics. *Systematic biology* 66, e47-e65.
23. Bah, S.Y., Dickinson, P., Forster, T., Kampmann, B., and Ghazal, P. (2016). Immune oxysterols: Role in mycobacterial infection and inflammation. *The Journal of steroid biochemistry and molecular biology*.
24. Bain, C.C., Hawley, C.A., Garner, H., Scott, C.L., Schridde, A., Steers, N.J., Mack, M., Joshi, A., Guilliams, M., Mowat, A.M., et al. (2016). Long-lived self-renewing bone marrow-derived macrophages displace embryo-derived cells to inhabit adult serous cavities. *Nat Commun* 7, ncomms11852.
25. Balsells, E., Filipescu, T., Kyaw, M.H., Wiuff, C., Campbell, H., and Nair, H. (2016). Infection prevention and control of Clostridium difficile: a global review of guidelines, strategies, and recommendations. *J Glob Health* 6, 020410.
26. Banos, G., Winters, M., Mrude, R., Mitchell, A.P., Bishop, S.C., Woolliams, J.A., and Coffey, M.P. (2017). Genetic evaluation for bovine tuberculosis resistance in dairy cattle. *J Dairy Sci* 100, 1272-1281.
27. Bardosh, K.L., Berbri, I.E., Ducrotoy, M., Bouslikhane, M., Ouafaa, F.F., and Welburn, S.C. (2016). ZOONOTIC ENCOUNTERS AT THE SLAUGHTERHOUSE: PATHWAYS AND POSSIBILITIES FOR THE CONTROL OF CYSTIC ECHINOCOCCOSIS IN NORTHERN MOROCCO. *Journal of biosocial science* 48 Suppl 1, S92-s115.
28. Barron, R.M., King, D., Jeffrey, M., McGovern, G., Agarwal, S., Gill, A.C., and Piccardo, P. (2016). PrP aggregation can be seeded by pre-formed recombinant PrP amyloid fibrils without the replication of infectious prions. *Acta neuropathologica* 132, 611-624.
29. Bartley, P.M., Hamilton, C., Wilson, C., Innes, E.A., and Katzer, F. (2016). Erratum to: Detection of Babesia annae DNA in lung exudate samples from Red foxes (*Vulpes vulpes*) in Great Britain. *Parasit Vectors* 9, 275.
30. Bartley, P.M., Hamilton, C., Wilson, C., Innes, E.A., and Katzer, F. (2016). Detection of Babesia annae DNA in lung exudate samples from Red foxes (*Vulpes vulpes*) in Great Britain. *Parasit Vectors* 9, 84.
31. Berenos, C., Ellis, P.A., Pilkington, J.G., and Pemberton, J.M. (2016). Genomic Analysis Reveals Depression Due To Both Individual And Maternal Inbreeding In A Free-Living Mammal Population. *Mol Ecol* 25, 3152-3168.
32. Berk, Z., Bishop, S.C., Forbes, A.B., and Kyriazakis, I. (2016). A simulation model to investigate interactions between first season grazing calves and *Ostertagia ostertagi*. *Vet Parasitol* 226, 198-209.
33. Besier, R.B., Kahn, L.P., Sargison, N.D., and Van Wyk, J.A. (2016). Diagnosis, Treatment and Management of *Haemonchus contortus* in Small Ruminants. *Advances in parasitology* 93, 181-238.
34. Besier, R.B., Kahn, L.P., Sargison, N.D., and Van Wyk, J.A. (2016). The Pathophysiology, Ecology and Epidemiology of *Haemonchus contortus* Infection in Small Ruminants. *Advances in parasitology* 93, 95-143.
35. Bewley, M.A., Belchamber, K.B., Chana, K.K., Budd, R.C., Donaldson, G., Wedzicha, J.A., Brightling, C.E., Kilty, I., Donnelly, L.E., Barnes, P.J., et al. (2016). Differential Effects of p38, MAPK, PI3K or Rho Kinase Inhibitors on Bacterial Phagocytosis and Efferocytosis by Macrophages in COPD. *PLoS One* 11, e0163139.
36. Bhatia, R., Kavanagh, K., Cubie, H.A., Serrano, I., Wennington, H., Hopkins, M., Pan, J., Pollock, K.G., Palmer, T.J., and Cuschieri, K. (2016). Use of HPV testing for cervical screening in vaccinated women--Insights from the SHEVa (Scottish HPV Prevalence in Vaccinated Women) study. *International journal of cancer* 138, 2922-2931.
37. Bielejec, F., Baele, G., Vrancken, B., Suchard, M.A., Rambaut, A., and Lemey, P. (2016). SpreeAD3: Interactive Visualization of Spatiotemporal History and Trait Evolutionary Processes. *Mol Biol Evol* 33, 2167-2169.
38. Blackley, D.J., Wiley, M.R., Ladner, J.T., Fallah, M., Lo, T., Gilbert, M.L., Gregory, C., D'Ambrozio, J., Coulter, S., Mate, S., et al. (2016). Reduced evolutionary rate in reemerged Ebola virus transmission chains. *Science advances* 2, e1600378.
39. Blayney, J.K., Davison, T., McCabe, N., Walker, S., Keating, K., Delaney, T., Greenan, C., Williams, A.R., McCluggage, W.G., Capes-Davis, A., et al. (2016). Prior knowledge transfer across transcriptional data sets and technologies using compositional statistics yields new mislabelled ovarian cell line. *Nucleic Acids Res* 44, e137.
40. Bonsall, D., Gregory, W.F., Ip, C.L., Donfield, S., Iles, J., Ansari, M.A., Piazza, P., Trebes, A., Brown, A., Frater, J., et al. (2016). Evaluation of Viremia Frequencies of a Novel Human Pegivirus by Using Bioinformatic Screening and PCR. *Emerg Infect Dis* 22, 671-678.

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41. Booth, J.W., Hamzah, L., Jose, S., Horsfield, C., O'Donnell, P., McAdoo, S., Kumar, E.A., Turner-Stokes, T., Khatib, N., Das, P., et al. (2016). Clinical characteristics and outcomes of HIV-associated immune complex kidney disease. *Nephrology, dialysis, transplantation : official publication of the European Dialysis and Transplant Association - European Renal Association* 31, 2099-2107.
42. Borowska, D., Rothwell, L., Bailey, R.A., Watson, K., and Kaiser, P. (2016). Identification of stable reference genes for quantitative PCR in cells derived from chicken lymphoid organs. *Vet Immunol Immunopathol* 170, 20-24.
43. Bourhy, H., Nakoune, E., Hall, M., Nouvellet, P., Lepelletier, A., Talbi, C., Watier, L., Holmes, E.C., Cauchemez, S., Lemey, P., et al. (2016). Revealing the Micro-scale Signature of Endemic Zoonotic Disease Transmission in an African Urban Setting. *PLoS Pathog* 12, e1005525.
44. Boyapati, R.K., Rossi, A.G., Satsangi, J., and Ho, G.T. (2016). Gut mucosal DAMPs in IBD: from mechanisms to therapeutic implications. *Mucosal immunology* 9, 567-582.
45. Bradford, B.M., Brown, K.L., and Mabbott, N.A. (2016). Prion pathogenesis is unaltered following down-regulation of SIGN-R1. *Virology* 497, 337-345.
46. Bridle, H.L., Heringa, M.B., and Schafer, A.I. (2016). Solid-phase microextraction to determine micropollutant-macromolecule partition coefficients. *Nature protocols* 11, 1328-1344.
47. Brook, M., Tomlinson, G.H., Miles, K., Smith, R.W., Rossi, A.G., Hiemstra, P.S., van 't Wout, E.F., Dean, J.L., Gray, N.K., Lu, W., et al. (2016). Neutrophil-derived alpha defensins control inflammation by inhibiting macrophage mRNA translation. *Proc Natl Acad Sci U S A* 113, 4350-4355.
48. Brown, A., Halliday, J.S., Swadling, L., Madden, R.G., Bendall, R., Hunter, J.G., Maggs, J., Simmonds, P., Smith, D.B., Vine, L., et al. (2016). Characterization of the Specificity, Functionality, and Durability of Host T-Cell Responses Against the Full-Length Hepatitis E Virus. *Hepatology* (Baltimore, Md.) 64, 1934-1950.
49. Buda, R., Liu, Y., Yang, J., Hegde, S., Stevenson, K., Bai, F., and Pilizota, T. (2016). Dynamics of Escherichia coli's passive response to a sudden decrease in external osmolarity. *Proc Natl Acad Sci U S A* 113, E5838-e5846.
50. Burgess, S.T., Nunn, F., Nath, M., Frew, D., Wells, B., Marr, E.J., Huntley, J.F., McNeilly, T.N., and Nisbet, A.J. (2016). A recombinant subunit vaccine for the control of ovine psoroptic mange (sheep scab). *Vet Res* 47, 26.
51. Burn, G.L., Cornish, G.H., Potrzebowska, K., Samuelsson, M., Griffie, J., Minoughan, S., Yates, M., Ashdown, G., Pernodet, N., Morrison, V.L., et al. (2016). Superresolution imaging of the cytoplasmic phosphatase PTPN22 links integrin-mediated T cell adhesion with autoimmunity. *Science signaling* 9, ra99.
52. Burrells, A., Opsteegh, M., Pollock, K.G., Alexander, C.L., Chatterton, J., Evans, R., Walker, R., McKenzie, C.A., Hill, D., Innes, E.A., et al. (2016). The prevalence and genotypic analysis of Toxoplasma gondii from individuals in Scotland, 2006-2012. *Parasit Vectors* 9, 324.
53. Callaby, R., Toye, P., Jennings, A., Thumbi, S.M., Coetzer, J.A., Conradie Van Wyk, I.C., Hanotte, O., Mbole-Kariuki, M.N., Bronsvoort, B.M., Kruuk, L.E., et al. (2016). Seroprevalence of respiratory viral pathogens of indigenous calves in Western Kenya. *Research in veterinary science* 108, 120-124.
54. Campbell, H., Bont, L., and Nair, H. (2015). Respiratory syncytial virus (RSV) disease - new data needed to guide future policy. *J Glob Health* 5, 020101.
55. Canini, L., Woolhouse, M.E., Maines, T.R., and Carrat, F. (2016). Heterogeneous shedding of influenza by human subjects and its implications for epidemiology and control. *Sci Rep* 6, 38749.
56. Carter, L.M., Pollitt, L.C., Wilson, L.G., and Reece, S.E. (2016). Ecological influences on the behaviour and fertility of malaria parasites. *Malaria journal* 15, 220.
57. Cassady-Cain, R.L., Blackburn, E.A., Alsarraf, H., Dedic, E., Bease, A.G., Bottcher, B., Jorgensen, R., Wear, M., and Stevens, M.P. (2016). Biophysical characterization and activity of lymphostatin, a multifunctional virulence factor of attaching & effacing Escherichia coli. *The Journal of biological chemistry* 291, 5803-5816.
58. Cassady-Cain, R.L., Blackburn, E.A., Bell, C.R., Elshina, E., Hope, J.C., and Stevens, M.P. (2017). Inhibition of Antigen-Specific and Nonspecific Stimulation of Bovine T and B Cells by Lymphostatin from Attaching and Effacing Escherichia coli. *Infect Immun* 85.
59. Catafau, A.M., Bullich, S., Seibyl, J.P., Barthel, H., Ghetti, B., Leverenz, J., Ironside, J.W., Schulz-Schaeffer, W.J., Hoffmann, A., and Sabri, O. (2016). Cerebellar Amyloid-beta Plaques: How Frequent Are They, and Do They Influence 18F-Florbetaben SUV Ratios? *Journal of nuclear medicine : official publication, Society of Nuclear Medicine* 57, 1740-1745.
60. Cescatti, M., Saverioni, D., Capellari, S., Tagliavini, F., Kitamoto, T., Ironside, J., Giese, A., and Parchi, P. (2016). Analysis of conformational stability of abnormal prion protein aggregates across the spectrum of Creutzfeldt-Jakob disease prions. *J Virol* 90, 6244-6254.
61. Chalmers, J.D., Akram, A.R., Singanayagam, A., Wilcox, M.H., and Hill, A.T. (2016). Risk factors for Clostridium difficile infection in hospitalized patients with community-acquired pneumonia. *The Journal of infection* 73, 45-53.

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62. Chalmers, J.D., Aliberti, S., Polverino, E., Vendrell, M., Crichton, M., Loebinger, M., Dimakou, K., Clifton, I., van der Eerden, M., Rohde, G., et al. (2016). The EMBARC European Bronchiectasis Registry: protocol for an international observational study. *ERJ open research* 2, 00081.
63. Chalmers, J.D., McDonnell, M.J., Rutherford, R., Davidson, J., Finch, S., Crichton, M., Dupont, L., Hill, A.T., Fardon, T.C., De Soya, A., et al. (2016). The generalizability of bronchiectasis randomized controlled trials: A multicentre cohort study. *Respiratory medicine* 112, 51-58.
64. Checchi, M., Hewitt, P.E., Bennett, P., Ward, H.J., Will, R.G., Mackenzie, J.M., and Sinka, K. (2016). Ten-year follow-up of two cohorts with an increased risk of variant CJD: donors to individuals who later developed variant CJD and other recipients of these at-risk donors. *Vox Sang* 111, 325-332.
65. Chen, Q., Thomas, J.T., Gimenez-Lirola, L.G., Hardham, J.M., Gao, Q., Gerber, P.F., Opriessnig, T., Zheng, Y., Li, G., Gauger, P.C., et al. (2016). Evaluation of serological cross-reactivity and cross-neutralization between the United States porcine epidemic diarrhea virus prototype and S-INDEL-variant strains. *BMC Vet Res* 12, 70.
66. Chen, X., Liu, S., Rao, P., Bradshaw, J., and Weller, R. (2016). Topical application of superoxide dismutase mediated by HIV-TAT peptide attenuates UVB-induced damages in human skin. *European journal of pharmaceutics and biopharmaceutics : official journal of Arbeitsgemeinschaft fur Pharmazeutische Verfahrenstechnik e.V* 107, 286-294.
67. Chintoan-Uta, C., Cassady-Cain, R.L., and Stevens, M.P. (2016). Evaluation of flagellum-related proteins FliD and FspA as subunit vaccines against *Campylobacter jejuni* colonisation in chickens. *Vaccine* 34, 1739-1743.
68. Choudhury, D., Tanner, M.G., McAughtrie, S., Yu, F., Mills, B., Choudhary, T.R., Seth, S., Craven, T.H., Stone, J.M., Mati, I.K., et al. (2017). Endoscopic sensing of alveolar pH. *Biomedical optics express* 8, 243-259.
69. Christensen, L.L., Selman, C., Blount, J.D., Pilkington, J.G., Watt, K.A., Pemberton, J.M., Reid, J.M., and Nussey, D.H. (2016). Marker-dependent associations among oxidative stress, growth and survival during early life in a wild mammal. *Proc Biol Sci* 283, 283.
70. Chu, J.Y., Dransfield, I., Rossi, A.G., and Vermeren, S. (2016). Non-canonical PI3K-Cdc42-Pak-Mek-Erk Signaling Promotes Immune-Complex-Induced Apoptosis in Human Neutrophils. *Cell reports* 17, 374-386.
71. Churchill, D., Waters, L., Ahmed, N., Angus, B., Boffito, M., Bower, M., Dunn, D., Edwards, S., Emerson, C., Fidler, S., et al. (2016). British HIV Association guidelines for the treatment of HIV-1-positive adults with antiretroviral therapy 2015. *HIV Med* 17 Suppl 4, s2-s104.
72. Clavadetscher, J., Hoffmann, S., Lilienkampf, A., Mackay, L., Yusop, R.M., Rider, S.A., Mullins, J.J., and Bradley, M. (2016). Copper Catalysis in Living Systems and In Situ Drug Synthesis. *Angewandte Chemie (International ed. in English)* 55, 15662-15666.
73. Claycomb, J., Abreu-Goodger, C., and Buck, A.H. (2017). RNA-Mediated Communication Between Helminths and their Hosts: The Missing Links. *RNA Biol*, 1-6.
74. Clement, M., Marsden, M., Stacey, M.A., Abdul-Karim, J., Gimeno Brias, S., Costa Bento, D., Scurr, M.J., Ghazal, P., Weaver, C.T., Carlesso, G., et al. (2016). Cytomegalovirus-Specific IL-10-Producing CD4+ T Cells Are Governed by Type-I IFN-Induced IL-27 and Promote Virus Persistence. *PLoS Pathog* 12, e1006050.
75. Coakley, G., Buck, A.H., and Maizels, R.M. (2016). Host parasite communications-Messages from helminths for the immune system: Parasite communication and cell-cell interactions. *Mol Biochem Parasitol* 208, 33-40.
76. Concha-Marambio, L., Pritzkow, S., Moda, F., Tagliavini, F., Ironside, J.W., Schulz, P.E., and Soto, C. (2016). Detection of prions in blood from patients with variant Creutzfeldt-Jakob disease. *Science translational medicine* 8, 370ra183.
77. Connelley, T.K., Li, X., MacHugh, N., Colau, D., Graham, S.P., van der Bruggen, P., Taracha, E.L., Gill, A., and Morrison, W.I. (2016). CD8 T-cell responses against the immunodominant *Theileria parva* peptide Tp249-59 are composed of two distinct populations specific for overlapping 11-mer and 10-mer epitopes. *Immunology* 149, 172-185.
78. Conway Morris, A., Datta, D., Shankar-Hari, M., Weir, C.J., Rennie, J., Antonelli, J., Rossi, A.G., Warner, N., Keenan, J., Wang, A., et al. (2016). Predictive value of cell-surface markers in infections in critically ill patients: protocol for an observational study (Immune Failure in Critical Therapy (INFECT) Study). *BMJ open* 6, e011326.
79. Corbishley, A., Connelley, T.K., Wolfson, E.B., Ballingall, K., Beckett, A.E., Gally, D.L., and McNeilly, T.N. (2016). Identification of epitopes recognised by mucosal CD4(+) T-cell populations from cattle experimentally colonised with *Escherichia coli* O157:H7. *Vet Res* 47, 90.
80. Cordeiro, O.G., Chypre, M., Brouard, N., Rauber, S., Alloush, F., Romera-Hernandez, M., Benezech, C., Li, Z., Eckly, A., Coles, M.C., et al. (2016). Integrin-Alpha IIb Identifies Murine Lymph Node Lymphatic Endothelial Cells Responsive to RANKL. *PLoS One* 11, e0151848.

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81. Costa, E., Buxton, J., Brown, J., Templeton, K.E., Breuer, J., and Johannessen, I. (2016). Fatal disseminated varicella zoster infection following zoster vaccination in an immunocompromised patient. *BMJ case reports 2016*.
82. Coutinho, A.E., Kipari, T.M., Zhang, Z., Esteves, C.L., Lucas, C.D., Gilmour, J.S., Webster, S.P., Walker, B.R., Hughes, J., Savill, J.S., et al. (2016). 11beta-Hydroxysteroid Dehydrogenase type 1 is expressed in neutrophils and restrains an inflammatory response in male mice. *Endocrinology 157*, 2928-2936.
83. Crilly, J.P., Nunn, F., Busin, V., Marr, E.J., Jennings, A.E., Burgess, S.T., and Sargison, N.D. (2016). Investigation and treatment of ovine psoroptic otoacariasis. *Veterinary dermatology 27*, 206-e252.
84. Crilly, J.P., Soderquist, L., Holmstrom, A., and Sargison, N.D. (2016). Proof of concept of ovine artificial insemination by vaginal deposition of frozen-thawed semen under UK sheep-farming conditions. *Vet Rec 178*, 532.
85. Cubie, H.A., Morton, D., Kawonga, E., Mautanga, M., Mwenitete, I., Teakle, N., Ngwira, B., Walker, H., Walker, G., Kafwafwa, S., et al. (2017). HPV prevalence in women attending cervical screening in rural Malawi using the cartridge-based Xpert(R) HPV assay. *Journal of clinical virology : the official publication of the Pan American Society for Clinical Virology 87*, 1-4.
86. Cui, J., Biernacka, K., Fan, J., Gerber, P.F., Stadejek, T., and Opriessnig, T. (2016). Circulation of Porcine Parvovirus Types 1 through 6 in Serum Samples Obtained from Six Commercial Polish Pig Farms. *Transbound Emerg Dis.*
87. Cui, J., Fan, J., Gerber, P.F., Biernacka, K., Stadejek, T., Xiao, C.T., and Opriessnig, T. (2016). First identification of porcine parvovirus 6 in Poland. *Virus genes 53*, 100-104.
88. Cunningham, S., Nair, H., and Campbell, H. (2016). Deciphering clinical phenotypes in acute viral lower respiratory tract infection: Bronchiolitis is not an island. *Thorax 71*, 679-680.
89. Currie, S.M., Gwyer Findlay, E., McFarlane, A.J., Fitch, P.M., Bottcher, B., Colegrave, N., Paras, A., Jozwik, A., Chiu, C., Schwarze, J., et al. (2016). Cathelicidins Have Direct Antiviral Activity against Respiratory Syncytial Virus In Vitro and Protective Function In Vivo in Mice and Humans. *Journal of immunology (Baltimore, Md. : 1950) 196*, 2699-2710.
90. Cuypers, B., Lecordier, L., Meehan, C.J., Van den Broeck, F., Imamura, H., Buscher, P., Dujardin, J.C., Laukens, K., Schnaufer, A., Dewar, C., et al. (2016). Apolipoprotein L1 Variant Associated with Increased Susceptibility to Trypanosome Infection. *mBio 7*, e02198-02115.
91. Danial, J., Ballard-Smith, S., Horsburgh, C., Crombie, C., Ovens, A., Templeton, K.E., Hardie, A., Cameron, F., Harvey, L., Stevenson, J., et al. (2016). Lessons learned from a prolonged and costly norovirus outbreak at a Scottish medicine of the elderly hospital: case study. *The Journal of hospital infection 93*, 127-134.
92. Datta, D., Conway Morris, A., Antonelli, J., Warner, N., Brown, K.A., Wright, J., Simpson, A.J., Rennie, J., Hulme, G., Lewis, S.M., et al. (2016). Early PREdiction of Severe Sepsis (ExPRES-Sepsis) study: protocol for an observational derivation study to discover potential leucocyte cell surface biomarkers. *BMJ open 6*, e011335.
93. Davison, A., McDowell, G.S., Holden, J.M., Johnson, H.F., Koutsovoulos, G.D., Liu, M.M., Hulpiau, P., Van Roy, F., Wade, C.M., Banerjee, R., et al. (2016). Formin Is Associated with Left-Right Asymmetry in the Pond Snail and the Frog. *Curr Biol 26*, 654-660.
94. de Vries, P.S., Chasman, D.I., Sabater-Lleal, M., Chen, M.H., Huffman, J.E., Steri, M., Tang, W., Teumer, A., Marioni, R.E., Grossmann, V., et al. (2016). A meta-analysis of 120 246 individuals identifies 18 new loci for fibrinogen concentration. *Hum Mol Genet 25*, 358-370.
95. Delannoy, C.M., Zadoks, R.N., Crumlish, M., Rodgers, D., Lainson, F.A., Ferguson, H.W., Turnbull, J., and Fontaine, M.C. (2016). Genomic comparison of virulent and non-virulent Streptococcus agalactiae in fish. *Journal of fish diseases 39*, 13-29.
96. Denholm, S.J., McNeilly, T.N., Banos, G., Coffey, M.P., Russell, G.C., Bagnall, A., Mitchell, M.C., and Wall, E. (2017). Estimating genetic and phenotypic parameters of cellular immune-associated traits in dairy cows. *J Dairy Sci 100*, 2850-2862.
97. Di Minno, G., Perno, C.F., Tiede, A., Navarro, D., Canaro, M., Guertler, L., and Ironside, J.W. (2016). Current concepts in the prevention of pathogen transmission via blood/plasma-derived products for bleeding disorders. *Blood reviews 30*, 35-48.
98. Diack, A.B., Alibhai, J.D., Barron, R., Bradford, B., Piccardo, P., and Manson, J.C. (2015). Insights into Mechanisms of Chronic Neurodegeneration. *International journal of molecular sciences 17*.
99. Diack, A.B., Alibhai, J.D., Barron, R., Bradford, B., Piccardo, P., and Manson, J.C. (2016). Insights into Mechanisms of Chronic Neurodegeneration. *International journal of molecular sciences 17*.
100. Diallo, B., Sissoko, D., Loman, N.J., Bah, H.A., Bah, H., Worrell, M.C., Conde, L.S., Sacko, R., Mesfin, S., Loua, A., et al. (2016). Resurgence of Ebola Virus Disease in Guinea Linked to a Survivor With Virus Persistence in

- Seminal Fluid for More Than 500 Days. Clinical infectious diseases : an official publication of the Infectious Diseases Society of America 63, 1353-1356.
101. Diehl, W.E., Lin, A.E., Grubaugh, N.D., Carvalho, L.M., Kim, K., Kyaw, P.P., McCauley, S.M., Donnard, E., Kucukural, A., McDonel, P., et al. (2016). Ebola Virus Glycoprotein with Increased Infectivity Dominated the 2013-2016 Epidemic. *Cell* 167, 1088-1098.e1086.
102. Donaldson, D.S., and Mabbott, N.A. (2016). The influence of commensal and pathogenic gut microbiota on prion disease pathogenesis. *J Gen Virol* 97, 725-738.
103. Donaldson, D.S., Sehgal, A., Rios, D., Williams, I.R., and Mabbott, N.A. (2016). Increased Abundance of M Cells in the Gut Epithelium Dramatically Enhances Oral Prion Disease Susceptibility. *PLoS Pathog* 12, e1006075.
104. Donnelly, M.C., Imlach, S.N., Abravanel, F., Ramalingam, S., Johannessen, I., Petrik, J., Fraser, A.R., Campbell, J.D., Bramley, P., Dalton, H.R., et al. (2017). Sofosbuvir and Daclatasvir Anti-Viral Therapy Fails to Clear HEV Viremia and Restore Reactive T Cells in a HEV/HCV Co-Infected Liver Transplant Recipient. *Gastroenterology* 152, 300-301.
105. Dorward, D.A., Felton, J.M., Robb, C.T., Craven, T., Kipari, T., Walsh, T.S., Haslett, C., Kefala, K., Rossi, A.G., and Lucas, C.D. (2017). The cyclin-dependent kinase inhibitor AT7519 accelerates neutrophil apoptosis in sepsis-related acute respiratory distress syndrome. *Thorax* 72, 182-185.
106. Dransfield, I., and Farnworth, S. (2016). Axl and Mer Receptor Tyrosine Kinases: Distinct and Nonoverlapping Roles in Inflammation and Cancer? *Advances in experimental medicine and biology* 930, 113-132.
107. Drozdowska, J., Cousens, C., Finlayson, J., Collie, D., and Dagleish, M.P. (2016). Structural Development, Cellular Differentiation and Proliferation of the Respiratory Epithelium in the Bovine Fetal Lung. *Journal of comparative pathology* 154, 42-56.
108. Duffin, R., O'Connor, R.A., Crittenden, S., Forster, T., Yu, C., Zheng, X., Smyth, D., Robb, C.T., Rossi, F., Skouras, C., et al. (2016). Prostaglandin E(2) constrains systemic inflammation through an innate lymphoid cell-IL-22 axis. *Science* 351, 1333-1338.
109. Duffy, C., Venturato, A., Callanan, A., Lilienkampf, A., and Bradley, M. (2016). Arrays of 3D double-network hydrogels for the high-throughput discovery of materials with enhanced physical and biological properties. *Acta biomaterialia* 34, 104-112.
110. Easton, S., Bartley, D.J., Hotchkiss, E., Hodgkinson, J.E., Pinchbeck, G.L., and Matthews, J.B. (2016). Use of a multiple choice questionnaire to assess UK prescribing channels' knowledge of helminthology and best practice surrounding anthelmintic use in livestock and horses. *Prev Vet Med* 128, 70-77.
111. Ekstrom, A.M., Clark, J., Byass, P., Lopez, A., De Savigny, D., Moyer, C.A., Campbell, H., Gage, A.J., Bocquier, P., AbouZahr, C., et al. (2016). INDEPTH Network: contributing to the data revolution. *Lancet Diabetes Endocrinol* 4, 97.
112. El Tawil, S., Chohan, G., Mackenzie, J., Rowe, A., Weller, B., Will, R.G., and Knight, R. (2016). Isolated language impairment as the primary presentation of sporadic Creutzfeldt Jakob Disease. *Acta neurologica Scandinavica* 135, 316-323.
113. Escamilla, A., Zafra, R., Perez, J., McNeilly, T.N., Pacheco, I.L., Buffoni, L., Martinez-Moreno, F.J., Molina-Hernandez, V., and Martinez-Moreno, A. (2016). Distribution of Foxp3+ T cells in the liver and hepatic lymph nodes of goats and sheep experimentally infected with *Fasciola hepatica*. *Vet Parasitol* 230, 14-19.
114. Evenson, D., Gerber, P.F., Xiao, C.T., Halbur, P.G., Wang, C., Tian, D., Ni, Y.Y., Meng, X.J., and Opriessnig, T. (2016). A porcine reproductive and respiratory syndrome virus candidate vaccine based on the synthetic attenuated virus engineering approach is attenuated and effective in protecting against homologous virus challenge. *Vaccine* 34, 5546-5553.
115. Eze, A.A., Gould, M.K., Munday, J.C., Tagoe, D.N., Stelmanis, V., Schnaufer, A., and De Koning, H.P. (2016). Reduced Mitochondrial Membrane Potential Is a Late Adaptation of *Trypanosoma brucei brucei* to Isometamidium Preceded by Mutations in the gamma Subunit of the F1Fo-ATPase. *PLoS Negl Trop Dis* 10, e0004791.
116. Fairfoul, G., McGuire, L.I., Pal, S., Ironside, J.W., Neumann, J., Christie, S., Joachim, C., Esiri, M., Evetts, S.G., Rolinski, M., et al. (2016). Alpha-synuclein RT-QuIC in the CSF of patients with alpha-synucleinopathies. *Annals of clinical and translational neurology* 3, 812-818.
117. Fairlamb, A.H., Gow, N.A., Matthews, K.R., and Waters, A.P. (2016). Drug resistance in eukaryotic microorganisms. *Nature microbiology* 1, 16092.
118. Fairlie, J., Holland, R., Pilkington, J.G., Pemberton, J.M., Harrington, L., and Nussey, D.H. (2016). Lifelong leukocyte telomere dynamics and survival in a free-living mammal. *Aging cell* 15, 140-148.
119. Fan, J., Cui, J., Gerber, P.F., Biernacka, K., Stadejek, T., and Opriessnig, T. (2016). First Genome Sequences of Porcine Parvovirus 5 Strains Identified in Polish Pigs. *Genome Announc* 4.

# **Edinburgh Infectious Diseases**

Leading infectious disease research and training

120. Farre, M., Narayan, J., Slavov, G.T., Damas, J., Auvil, L., Li, C., Jarvis, E.D., Burt, D.W., Griffin, D.K., and Larkin, D.M. (2016). Novel Insights into Chromosome Evolution in Birds, Archosaurs, and Reptiles. *Genome biology and evolution* 8, 2442-2451.
121. Fiegna, C., Clarke, C.L., Shaw, D.J., Baily, J.L., Clare, F.C., Gray, A., Garner, T.W., and Meredith, A.L. (2016). Pathological and phylogenetic characterization of *Amphibiothecum* sp. infection in an isolated amphibian (*Lissotriton helveticus*) population on the island of Rum (Scotland). *Parasitology* 22, 1-13.
122. Fitchett, E.J., Seale, A.C., Vergnano, S., Sharland, M., Heath, P.T., Saha, S.K., Agarwal, R., Ayede, A.I., Bhutta, Z.A., Black, R., et al. (2016). Strengthening the Reporting of Observational Studies in Epidemiology for Newborn Infection (STROBE-NI): an extension of the STROBE statement for neonatal infection research. *The Lancet. Infectious diseases* 16, e202-213.
123. Fitzgerald, J.R., and Holden, M.T. (2016). Genomics of Natural Populations of *Staphylococcus aureus*. *Annual review of microbiology* 8, 459-478.
124. Fletcher, E., Pilizota, T., Davies, P.R., McVey, A., and French, C.E. (2016). Characterization of the effects of n-butanol on the cell envelope of *E. coli*. *Applied microbiology and biotechnology* 100, 9653-9659.
125. Fontanella, E., Ma, Z., Zhang, Y., de Castro, A.M., Shen, H., Halbur, P.G., and Opriessnig, T. (2017). An interferon inducing porcine reproductive and respiratory syndrome virus vaccine candidate elicits protection against challenge with the heterologous virulent type 2 strain VR-2385 in pigs. *Vaccine* 35, 125-131.
126. Forde, T., Biek, R., Zadoks, R., Workentine, M.L., De Buck, J., Kutz, S., Opriessnig, T., Trewby, H., van der Meer, F., and Orsel, K. (2016). Genomic analysis of the multi-host pathogen *Erysipelothrix rhusiopathiae* reveals extensive recombination as well as the existence of three generalist clades with wide geographic distribution. *BMC Genomics* 17, 461.
127. French, A.S., Zadoks, R.N., Skuce, P.J., Mitchell, G., Gordon-Gibbs, D.K., Craine, A., Shaw, D., Gibb, S.W., and Taggart, M.A. (2016). Prevalence of Liver Fluke (*Fasciola hepatica*) in Wild Red Deer (*Cervus elaphus*): Coproantigen ELISA Is a Practicable Alternative to Faecal Egg Counting for Surveillance in Remote Populations. *PLoS One* 11, e0162420.
128. Froy, H., Walling, C.A., Pemberton, J.M., Clutton-Brock, T.H., and Kruuk, L.E. (2016). Relative costs of offspring sex and offspring survival in a polygynous mammal. *Biology letters* 12.
129. Fyfe, J., Picozzi, K., Waiswa, C., Bardosh, K.L., and Welburn, S.C. (2016). Impact of mass chemotherapy in domestic livestock for control of zoonotic *T. b. rhodesiense* human African trypanosomiasis in Eastern Uganda. *Acta tropica* 165, 216-229.
130. Fyfe, J., Picozzi, K., Waiswa, C., Bardosh, K.L., and Welburn, S.C. (2017). Impact of mass chemotherapy in domestic livestock for control of zoonotic *T. b. rhodesiense* human African trypanosomiasis in Eastern Uganda. *Acta tropica* 165, 216-229.
131. Gabaldon, T., Ginger, M.L., and Michels, P.A. (2016). Peroxisomes in parasitic protists. *Mol Biochem Parasitol* 209, 35-45.
132. Gadalla, A.A., Schneider, P., Churcher, T.S., Nassir, E., Abdel-Muhsin, A.A., Ranford-Cartwright, L.C., Reece, S.E., and Babiker, H.A. (2016). Associations between Season and Gamete Dynamics in Chronic *Plasmodium falciparum* Infections. *PLoS One* 11, e0166699.
133. Gadsby, N.J., Helgason, K.O., Dickson, E.M., Mills, J.M., Lindsay, D.S., Edwards, G.F., Hanson, M.F., and Templeton, K.E. (2016). Molecular diagnosis of Legionella infections--Clinical utility of front-line screening as part of a pneumonia diagnostic algorithm. *The Journal of infection* 72, 161-170.
134. Gadsby, N.J., Russell, C.D., McHugh, M.P., Mark, H., Conway Morris, A., Laurenson, I.F., Hill, A.T., and Templeton, K.E. (2016). Reply to Zelyas and Robinson. *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America* 63, 142-143.
135. Gadsby, N.J., Russell, C.D., McHugh, M.P., Mark, H., Conway Morris, A., Laurenson, I.F., Hill, A.T., and Templeton, K.E. (2016). Comprehensive Molecular Testing for Respiratory Pathogens in Community-Acquired Pneumonia. *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America* 62, 817-823.
136. Garcia-Guzman, C., Fernandez, A., Avlonitis, N., Bradley, M., and Vendrell, M. (2016). Red-fluorescent Activatable Probes for the Detection of Hydrogen Peroxide in Living Cells. *Combinatorial chemistry & high throughput screening* 19, 353-361.
137. Gaunt, E., Wise, H.M., Zhang, H., Lee, L.N., Atkinson, N.J., Nicol, M.Q., Highton, A.J., Klenerman, P., Beard, P.M., Dutia, B.M., et al. (2016). Elevation of CpG frequencies in influenza A genome attenuates pathogenicity but enhances host response to infection. *Elife* 5, e12735.
138. Gause, W.C., and Maizels, R.M. (2016). Macrobiota - helminths as active participants and partners of the microbiota in host intestinal homeostasis. *Current opinion in microbiology* 32, 14-18.

# **Edinburgh Infectious Diseases**

Leading infectious disease research and training

139. Gerbe, F., Sidot, E., Smyth, D.J., Ohmoto, M., Matsumoto, I., Dardalhon, V., Cesses, P., Garnier, L., Pouzolles, M., Brulin, B., et al. (2016). Intestinal epithelial tuft cells initiate type 2 mucosal immunity to helminth parasites. *Nature* **529**, 226-230.
140. Gerber, P.F., Lelli, D., Zhang, J., Strandbygaard, B., Moreno, A., Lavazza, A., Perulli, S., Botner, A., Comtet, L., Roche, M., et al. (2016). Diagnostic evaluation of assays for detection of antibodies against porcine epidemic diarrhea virus (PEDV) in pigs exposed to different PEDV strains. *Prev Vet Med* **135**, 87-94.
141. Gerber, P.F., Xiao, C.T., Lager, K., Crawford, K., Kulshreshtha, V., Cao, D., Meng, X.J., and Opiressnig, T. (2016). Increased frequency of porcine epidemic diarrhea virus shedding and lesions in suckling pigs compared to nursery pigs and protective immunity in nursery pigs after homologous re-challenge. *Vet Res* **47**, 118.
142. Giakoumelou, S., Wheelhouse, N., Cuschieri, K., Entrican, G., Howie, S.E., and Horne, A.W. (2016). The role of infection in miscarriage. *Human reproduction update* **22**, 116-133.
143. Giannakopoulos, A., Valiakos, G., Papaspyropoulos, K., Dougas, G., Korou, L.M., Tasioudi, K.E., Fthenakis, G.C., Hutchings, M.R., Kaimaras, D., Tsokana, C.N., et al. (2016). Rabies outbreak in Greece during 2012-2014: use of Geographical Information System for analysis, risk assessment and control. *Epidemiol Infect* **144**, 3068-3079.
144. Gibbons, C.L., van Bunnik, B.A., Blatchford, O., Robertson, C., Porphyre, T., Imrie, L., Wilson, J., Fitzgerald, J.R., Woolhouse, M.E., and Chase-Topping, M.E. (2016). Not just a matter of size: a hospital-level risk factor analysis of MRSA bacteraemia in Scotland. *BMC Infect Dis* **16**, 222.
145. Goldmann, W., Marier, E., Stewart, P., Konold, T., Street, S., Langeveld, J., Windl, O., and Ortiz-Pelaez, A. (2016). Prion protein genotype survey confirms low frequency of scrapie-resistant K222 allele in British goat herds. *Vet Rec* **178**, 168.
146. Gonzalez-Fernandez, E., Avlonitis, N., Murray, A.F., Mount, A.R., and Bradley, M. (2016). Methylene blue not ferrocene: Optimal reporters for electrochemical detection of protease activity. *Biosensors & bioelectronics* **84**, 82-88.
147. Goplen, N.P., Saxena, V., Knudson, K.M., Schrum, A.G., Gil, D., Daniels, M.A., Zamoyska, R., and Teixeiro, E. (2016). IL-12 Signals through the TCR To Support CD8 Innate Immune Responses. *Journal of immunology (Baltimore, Md. : 1950)* **197**, 2434-2443.
148. Grabert, K., Michoel, T., Karavolos, M.H., Clohisey, S., Baillie, J.K., Stevens, M.P., Freeman, T.C., Summers, K.M., and McColl, B.W. (2016). Microglial brain region-dependent diversity and selective regional sensitivities to aging. *Nature neuroscience* **19**, 504-516.
149. Graham, A.L., Nussey, D.H., Lloyd-Smith, J.O., Longbottom, D., Maley, M., Pemberton, J.M., Pilkington, J.G., Prager, K.C., Smith, L., Watt, K.A., et al. (2016). Exposure to viral and bacterial pathogens among Soay sheep (*Ovis aries*) of the St Kilda archipelago. *Epidemiol Infect* **19**, 353-361.
150. Granroth-Wilding, H.M., Daunt, F., Cunningham, E.J., and Burthe, S.J. (2016). Between-individual variation in nematode burden among juveniles in a wild host. *Parasitology* **144**, 1879-1888.
151. Grewal, J.S., McLuskey, K., Das, D., Myburgh, E., Wilkes, J., Brown, E., Lemgruber, L., Gould, M.K., Burchmore, R.J., Coombs, G.H., et al. (2016). PNT1 Is a C11 Cysteine Peptidase Essential for Replication of the Trypanosome Kinetoplast. *The Journal of biological chemistry* **291**, 9492-9500.
152. Griffith, D.M., Lewis, S., Rossi, A.G., Rennie, J., Salisbury, L., Merriweather, J.L., Templeton, K., and Walsh, T.S. (2016). Systemic inflammation after critical illness: relationship with physical recovery and exploration of potential mechanisms. *Thorax* **71**, 820-829.
153. Gripper, L.B., and Welburn, S.C. (2017). Neurocysticercosis infection and disease-A review. *Acta tropica* **166**, 218-224.
154. Guido, S., Katzer, F., Nanjiani, I., Milne, E., and Innes, E.A. (2016). Serology-Based Diagnostics for the Control of Bovine Neosporosis. *Trends Parasitol* **32**, 131-143.
155. Guo, Z., Gonzalez, J.F., Hernandez, J.N., McNeilly, T.N., Corripio-Miyar, Y., Frew, D., Morrison, T., Yu, P., and Li, R.W. (2016). Possible mechanisms of host resistance to *Haemonchus contortus* infection in sheep breeds native to the Canary Islands. *Sci Rep* **6**, 26200.
156. Haas, J., Schwarz, A., Korporal-Kuhnke, M., Jarius, S., and Wildemann, B. (2016). Myeloid dendritic cells exhibit defects in activation and function in patients with multiple sclerosis. *Journal of neuroimmunology* **301**, 53-60.
157. Hall, M.D., Woolhouse, M.E., and Rambaut, A. (2016). Using genomics data to reconstruct transmission trees during disease outbreaks. *Rev Sci Tech* **35**, 287-296.
158. Hall, M.D., Woolhouse, M.E., and Rambaut, A. (2016). The effects of sampling strategy on the quality of reconstruction of viral population dynamics using Bayesian skyline family coalescent methods: A simulation study. *Virus evolution* **2**, vew003.

# **Edinburgh Infectious Diseases**

Leading infectious disease research and training

159. Hamilton, C.A., Mahan, S., Entrican, G., and Hope, J.C. (2016). Interactions between natural killer cells and dendritic cells favour T helper1-type responses to BCG in calves. *Vet Res* 47, 85.
160. Handel, I., Watt, K.A., Pilkington, J.G., Pemberton, J.M., Macrae, A., Scott, P., McNeilly, T.N., Berry, J.L., Clements, D.N., Nussey, D.H., et al. (2016). Vitamin D status predicts reproductive fitness in a wild sheep population. *Sci Rep* 6, 18986.
161. Harder, M.J., Anliker, M., Hochsmann, B., Simmet, T., Huber-Lang, M., Schrezenmeier, H., Ricklin, D., Lambris, J.D., Barlow, P.N., and Schmidt, C.Q. (2016). Comparative Analysis of Novel Complement-Targeted Inhibitors, MiniFH, and the Natural Regulators Factor H and Factor H-like Protein 1 Reveal Functional Determinants of Complement Regulation. *Journal of immunology (Baltimore, Md. : 1950)* 196, 866-876.
162. Harijan, R.K., Mazet, M., Kiema, T.R., Bouyssou, G., Alexson, S.E., Bergmann, U., Moreau, P., Michels, P.A., Bringaud, F., and Wierenga, R.K. (2016). The SCP2-thiolase-like protein (SLP) of Trypanosoma brucei is an enzyme involved in lipid metabolism. *Proteins* 84, 1075-1096.
163. Harrison, K., Haga, I.R., Pechenick Jowers, T., Jasim, S., Cintrat, J.C., Gillet, D., Schmitt-John, T., Digard, P., and Beard, P.M. (2016). Vaccinia virus uses retromer-independent cellular retrograde transport pathways to facilitate the wrapping of intracellular mature virions during viral morphogenesis. *J Virol.*
164. Harvey, S.R., MacPhee, C.E., Volkman, B.F., and Barran, P.E. (2016). The association and aggregation of the metamorphic chemokine lymphotactin with fondaparinux: from nm molecular complexes to nm molecular assemblies. *Chem Commun (Camb)* 52, 394-397.
165. Helbert, M.R., Bangs, C., Bishop, M., Molesworth, A., and Ironside, J. (2016). No evidence of asymptomatic variant CJD infection in immunodeficiency patients treated with UK-sourced immunoglobulin. *Vox Sang* 110, 282-284.
166. Henihan, G., Schulze, H., Corrigan, D.K., Giraud, G., Terry, J.G., Hardie, A., Campbell, C.J., Walton, A.J., Crain, J., Pethig, R., et al. (2016). Label- and amplification-free electrochemical detection of bacterial ribosomal RNA. *Biosensors & bioelectronics* 81, 487-494.
167. Hewitson, J.P., Nguyen, D.L., van Diepen, A., Smit, C.H., Koeleman, C.A., McSorley, H.J., Murray, J., Maizels, R.M., and Hokke, C.H. (2016). Novel O-linked methylated glycan antigens decorate secreted immunodominant glycoproteins from the intestinal nematode *Heligmosomoides polygyrus*. *Int J Parasitol* 46, 157-170.
168. Hill, A.T. (2016). Macrolides for Clinically Significant Bronchiectasis in Adults: Who Should Receive this Treatment? *Chest* 150, 1187-1193.
169. Hogan, C., Iles, J., Frost, E.H., Giroux, G., Cassar, O., Gessain, A., Dion, M.J., Ilunga, V., Rambaut, A., Yengo-Ki-Ngimbi, A.E., et al. (2016). Epidemic history and iatrogenic transmission of blood-borne viruses in mid-20th century Kinshasa. *J Infect Dis* 214, 353-360.
170. Holmes, E.C., Dudas, G., Rambaut, A., and Andersen, K.G. (2016). The evolution of Ebola virus: Insights from the 2013-2016 epidemic. *Nature* 538, 193-200.
171. Homem, R.A., Le Bihan, T., Yu, M., and Loake, G.J. (2016). Identification of S-Nitrosothiols by the Sequential Cysteine Blocking Technique. *Methods Mol Biol* 1424, 163-174.
172. Hoodless, L.J., Lucas, C.D., Duffin, R., Denvir, M.A., Haslett, C., Tucker, C.S., and Rossi, A.G. (2016). Genetic and pharmacological inhibition of CDK9 drives neutrophil apoptosis to resolve inflammation in zebrafish *in vivo*. *Sci Rep* 5, 36980.
173. Hoodless, L.J., Robb, C.T., Felton, J.M., Tucker, C.S., and Rossi, A.G. (2016). Models for the Study of the Cross Talk Between Inflammation and Cell Cycle. *Methods Mol Biol* 1336, 179-209.
174. Hooper, T.N., Inglis, R., Lorusso, G., Ujma, J., Barran, P.E., Uhrin, D., Schnack, J., Piligkos, S., Evangelisti, M., and Brechin, E.K. (2016). Structurally Flexible and Solution Stable [Ln<sub>4</sub>TM<sub>8</sub>(OH)<sub>8</sub>(L)<sub>8</sub>(O<sub>2</sub>CR)<sub>8</sub>(MeOH)<sub>y</sub>]<sub>4</sub>[ClO<sub>4</sub>]<sub>4</sub>: A Playground for Magnetic Refrigeration. *Inorganic chemistry* 55, 10535-10546.
175. Hopkins, J.L., and Bromley, G.E. (2016). Preparing New Graduates for Interprofessional Teamwork: Effectiveness of a Nurse Residency Program. *Journal of continuing education in nursing* 47, 140-148.
176. Hu, T., Wu, Z., Vervelde, L., Rothwell, L., Hume, D.A., and Kaiser, P. (2016). Functional annotation of the T cell immunoglobulin mucin (TIM) family in birds. *Immunology* 148, 287-303.
177. Huerta-Uribe, A., Marjenberg, Z.R., Yamaguchi, N., Fitzgerald, S., Connolly, J.P., Carpena, N., Uvell, H., Douce, G., Elofsson, M., Byron, O., et al. (2016). Identification and Characterization of Novel Compounds Blocking Shiga Toxin Expression in *Escherichia coli* O157:H7. *Front Microbiol* 7, 1930.
178. Huisman, J., Kruuk, L.E., Ellis, P.A., Clutton-Brock, T., and Pemberton, J.M. (2016). Inbreeding depression across the lifespan in a wild mammal population. *Proc Natl Acad Sci U S A* 113, 3585-3590.
179. Hwang, S.H., Thielbeer, F., Jeong, J., Han, Y., Chankeshwara, S.V., Bradley, M., and Cho, W.S. (2016). Dual contribution of surface charge and protein-binding affinity to the cytotoxicity of polystyrene nanoparticles in

- nonphagocytic A549 cells and phagocytic THP-1 cells. *Journal of toxicology and environmental health. Part A* 79, 925-937.
180. Ikonomovic, M.D., Buckley, C.J., Heurling, K., Sherwin, P., Jones, P.A., Zanette, M., Mathis, C.A., Klunk, W.E., Chakrabarty, A., Ironside, J., et al. (2016). Post-mortem histopathology underlying beta-amyloid PET imaging following flutemetamol F 18 injection. *Acta neuropathologica communications* 4, 130.
181. Indrigo, E., Clavadetscher, J., Chankeshwara, S.V., Lilienkampf, A., and Bradley, M. (2016). Palladium-mediated in situ synthesis of an anticancer agent. *Chem Commun (Camb)* 52, 14212-14214.
182. Itzhaki, R.F., Lathe, R., Balin, B.J., Ball, M.J., Bearer, E.L., Braak, H., Bullido, M.J., Carter, C., Clerici, M., Cosby, S.L., et al. (2016). Microbes and Alzheimer's Disease. *Journal of Alzheimer's disease : JAD* 51, 979-984.
183. Jackson-Jones, L.H., Duncan, S.M., Magalhaes, M.S., Campbell, S.M., Maizels, R.M., McSorley, H.J., Allen, J.E., and Benezech, C. (2016). Fat-associated lymphoid clusters control local IgM secretion during pleural infection and lung inflammation. *Nat Commun* 7, 12651.
184. Jackson-Jones, L.H., Ruckerl, D., Svedberg, F., Duncan, S., Maizels, R.M., Sutherland, T.E., Jenkins, S.J., McSorley, H.J., Benezech, C., MacDonald, A.S., et al. (2016). IL-33 delivery induces serous cavity macrophage proliferation independent of interleukin-4 receptor alpha. *European journal of immunology* 46, 2311-2321.
185. Jacobs, M., Rodger, A., Bell, D.J., Bhagani, S., Cropley, I., Filipe, A., Gifford, R.J., Hopkins, S., Hughes, J., Jabeen, F., et al. (2016). Late Ebola virus relapse causing meningoencephalitis: a case report. *Lancet* 388, 498-503.
186. Jensen, K., Gallagher, I.J., Kaliszewska, A., Zhang, C., Abejide, O., Gallagher, M.P., Werling, D., and Glass, E.J. (2016). Live and inactivated *Salmonella enterica* serovar Typhimurium stimulate similar but distinct transcriptome profiles in bovine macrophages and dendritic cells. *Vet Res* 47, 46.
187. Jeroncic, A., Memari, Y., Ritchie, G.R., Hendricks, A.E., Kolb-Kokocinski, A., Matchan, A., Vitart, V., Hayward, C., Kolcic, I., Glodzik, D., et al. (2016). Whole-exome sequencing in an isolated population from the Dalmatian island of Vis. *European journal of human genetics : EJHG* 24, 1479-1487.
188. Jimenez, M., and Bridle, H. (2016). Microfluidics for effective concentration and sorting of waterborne protozoan pathogens. *Journal of microbiological methods* 126, 8-11.
189. Jing, L., Laing, K.J., Dong, L., Russell, R.M., Barlow, R.S., Haas, J.G., Ramchandani, M.S., Johnston, C., Buus, S., Redwood, A.J., et al. (2016). Extensive CD4 and CD8 T Cell Cross-Reactivity between Alphaherpesviruses. *Journal of immunology (Baltimore, Md. : 1950)* 196, 2205-2218.
190. Jitprasutwit, N., Zainal-Abidin, N., Vander Broek, C., Kurian, D., Korbsrisate, S., Stevens, M.P., and Stevens, J.M. (2016). Identification of Candidate Host Cell Factors Required for Actin-Based Motility of *Burkholderia pseudomallei*. *Journal of proteome research* 15, 4675-4685.
191. Johansen, M.V., Welburn, S.C., Dorny, P., and Brattig, N.W. (2017). Control of neglected zoonotic diseases. *Acta tropica* 165, 1-2.
192. Johnston, C.J., Smyth, D.J., Dresser, D.W., and Maizels, R.M. (2016). TGF-beta in tolerance, development and regulation of immunity. *Cellular immunology* 299, 14-22.
193. Johnston, S.E., Berenos, C., Slate, J., and Pemberton, J.M. (2016). Conserved Genetic Architecture Underlying Individual Recombination Rate Variation in a Wild Population of Soay sheep (*Ovis aries*). *Genetics* 203, 583-598.
194. Jones, H.R., Robb, C.T., Perretti, M., and Rossi, A.G. (2016). The role of neutrophils in inflammation resolution. *Semin Immunol* 28, 137-145.
195. Jones, R., McDonald, K.E., Willson, J.A., Ghesquiere, B., Sammut, D., Daniel, E., Harris, A.J., Lewis, A., Thompson, A.A., Dickinson, R.S., et al. (2016). Mutations in succinate dehydrogenase B (SDHB) enhance neutrophil survival independent of HIF-1alpha expression. *Blood* 127, 2641-2644.
196. Jorgensen, H.J., Nordstoga, A.B., Sviland, S., Zadoks, R.N., Solverod, L., Kvitle, B., and Mork, T. (2016). Streptococcus agalactiae in the environment of bovine dairy herds - rewriting the textbooks? *Vet Microbiol* 184, 64-72.
197. Jorgensen, H.J., Nordstoga, A.B., Sviland, S., Zadoks, R.N., Solverod, L., Kvitle, B., and Mork, T. (2016). Streptococcus agalactiae in the environment of bovine dairy herds--rewriting the textbooks? *Vet Microbiol* 184, 64-72.
198. Joshi, P.K., Fischer, K., Schraut, K.E., Campbell, H., Esko, T., and Wilson, J.F. (2016). Variants near CHRNA3/5 and APOE have age- and sex-related effects on human lifespan. *Nat Commun* 7, 11174.
199. Jubb, A.W., Young, R.S., Hume, D.A., and Bickmore, W.A. (2016). Enhancer Turnover Is Associated with a Divergent Transcriptional Response to Glucocorticoid in Mouse and Human Macrophages. *Journal of immunology (Baltimore, Md. : 1950)* 196, 813-822.
200. Kasprzak, M.M., Houdijk, J.G., Liddell, S., Davis, K., Olukosi, O.A., Kightley, S., White, G.A., and Wiseman, J. (2016). Rapeseed napin and cruciferin are readily digested by poultry. *Journal of animal physiology and animal nutrition*.

# **Edinburgh Infectious Diseases**

Leading infectious disease research and training

201. Kaur, S., Raggatt, L.J., Batoon, L., Hume, D.A., Levesque, J.P., and Pettit, A.R. (2016). Role of bone marrow macrophages in controlling homeostasis and repair in bone and bone marrow niches. *Seminars in cell & developmental biology* 61, 12-21.
202. Keogh, M.J., Wei, W., Wilson, I., Coxhead, J., Ryan, S., Rollinson, S., Griffin, H., Kurzawa-Akanbi, M., Santibanez-Koref, M., Talbot, K., et al. (2017). Genetic compendium of 1511 human brains available through the UK Medical Research Council Brain Banks Network Resource. *Genome research* 27, 165-173.
203. Kerrin, A., Fitch, P., Errington, C., Kerr, D., Waxman, L., Riding, K., McCormack, J., Mehendale, F., McSorley, H., MacKenzie, K., et al. (2016). Differential lower airway dendritic cell patterns may reveal distinct endotypes of RSV bronchiolitis. *Thorax*.
204. Kieback, E., Hilgenberg, E., Stervbo, U., Lampropoulou, V., Shen, P., Bunse, M., Jaimes, Y., Boudinot, P., Radbruch, A., Klemm, U., et al. (2016). Thymus-Derived Regulatory T Cells Are Positively Selected on Natural Self-Antigen through Cognate Interactions of High Functional Avidity. *Immunity* 44, 1114-1126.
205. Kokki, I., Smith, D., Simmonds, P., Ramalingam, S., Wellington, L., Willocks, L., Johannessen, I., and Harvala, H. (2016). Hepatitis E virus is the leading cause of acute viral hepatitis in Lothian, Scotland. *New microbes and new infections* 10, 6-12.
206. Kraemer, S.A., Morgan, A.D., Ness, R.W., Keightley, P.D., and Colegrave, N. (2016). Fitness effects of new mutations in *Chlamydomonas reinhardtii* across two stress gradients. *Journal of evolutionary biology* 29, 583-593.
207. Krstajic, N., Akram, A.R., Choudhary, T.R., McDonald, N., Tanner, M.G., Pedretti, E., Dalgarno, P.A., Scholefield, E., Girkin, J.M., Moore, A., et al. (2016). Two-color widefield fluorescence microendoscopy enables multiplexed molecular imaging in the alveolar space of human lung tissue. *Journal of biomedical optics* 21, 46009.
208. Ladyman, M.K., Walton, J.G., Lilienkampf, A., and Bradley, M. (2016). Fluorescent Formazans and Tetrazolium Salts - Towards Fluorescent Cytotoxicity Assays. *Combinatorial chemistry & high throughput screening* 19, 384-391.
209. Lafond, K.E., Nair, H., Rasooly, M.H., Valente, F., Booy, R., Rahman, M., Kitsutani, P., Yu, H., Guzman, G., Coulibaly, D., et al. (2016). Global Role and Burden of Influenza in Pediatric Respiratory Hospitalizations, 1982-2012: A Systematic Analysis. *PLoS Med* 13, e1001977.
210. Lathe, R., and Haas, J.G. (2016). Distribution of cellular HSV-1 receptor expression in human brain. *Journal of neurovirology*.
211. Laxminarayan, R., Amabile-Cuevas, C.F., Cars, O., Evans, T., Heymann, D.L., Hoffman, S., Holmes, A., Mendelson, M., Sridhar, D., Woolhouse, M., et al. (2016). UN High-Level Meeting on antimicrobials--what do we need? *Lancet* 388, 218-220.
212. Laxminarayan, R., Sridhar, D., Blaser, M., Wang, M., and Woolhouse, M. (2016). Achieving global targets for antimicrobial resistance. *Science* 353, 874-875.
213. Leitch, C.S., Natafji, E., Yu, C., Abdul-Ghaffar, S., Madarasingha, N., Venables, Z.C., Chu, R., Fitch, P.M., Muinonen-Martin, A.J., Campbell, L.E., et al. (2016). Filaggrin-null mutations are associated with increased maturation markers on Langerhans cells. *The Journal of allergy and clinical immunology* 138, 482-490.
214. Lemay, J.F., Marguerat, S., Laroche, M., Liu, X., van Nues, R., Hunyadkurti, J., Hoque, M., Tian, B., Granneman, S., Bahler, J., et al. (2016). The Nrd1-like protein Seb1 coordinates cotranscriptional 3' end processing and polyadenylation site selection. *Genes & development* 30, 1558-1572.
215. Lewis, S.C., Bhattacharya, S., Wu, O., Vincent, K., Jack, S.A., Critchley, H.O., Porter, M.A., Cranley, D., Wilson, J.A., and Horne, A.W. (2016). Gabapentin for the Management of Chronic Pelvic Pain in Women (GaPP1): A Pilot Randomised Controlled Trial. *PLoS One* 11, e0153037.
216. Lewis, S.H., Salmela, H., and Obbard, D.J. (2016). Duplication and diversification of Dipteron Argonaute genes, and the evolutionary divergence of Piwi and Aubergine. *Genome biology and evolution* 8, 507-518.
217. Lewis, S.H., Webster, C.L., Salmela, H., and Obbard, D.J. (2016). Repeated Duplication of Argonaute2 Is Associated with Strong Selection and Testis Specialization in *Drosophila*. *Genetics* 204, 757-769.
218. Li, X., Song, P., Timofeeva, M., Meng, X., Rudan, I., Little, J., Satsangi, J., Campbell, H., and Theodoratou, E. (2016). Systematic meta-analyses and field synopsis of genetic and epigenetic studies in paediatric inflammatory bowel disease. *Sci Rep* 6, 34076.
219. Liu, W., Sundaraman, S.A., Loy, D.E., Learn, G.H., Li, Y., Plenderleith, L.J., Ndjango, J.B., Speede, S., Atencia, R., Cox, D., et al. (2016). Multigenomic Delineation of *Plasmodium* Species of the Laverania Subgenus Infecting Wild-Living Chimpanzees and Gorillas. *Genome biology and evolution* 8, 1929-1939.
220. Logan, C.J., Kruuk, L.E., Stanley, R., Thompson, A.M., and Clutton-Brock, T.H. (2016). Endocranial volume is heritable and is associated with longevity and fitness in a wild mammal. *R Soc Open Sci* 3, 160622.

# **Edinburgh Infectious Diseases**

Leading infectious disease research and training

221. Longdon, B., Day, J.P., Schulz, N., Leftwich, P.T., de Jong, M.A., Breuker, C.J., Gibbs, M., Obbard, D.J., Wilfert, L., Smith, S.C., et al. (2017). Vertically transmitted rhabdoviruses are found across three insect families and have dynamic interactions with their hosts. *Proc Biol Sci* 284.
222. Longdon, B., Murray, G.G., Palmer, W.J., Day, J.P., Parker, D.J., Welch, J.J., Obbard, D.J., and Jiggins, F.M. (2015). The evolution, diversity, and host associations of rhabdoviruses. *Virus evolution* 1, vev014.
223. Lorenzo-Redondo, R., Fryer, H.R., Bedford, T., Kim, E.Y., Archer, J., Kosakovsky Pond, S.L., Chung, Y.S., Penugonda, S., Chipman, J.G., Fletcher, C.V., et al. (2016). Persistent HIV-1 replication maintains the tissue reservoir during therapy. *Nature* 530, 51-56.
224. Lorusso, V., Wijnveld, M., Latrofa, M.S., Fajinmi, A., Majekodunmi, A.O., Dogo, A.G., Igweh, A.C., Otranto, D., Jongejan, F., Welburn, S.C., et al. (2016). Canine and ovine tick-borne pathogens in camels, Nigeria. *Vet Parasitol* 228, 90-92.
225. Lorusso, V., Wijnveld, M., Majekodunmi, A.O., Dongkum, C., Fajinmi, A., Dogo, A.G., Thrusfield, M., Mugenyi, A., Vaumourin, E., Igweh, A.C., et al. (2016). Tick-borne pathogens of zoonotic and veterinary importance in Nigerian cattle. *Parasit Vectors* 9, 217.
226. Loy, D.E., Liu, W., Li, Y., Learn, G.H., Plenderleith, L.J., Sundararaman, S.A., Sharp, P.M., and Hahn, B.H. (2016). Out of Africa: origins and evolution of the human malaria parasites *Plasmodium falciparum* and *Plasmodium vivax*. *Int J Parasitol* 47, 87-97.
227. Lu, L., Van Dung, N., Bryant, J.E., Carrique-Mas, J., Van Cuong, N., Anh, P.H., Rabaa, M.A., Baker, S., Simmonds, P., and Woolhouse, M.E. (2016). Evolution and phylogeographic dissemination of endemic porcine picornaviruses in Vietnam. *Virus evolution* 2, vew001.
228. Lu, Y., Day, F.R., Gustafsson, S., Buchkovich, M.L., Na, J., Bataille, V., Cousminer, D.L., Dastani, Z., Drong, A.W., Esko, T., et al. (2016). New loci for body fat percentage reveal link between adiposity and cardiometabolic disease risk. *Nat Commun* 7, 10495.
229. Luis, T.C., Luc, S., Mizukami, T., Boukarabila, H., Thongjuea, S., Woll, P.S., Azzoni, E., Giustacchini, A., Lutteropp, M., Bouriez-Jones, T., et al. (2016). Initial seeding of the embryonic thymus by immune-restricted lympho-myeloid progenitors. *Nat Immunol* 17, 1424-1435.
230. Lundie, R.J., Webb, L.M., Marley, A.K., Phythian-Adams, A.T., Cook, P.C., Jackson-Jones, L.H., Brown, S., Maizels, R.M., Boon, L., O'Keeffe, M., et al. (2016). A central role for hepatic conventional dendritic cells in supporting Th2 responses during helminth infection. *Immunol Cell Biol* 94, 400-410.
231. Lupolova, N., Dallman, T.J., Matthews, L., Bono, J.L., and Gally, D.L. (2016). Support vector machine applied to predict the zoonotic potential of *E. coli* O157 cattle isolates. *Proc Natl Acad Sci U S A* 113, 11312-11317.
232. Mabbott, N.A. (2016). From Scientific Curiosity to Public Enemy Number One in Six Short Months. *PLoS Pathog* 12, e1005371.
233. Mackay, M., Perez-Lopez, A.M., Bradley, M., and Lilienkampf, A. (2016). Eliminating caspase-7 and cathepsin B cross-reactivity on fluorogenic caspase-3 substrates. *Molecular bioSystems* 12, 693-696.
234. Mackley, E.C., Houston, S., Marriott, C.L., Halford, E.E., Lucas, B., Cerovic, V., Filbey, K.J., Maizels, R.M., Hepworth, M.R., Sonnenberg, G.F., et al. (2016). Corrigendum: CCR7-dependent trafficking of RORgamma(+) ILCs creates a unique microenvironment within mucosal draining lymph nodes. *Nat Commun* 7, 11186.
235. Mainda, G., Lupolova, N., Sikakwa, L., Bessell, P.R., Muma, J.B., Hoyle, D.V., McAteer, S.P., Gibbs, K., Williams, N.J., Sheppard, S.K., et al. (2016). Phylogenomic approaches to determine the zoonotic potential of Shiga toxin-producing *Escherichia coli* (STEC) isolated from Zambian dairy cattle. *Sci Rep* 6, 26589.
236. Maizels, R.M., and McSorley, H.J. (2016). Regulation of the host immune system by helminth parasites. *The Journal of allergy and clinical immunology* 138, 666-675.
237. Mapholi, N.O., Maiwashe, A., Matika, O., Riggio, V., Bishop, S.C., MacNeil, M.D., Banga, C., Taylor, J.F., and Dzama, K. (2016). Genome-wide association study of tick resistance in South African Nguni cattle. *Ticks and tick-borne diseases* 7, 487-497.
238. Marshall, J., Rossez, Y., Mainda, G., Gally, D.L., Daniell, T.J., and Holden, N.J. (2016). Alternate thermoregulation and functional binding of *Escherichia coli* type 1 fimbriae in environmental and animal isolates. *FEMS microbiology letters* 363.
239. Mason, A.S., Fulton, J.E., Hocking, P.M., and Burt, D.W. (2016). A new look at the LTR retrotransposon content of the chicken genome. *BMC Genomics* 17, 688.
240. Matika, O., Riggio, V., Anselme-Moizan, M., Law, A.S., Pong-Wong, R., Archibald, A.L., and Bishop, S.C. (2016). Genome-wide association reveals QTL for growth, bone and in vivo carcass traits as assessed by computed tomography in Scottish Blackface lambs. *Genetics, selection, evolution : GSE* 48, 11.
241. Matthews, J.B., Geldhof, P., Tzelos, T., and Claerebout, E. (2016). Progress in the development of subunit vaccines for gastrointestinal nematodes of ruminants. *Parasite immunology* 38, 744-753.

# **Edinburgh Infectious Diseases**

Leading infectious disease research and training

242. Matzinger, S.R., Opiressnig, T., Xiao, C.T., Catanzaro, N., Beach, N.M., Slade, D.E., Nitzel, G.P., and Meng, X.J. (2016). A chimeric virus created by DNA shuffling of the capsid genes of different subtypes of porcine circovirus type 2 (PCV2) in the backbone of the non-pathogenic PCV1 induces protective immunity against the predominant PCV2b and the emerging PCV2d in pigs. *Virology* 498, 82-93.
243. Mazeri, S., Sargison, N., Kelly, R.F., Bronsvoort, B.M., and Handel, I. (2016). Evaluation of the Performance of Five Diagnostic Tests for *Fasciola hepatica* Infection in Naturally Infected Cattle Using a Bayesian No Gold Standard Approach. *PLoS One* 11, e0161621.
244. McGlasson, S.L., Semple, F., MacPherson, H., Gray, M., Davidson, D.J., and Dorin, J.R. (2017). Human beta-defensin 3 increases the TLR9-dependent response to bacterial DNA. *European journal of immunology*.
245. McLean, C.J., Marles-Wright, J., Custodio, R., Lowther, J., Kennedy, A.J., Pollock, J., Clarke, D.J., Brown, A.R., and Campopiano, D.J. (2017). Characterization of homologous sphingosine-1-phosphate lyase isoforms in the bacterial pathogen *Burkholderia pseudomallei*. *Journal of lipid research* 58, 137-150.
246. McNally, L., and Brown, S.P. (2016). Microbiome: Ecology of stable gut communities. *Nature microbiology* 1, 15016.
247. Meek, S., Thomson, A.J., Sutherland, L., Sharp, M.G., Thomson, J., Bishop, V., Meddle, S.L., Gloaguen, Y., Weidt, S., Singh-Dolt, K., et al. (2016). Reduced levels of dopamine and altered metabolism in brains of HPRT knock-out rats: a new rodent model of Lesch-Nyhan Disease. *Sci Rep* 6, 25592.
248. Melzi, E., Caporale, M., Rocchi, M., Martin, V., Gamino, V., di Provvido, A., Marruchella, G., Entrican, G., Sevilla, N., and Palmarini, M. (2016). Follicular dendritic cell disruption as a novel mechanism of virus-induced immunosuppression. *Proc Natl Acad Sci U S A* 113, E6238-e6247.
249. Mena, I., Nelson, M.I., Quezada-Monroy, F., Dutta, J., Cortes-Fernandez, R., Lara-Puente, J.H., Castro-Peralta, F., Cunha, L.F., Trovao, N.S., Lozano-Dubernard, B., et al. (2016). Origins of the 2009 H1N1 influenza pandemic in swine in Mexico. *Elife* 28.
250. Meng, L.S., Wang, Y.B., Loake, G.J., and Jiang, J.H. (2016). Seed Embryo Development Is Regulated via an AN3-MIN13 Gene Cascade. *Frontiers in plant science* 7, 1645.
251. Mielczarek, W.S., Obaje, E.A., Bachmann, T.T., and Kersaudy-Kerhoas, M. (2016). Microfluidic blood plasma separation for medical diagnostics: is it worth it? *Lab Chip* 16, 3441-3448.
252. Miesen, P., Ivens, A., Buck, A.H., and van Rij, R.P. (2016). Small RNA Profiling in Dengue Virus 2-Infected Aedes Mosquito Cells Reveals Viral piRNAs and Novel Host miRNAs. *PLoS Negl Trop Dis* 10, e0004452.
253. Miller, B., Jimenez, M., and Bridle, H. (2016). Cascading and Parallelising Curvilinear Inertial Focusing Systems for High Volume, Wide Size Distribution, Separation and Concentration of Particles. *Sci Rep* 6, 36386.
254. Minikel, E.V., Vallabh, S.M., Lek, M., Estrada, K., Samocha, K.E., Sathirapongsasuti, J.F., McLean, C.Y., Tung, J.Y., Yu, L.P., Gambetti, P., et al. (2016). Quantifying prion disease penetrance using large population control cohorts. *Science translational medicine* 8, 322ra329.
255. Minutti, C.M., Knipper, J.A., Allen, J.E., and Zaiss, D.M. (2016). Tissue-specific contribution of macrophages to wound healing. *Seminars in cell & developmental biology* 61, 3-11.
256. Mitchell, M.C., Tzelos, T., Handel, I., McWilliam, H.E., Hodgkinson, J.E., Nisbet, A.J., Kharchenko, V.O., Burgess, S.T., and Matthews, J.B. (2016). Development of a recombinant protein-based ELISA for diagnosis of larval cyathostomin infection. *Parasitology* 143, 1055-1066.
257. Mole, D.J., Webster, S.P., Uings, I., Zheng, X., Binnie, M., Wilson, K., Hutchinson, J.P., Mirguet, O., Walker, A., Beaufils, B., et al. (2016). Kynurenine-3-monooxygenase inhibition prevents multiple organ failure in rodent models of acute pancreatitis. *Nature medicine* 22, 202-209.
258. Molina, O., Carmena, M., Maudlin, I.E., and Earnshaw, W.C. (2016). PREditOR: a synthetic biology approach to removing heterochromatin from cells. *Chromosome research : an international journal on the molecular, supramolecular and evolutionary aspects of chromosome biology* 24, 495-509.
259. Montazeri, Z., Theodoratou, E., Nyiraneza, C., Timofeeva, M., Chen, W., Svinti, V., Sivakumaran, S., Gresham, G., Cubitt, L., Carvajal-Carmona, L., et al. (2016). Systematic meta-analyses and field synopsis of genetic association studies in colorectal adenomas. *International journal of epidemiology* 45, 186-205.
260. Moorad, J.A., and Nussey, D.H. (2016). Evolution of maternal effect senescence. *Proc Natl Acad Sci U S A* 113, 362-367.
261. Moore, R.A., Choi, Y.P., Head, M.W., Ironside, J.W., Faris, R., Ritchie, D.L., Zanusso, G., and Priola, S.A. (2016). Relative Abundance of apoE and Abeta1-42 Associated with Abnormal Prion Protein Differs between Creutzfeldt-Jakob Disease Subtypes. *Journal of proteome research* 15, 4518-4531.
262. Moore, R.A., Head, M.W., Ironside, J.W., Ritchie, D.L., Zanusso, G., Pyo Choi, Y., and Priola, S.A. (2016). The Distribution of Prion Protein Allotypes Differs Between Sporadic and Iatrogenic Creutzfeldt-Jakob Disease Patients. *PLoS Pathog* 12, e1005416.

# **Edinburgh Infectious Diseases**

Leading infectious disease research and training

263. Morrison, L.J., Vezza, L., Rowan, T., and Hope, J.C. (2016). Animal African Trypanosomiasis: Time to Increase Focus on Clinically Relevant Parasite and Host Species. *Trends Parasitol* 23, 599-607.
264. Morton, J.A., and Bridle, H. (2016). Student-led microfluidics lab practicals: Improving engagement and learning outcomes. *Biomicrofluidics* 10, 034117.
265. Moura, A.S., Ledur, M.C., Boschiero, C., Nones, K., Pinto, L.F., Jaenisch, F.R., Burt, D.W., and Coutinho, L.L. (2016). Quantitative trait loci with sex-specific effects for internal organs weights and hematocrit value in a broiler-layer cross. *Journal of applied genetics* 57, 215-224.
266. Murray, G.G., Wang, F., Harrison, E.M., Paterson, G.K., Mather, A.E., Harris, S.R., Holmes, M.A., Rambaut, A., and Welch, J.J. (2016). The effect of genetic structure on molecular dating and tests for temporal signal. *Methods Ecol Evol* 7, 80-89.
267. Mutapi, F. (2016). Getting a GRiPP on everyday schistosomiasis: experience from Zimbabwe. *Parasitology*, 1-9.
268. Mutapi, F., Maizels, R., Fenwick, A., and Woolhouse, M. (2017). Human schistosomiasis in the post mass drug administration era. *The Lancet. Infectious diseases* 17, e42-e48.
269. Nair, H. (2017). Simplified antibiotic regimens for community management of neonatal sepsis. *Lancet Glob Health* 5, e118-e120.
270. Nair, H., Watts, A.T., Williams, L.J., Omer, S.B., Simpson, C.R., Willocks, L.J., Cameron, J.C., and Campbell, H. (2016). Pneumonia hospitalisations in Scotland following the introduction of pneumococcal conjugate vaccination in young children. *BMC Infect Dis* 16, 390.
271. Nandi, S., Whyte, J., Taylor, L., Sherman, A., Nair, V., Kaiser, P., and McGrew, M.J. (2016). Cryopreservation of specialized chicken lines using cultured primordial germ cells. *Poultry science* 95, 1905-1911.
272. Ness, R.W., Kraemer, S.A., Colegrave, N., and Keightley, P.D. (2016). Direct Estimate of the Spontaneous Mutation Rate Uncovers the Effects of Drift and Recombination in the *Chlamydomonas reinhardtii* Plastid Genome. *Mol Biol Evol* 33, 800-808.
273. Neumann, K., Jain, S., Gambardella, A., Walker, S.E., Valero, E., Lilienkampf, A., and Bradley, M. (2017). Tetrazine-Responsive Self-immolative Linkers. *Chembiochem : a European journal of chemical biology* 18, 91-95.
274. Neumann, K., Jain, S., Geng, J., and Bradley, M. (2016). Nanoparticle "switch-on" by tetrazine triggering. *Chem Commun (Camb)* 52, 11223-11226.
275. Nickbakhsh, S., Hall, M.D., Dorigatti, I., Lycett, S.J., Mulatti, P., Monne, I., Fusaro, A., Woolhouse, M.E., Rambaut, A., and Kao, R.R. (2016). Modelling the impact of co-circulating low pathogenic avian influenza viruses on epidemics of highly pathogenic avian influenza in poultry. *Epidemics* 17, 27-34.
276. Nicol, L., Gossner, A., Watkins, C., Chianini, F., Dalziel, R., and Hopkins, J. (2016). Variations in IL-23 and IL-25 receptor gene structure, sequence and expression associated with the two disease forms of sheep paratuberculosis. *Vet Res* 47, 27.
277. Nicol, L., Wilkie, H., Gossner, A., Watkins, C., Dalziel, R., and Hopkins, J. (2016). Variations in T cell transcription factor gene structure and expression associated with the two disease forms of sheep paratuberculosis. *Vet Res* 47, 83.
278. Nielsen, M.K., von Samson-Himmelstjerna, G., Pfister, K., Reinemeyer, C.R., Molento, M.B., Peregrine, A.S., Hodgkinson, J.E., Jacobsen, S., Kaplan, R.M., and Matthews, J.B. (2016). The appropriate antiparasitic treatment: Coping with emerging threats from old adversaries. *Equine veterinary journal* 48, 374-375.
279. Nightingale, S., Geretti, A.M., Beloukas, A., Fisher, M., Winston, A., Else, L., Nelson, M., Taylor, S., Ustianowski, A., Ainsworth, J., et al. (2016). Discordant CSF/plasma HIV-1 RNA in patients with unexplained low-level viraemia. *Journal of neurovirology* 22, 852-860.
280. Nightingale, S., Michael, B.D., Fisher, M., Winston, A., Nelson, M., Taylor, S., Ustianowski, A., Ainsworth, J., Gilson, R., Haddow, L., et al. (2016). CSF/plasma HIV-1 RNA discordance even at low levels is associated with up-regulation of host inflammatory mediators in CSF. *Cytokine* 83, 139-146.
281. Nisbet, A.J., McNeilly, T.N., Greer, A.W., Bartley, Y., Oliver, E.M., Smith, S., Palarea-Albaladejo, J., and Matthews, J.B. (2016). Protection of ewes against *Teladorsagia circumcincta* infection in the periparturient period by vaccination with recombinant antigens. *Vet Parasitol* 228, 130-136.
282. Nisbet, A.J., Meeusen, E.N., Gonzalez, J.F., and Piedrafita, D.M. (2016). Immunity to *Haemonchus contortus* and Vaccine Development. *Advances in parasitology* 93, 353-396.
283. Noho-Konteh, F., Adetifa, J.U., Cox, M., Hossin, S., Reynolds, J., Le, M.T., Sanyang, L.C., Drammeh, A., Plebanski, M., Forster, T., et al. (2016). Sex-Differential Non-Vaccine-Specific Immunological Effects of Diphtheria-Tetanus-Pertussis and Measles Vaccination. *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America* 63, 1213-1226.

# **Edinburgh Infectious Diseases**

Leading infectious disease research and training

284. Nolan, T.J., Gadsby, N.J., Hellyer, T.P., Templeton, K.E., McMullan, R., McKenna, J.P., Rennie, J., Robb, C.T., Walsh, T.S., Rossi, A.G., et al. (2016). Low-pathogenicity Mycoplasma spp. alter human monocyte and macrophage function and are highly prevalent among patients with ventilator-acquired pneumonia. *Thorax* 71, 594-600.
285. Nowell, R.W., Laue, B.E., Sharp, P.M., and Green, S. (2016). Comparative genomics reveals genes significantly associated with woody hosts in the plant pathogen *Pseudomonas syringae*. *Molecular plant pathology* 17, 1409-1424.
286. Nurnberger, B., Lohse, K., Fijarczyk, A., Szymura, J.M., and Blaxter, M.L. (2016). Para-allopatry in hybridizing fire-bellied toads (*Bombina bombina* and *B. variegata*): Inference from transcriptome-wide coalescence analyses. *Evolution; international journal of organic evolution* 70, 2429.
287. O'Hara, L., Livigni, A., Theo, T., Boyer, B., Angus, T., Wright, D., Chen, S.H., Raza, S., Barnett, M.W., Digard, P., et al. (2016). Modelling the Structure and Dynamics of Biological Pathways. *PLoS Biol* 14, e1002530.
288. O'Neill, K.E., Bredenkamp, N., Tischner, C., Vaidya, H.J., Stenhouse, F.H., Peddie, C.D., Nowell, C.S., Gaskell, T., and Blackburn, C.C. (2016). FoxN1 Is Dynamically Regulated in Thymic Epithelial Cells during Embryogenesis and at the Onset of Thymic Involution. *PLoS One* 11, e0151666.
289. Obieglo, K., Feng, X., Bollampalli, V.P., Dellacasa-Lindberg, I., Classon, C., Osterblad, M., Helmby, H., Hewitson, J.P., Maizels, R.M., Gigliotti Rothfuchs, A., et al. (2016). Chronic Gastrointestinal Nematode Infection Mutes Immune Responses to Mycobacterial Infection Distal to the Gut. *Journal of immunology* (Baltimore, Md. : 1950) 196, 2262-2271.
290. Ochoa-Villarreal, M., Howat, S., Hong, S., Jang, M.O., Jin, Y.W., Lee, E.K., and Loake, G.J. (2016). Plant cell culture strategies for the production of natural products. *BMB reports* 49, 149-158.
291. Opi, D.H., Uyoga, S., Orori, E.N., Williams, T.N., and Rowe, J.A. (2016). Red blood cell complement receptor one level varies with Knops blood group, alpha(+)thalassaemia and age among Kenyan children. *Genes and immunity* 17, 171-178.
292. Opriessnig, T., Xiao, C.T., Halbur, P.G., Gerber, P.F., Matzinger, S.R., and Meng, X.J. (2017). A commercial porcine circovirus (PCV) type 2a-based vaccine reduces PCV2d viremia and shedding and prevents PCV2d transmission to naive pigs under experimental conditions. *Vaccine* 35, 248-254.
293. Orlando, G., Law, P.J., Palin, K., Tuupanen, S., Gylfe, A., Hanninen, U.A., Cajuso, T., Tanskanen, T., Kondelin, J., Kaasinen, E., et al. (2016). Variation at 2q35 (PNKD and TMBIM1) influences colorectal cancer risk and identifies a pleiotropic effect with inflammatory bowel disease. *Hum Mol Genet* 25, 2349-2359.
294. Orsini, L., Gilbert, D., Podicheti, R., Jansen, M., Brown, J.B., Solari, O.S., Spanier, K.I., Colbourne, J.K., Rush, D., Decaestecker, E., et al. (2016). *Daphnia magna* transcriptome by RNA-Seq across 12 environmental stressors. *Scientific data* 3, 160030.
295. Oshita, M., Yokoyama, T., Takei, Y., Takeuchi, A., Ironside, J.W., Kitamoto, T., and Morita, M. (2016). Efficient propagation of variant Creutzfeldt-Jakob disease prion protein using the cell-protein misfolding cyclic amplification technique with samples containing plasma and heparin. *Transfusion* 56, 223-230.
296. Palani Velu, P., Bedi, P., Turnbull, K., and Hill, A.T. (2016). Risk Factors for Requiring Intravenous Antibiotic Therapy in Hospital and 30-Day Readmission for Exacerbations of Bronchiectasis. *QJM : monthly journal of the Association of Physicians* 109, 723-729.
297. Palmer, W.H., and Obbard, D.J. (2016). Variation and Evolution in the Glutamine-Rich Repeat Region of *Drosophila Argonaute-2*. *G3 (Bethesda, Md.)* 6, 2563-2572.
298. Pan, Q., Cui, B., Deng, F., Quan, J., Loake, G.J., and Shan, W. (2016). RTP1 encodes a novel endoplasmic reticulum (ER)-localized protein in *Arabidopsis* and negatively regulates resistance against biotrophic pathogens. *The New phytologist* 209, 1641-1654.
299. Parikh, S.R., Campbell, H., Beebejaun, K., Ribeiro, S., Gray, S.J., Borrow, R., Ramsay, M.E., and Ladhami, S.N. (2016). Meningococcal Group W Disease in Infants and Potential Prevention by Vaccination. *Emerg Infect Dis* 22, 1505-1507.
300. Parker, R.E., Laut, C., Gaddy, J.A., Zadoks, R.N., Davies, H.D., and Manning, S.D. (2016). Association between genotypic diversity and biofilm production in group B *Streptococcus*. *BMC microbiology* 16, 86.
301. Pattaro, C., Teumer, A., Gorski, M., Chu, A.Y., Li, M., Mijatovic, V., Garnaas, M., Tin, A., Sorice, R., Li, Y., et al. (2016). Genetic associations at 53 loci highlight cell types and biological pathways relevant for kidney function. *Nat Commun* 7, 10023.
302. Pattle, S.B., Utjesanovic, N., Togo, A., Wells, L., Conn, B., Monaghan, H., Junor, E., Johannessen, I., Cuschieri, K., and Talbot, S. (2017). Copy number gain of 11q13.3 genes associates with pathological stage in hypopharyngeal squamous cell carcinoma. *Genes, chromosomes & cancer* 56, 185-198.
303. Paultre, D.S., Gustin, M.P., Molnar, A., and Oparka, K.J. (2016). Lost in transit: long-distance trafficking and phloem unloading of protein signals in *Arabidopsis* homografts. *The Plant cell*.

# **Edinburgh Infectious Diseases**

Leading infectious disease research and training

304. Pavitt, A.T., Pemberton, J.M., Kruuk, L.E., and Walling, C.A. (2016). Testosterone and cortisol concentrations vary with reproductive status in wild female red deer. *Ecology and evolution* 6, 1163-1172.
305. Peachey, L.E., Pinchbeck, G.L., Matthews, J.B., Burden, F.A., Behnke, J.M., and Hodgkinson, J.E. (2016). Papaya latex supernatant has a potent effect on the free-living stages of equid cyathostomins in vitro. *Vet Parasitol* 228, 23-29.
306. Pelly, V.S., Kannan, Y., Coomes, S.M., Entwistle, L.J., Ruckerl, D., Seddon, B., MacDonald, A.S., McKenzie, A., and Wilson, M.S. (2016). IL-4-producing ILC2s are required for the differentiation of T2 cells following *Heligmosomoides polygyrus* infection. *Mucosal immunology* 9, 1407-1417.
307. Pemberton, J.M., Ellis, P.E., Pilkington, J.G., and Berenos, C. (2017). Inbreeding depression by environment interactions in a free-living mammal population. *Heredity (Edinb)* 118, 64-77.
308. Peng, B., Klausen, C., Campbell, L., Leung, P.C., Horne, A.W., and Bedaiwy, M.A. (2016). Gonadotropin-releasing hormone and gonadotropin-releasing hormone receptor are expressed at tubal ectopic pregnancy implantation sites. *Fertility and sterility* 105, 1620-1627.
309. Pengelly, R.J., Gheyas, A.A., Kuo, R., Mossotto, E., Seaby, E.G., Burt, D.W., Ennis, S., and Collins, A. (2016). Commercial chicken breeds exhibit highly divergent patterns of linkage disequilibrium. *Heredity (Edinb)* 117, 375-382.
310. Perez-Lopez, A.M., Soria-Gila, M.L., Marsden, E.R., Lilienkampf, A., and Bradley, M. (2016). Fluorogenic Substrates for In Situ Monitoring of Caspase-3 Activity in Live Cells. *PLoS One* 11, e0153209.
311. Petrik, J. (2016). Immunomodulatory effects of exosomes produced by virus-infected cells. *Transfusion and apheresis science : official journal of the World Apheresis Association : official journal of the European Society for Haemapheresis* 55, 84-91.
312. Petrik, J., and Seghatchian, J. (2016). Big things from small packages: The multifaceted roles of extracellular vesicles in the components quality, therapy and infection. *Transfusion and apheresis science : official journal of the World Apheresis Association : official journal of the European Society for Haemapheresis* 55, 4-8.
313. Pittini, A., Casaravilla, C., Allen, J.E., and Diaz, A. (2016). Pharmacological inhibition of PI3K class III enhances the production of pro- and anti-inflammatory cytokines in dendritic cells stimulated by TLR agonists. *International immunopharmacology* 36, 213-217.
314. Porphyre, T., Boden, L.A., Correia-Gomes, C., Auty, H.K., Gunn, G.J., and Woolhouse, M.E. (2016). Using national movement databases to help inform responses to swine disease outbreaks in Scotland: the impact of uncertainty around incursion time. *Sci Rep* 6, 20258.
315. Prentice, J.C., Marion, G., Hutchings, M.R., McNeilly, T.N., and Matthews, L. (2017). Complex responses to movement-based disease control: when livestock trading helps. *Journal of the Royal Society, Interface* 14.
316. Pridans, C., Davis, G.M., Sauter, K.A., Lisowski, Z.M., Corripio-Miyar, Y., Raper, A., Lefevre, L., Young, R., McCulloch, M.E., Lillico, S., et al. (2016). A *Csf1r-EGFP* Transgene Provides a Novel Marker for Monocyte Subsets in Sheep. *Journal of immunology (Baltimore, Md. : 1950)* 197, 2297-2305.
317. Pritchard, T.C., Coffey, M.P., Bond, K.S., Hutchings, M.R., and Wall, E. (2017). Phenotypic effects of subclinical paratuberculosis (Johne's disease) in dairy cattle. *J Dairy Sci* 100, 679-690.
318. Psifidi, A., Banos, G., Matika, O., Desta, T.T., Bettridge, J., Hume, D.A., Dessie, T., Christley, R., Wigley, P., Hanotte, O., et al. (2016). Genome-wide association studies of immune, disease and production traits in indigenous chicken ecotypes. *Genetics, selection, evolution : GSE* 48, 74.
319. Psifidi, A., Fife, M., Howell, J., Matika, O., van Diemen, P.M., Kuo, R., Smith, J., Hocking, P.M., Salmon, N., Jones, M.A., et al. (2016). The genomic architecture of resistance to *Campylobacter jejuni* intestinal colonisation in chickens. *BMC Genomics* 17, 293.
320. Puenpa, J., Vongpunsawad, S., Osterback, R., Waris, M., Eriksson, E., Albert, J., Midgley, S., Fischer, T.K., Eis-Hubinger, A.M., Cabrerizo, M., et al. (2016). Molecular epidemiology and the evolution of human coxsackievirus A6. *J Gen Virol* 97, 3225-3231.
321. Quick, J., Loman, N.J., Duraffour, S., Simpson, J.T., Severi, E., Cowley, L., Bore, J.A., Koundouno, R., Dudas, G., Mikhail, A., et al. (2016). Real-time, portable genome sequencing for Ebola surveillance. *Nature* 530, 228-232.
322. Rambaut, A., Dudas, G., de Carvalho, L.M., Park, D.J., Yozwiak, N.L., Holmes, E.C., and Andersen, K.G. (2016). Comment on "Mutation rate and genotype variation of Ebola virus from Mali case sequences". *Science* 353, 658.
323. Ramiro, R.S., Pollitt, L.C., Mideo, N., and Reece, S.E. (2016). Facilitation through altered resource availability in a mixed-species rodent malaria infection. *Ecology letters* 19, 1041-1050.
324. Ratmann, O., Hocroft, E.B., Pickles, M., Cori, A., Hall, M., Lycett, S., Colijn, C., Dearlove, B., Didelot, X., Frost, S., et al. (2017). Phylogenetic Tools for Generalized HIV-1 Epidemics: Findings from the PANGEA-HIV Methods Comparison. *Mol Biol Evol* 34, 185-203.

# **Edinburgh Infectious Diseases**

Leading infectious disease research and training

325. Regan, C.E., Pilkington, J.G., Berenos, C., Pemberton, J.M., Smiseth, P.T., and Wilson, A.J. (2017). Accounting for female space sharing in St. Kilda Soay sheep (*Ovis aries*) results in little change in heritability estimates. *Journal of evolutionary biology* *30*, 96-111.
326. Reid, W.D., Close, A.J., Humphrey, S., Chaloner, G., Lacharme-Lora, L., Rothwell, L., Kaiser, P., Williams, N.J., Humphrey, T.J., Wigley, P., et al. (2016). Cytokine responses in birds challenged with the human food-borne pathogen *Campylobacter jejuni* implies a Th17 response. *R Soc Open Sci* *3*, 150541.
327. Ritchie, D.L., Barria, M.A., Peden, A.H., Yull, H.M., Kirkpatrick, J., Adlard, P., Ironside, J.W., and Head, M.W. (2016). UK iatrogenic Creutzfeldt-Jakob disease: investigating human prion transmission across genotypic barriers using human tissue-based and molecular approaches. *Acta neuropathologica* *133*, 579-595.
328. Rivero, L.A., Concepcion, J.L., Quintero-Troconis, E., Quinones, W., Michels, P.A., and Acosta, H. (2016). *Trypanosoma evansi* contains two auxiliary enzymes of glycolytic metabolism: Phosphoenolpyruvate carboxykinase and pyruvate phosphate dikinase. *Exp Parasitol* *165*, 7-15.
329. Robb, C.T., Regan, K.H., Dorward, D.A., and Rossi, A.G. (2016). Key mechanisms governing resolution of lung inflammation. *Seminars in immunopathology* *38*, 425-448.
330. Robertson, A.L., Ogryzko, N.V., Henry, K.M., Loynes, C.A., Foulkes, M.J., Meloni, M.M., Wang, X., Ford, C., Jackson, M., Ingham, P.W., et al. (2016). Identification of benzopyrone as a common structural feature in compounds with anti-inflammatory activity in a zebrafish phenotypic screen. *Disease models & mechanisms* *9*, 621-632.
331. Robertson, K.A., and Ghazal, P. (2016). Interferon Control of the Sterol Metabolic Network: Bidirectional Molecular Circuitry-Mediating Host Protection. *Front Immunol* *7*, 634.
332. Robertson, K.A., Hsieh, W.Y., Forster, T., Blanc, M., Lu, H., Crick, P.J., Yutuc, E., Watterson, S., Martin, K., Griffiths, S.J., et al. (2016). An Interferon Regulated MicroRNA Provides Broad Cell-Intrinsic Antiviral Immunity through Multihit Host-Directed Targeting of the Sterol Pathway. *PLoS Biol* *14*, e1002364.
333. Robinson, G., Caldwell, G.S., Wade, M.J., Free, A., Jones, C.L., and Stead, S.M. (2016). Profiling bacterial communities associated with sediment-based aquaculture bioremediation systems under contrasting redox regimes. *Sci Rep* *6*, 38850.
334. Robinson, T.P., Bu, D.P., Carrique-Mas, J., Fevre, E.M., Gilbert, M., Grace, D., Hay, S.I., Jiwakanon, J., Kakkar, M., Kariuki, S., et al. (2016). Antibiotic resistance is the quintessential One Health issue. *Transactions of the Royal Society of Tropical Medicine and Hygiene* *110*, 377-380.
335. Robinson, T.P., Bu, D.P., Carrique-Mas, J., Fevre, E.M., Gilbert, M., Grace, D., Hay, S.I., Jiwakanon, J., Kakkar, M., Kariuki, S., et al. (2016). Antibiotic resistance: mitigation opportunities in livestock sector development. *Animal* *11*, 1-3.
336. Robledo, D., Taggart, J.B., Ireland, J.H., McAndrew, B.J., Starkey, W.G., Haley, C.S., Hamilton, A., Guy, D.R., Mota-Velasco, J.C., Gheyas, A.A., et al. (2016). Gene expression comparison of resistant and susceptible Atlantic salmon fry challenged with Infectious Pancreatic Necrosis virus reveals a marked contrast in immune response. *BMC Genomics* *17*, 279.
337. Roehe, R., Dewhurst, R.J., Duthie, C.A., Rooke, J.A., McKain, N., Ross, D.W., Hyslop, J.J., Waterhouse, A., Freeman, T.C., Watson, M., et al. (2016). Bovine Host Genetic Variation Influences Rumen Microbial Methane Production with Best Selection Criterion for Low Methane Emitting and Efficiently Feed Converting Hosts Based on Metagenomic Gene Abundance. *PLoS genetics* *12*, e1005846.
338. Rogers, A.J., Huang, Y.W., Heffron, C.L., Opriessnig, T., Patterson, A.R., and Meng, X.J. (2016). Prevalence of the Novel Torque Teno Sus Virus Species k2b from Pigs in the United States and Lack of Association with Post-Weaning Multisystemic Wasting Syndrome or Mulberry Heart Disease. *Transbound Emerg Dis*.
339. Rogers, P.A., Adamson, G.D., Al-Jefout, M., Becker, C.M., D'Hooghe, T.M., Dunselman, G.A., Fazolebas, A., Giudice, L.C., Horne, A.W., Hull, M.L., et al. (2016). Research Priorities for Endometriosis: Recommendations From a Global Consortium of Investigators in Endometriosis. *Reproductive sciences* (Thousand Oaks, Calif.).
340. Rosario, R., Filis, P., Tessyman, V., Kinnell, H., Childs, A.J., Gray, N.K., and Anderson, R.A. (2016). FMRP Associates with Cytoplasmic Granules at the Onset of Meiosis in the Human Oocyte. *PLoS One* *11*, e0163987.
341. Rudan, I., and Sridhar, D. (2016). Structure, function and five basic needs of the global health research system. *J Glob Health* *6*, 010505.
342. Rudan, I., Yoshida, S., Chan, K.Y., Cousens, S., Sridhar, D., Bahl, R., and Martines, J. (2016). Setting health research priorities using the CHNRI method: I. Involving funders. *J Glob Health* *6*, 010301.
343. Rund, S.S., O'Donnell, A.J., Gentile, J.E., and Reece, S.E. (2016). Daily Rhythms in Mosquitoes and Their Consequences for Malaria Transmission. *Insects* *7*.
344. Russell, C.D., Koch, O., Laurenson, I.F., O'Shea, D.T., Sutherland, R., and Mackintosh, C.L. (2015). Diagnosis and features of hospital-acquired pneumonia: a retrospective cohort study. *The Journal of hospital infection*.

# **Edinburgh Infectious Diseases**

Leading infectious disease research and training

345. Russell, C.D., Koch, O., Laurenson, I.F., O'Shea, D.T., Sutherland, R., and Mackintosh, C.L. (2016). Diagnosis and features of hospital-acquired pneumonia: a retrospective cohort study. *The Journal of hospital infection* 92, 273-279.
346. Rydevik, G., Innocent, G.T., Marion, G., Davidson, R.S., White, P.C., Billinis, C., Barrow, P., Mertens, P.P., Gavier-Widen, D., and Hutchings, M.R. (2016). Using Combined Diagnostic Test Results to Hindcast Trends of Infection from Cross-Sectional Data. *PLoS computational biology* 12, e1004901.
347. Saccareau, M., Moreno, C.R., Kyriazakis, I., Faivre, R., and Bishop, S.C. (2016). Modelling gastrointestinal parasitism infection in a sheep flock over two reproductive seasons: in silico exploration and sensitivity analysis. *Parasitology* 143, 1509-1531.
348. Sadeghi, M., Kapusinszky, B., Yugo, D.M., Phan, T.G., Deng, X., Kanevsky, I., Opriessnig, T., Wools, A.R., Hurley, D.J., Meng, X.J., et al. (2017). Virome of US bovine calf serum. *Biologicals : journal of the International Association of Biological Standardization*.
349. Sahi, G., Hedley, P.E., Morris, J., Loake, G.J., and MacFarlane, S.A. (2016). Molecular and Biochemical Examination of Spraing Disease in Potato Tuber in Response to Tobacco rattle virus Infection. *Molecular plant-microbe interactions : MPMI* 29, 822-828.
350. Sanderson, P.A., Critchley, H.O., Williams, A.R., Arends, M.J., and Saunders, P.T. (2016). New concepts for an old problem: the diagnosis of endometrial hyperplasia. *Human reproduction update*.
351. Sanghera, S., Barton, P., Bhattacharya, S., Horne, A.W., and Roberts, T.E. (2016). Pharmaceutical treatments to prevent recurrence of endometriosis following surgery: a model-based economic evaluation. *BMJ open* 6, e010580.
352. Saraswat, L., Ayansina, D.T., Cooper, K.G., Bhattacharya, S., Miligkos, D., Horne, A.W., and Bhattacharya, S. (2016). Pregnancy outcomes in women with endometriosis: a national record linkage study. *BJOG : an international journal of obstetrics and gynaecology* 124, 444-452.
353. Sargison, N., Francis, E., Davison, C., Bronsvoort, B.M., Handel, I., and Mazeri, S. (2016). Observations on the biology, epidemiology and economic relevance of rumen flukes (Paramphistomidae) in cattle kept in a temperate environment. *Vet Parasitol* 219, 7-16.
354. Sauter, K.A., Waddell, L.A., Lisowski, Z.M., Young, R., Lefevre, L., Davis, G.M., Clohisey, S.M., McCulloch, M., Magowan, E., Mabbott, N.A., et al. (2016). Macrophage colony-stimulating factor (CSF1) controls monocyte production and maturation and the steady-state size of the liver in pigs. *American journal of physiology. Gastrointestinal and liver physiology* 311, G533-547.
355. Schwarz-Linek, J., Arlt, J., Jepson, A., Dawson, A., Vissers, T., Miroli, D., Pilizota, T., Martinez, V.A., and Poon, W.C. (2016). Escherichia coli as a model active colloid: A practical introduction. *Colloids and surfaces. B, Biointerfaces* 137, 2-16.
356. Schwarze, J., Fitch, P.M., Heimweg, J., Errington, C., Matsuda, R., de Bruin, H.G., van den Berge, M., van Oosterhout, A.J., and Heijink, I.H. (2016). Viral mimic poly-(I:C) attenuates airway epithelial T-cell suppressive capacity: implications for asthma. *Eur Respir J* 48, 1785-1788.
357. Seeker, L.A., Holland, R., Underwood, S., Fairlie, J., Psifidi, A., Ilska, J.J., Bagnall, A., Whitelaw, B., Coffey, M., Banos, G., et al. (2016). Method Specific Calibration Corrects for DNA Extraction Method Effects on Relative Telomere Length Measurements by Quantitative PCR. *PLoS One* 11, e0164046.
358. Sehgal, A., Kobayashi, A., Donaldson, D.S., and Mabbott, N.A. (2017). c-Rel is dispensable for the differentiation and functional maturation of M cells in the follicle-associated epithelium. *Immunobiology* 222, 316-326.
359. Seibyl, J., Catafau, A.M., Barthel, H., Ishii, K., Rowe, C.C., Leverenz, J.B., Ghetti, B., Ironside, J.W., Takao, M., Akatsu, H., et al. (2016). Impact of training method on the robustness of the visual assessment of 18F-florbetaben PET scans: results from a Phase 3 trial. *Journal of nuclear medicine : official publication, Society of Nuclear Medicine* 57, 900-906.
360. Selega, A., Sirocchi, C., Iosub, I., Granneman, S., and Sanguinetti, G. (2017). Robust statistical modeling improves sensitivity of high-throughput RNA structure probing experiments. *Nature methods* 14, 83-89.
361. Serao, N.V., Kemp, R.A., Mote, B.E., Willson, P., Harding, J.C., Bishop, S.C., Plastow, G.S., and Dekkers, J.C. (2016). Genetic and genomic basis of antibody response to porcine reproductive and respiratory syndrome (PRRS) in gilts and sows. *Genetics, selection, evolution : GSE* 48, 51.
362. Seth, S., Akram, A.R., McCool, P., Westerfeld, J., Wilson, D., McLaughlin, S., Dhaliwal, K., and Williams, C.K. (2016). Assessing the utility of autofluorescence-based pulmonary optical endomicroscopy to predict the malignant potential of solitary pulmonary nodules in humans. *Sci Rep* 6, 31372.
363. Sharma, A., Hussain, A., Mun, B.G., Imran, Q.M., Falak, N., Lee, S.U., Kim, J.Y., Hong, J.K., Loake, G.J., Ali, A., et al. (2016). Comprehensive analysis of plant rapid alkalinization factor (RALF) genes. *Plant physiology and biochemistry : PPB / Societe francaise de physiologie vegetale* 106, 82-90.

# **Edinburgh Infectious Diseases**

Leading infectious disease research and training

364. Sharma, J.R., Khatri, R., and Harper, I. (2016). Understanding Health Research Ethics in Nepal. *Developing world bioethics* 16, 140-147.
365. Sharma, V., Kaur, T., Bridle, H., and Ghosh, M. (2017). Antimicrobial efficacy and safety of mucoadhesive exopolymer produced by *Acinetobacter haemolyticus*. *International journal of biological macromolecules* 94, 187-193.
366. Sharp, G.C., Hutchinson, J.L., Hibbert, N., Freeman, T.C., Saunders, P.T., and Norman, J.E. (2016). Transcription Analysis of the Myometrium of Labouring and Non-Labouring Women. *PLoS One* 11, e0155413.
367. Shepherd, L., Borges, A., Ledergerber, B., Domingo, P., Castagna, A., Rockstroh, J., Knysz, B., Tomazic, J., Karpov, I., Kirk, O., et al. (2016). Infection-related and -unrelated malignancies, HIV and the aging population. *HIV Med* 17, 590-600.
368. Simbari, F., McCaskill, J., Coakley, G., Millar, M., Maizels, R.M., Fabrias, G., Casas, J., and Buck, A.H. (2016). Plasmalogen enrichment in exosomes secreted by a nematode parasite versus those derived from its mouse host: implications for exosome stability and biology. *Journal of extracellular vesicles* 5, 30741.
369. Sinclair, R., Melville, L., Sargison, F., Kenyon, F., Nussey, D., Watt, K., and Sargison, N. (2016). Gastrointestinal nematode species diversity in Soay sheep kept in a natural environment without active parasite control. *Vet Parasitol* 227, 1-7.
370. Smith, D.B., Gaunt, E.R., Digard, P., Templeton, K., and Simmonds, P. (2016). Detection of influenza C virus but not influenza D virus in Scottish respiratory samples. *Journal of clinical virology : the official publication of the Pan American Society for Clinical Virology* 74, 50-53.
371. Smith, D.B., Paddy, J.O., and Simmonds, P. (2016). The use of human sewage screening for community surveillance of hepatitis E virus in the UK. *Journal of medical virology* 88, 915-918.
372. Smith, D.B., Simmonds, P., Izopet, J., Oliveira-Filho, E.F., Ulrich, R.G., Johne, R., Koenig, M., Jameel, S., Harrison, T.J., Meng, X.J., et al. (2016). Proposed reference sequences for Hepatitis E virus subtypes. *J Gen Virol* 97, 537-542.
373. Smith, J., Gheyas, A., and Burt, D.W. (2016). Animal genomics and infectious disease resistance in poultry. *Rev Sci Tech* 35, 105-119.
374. Smith, K.A., Filbey, K.J., Reynolds, L.A., Hewitson, J.P., Harcus, Y., Boon, L., Sparwasser, T., Hammerling, G., and Maizels, R.M. (2016). Low-level regulatory T-cell activity is essential for functional type-2 effector immunity to expel gastrointestinal helminths. *Mucosal immunology* 9, 428-443.
375. Smits, H.H., Hiemstra, P.S., Prazeres da Costa, C., Ege, M., Edwards, M., Garn, H., Howarth, P.H., Jartti, T., de Jong, E.C., Maizels, R.M., et al. (2016). Microbes and asthma: Opportunities for intervention. *The Journal of allergy and clinical immunology* 137, 690-697.
376. Sood, S., Brownlie, R.J., Garcia, C., Cowan, G., Salmond, R.J., Sakaguchi, S., and Zamoyska, R. (2016). Loss of the Protein Tyrosine Phosphatase PTPN22 Reduces Mannan-Induced Autoimmune Arthritis in SKG Mice. *Journal of immunology (Baltimore, Md. : 1950)* 197, 429-440.
377. Soukarieh, F., Nowicki, M.W., Bastide, A., Poiry, T., Jones, C., Dudek, K., Patwardhan, G., Meullenet, F., Oldham, N.J., Walkinshaw, M.D., et al. (2016). Design of nucleotide-mimetic and non-nucleotide inhibitors of the translation initiation factor eIF4E: Synthesis, structural and functional characterisation. *European journal of medicinal chemistry* 124, 200-217.
378. Sridhar, D. (2016). Making the SDGs useful: a Herculean task. *Lancet* 388, 1453-1454.
379. Sridhar, D., Kickbusch, I., Moon, S., Dzau, V., Heymann, D., Jha, A.K., Saavendra, J., Stocking, B., Woskie, L., and Piot, P. (2016). Facing forward after Ebola: questions for the next director general of the World Health Organization. *Bmj* 353, i2666.
380. Stacy, A., McNally, L., Darch, S.E., Brown, S.P., and Whiteley, M. (2016). The biogeography of polymicrobial infection. *Nature reviews. Microbiology* 14, 93-105.
381. Steer, B., Strehle, M., Sattler, C., Bund, D., Flach, B., Stoeger, T., Haas, J.G., and Adler, H. (2016). The small noncoding RNAs (snRNAs) of murine gammaherpesvirus 68 (MHV-68) are involved in regulating the latent-to-lytic switch in vivo. *Sci Rep* 6, 32128.
382. Stephen, J., Bravo, E.L., Colligan, D., Fraser, A.R., Petrik, J., and Campbell, J.D. (2016). Mesenchymal stromal cells as multifunctional cellular therapeutics - a potential role for extracellular vesicles. *Transfusion and apheresis science : official journal of the World Apheresis Association : official journal of the European Society for Haemapheresis* 55, 62-69.
383. Stevens, M.P. (2016). Modulation of the Interaction of Enteric Bacteria with Intestinal Mucosa by Stress-Related Catecholamines. *Advances in experimental medicine and biology* 874, 143-166.
384. Stevenson, K., McVey, A.F., Clark, I.B., Swain, P.S., and Pilizota, T. (2016). General calibration of microbial growth in microplate readers. *Sci Rep* 6, 38828.

# **Edinburgh Infectious Diseases**

Leading infectious disease research and training

385. Subiros-Funosas, R., Mendive-Tapia, L., Sot, J., Pound, J.D., Barth, N., Varela, Y., Goni, F.M., Paterson, M., Gregory, C.D., Albericio, F., et al. (2017). A Trp-BODIPY cyclic peptide for fluorescence labelling of apoptotic bodies. *Chem Commun (Camb)* 53, 945-948.
386. Subramaniam, S., Cao, D., Tian, D., Cao, Q.M., Overend, C., Yugo, D.M., Matzinger, S.R., Rogers, A.J., Heffron, C.L., Catanzaro, N., et al. (2017). Efficient priming of CD4 T cells by Langerin-expressing dendritic cells targeted with porcine epidemic diarrhea virus spike protein domains in pigs. *Virus research* 227, 212-219.
387. Sundararaman, S.A., Plenderleith, L.J., Liu, W., Loy, D.E., Learn, G.H., Li, Y., Shaw, K.S., Ayoubia, A., Peeters, M., Speede, S., et al. (2016). Genomes of cryptic chimpanzee Plasmodium species reveal key evolutionary events leading to human malaria. *Nat Commun* 7, 11078.
388. Surve, S.V., Jensen, B.C., Heestand, M., Mazet, M., Smith, T.K., Bringaud, F., Parsons, M., and Schnaufer, A. (2017). NADH dehydrogenase of *Trypanosoma brucei* is important for efficient acetate production in bloodstream forms. *Mol Biochem Parasitol* 211, 57-61.
389. Swain, P.S., Stevenson, K., Leary, A., Montano-Gutierrez, L.F., Clark, I.B., Vogel, J., and Pilizota, T. (2016). Inferring time derivatives including cell growth rates using Gaussian processes. *Nat Commun* 7, 13766.
390. Syed, S.N., Ducrottoy, M.J., and Bachmann, T.T. (2016). Antimicrobial resistance diagnostics: time to call in the young? *The Lancet. Infectious diseases* 16, 519-521.
391. Szitenberg, A., Cha, S., Opperman, C.H., Bird, D.M., Blaxter, M.L., and Lunt, D.H. (2016). Genetic drift, not life history or RNAi, determine long term evolution of transposable elements. *Genome biology and evolution* 8, 2964-2978.
392. Taylor, M., Sargison, N., Howe, M., and Scott, P. (2016). Dosing ewes at lambing time. *Vet Rec* 178, 377-378.
393. Thackeray, S.J., Henrys, P.A., Hemming, D., Bell, J.R., Botham, M.S., Burthe, S., Helaouet, P., Johns, D.G., Jones, I.D., Leech, D.I., et al. (2016). Phenological sensitivity to climate across taxa and trophic levels. *Nature* 535, 241-245.
394. Thamsborg, S.M., Ketzis, J., Horii, Y., and Matthews, J.B. (2016). *Strongyloides* spp. infections of veterinary importance. *Parasitology*, 1-11.
395. Thomson, E., Ip, C.L., Badhan, A., Christiansen, M.T., Adamson, W., Ansari, M.A., Bibby, D., Breuer, J., Brown, A., Bowden, R., et al. (2016). Comparison of next generation sequencing technologies for the comprehensive assessment of full-length hepatitis C viral genomes. *Journal of clinical microbiology* 54, 2470-2484.
396. Thurlow, S.E., Kilgour, D.P., Campopiano, D.J., Mackay, C.L., Langridge-Smith, P.R., Clarke, D.J., and Campbell, C.J. (2016). Determination of Protein Thiol Reduction Potential by Isotope Labeling and Intact Mass Measurement. *Anal Chem* 88, 2727-2733.
397. Trainor-Moss, S., and Mutapi, F. (2016). Schistosomiasis therapeutics: whats in the pipeline? *Expert review of clinical pharmacology* 9, 157-160.
398. Trikin, R., Doiron, N., Hoffmann, A., Haenni, B., Jakob, M., Schnaufer, A., Schimanski, B., Zuber, B., and Ochsenreiter, T. (2016). TAC102 Is a Novel Component of the Mitochondrial Genome Segregation Machinery in Trypanosomes. *PLoS Pathog* 12, e1005586.
399. Trubitsyn, D., Abreu, F., Ward, F.B., Taylor, T., Hattori, M., Kondo, S., Trivedi, U., Staniland, S., Lins, U., and Bazylinski, D.A. (2016). Draft Genome Sequence of *Magnetovibrio blakemorei* Strain MV-1, a Marine Vibrioid Magnetotactic Bacterium. *Genome Announc* 4.
400. Tsai, H.Y., Hamilton, A., Tinch, A.E., Guy, D.R., Bron, J.E., Taggart, J.B., Gharbi, K., Stear, M., Matika, O., Pong-Wong, R., et al. (2016). Genomic prediction of host resistance to sea lice in farmed Atlantic salmon populations. *Genetics, selection, evolution : GSE* 48, 47.
401. Tsairidou, S., Brotherstone, S., Coffey, M., Bishop, S.C., and Woolliams, J.A. (2016). Quantitative genetic analysis of the bTB diagnostic single intradermal comparative cervical test (SICCT). *Genetics, selection, evolution : GSE* 48, 90.
402. Tuck, L.R., Altenbach, K., Ang, T.F., Crawshaw, A.D., Campopiano, D.J., Clarke, D.J., and Marles-Wright, J. (2016). Insight into Coenzyme A cofactor binding and the mechanism of acyl-transfer in an acylating aldehyde dehydrogenase from *Clostridium phytofermentans*. *Sci Rep* 6, 22108.
403. Turnbull, M.L., Wise, H.M., Nicol, M.Q., Smith, N., Dunfee, R.L., Beard, P.M., Jagger, B.W., Ligertwood, Y., Hardisty, G.R., Xiao, H., et al. (2016). The Role of the B-Allele of the Influenza A Virus Segment 8 in Setting Mammalian Host Range and Pathogenicity. *J Virol* 90, 9263-9284.
404. Turner, D.G., Leech, M.D., O'Connor, R.A., and Anderton, S.M. (2016). Methods for Ex Vivo Analysis of Immune Cell Function from the Central Nervous System. *Methods Mol Biol* 1304, 81-90.
405. Tzelos, T., Matthews, J.B., Buck, A.H., Simbari, F., Frew, D., Inglis, N.F., McLean, K., Nisbet, A.J., Whitelaw, C.B., Knox, D.P., et al. (2016). A preliminary proteomic characterisation of extracellular vesicles released by the ovine parasitic nematode, *Teladorsagia circumcincta*. *Vet Parasitol* 221, 84-92.

# **Edinburgh Infectious Diseases**

Leading infectious disease research and training

406. Ugrina, I., Campbell, H., and Vuckovic, F. (2017). Laboratory Experimental Design for a Glycomic Study. *Methods Mol Biol* **1503**, 13-19.
407. Ulyanchenko, S., O'Neill, K.E., Medley, T., Farley, A.M., Vaidya, H.J., Cook, A.M., Blair, N.F., and Blackburn, C.C. (2016). Identification of a Bipotent Epithelial Progenitor Population in the Adult Thymus. *Cell reports* **14**, 2819-2832.
408. Urwin, P.J., Mackenzie, J.M., Llewelyn, C.A., Will, R.G., and Hewitt, P.E. (2016). Creutzfeldt-Jakob disease and blood transfusion: updated results of the UK Transfusion Medicine Epidemiology Review Study. *Vox Sang* **110**, 310-316.
409. Vaidya, H.J., Briones Leon, A., and Blackburn, C.C. (2016). FOXN1 in thymus organogenesis and development. *European journal of immunology* **46**, 1826-1837.
410. Vale, P.F., and Jardine, M.D. (2016). Infection avoidance behaviour: viral exposure reduces the motivation to forage in female *Drosophila melanogaster*. *Fly*, 0.
411. Vale, P.F., McNally, L., Doeschl-Wilson, A., King, K.C., Popat, R., Domingo-Sananes, M.R., Allen, J.E., Soares, M.P., and Kummerli, R. (2016). Beyond killing: can we find new ways to manage infection? *Evolution, medicine, and public health* **2016**, 148-157.
412. Van Dung, N., Anh, P.H., Van Cuong, N., Hoa, N.T., Carrique-Mas, J., Hien, V.B., Sharp, C., Rabaa, M., Berto, A., Campbell, J., et al. (2016). Large-scale screening and characterization of enteroviruses and kobuviruses infecting pigs in Vietnam. *J Gen Virol* **97**, 378-388.
413. van Leeuwen, E.M., Sabo, A., Bis, J.C., Huffman, J.E., Manichaikul, A., Smith, A.V., Feitosa, M.F., Demissie, S., Joshi, P.K., Duan, Q., et al. (2016). Meta-analysis of 49 549 individuals imputed with the 1000 Genomes Project reveals an exonic damaging variant in ANGPTL4 determining fasting TG levels. *Journal of medical genetics* **53**, 441-449.
414. Velu, P.P., Fernandes, S.E., Laurenson, I.F., and Noble, D.D. (2016). Pulmonary *Mycobacterium marinum* infection: 'fish tank granuloma' of the lung. *Scottish medical journal* **61**, 203-206.
415. Venkateswaran, S., Gwynne, P.J., Wu, M., Hardman, A., Lilienkampf, A., Pernagallo, S., Blakely, G., Swann, D.G., Bradley, M., and Gallagher, M.P. (2016). High-throughput Identification of Bacteria Repellent Polymers for Medical Devices. *Journal of visualized experiments : JoVE*.
416. Venkateswaran, S., Henrique Dos Santos, O.D., Scholefield, E., Lilienkampf, A., Gwynne, P.J., Swann, D.G., Dhaliwal, K., Gallagher, M.P., and Bradley, M. (2016). Fortified interpenetrating polymers - bacteria resistant coatings for medical devices. *Journal of materials chemistry. B, Materials for biology and medicine* **4**, 5405-5411.
417. Venkateswaran, S., Luque-Gonzalez, M.A., Tabraue-Chavez, M., Fara, M.A., Lopez-Longarela, B., Cano-Cortes, V., Lopez-Delgado, F.J., Sanchez-Martin, R.M., Illyine, H., Bradley, M., et al. (2016). Novel bead-based platform for direct detection of unlabelled nucleic acids through Single Nucleobase Labelling. *Talanta* **161**, 489-496.
418. Venturato, A., MacFarlane, G., Geng, J., and Bradley, M. (2016). Understanding Polymer-Cell Attachment. *Macromolecular bioscience* **16**, 1864-1872.
419. Vermeren, S., Miles, K., Chu, J.Y., Salter, D., Zamoyska, R., and Gray, M. (2016). PTPN22 Is a Critical Regulator of Fc $\gamma$  Receptor-Mediated Neutrophil Activation. *Journal of immunology (Baltimore, Md. : 1950)* **197**, 4771-4779.
420. Vincenti, J.E., Murphy, L., Grabert, K., McColl, B.W., Cancellotti, E., Freeman, T.C., and Manson, J.C. (2015). Defining the microglia response during the time course of chronic neurodegeneration. *J Virol*.
421. Vincenti, J.E., Murphy, L., Grabert, K., McColl, B.W., Cancellotti, E., Freeman, T.C., and Manson, J.C. (2016). Defining the Microglia Response during the Time Course of Chronic Neurodegeneration. *J Virol* **90**, 3003-3017.
422. Vitak, N., Hume, D.A., Chappell, K.J., Sester, D.P., and Stacey, K.J. (2016). Induction of interferon and cell death in response to cytosolic DNA in chicken macrophages. *Dev Comp Immunol* **59**, 145-152.
423. Voss, J.J., Ford, C.A., Petrova, S., Melville, L., Paterson, M., Pound, J.D., Holland, P., Giotti, B., Freeman, T.C., and Gregory, C.D. (2017). Modulation of macrophage antitumor potential by apoptotic lymphoma cells. *Cell death and differentiation*.
424. Vuckovic, F., Theodoratou, E., Thaci, K., Timofeeva, M., Vojta, A., Stambuk, J., Pucic-Bakovic, M., Derek, L., Servis, D., Rudd, P., et al. (2016). IgG glycome in colorectal cancer. *Clinical cancer research : an official journal of the American Association for Cancer Research* **22**, 3078-3086.
425. Walker, D., Abbondati, E., Cox, A.L., Mitchell, G.B., Pizzi, R., Sharp, C.P., and Philbey, A.W. (2016). Infectious canine hepatitis in red foxes (*Vulpes vulpes*) in wildlife rescue centres in the UK. *Vet Rec* **178**, 421.
426. Walker, D., Fee, S.A., Hartley, G., Learmount, J., O'Hagan, M.J., Meredith, A.L., de, C.B.B.M., Porphyre, T., Sharp, C.P., and Philbey, A.W. (2016). Serological and molecular epidemiology of canine adenovirus type 1 in red foxes (*Vulpes vulpes*) in the United Kingdom. *Sci Rep* **6**, 36051.

# **Edinburgh Infectious Diseases**

Leading infectious disease research and training

427. Wami, W.M., Nausch, N., Midzi, N., Gwisai, R., Mduluza, T., Woolhouse, M.E., and Mutapi, F. (2016). Comparative Assessment of Health Benefits of Praziquantel Treatment of Urogenital Schistosomiasis in Preschool and Primary School-Aged Children. *BioMed research international* 2016, 9162631.
428. Wang, B., McHugh, B.J., Qureshi, A., Campopiano, D.J., Clarke, D.J., Fitzgerald, J.R., Dorin, J.R., Weller, R., and Davidson, D.J. (2017). IL-1beta-Induced Protection of Keratinocytes against Staphylococcus aureus-Secreted Proteases Is Mediated by Human beta-Defensin 2. *J Invest Dermatol* 137, 95-105.
429. Wang, G., Duan, Z., Sheng, Y., Neumann, K., Deng, L., Li, J., Bradley, M., and Zhang, R. (2016). Tuning the emission properties of a fluorescent polymer using a polymer microarray approach - identification of an optothermo responsive polymer. *Chem Commun (Camb)* 52, 10521-10524.
430. Wang, Y., Klaric, L., Yu, X., Thaqi, K., Dong, J., Novokmet, M., Wilson, J., Polasek, O., Liu, Y., Kristic, J., et al. (2016). The Association Between Glycosylation of Immunoglobulin G and Hypertension: A Multiple Ethnic Cross-Sectional Study. *Medicine* 95, e3379.
431. Ward, M.J., Goncheva, M., Richardson, E., McAdam, P.R., Raftis, E., Kearns, A., Daum, R.S., David, M.Z., Lauderdale, T.L., Edwards, G.F., et al. (2016). Identification of source and sink populations for the emergence and global spread of the East-Asia clone of community-associated MRSA. *Genome Biol* 17, 160.
432. Wardrop, N.A., Thomas, L.F., Cook, E.A., de Glanville, W.A., Atkinson, P.M., Wamae, C.N., and Fevre, E.M. (2016). The Sero-epidemiology of Coxiella burnetii in Humans and Cattle, Western Kenya: Evidence from a Cross-Sectional Study. *PLoS Negl Trop Dis* 10, e0005032.
433. Warren, W.C., Hillier, L.W., Tomlinson, C., Minx, P., Kremitzki, M., Graves, T., Markovic, C., Bouk, N., Pruitt, K.D., Thibaud-Nissen, F., et al. (2017). A New Chicken Genome Assembly Provides Insight into Avian Genome Structure. *G3 (Bethesda, Md.)* 7, 109-117.
434. Waters, S.A., McAteer, S.P., Kudla, G., Pang, I., Deshpande, N.P., Amos, T.G., Leong, K.W., Wilkins, M.R., Strugnell, R., Gally, D.L., et al. (2016). Small RNA interactome of pathogenic *E. coli* revealed through crosslinking of RNase E. *The EMBO journal* 36, 374-387.
435. Watson, R.L., Bird, E.J., Underwood, S., Wilbourn, R.V., Fairlie, J., Watt, K., Salvo-Chirnside, E., Pilkington, J.G., Pemberton, J.M., McNeilly, T.N., et al. (2016). Sex differences in leucocyte telomere length in a free-living mammal. *Mol Ecol*.
436. Watson, R.L., McNeilly, T.N., Watt, K.A., Pemberton, J.M., Pilkington, J.G., Waterfall, M., Hopper, P.R., Cooney, D., Zamoyska, R., and Nussey, D.H. (2016). Cellular and humoral immunity in a wild mammal: Variation with age & sex and association with overwinter survival. *Ecology and evolution* 6, 8695-8705.
437. Watt, K.A., Nussey, D.H., Maclellan, R., Pilkington, J.G., and McNeilly, T.N. (2016). Fecal antibody levels as a noninvasive method for measuring immunity to gastrointestinal nematodes in ecological studies. *Ecology and evolution* 6, 56-67.
438. Webster, C.L., Longdon, B., Lewis, S.H., and Obbard, D.J. (2016). Twenty-Five New Viruses Associated with the Drosophilidae (Diptera). *Evolutionary bioinformatics online* 12, 13-25.
439. Weiss, E., Zgaga, L., Read, S., Wild, S., Dunlop, M.G., Campbell, H., McQuillan, R., and Wilson, J.F. (2016). Farming, Foreign Holidays, and Vitamin D in Orkney. *PLoS One* 11, e0155633.
440. Welburn, S.C., Bardosh, K.L., and Coleman, P.G. (2016). Novel Financing Model for Neglected Tropical Diseases: Development Impact Bonds Applied to Sleeping Sickness and Rabies Control. *PLoS Negl Trop Dis* 10, e0005000.
441. Welburn, S.C., Molyneux, D.H., and Maudlin, I. (2015). Beyond Tsetse - Implications for Research and Control of Human African Trypanosomiasis Epidemics. *Trends Parasitol*.
442. Welburn, S.C., Molyneux, D.H., and Maudlin, I. (2016). Beyond Tsetse--Implications for Research and Control of Human African Trypanosomiasis Epidemics. *Trends Parasitol* 32, 230-241.
443. Wells, B., Thomson, S., Ensor, H., Innes, E.A., and Katzer, F. (2016). Development of a sensitive method to extract and detect low numbers of Cryptosporidium oocysts from adult cattle faecal samples. *Vet Parasitol* 227, 26-29.
444. Whitaker, L.H., Reid, J., Choa, A., McFee, S., Seretny, M., Wilson, J., Elton, R.A., Vincent, K., and Horne, A.W. (2016). An Exploratory Study into Objective and Reported Characteristics of Neuropathic Pain in Women with Chronic Pelvic Pain. *PLoS One* 11, e0151950.
445. Whitehouse, I.J., Brown, D., Baybutt, H., Diack, A.B., Kellett, K.A., Piccardo, P., Manson, J.C., and Hooper, N.M. (2016). Ablation of Prion Protein in Wild Type Human Amyloid Precursor Protein (APP) Transgenic Mice Does Not Alter The Proteolysis of APP, Levels of Amyloid-beta or Pathologic Phenotype. *PLoS One* 11, e0159119.
446. Widder, S., Allen, R.J., Pfeiffer, T., Curtis, T.P., Wiuf, C., Sloan, W.T., Cordero, O.X., Brown, S.P., Momeni, B., Shou, W., et al. (2016). Challenges in microbial ecology: building predictive understanding of community function and dynamics. *The ISME journal* 1-, 2557-2568.

# **Edinburgh Infectious Diseases**

Leading infectious disease research and training

447. Wilkie, H., Gossner, A., Bishop, S., and Hopkins, J. (2016). Correction: Variations in T cell transcription factor sequence and expression associated with resistance to the sheep nematode Teladorsagia circumcincta. PLoS One 11, e0152396.
448. Wilkie, H., Gossner, A., Bishop, S., and Hopkins, J. (2016). Variations in T Cell Transcription Factor Sequence and Expression Associated with Resistance to the Sheep Nematode Teladorsagia circumcincta. PLoS One 11, e0149644.
449. Wilkie, H., Nicol, L., Gossner, A., and Hopkins, J. (2016). Mucosal Expression of T Cell Gene Variants Is Associated with Differential Resistance to Teladorsagia circumcincta. PLoS One 11, e0168194.
450. Will, R.G., and Ironside, J.W. (2017). Sporadic and Infectious Human Prion Diseases. Cold Spring Harbor perspectives in medicine 7.
451. Williams, J.L., Hall, S.J., Del Corvo, M., Ballingall, K.T., Colli, L., Ajmone Marsan, P., and Biscarini, F. (2016). Inbreeding and purging at the genomic Level: the Chillingham cattle reveal extensive, non-random SNP heterozygosity. Anim Genet 47, 19-27.
452. Williams, T., Nair, H., Simpson, J., and Embleton, N. (2016). Use of Donor Human Milk and Maternal Breastfeeding Rates: A Systematic Review. Journal of human lactation : official journal of International Lactation Consultant Association 32, 212-220.
453. Wilson, R., Aksamit, T., Aliberti, S., De Soyza, A., Elborn, J.S., Goeminne, P., Hill, A.T., Menendez, R., and Polverino, E. (2016). Challenges in managing *Pseudomonas aeruginosa* in non-cystic fibrosis bronchiectasis. Respiratory medicine 117, 179-189.
454. Witteveldt, J., Martin-Gans, M., and Simmonds, P. (2016). Enhancement of the replication of HCV replicons of genotypes 1-4 by manipulation of CpG and UpA dinucleotide frequencies and use of cell lines expressing SECL14L2 - application for antiviral resistance testing. Antimicrobial agents and chemotherapy.
455. Woolhouse, M., Waugh, C., Perry, M.R., and Nair, H. (2016). Global disease burden due to antibiotic resistance - state of the evidence. J Glob Health 6, 010306.
456. Woolhouse, M.E., Brierley, L., McCaffery, C., and Lycett, S. (2016). Assessing the Epidemic Potential of RNA and DNA Viruses. Emerg Infect Dis 22, 2037-2044.
457. Wright, H.W., Bartley, K., Huntley, J.F., and Nisbet, A.J. (2016). Characterisation of tropomyosin and paramyosin as vaccine candidate molecules for the poultry red mite, *Dermanyssus gallinae*. Parasit Vectors 9, 544.
458. Wu, Z., Hu, T., Rothwell, L., Vervelde, L., Hume, D.A., and Kaiser, P. (2016). Analysis of the function of IL-10 in chickens using specific neutralising antibodies and a sensitive capture ELISA. Dev Comp Immunol 63, 206-212.
459. Wylie, C.E., Shaw, D.J., Verheyen, K.L., and Newton, J.R. (2016). Decision-tree analysis of clinical data to aid diagnostic reasoning for equine laminitis: a cross-sectional study. Vet Rec 178, 420.
460. Xiao, C.T., Harmon, K.M., Halbur, P.G., and Opiressnig, T. (2016). PCV2d-2 is the predominant type of PCV2 DNA in pig samples collected in the U.S. during 2014-2016. Vet Microbiol 197, 72-77.
461. Yebra, G., Kalish, M.L., and Leigh Brown, A.J. (2016). Reconstructing the HIV-1 CRF02\_AG and CRF06\_cpx epidemics in Burkina Faso and West Africa using early samples. Infect Genet Evol 46.
462. Young, V.J., Ahmad, S.F., Brown, J.K., Duncan, W.C., and Horne, A.W. (2016). ID2 mediates the transforming growth factor-beta1-induced Warburg-like effect seen in the peritoneum of women with endometriosis. Mol Hum Reprod 22, 648-654.
463. Yu, X., Wang, Y., Kristic, J., Dong, J., Chu, X., Ge, S., Wang, H., Fang, H., Gao, Q., Liu, D., et al. (2016). Profiling IgG N-glycans as potential biomarker of chronological and biological ages: A community-based study in a Han Chinese population. Medicine 95, e4112.
464. Yun, B.W., Skelly, M.J., Yin, M., Yu, M., Mun, B.G., Lee, S.U., Hussain, A., Spoel, S.H., and Loake, G.J. (2016). Nitric oxide and S-nitrosoglutathione function additively during plant immunity. The New phytologist 211, 516-526.
465. Zahoor, I., Mitchell, M.A., Hall, S., Beard, P.M., Gous, R.M., De Koning, D.J., and Hocking, P.M. (2016). Predicted optimum ambient temperatures for broiler chickens to dissipate metabolic heat do not affect performance or improve breast muscle quality. British poultry science 57, 134-141.
466. Zhang, S., Sammon, P.M., King, I., Andrade, A.L., Toscano, C.M., Araujo, S.N., Sinha, A., Madhi, S.A., Khandaker, G., Yin, J.K., et al. (2016). Cost of management of severe pneumonia in young children: systematic analysis. J Glob Health 6, 010408.
467. Zhao, C., Fernandez, A., Avlonitis, N., Vande Velde, G., Bradley, M., Read, N.D., and Vendrell, M. (2016). Searching for the Optimal Fluorophore to Label Antimicrobial Peptides. ACS combinatorial science 18, 689-696.

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468. Zhao, Y., He, M., Ding, J., Xi, Q., Loake, G.J., and Zheng, W. (2016). Regulation of Anticancer Styrylpyrone Biosynthesis in the Medicinal Mushroom Inonotus obliquus Requires Thioredoxin Mediated Transnitrosylation of S-nitrosoglutathione Reductase. *Sci Rep* 6, 37601.
469. Zheng, X., Liu, G., Opiressnig, T., Wang, Z., Yang, Z., and Jiang, Y. (2016). Rapid detection and grouping of porcine bocaviruses by an EvaGreen based multiplex real-time PCR assay using melting curve analysis. *Molecular and cellular probes* 30, 195-204.
470. Zimmermann, S., Hall, L., Riley, S., Sorensen, J., Amaro, R.E., and Schnaufer, A. (2016). A novel high-throughput activity assay for the *Trypanosoma brucei* editosome enzyme REL1 and other RNA ligases. *Nucleic Acids Res* 44, e24.