

Programme - Spirochete Conference

Wednesday 1st September – Friday 3rd September 2021

Please, be aware that all times of day are UTC (Coordinated Universal Time; Temps universel coordonné)!

Wednesday 1st September 2021 – Day One

11:00am – 3:00pm UTC

11:00 – 11:10 am UTC	Conference welcome Jill Thomson
Session 1: <i>Brachyspira</i> in the intestinal environment Chair: Jill Thomson	
11:15 - 11:45 am UTC	Keynote M. Costa: <i>Brachyspira</i>: master of colons.
11:50 - 12:05	<i>Brachyspira</i>-IEC interactions in patients with IBS. <u>A. Rajan</u> , T. Pelaseyed
12:10 - 12:35	In silico reverse vaccinology of <i>Brachyspira pilosicoli</i>, the causative organism of Avian, Porcine and Human Intestinal Spirochaetosis (AIS, PIS and HIS), to identify putative vaccine candidates. <u>M. Christodoulides</u> , M. V. Humbert, M. Scarselli, R. M. La Ragione:
12:40 - 12:55	Evaluation of Convalescent Protection by <i>Brachyspira hyodysenteriae</i> B204 to Homologous Exposure. <u>D. M. Jordan</u> , S. Booher, C. Muehlenthaler, R. Plazola Ortiz
12:55 - 1:10 pm UTC	Break
Session 2 Biology of <i>Brachyspira</i> Chair: Matheus Costa	
1:10 - 1:40 pm UTC	Keynote J. Hill: Recent advances, challenges and opportunities in <i>Brachyspira</i> biology research.
1:45 – 2:00	Evidence of Homologous Recombination as a Driver of Diversity in <i>Brachyspira pilosicoli</i>. A. Pandey, M. V. Humbert, A. Jackson, J. L. Passey, D.J. Hampson, D. W. Cleary, R. M. La Ragione, <u>Myron Christodoulides</u>
2:05 - 2:20	Molecular characterisation of <i>Brachyspira hyodysenteriae</i>: value for incident investigations and antimicrobial sensitivity surveillance.

	<u>E. Stubberfield</u> , A. Jeffries, J. Chanter, E. Velo-Rego, J. Thomson, R. Card, S. Williamson
2:25 - 2:40	Retrospective analysis of necrotising typhlitis cases associated with <i>Brachyspira</i> spp. in British rhea. <u>H. McFadzean</u> , A. Schock, E. Stubberfield, R. M. Card, J. Thomson, J. Rohde, L. Murray, E. Velo-Rego, H. Ainsworth, A. M. Barlow, D. Welchman
2:45 – 3:00	Novel multiplex TaqMan assay for differentiation of the four major pathogenic <i>Brachyspira</i> species in swine. <u>S. Scherrer</u> and R. Stephan

Thursday 2nd September 2021 – Day Two
11:00am – 3:50pm UTC

11:10 am UTC Session 3 <i>Treponema</i> in the foot environment Chair: Ulrich Klein	
11:10 - 11:40 am UTC	Keynote <u>K. Orsel</u> <i>Seek and ye shall find; Treponemes in the cow's environment.</i>
11:45 - 12:00	Identification and quantification of bovine digital dermatitis-associated microbiota across lesion stages in feedlot beef cattle. <u>B. Caddey</u> , J. De Buck, K. Orsel, S. Naushad, H. Derakhshani
12:05 - 12:20	Meta-analysis of bovine digital dermatitis microbiota reveals distinct microbial community structures associated with lesions. <u>B. Caddey</u> and J. De Buck
12:25 - 12:40	Comparative genomics of bovine digital dermatitis treponemes identifies novel survival mechanisms. <u>N. Evans</u> , G. Staton, S. Clegg, S. Carter
12:45 – 1:00	The non-antibiotic treatment and prevention of <i>Treponema</i>-associated hoof diseases in dairy cattle. <u>G. Lammers</u> , D. Roijackers, C. Vulders
1:00 - 1:15 pm UTC	Break
1:15 – 1:45 pm UTC	Poster presentations are pre-recorded to download and watch at participants' convenience. During the poster session, they can be discussed in break-out rooms.

	<p>Infection reservoirs for contagious ovine digital dermatitis in sheep.</p> <p>S. R. Clegg, G.. J. Staton, J. W. Angell, J.S. Duncan, S. D. Carter, N. J. Evans</p>
	<p>Identification of fibrinogen binding proteins of digital dermatitis treponemes</p> <p>G. J. Staton, S. D. Carter, S. Ainsworth, J. Mullin, N. J. Evans</p>
	<p>Is there a role for treponemes in bovine ischaemic teat necrosis?</p> <p>H. Crosby-Durrani, J. Angell, R. Blowey, S. Carter, N. Evans</p>
	<p>Occurrence and epidemiology of <i>Brachyspira hyodysenteriae</i> in pig farms in Hong Kong SAR.</p> <p>F. Zeeh and K. Lugsomya</p>
	<p>Antimicrobial Susceptibility Trends of <i>Brachyspira hyodysenteriae</i> and <i>Brachyspira hamptonii</i> Clinical Isolates from the United States from 2013 – 2020</p> <p>M. Hakimi, E.R. Burrough, O. Sahin:</p>
	<p>Factors influencing farmers' satisfaction and motivation regarding eradication of Swine Dysentery from their herds</p> <p>B. Vidondo, R. S. S. Cadetg, H. Nathues, G. Schüpbach, Friederike Zeeh:</p>
	<p>In vitro assessment of efficacy of a selection of disinfectant against <i>Brachyspira hyodysenteriae</i></p> <p>M. Gómez-García, H. Argüello, L. Pérez-Pérez, C. Vega, H. Puente, Ó. Mencía-Ares, P. Rubio, A. Carvajal</p>
	<p>In vitro evaluation of gentamicin activity against field isolates of <i>Brachyspira hyodysenteriae</i></p> <p>L. Pérez-Pérez, C. Vega, H. Argüello, M. Gómez-García, Ó. Mencía-Ares, H. Puente, I. Fernández, A. Carvajal</p>
	<p>Alteration of Colonic Mucin Glycosylation and Cytokine Expression in Swine Dysentery</p> <p>S. Je-Han Lin, E. Helm, N. Gabler, E. Burrough</p>

1:45 – 2:00 pm UTC	Break

Session 4 Antimicrobial resistance in <i>Brachyspira</i> Chair: Roberto LaRagione	
2:00 – 2:30 pm UTC	Keynote <u>R.M. Card</u> Working group for standardization of MIC testing of <i>Brachyspira</i> spp..
2:35 – 2:55	Guidance on establishing MIC breakpoints for <i>Brachyspira</i>, with discussion
3:00 – 4:00 pm UTC	Networking Session via AIRMEET – 15 topics for discussion and sharing ideas for future research. Choose from the list of topics detailed on the conference platform

Friday 3rd September 2021 – Day Three
11:00am – 3:00pm UTC

Continuing Session 4 Antimicrobial resistance in <i>Brachyspira</i> Chair: Roberto LaRagione	
11:10 - 11:25 am UTC	Validation of Custom 96-well MIC plates for <i>Brachyspira</i> spp.. <u>M. Hakimi</u> , E. R. Burrough, O. Sahin:
11:30 - 11:45	Molecular characterization of antimicrobial resistance in <i>Brachyspira</i> species isolated from UK chickens: identification of novel variants of pleuromutilin and beta-lactam resistance genes. <u>E. Stubberfield</u> , R. Card, M.AbuOun, D. Welchman, M. Anjum:
11:50 - 12:05	Molecular and antimicrobial characteristics of porcine <i>Brachyspira hyodysenteriae</i> from Hong Kong SAR. <u>F. Zeeh</u> and K. Lugsomya:
12:10 - 12:25	Treatment of clinical <i>Brachyspira hyodysenteriae</i> infections with chelated zinc in a pig infection model and under field conditions. <u>G. Lammers</u> , R.van Berkel, D. Roijackers, C.Vulders, P. van der Wolf, H. Brouwer-Middelesch, K. Junker, J. van Hout:
12:25 - 12:40 pm UTC	Break
12:40 – 1:10 pm UTC	Poster presentations are pre-recorded to download and watch at participants' convenience. During the poster session, they can be discussed in break-out rooms.

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1:10 – 1:25 pm UTC	Break
Session 5 <i>Brachyspira</i> & <i>Treponema</i> in the laboratory / open discussion Chair: Eric Burrough	

1:25 - 1:40 pm UTC	Kick-off <i>Brachyspira</i>: Judith Rohde
1:40 - 1:55	Open discussion
2:00 - 2:15	Kick-off <i>Treponema</i>: Nick Evans
2:15 – 2:30	Open discussion
2:30 - 2:45 pm UTC	Conference wrap-up and Farewell <i>Jill Thomson</i>