SCIENTIFIC PROGRAM

Thursday, 17 September 2009

12.00 - 13.30: Registration, setup posters, lunch
Location: Foyer John Innes Conference Center

13.30 - 15.30
Opening Session
Chair: Arnoud van Vliet, IFR. **Location:** Auditorium John Innes Conference Center
13.30 **Prof David Boxer (Director IFR):** Welcome & Opening
13.45 Announcement CHRO 2011 (Arnoud van Vliet)
14.00 Highlights from CHRO 2009 in Japan, (Julian Ketley, Ozan Gundogdu, Emily Kay and Aileen Sherry)
14.40 **Kathryn Callaghan (FSA):** Key outputs from FSA-funded Campylobacter research
15.05 **Lesley Larkin (Defra):** Foodborne zoonoses

15.30 - 16.00: Coffee / Tea (Foyer)

16.00 - 17.30
General Session
Chair: Mark Stevens, IAH. **Location:** Auditorium John Innes Conference Center
16.00 Pete Kaiser (Institute of Animal Health, Compton): *"Foodborne zoonotic bacterial pathogens from the chicken's point-of-view; prospects for genetic control"*
16.40 Jane Rogers (The Genome Analysis Center, Norwich): *"Prospects for use of High-throughput DNA sequencing"*
17.10 General discussion on Campylobacter research strategy

17.30 - 21.00: Poster presentations, Dinner buffet and Drinks (Foyer)

Friday, 18 September 2009

09.00 - 10.30
Session 1a: Pathogenesis and Immunology
Chair: Brendan Wren, LSTHM. **Location:** Watson & Crick rooms
09.00 **Aileen Sherry:** *"Proteomic analysis of Campylobacter jejuni in response to human epithelial cells and human epithelial tissue"* (p 6)
09.20 **Chatchawal Phansopa:** *"The 2.2 Å crystal structure of the PEB4 protein of Campylobacter jejuni reveals separate chaperone and PPIase domains"* (p 7)
09.40 **Rogier Louwen:** *"The clustered regular interspaced short palindromic repeats (CRISPR) related CAS gene Cj1523 is a new virulence factor in Campylobacter jejuni pathogenesis and is associated with the Guillain Barré syndrome"* (p 8)
10.00 **Astrid Heikema:** *"The specific interaction between sialoadhesin (Siglec-1) and sialylated Campylobacter jejuni lipooligosaccharides"* (p 9)
10.20 General Discussion

Session 1b: Evolution and Population Biology
Chair: Martin Maiden, University of Oxford. **Location:** Wilkins & Franklin rooms
09.00 **Chris Bayliss:** *"Rates and Determinants of Phase Variation in Campylobacter jejuni strain 11168 and Selection of Phase Variants During Colonisation of Chickens"* (p 10)
09.18 **Frances Colles:** *"The impact of farming on the Campylobacter populations carried by ducks (Anas platyrhynchos)"* (p 11)
09.36 **Sam Sheppard:** *"On the convergence of Campylobacter species"* (p 12)
09.54 **Andy Lawson:** *"MLST analysis of Campylobacter fetus subspecies fetus isolates from humans suggests that sequence types have distinct aetiologies"* (p 13)
10.12 **Ana Vidal**: *"Genetic diversity of C. jejuni from conventional broiler flocks by MLST: effect of sampling strategies and laboratory methodologies"* (p 60)

10.30-11.00: Coffee / tea (Foyer)

11.00 - 12.30
Session 2a: Control and Risk Assessment
Chair: Gary Barker, IFR. **Location:** Watson & Crick rooms
11.00 **Frances Colles:** *"The natural dynamics of campylobacter colonising a free range broiler breeder flock"* (p 14)
11.20 **Laura Powell:** *"Campylobacter in broilers: Results from a UK national prevalence survey carried out in 2007"* (p 15)
11.40 **Anne Ridley:** *"A longitudinal molecular epidemiological study of campylobacter on one UK conventional broiler farm"* (p 16)
12.00 **Anne Ridley:** *"A molecular epidemiological investigation of the practice of thinning as a source of flock colonising campylobacters"* (p 17)
12.20 General Discussion

Session 2b: Microbiology and Physiology
Chair: Dave Kelly, University of Sheffield. **Location:** Wilkins & Franklin rooms
11.00 **Jonathan Smart:** *"A role for tungsten in the biology of Campylobacter jejuni"* (p 18)
11.20 **Neil Shearer:** *"Fur regulation of the divergent Campylobacter jejuni cfrA and tonB3 promoters"* (p 19)
11.40 **Andy Hitchcock:** *"The physiological roles of Mfr, a novel periplasmic fumarate reductase in Campylobacter jejuni"* (p 20)
12.00 **Bruce Pearson:** *"Lactate: a favoured carbon source for Campylobacter?"* (p 21)
12.20 General Discussion

12.30-14.00: Lunch, Poster viewing (Foyer)

14.00 - 15.30
Session 3a: Genomics and Molecular Biology
Chair: Charles Penn, University of Birmingham. **Location:** Watson & Crick rooms
14.00 **Ed Guccione:** *"Regulation of gene expression by oxygen in continuous chemostat cultures of Campylobacter jejuni"* (p 22)
14.20 **Arnoud van Vliet:** *"Characterisation of the Campylobacter jejuni transcriptome: efficient use of a tightly packed genome"* (p 23)
14.40 **Rogier Louwen:** *"Significant differences in CRISPR array spacers of enteritis versus Guillain Barré Syndrome associated Campylobacter jejuni strains"* (p 24)
15.00 **Mark Reuter:** *"Network meta-analysis of Campylobacter jejuni transcriptomics – towards a systems-level approach"* (p 25)
15.20 General Discussion

Session 3b: Models of Infection and Vaccination
Chair: Paul Everest, University of Glasgow. **Location:** Wilkins & Franklin rooms
14.00 **Aileen Sherry:** *"Variation in the response of gnotobiotic and colostrum deprived piglets to Campylobacter jejuni challenge"* (p 26)
14.20 **Tony Buckley:** *"Evaluation of live-attenuated Salmonella vaccines expressing Campylobacter antigens for control of C. jejuni in poultry"* (p 27)
14.40 **Olivia Champion:** *"An insect infection model for Campylobacter jejuni reveals that O-methyl phosphoramidate has insecticidal activity"* (p 28)
15.00 **David Smith:** *"Defining bacterial and host proteomes in vivo"* (p 29)
15.20 General Discussion

15.30 - 16.00: Coffee / tea (Foyer)

16.00 - 16.30: **Closing session, Location:** Watson & Crick rooms
Evaluation & Announcement next CampylobacterUK meeting

16.30 - 17.30: Poster removal. Drinks and crisps will be available.

Posters (the P number indicates the posterboard number)

- P1: **Mary Bagnall**, *Galleria mellonella* as an alternative infection model for *Campylobacter jejuni* (p 30)
- P2-3: **Lone Brøndsted**, Role of the HtrA protease-chaperone in stress tolerance of *Campylobacter jejuni* (p 31)
- P4: **Abdi Elmi**, The role of *Campylobacter jejuni* glycoproteins during bacterial interactions with human intestinal epithelial cells (p 32)
- P5: **Duncan Gaskin**, The gentle art of complementation; why it pays to be nice to your mutants (p 33)
- P6: **Ozan Gundogdu**, Re-annotation and re-analysis of the *Campylobacter jejuni* NCTC11168 genome and functional characterisation of selected genes involved in strain pathogenesis (p 34)
- P7-8: **Richard Haigh**, Mutation and Transcriptome-Based Analysis of Norepinephrine-Dependent Enhancement of *Campylobacter jejuni* Growth and Iron Uptake (p 35)
- P9: **Richard Haigh**, *Campylobacter*: Glycosylation and stress response (p 36)
- P10: **Colin Hanfrey**, An alternative spermidine biosynthetic pathway is critical for the food-borne pathogen *Campylobacter jejuni*, and is prevalent in the gut microbiota (p 37)
- P11: **Andy Hill**, Feasibility study to inform the development of a risk assessment model to measure the effectiveness of food chain interventions on the levels of *Campylobacter* in chicken on retail sale in the UK (p 38)
- P12: **Holly Smith**, The response of *Campylobacter jejuni* to nitric oxide and cyanide (p 39)
- P13: **Robert Howlett**, Application of metabolomics to *Campylobacter jejuni* (p 40)
- P14: **Jennifer Ince**, Rapid, automated detection and diagnosis of *Campylobacter* species in faecal samples (p 41)
- P15: **Muhammad Javed**, Cj1136 is required for virulence and LOS biosynthesis in *Campylobacter jejun* (p 42)
- P16: **Jenny Jennings**, Investigating the cause of Vibrionic Hepatitis in commercial broilers (p 43)
- P17: **Emily Kay**, Systems Biology: Glycomics of *Campylobacter jejuni* (p 44)
- P18: **Julian Ketley**, Human ferri-lactoferrin associates with *Campylobacter jejuni* cells in an iron-responsive manner (p 45)
- P19: **Vicky Morris**, Two-year longitudinal on-farm study tracking sources of *Campylobacter* (p 46)
- P20: **Vicky Morris**, Molecular tracking of cross-contamination from *Campylobacter* positive flocks onto *Campylobacter* negative flocks in the abattoir (p 47)
- P21: **Vicky Morris**, Effect of different production systems on *Campylobacter* spp. and strains in extensive flocks (p 48)
- P22: **Nevida Naz**, Investigation into the mechanisms of *Campylobacter jejuni* invasion of intestinal epithelial cells using a Vertical Diffusion Chamber model of infection (p 49)
- P23: **Ran Ren**, Site-directed mutagenesis of the *Campylobacter jejuni* Fur box (p 50)
- P24: **Judith Richardson**, *Campylobacter* bacteraemias in the United Kingdom 2004 – 2008 (p 51)
- P25: **John Rodgers**, The effect of time between collection and testing, and culture methodology on the detection of *Campylobacter* in caecal contents (p 52)
- P26: **John Rodgers**, Comparison of a real-time PCR method with culture for the detection of *C. jejuni* and *C. coli* in UK broiler flocks (p 53)
- P27: **Patcharin Siringan**, Effect of bacteriophages on *Campylobacter* biofilms on a glass surface (p 54)
- P28: **David Smith**, Application of GeneRator, a Novel Bioinformatic Tool, for *Campylobacter* Multi-Genome Comparisons (p 55)
- P29: **Laura Powell**, Estimating the Time of *Campylobacter* Infection in Broiler Flocks – a Maximum Likelihood Approach (p 56)
- P30: **Pauline van Diemen**, Effect of passage on competition between isogenic *Campylobacter jejuni* strains in vivo (p 57)
- P31: **Ana Vidal**, Comparative sampling strategies and test combinations for detection and quantification of *Campylobacter* in broiler flocks at the abattoir (p 58)
- P32: **Ana Vidal**, Sampling strategies and laboratory methods for *Campylobacter* detection in broiler flocks at primary production (p 59)
- P33: **Ana Vidal**, Genetic diversity of *C. jejuni* from conventional broiler flocks by MLST: effect of sampling strategies and laboratory methodologies (p 60)
- P34: **Lisa Williams**, Growth dynamics of *Campylobacter jejuni* and *Campylobacter* coli in enrichment broths (p 61)
- P35: **Alison Cody**, An enhanced multi-locus typing scheme for analysis of large multi-host clonal complexes of *Campylobacter jejuni* and *C. coli* (p 62)
- P36: **Alison Cody**, Stability of the *porA* allele as a genetic marker in human *Campylobacter* infection (p 63)
- P37: **Ken Forbes**, CaMPS: *Campylobacter* MLST Project in Scotland (p 64)
- P38: **Ken Forbes**, Applying host attribution to quantify the role of chicken and the environment as a source of human campylobacteriosis (p 65)