CLOSTPATH 2006 PROGRAMME

Wednesday, June 21st 2006

15:00-18:00	**Registration**	*Law and Social Sciences Building, B-Floor Atrium*
18.00-19:00	**Keynote Address** Bruce McClane (University of Pittsburgh School of Medicine, USA) *Clostridium perfringens* Enterotoxin: Foe and Friend?	
19:30-24:00	**Welcome Reception**	*University Staff Club*

Thursday, June 22nd 2006

07:00-08:30	**Breakfast**	*Hugh Stewart & Cripps Hall*
08:30-10:30	**Session I: Epidemiology and Diagnosis (Chair: Jon Brazier)**	
08.30-09.00	Dale Gerding (VA Hospital, USA) Clinical aspects of *Clostridium difficile*	
09.00-09.30	Maja Rupnik (Institute for Public Health, Maribor, Slovenia) Epidemiology of *Clostridium difficile*	
09.30-09.50	Jim McLauchlin (HPA Centre for Infections, London, UK) Wound botulism in injecting drug users in the UK	
09.50-10.10	Oliver Hasselmeyer University of Mainz, Germany) Use of the CdISt1 IStron for typing of *Clostridium difficile* outbreaks	
10.10-10.30	Denise Drudy (University College Dublin, Ireland) Fluoroquinolone resistance in toxin A negative toxin B positive *Clostridium difficile* associated with a novel mutation in *GYRB*	
10:30-11:00	**Coffee break**	*Law and Social Sciences Building Atrium*
11:00-13:00	**Session II: Entertoxins & Membrane Active Toxins - Part I (Chair: Maja Rupnik)**	
11.00-11.30	Ingo Just (Hannover Medical School, Germany) *Clostridium difficile* toxin A mode of action	
11.30-12.00	Jim Ballard (University of Oklahoma, USA) Decreased Akt-Signaling and Related Events During Early Stages of Cellular Intoxication by *Clostridium sordellii* TcsL	
12.00-12.30	Klaus Aktories (University of Freiburg, Germany) The crystal structure of *Clostridium difficile* toxin B	
12.30-13.00	Michel Popoff and Blandine Geny (Institute Pasteur, France) *In vitro and in vivo* effects of *Clostridium sordellii* lethal toxin on intercellular junctions	
13:00-14:30	**Lunch**	*Hugh Stewart Hall*

14.30-16.30	**Session III: Entertoxins & Membrane Active Toxins - Part II (Chair: Julian Rood)**	
14.30-15.00	Ajit Basak (Birkbeck College, UK) Structure of *C. perfringens* epsilon toxin	
15.00-15.30	Rick Titball (DSTL, UK) Vaccines against *Clostridium perfringens* alpha-toxin	
15.30-15.50	James Smedley University of Pittsburgh, USA) Investigating post-binding steps in the mechanism of action of *C. perfringens* enterotoxin	
15.50-16.10	Mariano Fernandez-Miyakawa University of California, Davis, USA) *Clostridium perfringens* epsilon toxin increases small intestine permeability	
16.10-16.30	Johannes Huelsenbeck (Hannover Medical School, Germany) Upregulation of *rhob* by clostridial cytotoxins	
16:30-18:00	**Posters I**	*Law and Social Sciences Building Atrium*
20:00-22.00	**Dinner**	*Hugh Stewart Hall*

Friday, June 23rd 2006

07:00-08:30	**Breakfast**	*Hugh Stewart & Cripps Hall*
08:30-10:30	**Session IV: Neurotoxins (Chair: Ornella Rossetto)**	
08.30-09.00	Eric Johnson (University of Wisconsin, USA) *Clostridium botulinum* neurotoxin subtypes and their biological significance	
09.00-09.30	Thomas Binz (University of Hannover, Germany) The sugar binding domain of clostridial neurotoxins	
09.30-09.50	Miia Lindstrom (University of Helsinki, Finland) Genomic comparison of group I (proteolytic) *Clostridium botulinum* Type B	
09.50-10.10	Andreas Rummel (Meizininische Hochschule, Hannover, Germany) Interaction with one ganglioside and one protein receptor mediates the neurotoxicity of Botulinum neurotoxins	
10.10-10.30	Frank Lebeda (USAMRIID, USA.) Botulinum neurotoxin: A toxicokinetic study	
10:30-11:00	**Coffee break**	*Law and Social Sciences Building Atrium*
11:00-13:00	**Session V: Treatment & Exploitation (Chair: Glen Songer)**	
11:00-11:30	Jan Theys (University of Maastricht, Holland) Clostridial Spores and Cancer Therapy	
11:30-12:00	Neil Green (Vanderbilt University, USA) Inhibitors of Botulinum Neurotoxin	

12.00-12.20	Yue Chen (University of Pittsburgh, USA) Sequence specific mutagenesis by Targetron: disrupt endogenous genes and introduce foreign gene into *C. perfringens* chromosome	
12.20-12.40	Ian. Cheong (Howard Hughes Medical Institute, USA) *C. novyi* can generate a potent therapeutic immune response against experimental tumours	
12.40-13.00	Kristin.Nagaro (Hines V.A. Hospital, Illinois, USA.) Non-Toxic *Clostridium difficile* (CD) protects hamsters against historic and epidemic toxigenic "BI" strains	
13:00-14:30	**Lunch**	*Hugh Stewart Hall*
14:30-16:30	**Session VI: Veterinary Disease (Chair: Marietta Flores-Díaz)**	
14.30-15.00	Glenn Songer (University of Arizona, USA) Clostridial enteritis in domestic animal species	
15.00-15.30	Francisco Uzal (University of California, USA) A mouse model for *C. perfringens* type D infection	
15.30-15.50	Luis Arroyo (University of Guelph, Canda) *Clostridium difficile*: potential causes of duodenitis proximal jejunitis in horses	
15.50-16.10	Filip Van Immerseel (Ghent University, Belgium) Clinical isolates of *Clostridium perfringens* in poultry are not superior alpha toxin producers *in vitro*	
16.10-16.30	Keyburn *Clostridium perfringens* is not an essential virulence factor in necrotic enteritis in chickens	
16:30-18:00	**Posters II**	*Law and Social Sciences Building Atrium*
20:00-22.00	**Dinner**	*Hugh Stewart Hall*

Saturday, June 24th 2006

07:00-08:30	**Breakfast**	*Hugh Stewart & Cripps Hall*
08:30-10:30	**Session VII: Host-Pathogen Interactions (Chair: Paola Mastrantonio)**	
08.30-09.00	Steve Melville (VPI, USA) The interaction of *C. perfringens* toxins with macrophages	
09.00-09.30	Marietta Flores-Díaz University of Costa Rica, Costa Rica) The cytotoxic effects of *Clostridium perfringens* α-toxin is mediated by endogenous mediators	
09.30-09.50	Clair Janoir (Université Paris-Sud, France) The CWP84 surface associated protein of *Clostridium difficile* is a cysteine protease with degrading activity against extracellular matrix proteins	

09.50-10.10 Elaine Hamm
(University of Oklahoma, USA.) Characterisation of the systemic effects of *Clostridium difficile* TcdB using developing Zebrafish embryos

10.10-10.30 Derek Fisher
(University of Pittsburgh School of Medicine, U.S.A.) The Role of Toxins from *Clostridium perfringens* Type C in the Mouse Intravenous Injection Model

10:30-11:00 **Coffee break** *Law and Social Sciences Building Atrium*

11:00-13:00 **Session VIII: Genetics and Physiology (Chair: Nigel Minton)**

11.00-11.30 Mahfuz Sarker
(Oregon State University, USA) *C. perfringens* sporulation

11.30-12.00 Trudi Bannam
(Monash University, Australia) The mechanism of conjugation in *C. perfringens*

12.00-12.20 Jennifer O'Connor
(Monash University, Australia) Construction and transcriptional analysis of *Clostridium difficile r*esponse regulator mutants

12.20-12.40 Hubert Bahl
(University of Rostock, Germany) Analysis of proteins involved in the oxidative stress response of *Clostridium acetobutylicum*

12.40-13.00 Kazauki Miyamoto
(Wakayama Medical University, Japan) Sequencing and diversity analysis of the enterotoxin-encoding plasmids in *Clostridium perfringens* type a nonfoodborne human gastrointestinal disease isolates

13:00-14:30 **Lunch** *Hugh Stewart Hall*

14:30-16:30 **Session IX: Genomics, proteomics and transcriptomics (Chair: Peter Mullany)**

14.30-15.00 Mike Peck
(IFR Norwich, UK) Exploitation of the *Clostridium botulinum* genome sequence

15.00-15.30 Richard Stabler
(LSTMH, London, UK) Comparative phylogenomics of *Clostridium difficile* reveals clade specificity and microevolution of hypervirulent strains

15.30-15.50 Yoshihiko Sakaguchi
(Okayama University, Japan) The Genome sequence of *Clostridium botulinum* Type C neurotoxin-converting phage and the molecular mechanisms of unstable lysogeny

15.50-16.10 Katrin Schwarz
(University of Rostock, Germany) The intra and extracellular proteome of *Clostridium acetobutylicum* under phosphate limitation

16.10-16.30 Kaori Ohtani
(Kanazawa University, Japan) Biological signaling to gene expression in *Clostridium perfringens*.

16:30-17:00 **Coffee break** *Law and Social Sciences Building Atrium*

17:00-19:00 **Session X: Regulation of Virulence Genes (Chair: Anne Collignon)**

17.00-17.30 Bruno Dupuy
(Institute Pasteur, France) Regulation of clostridial toxins by alternative sigma factors

17.30-18.00 Akinobu Okabe
(University of Kagawa, Japan) DNA curvature and gene regulation in *C. perfringens*

18.00-18.20 Susana Matamouros
Institute Pasteur, France) Toxin synthesis regulation in *Clostridium difficile*

18.20-18.40 Sean Dineen
(Tufts University School of Medicine, USA) Regulation of *Clostridium difficile* Toxin Synthesis

18.40-19.00 Farida Siddiqui
(Hines V.A. Hospital, Illinois, USA.) The tcdC gene of *C. difficile* variants including the epidemic BI strain contains stop codons and deletions.

20.00-24:00 **Medieval Banquet** *Nottingham - Tales of Robin Hood*

Sunday, June 25th 2006

07:00-08:30 Breakfast *Hugh Stewart & Cripps Hall*

DEPART

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10:00-12:00 Special Public Session: The Good, the Bad and the Beautiful

10.00-10.05 Professor Nigel P Minton,
(University of Nottingham) Introduction

10.05-10.30 Dr Wilf Mitchell
(University of Heriot-Watt, Edinburgh) Solvent production - not to be sniffed at!

10.30-10.55 Dr Adam Roberts
(University College, London) *Clostridium difficile*: a new superbug?

10.55-11.20 Dr Keith Foster
(Syntaxin Ltd., Salisbury) Botulinum toxin: more than just a pretty face!