

# Gut Microbiology:

new insights into  
gut microbial ecosystems

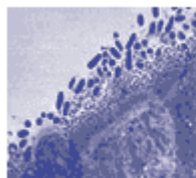


## SCIENTIFIC PROGRAMME

**Wednesday 23 June 2010**

**Oral Session One: 09.00 – 12.40**

<u>Theme</u>	Gut Microbial Communities – Phylogeny, Genomics and Function		
<u>Chairs</u>	Evelyne Forano and Harry Flint		
09.00 – 09.40	<b>Invited Lecture</b> <i>Incomplete recovery and individualized responses of the human distal gut microbiota to repeated antibiotic perturbation</i> Les Dethlefsen, Stanford, USA Sponsored by ISAPP		
09.40 – 10.05	Pyrotag sequencing of the fecal and mucosal gut microbiome of twins with inflammatory bowel diseases identifies novel differentiating populations	Johan Dicksved	Uppsala, Sweden
10.05 – 10.30	The intestinal microbiomes in pediatric irritable bowel syndrome: phylochip and 454 sequencing comparisons	Delphine Saulnier	Houston, USA
10.30 – 11.00	Tea and Coffee		
11.00 – 11.25	Molecular characterization of hydrogenotrophic microbes associated with the human colonic mucosa	Rex Gaskins	Champaign-Urbana, USA
11.25 – 11.50	ELDERMET - Gut microbiota as an indicator and agent of nutritional health in elderly Irish subjects.	Paul O'Toole	Cork, Ireland
11.50 – 12.15	New 16S rRNA sequence data mining tools help identify gut microbes associated with colorectal polyp prevalence	Volker Mai	Gainesville, USA
12.15 – 12.40	Characterization of the human small intestinal microbiota	Tom van den Bogert	Wageningen, Netherlands
12.40 – 13.40	Lunch		



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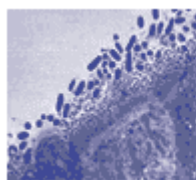
**Wednesday 23 June 2010**

**Poster Session One: 13.40 – 15.00**

<b>Themes:</b>	<ol style="list-style-type: none"> <li>1. Gut Microbial Communities – Phylogeny, Genomics and Function</li> <li>2. Microbes and the Environment</li> </ol>
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**Oral Session Two: 15.00 – 17.40**

<b><u>Theme</u></b>	<b>Microbes and the Environment</b>		
<b><u>Chairs</u></b>	<b>Diego Morgavi and Karen Scott</b>		
<b>15.00 – 15.40</b>	<b>Invited Lecture</b> <i>Greenhouse gas emissions and animal agriculture</i> Jamie Newbold, Aberystwyth, UK		Sponsored by Lallemand
15.40 – 16.05	Acetogen populations in the bovine rumen and forestomach of the tammar wallaby are different based on analysis of formyltetrahydrofolate synthetase and acetyl-CoA synthase genes	Emma Gagen	St Lucia, Australia
16.05 – 16.25	Tea and Coffee		Sponsored by Danisco
16.25 – 16.50	Methane emissions and rumen methanogens in sheep harbouring or not protozoa	Milka Popova	Clermont-Ferrand, France
16.50 – 17.15	Impact of live versus dead bacteria on survival, growth and gene expression in gnotobiotic Atlantic cod ( <i>Gadus morhua</i> ) larvae	Olav Vadstein	Trondheim, Norway
17.15 – 17.40	Functional metagenomics for discovery of new Lignocellulose-acting enzymes	Claire Dumon	Toulouse, France



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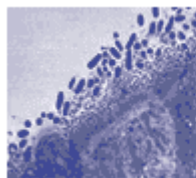
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**Thursday 24 June 2010**

**Oral Session Three: 09.00 – 12.40**

<b>Theme</b>	<b>Microbial Activities in the Gut</b>		
<b>Chairs</b>	<b>Annick Bernalier-Donadille and Petra Louis</b>		
09.00 – 09.40	<b>Invited Lecture</b> <i>Faecalibacterium prausnitzii</i> , a novel anti-inflammatory tool to prevent and to treat inflammatory bowel disease Philippe Langella, Jouy-en-Josas, France		Sponsored by FEMS
09.40 – 10.05	Combined gut-cell model to investigate <i>Salmonella</i> and probiotics interactions in infected gut microbiota	Christophe Chassard	Zurich, Switzerland
10.05 – 10.30	Effects of butyrylated starch supplementation on the gut microbiome of athletes	Claus Christophersen	Adelaide, Australia
10.30 – 11.00	Tea and Coffee		
11.00 – 11.25	A gene-centric approach to investigating the diversity and adaptation of <i>Ruminococcus flavefaciens</i> ecotypes within the rumen microbiome	Bryan White	Champaign-Urbana, USA
11.25 – 11.50	Dietary fibre degradation and xylanolytic system of <i>Bacteroides xylanisolvens</i> XB1A and <i>Roseburia intestinalis</i> XB6B4, two fibrolytic bacteria from the human gut.	Evelyne Forano	Clermont-Ferrand, France
11.50 – 12.15	Analysis of the interaction between <i>Fibrobacter succinogenes</i> and cellulolytic ruminococci in the rumen of gnotoxenic lambs	Pascale Mosoni	Clermont-Ferrand, France
12.15 – 12.40	Biofilm formation and growth dynamics of <i>Prevotella ruminicola</i> during the colonisation of fresh perennial ryegrass	Roderick Mackie	Champaign-Urbana, USA
12.40 – 13.40	Lunch		



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**Thursday 24 June 2010**

**Themed Oral Session: 13.40 – 14.30**

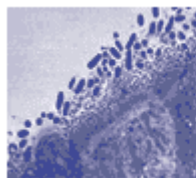
<b>Theme</b>	<b>Food and Health</b>	Supported by Scotland Food and Drink	
<b>Chair</b>	<b>Silvia Gratz and Alan Rowe</b>		
13.40 – 14.05	Defining the dominant bacterial species of the human large intestine and their response to dietary change	Alan Walker	Cambridge, UK
14.05 – 14.30	Guidance for substantiating the evidence of the beneficial effects of probiotics: Current status and recommendations for future research	Ger Rijkers	Utrecht, Netherlands

**Poster Session Two: 14.30 – 16.00**

<b>Themes:</b>	3. Microbial Activities in the Gut 4. Impact of Microbial Colonisation on the Host		
15.30 – 16.00	Tea and Coffee	Sponsored by Food Standards Agency Scotland	

**Workshops: 16.00 – 17.30**

<b>Titles:</b>	1. ‘omics technologies Chaired by: Bryan White, Illinois, USA and Harry Flint, Aberdeen, UK 2. Bacteria and the mucosal surface: from interactions to interventions Chaired by: Jonathan Rhodes, Liverpool, UK, Andrew Stagg, London, UK, Silvia Gratz, Aberdeen, UK and Angela Patterson, Aberdeen, UK 3. mechanism of action of pre- or probiotics within the host to improve health Chaired by: Elaine Vaughan, Vlaardingen, The Netherlands and Karen Scott, Aberdeen, UK 4. Mechanisms for microbial survival in the gut Chaired by: Conor P O’Byrne, Galway, Ireland and Petra Louis, Aberdeen, UK		
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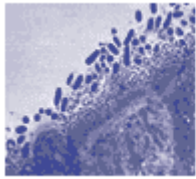
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**Friday 25 June 2010**

**Oral Session Four: 09.00 – 12.40**

<u>Theme</u>	Impact of Microbial Colonisation on the Host		
<u>Chairs</u>	Pascale Mosoni and Angela Patterson		
09.00 – 09.40	<b>Invited Lecture</b> <i>Targeted modulation of gut microbiota with prebiotics: consequences for host metabolism</i> Nathalie Delzenne, Louvain, Belgium		Sponsored by FEMS
09.40 – 10.05	Gut bacteria - host interactions: the role of mucus binding proteins	Nathalie Juge	Norwich, UK
10.05 – 10.30	Characterisation of polysaccharides from immunologically active strains of <i>Bifidobacterium</i>	Ian Sims	Wellington, New Zealand
10.30 – 11.00	Tea and Coffee		
11.00 – 11.25	The very early intestinal microbiota in human neonates	Caroline Karlsson	Lund, Sweden
11.25 – 11.50	Local and temporal responses of the mouse intestinal mucosa to conventionalization	Sahar El Aidy	Wageningen, Netherlands
11.50 – 12.15	Influence of <i>Lactobacillus reuteri</i> on the colonic microbiota in health and DSS-induced colitis	Stefan Roos	Uppsala, Sweden
12.15 – 12.40	Influence of the dietary heme on cell proliferation and the microbiota of the murine colon	Muriel Derrien	Wageningen, Netherlands
12.40 – 13.40	Lunch		



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 Rowett Institute  
of Nutrition and Health  
University of Aberdeen



## Workshops' Wrap-up Session: 13.40 – 15.40

<b>Chair</b>	<b>John Wallace</b>
<b>Titles:</b>	<ol style="list-style-type: none"><li>1. 'omics technologies</li><li>2. Bacteria and the mucosal surface: from interactions to interventions</li><li>3. Probiotics and prebiotics as functional foods</li><li>4. Mechanisms for microbial survival in the gut</li></ol>

## Keynote Lecture: 16.10 – 16.40

<b>Chair</b>	<b>John Wallace</b>
16.10 – 16.40	<b>Keynote Lecture</b> <i>Learning lessons is hard; making predictions difficult</i> Hugh Pennington, Aberdeen, UK <span style="float: right;">Sponsored by FEMS</span>

## Conference Close: 16.40 – 17.00

16.40 – 17.00	<b>John Wallace</b>
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