LAUNCH OF THE NIHR HEALTH PROTECTION RESEARCH UNIT IN EMERGING AND ZOONOTIC INFECTIONS

Victoria Gallery and Museum, University of Liverpool
Tuesday 11th November

Draft Programme

13.30 Introduction to the HPRU by Tom Solomon and deputy directors
14.00 Clinical Surveillance
14.30 Vector Biology and Climate Modelling

15.00 Coffee break
15.30 Risk assessment of emerging and zoonotic threats
16.00 Epidemiological approaches
16.30 Pathogen detection and characterisation

17.00 Drinks reception
VECTOR-BORNE DISEASES IN THE UK:
BIENNIAL CONFERENCE 2014

Foresight Centre, University of Liverpool
Wednesday 12th – Thursday 13th November 2014

PROGRAMME

WEDNESDAY 12th NOVEMBER

9.30 – 10:00  Coffee

INTRODUCTION

10.00          Welcome and meeting arrangements          John Stephenson
10.05          Welcome and introduction to the NIHR HPRU  Tom Solomon

SESSION 1
BITING MIDGES

10.15          Simon Carpenter, The Pirbright Institute
               Culicoides, mosquitoes and large biting flies: studies in the vector-borne viral diseases programme
10.45          Polly Roy, London School of Hygiene & Tropical Medicine
               Molecular understanding of Bluetongue virus replication and designer vaccine
11.15          Beth Purse, Centre for Ecology & Hydrology
               Assessing the impact of environmental change and ecological complexity on arboviral diseases
11.30          Georgette Kluiters, University of Liverpool
               The global transportation of Culicoides midges from flower-packing plants in Africa
11.45          Matthew Baylis, University of Liverpool
               Modelling of Schmallenberg spread in the UK

12.15 - 13.00  Lunch
### SESSION 2

**TICKS**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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<tbody>
<tr>
<td>13.00</td>
<td>Richard Birtles, University of Salford</td>
<td>A one health approach to tick-borne disease in southern Cumbria</td>
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<td>13.45</td>
<td>Lucy Gilbert, The James Hutton Institute</td>
<td>Environmental risk factors and control of ticks and tick-borne diseases.</td>
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<td>14.00</td>
<td>Richard Wall, University of Bristol</td>
<td>Ticks and tick-borne disease of companion animals in the UK</td>
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<td>14.15</td>
<td>Roger Hewson, Public Health England</td>
<td>Congo-Crimean haemorrhagic fever</td>
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<td>14.30</td>
<td>Stacey Leech, Public Health England</td>
<td>Vector competence of <em>Ixodes ricinus</em> ticks to medically important arboviruses.</td>
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<tr>
<td>14.45</td>
<td>Lesley Bell Sakyi, The Pirbright Institute</td>
<td>The Tick Cell Biobank underpins UK and international tick and tick-borne disease research</td>
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**15.00 – 15.45 Tea and Poster Session**

### SESSION 3

**MOSQUITOES - I**

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<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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<tbody>
<tr>
<td>15.45</td>
<td>Anna-Bella Failloux, Pasteur Institute</td>
<td>Arbovirus emergence caused by small genetic changes in the viral genome</td>
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<tr>
<td>16.15</td>
<td>Rennos Fragkoudis, The Pirbright Institute</td>
<td>Targeted inhibition of arbovirus replication in mosquito-derived cell lines</td>
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<tr>
<td>16.30</td>
<td>James Logan, London School of Hygiene &amp; Tropical Medicine</td>
<td>An overview of vector control and chemical ecology</td>
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17.00  Nick Johnson, Animal Health and Veterinary Laboratories Agency
Surveillance for flaviviruses in UK mosquitoes

17.15  Clive McKimmie, University of Glasgow
The role of the mosquito bite on early arbovirus dissemination

17.30  Lisa Ng, University of Liverpool
Cellular and molecular mechanisms of chikungunya virus pathogenesis

17.45  SESSION ENDS

19.00  Drinks before dinner at 19.30

THURSDAY 13th NOVEMBER

SESSION 4
MOSQUITOES - II

9.00  Jolyon Medlock, Public Health England
British mosquitoes and environmental change

9.30  Hilary Ranson, Liverpool School of Tropical Medicine
Challenges in controlling insecticide resistant mosquitoes

9.45  Hilary Hurd, Keele University
How does infection affect mosquitoes?

10.00  Alex Vaux and Gay Gibson, Public Health England and University of
Greenwich
*Culex modestus* surveillance in the North Kent marshes.

10.15  Xavier de Lamballerie, University of Aix-Marseille
Chikungunya in the Americas

10.30  Richard Elliott, MRC-University of Glasgow Centre for Virus Research
Engineering Rift Valley fever virus

11.00 – 11.30 Coffee
### SESSION 5
**THE EUROPEAN PERSPECTIVE**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
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<tbody>
<tr>
<td>11.30</td>
<td>Francis Schaffner, Avia-GIS, Belgium</td>
<td>ECDC guidelines for the surveillance of mosquito vectors and their implementation</td>
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<tr>
<td>12.00</td>
<td>Adolfo Ibáñez, Centre for Monitoring Vectors, The Netherlands</td>
<td>Current surveillance of invasive and endemic vectors in the Netherlands</td>
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<td>12.15</td>
<td>Helen Roberts, Animal Health and Veterinary Laboratories Agency</td>
<td>EU response to an emerging disease</td>
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<td>12.30</td>
<td>Ana Clara Silva, Institute for Health and Social Affairs Administration, Portugal</td>
<td>The dengue outbreak in Madeira: the challenge of surveillance and control of a vector-borne disease.</td>
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<tr>
<td>12.45</td>
<td>Kathryn Woolaway, Defra</td>
<td>Current control strategies in the UK</td>
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**13.00 – 13.45 Lunch**

### SESSION 6
**OTHER VECTORS**

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<th>Topic</th>
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<tbody>
<tr>
<td>14.15</td>
<td>Paul Ready, London School of Hygiene &amp; Tropical Medicine</td>
<td>Surveillance of phlebotomine-borne viruses and leishmaniasis in the UK</td>
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<tr>
<td>14.30</td>
<td>Anthony Wilson, The Pirbright Institute</td>
<td>The potential for mechanical transmission of veterinary viruses by large biting flies in the UK</td>
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<tr>
<td>14.45</td>
<td>Lucas Cunningham, Liverpool School of Tropical Medicine</td>
<td>Development of a xenomonitoring tool to monitor sleeping sickness</td>
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<td>15.00</td>
<td>Lisa Jameson, Public Health England, University of Liverpool</td>
<td>Hantaviruses in the UK</td>
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<td>15.15</td>
<td>Mike Siva-Jothy, University of Sheffield</td>
<td>Feeding-related drivers of immunity in bed bugs.</td>
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15.30  Saskia Hogenhout - John Innes Centre  
Impact and mechanisms of transmission of plant-pathogen viruses and bacteria by sap-feeding insects.

15.45  John Pickett, Rothamsted Research  
Exploiting stress in control of pathogen vectors: lessons from stress induced defence in plants

16.00 - 16.30  Tea

SESSION 7  
NEW TECHNOLOGIES

16.30  Alain Kohl, MRC-University of Glasgow Centre for Virus Research  
Mosquito immunity and control of arbovirus replication

17.00  Tariq Butt, Swansea University  
Fungal control of arthropod vectors of disease

17.15  Luke Alphey, The Pirbright Institute  
Genetic control of mosquitoes

17.45  MEETING CLOSES