

## NEWS



HPRU PhD students

### HPRU PHD ACADEMY INAUGURAL EVENT

On 30 and 31 January 2017 58 PhD students from across 11 Health Protection Research Units met at The University of Liverpool in London for the first HPRU PhD Academy, jointly hosted by the HPRU in Emerging and Zoonotic Infections and HPRU in Gastrointestinal Infections.



Professor Bernie Hannigan, PHE

The purpose of the event was to share knowledge across the HPRUs and to give the PhD students a platform to present their research. Each unit gave an overview of their research, as well as two focused oral presentations led by the PhD students on their HPRU work.



Outbreak exercise with Dr Ruth Ruggles, PHE

During the event there were training opportunities from Professor Bernie Hannigan, Deputy Director at Public Health England (PHE) on the importance of NIHR HPRU PhDs' contribution to public health, and Dr Satnam Sagoo, Head of Education and Training Unit at PHE on developing a career in public health.



Poster viewing over lunch

Further to this, there was a talk on 'Getting patients and the public involved in research' by Professor Jackie Cassell, Brighton and Sussex Medical School and an Outbreak Response exercise run by Dr Ruth Ruggles, Head of Public Health Training at PHE.

Discussions and photographs from the event can be viewed at

[#hpruacademy2017](https://twitter.com/hpruacademy2017)



## EL NIÑO FUELED ZIKA OUTBREAK, NEW HPRU EZI STUDY SUGGESTS

HPRU EZI research highlights how a change in weather patterns, brought on by the ‘Godzilla’ El Niño of 2015, fuelled the Zika outbreak in South America. HPRU members including Cyril Caminade, Soeren Metelmann, Marcus Blagrove and Matthew Baylis developed a new epidemiological model that can be used to predict the risk of future outbreaks and co-authored the paper ‘Global risk model for vector-borne transmission of Zika virus reveals the role of El Niño 2015’, which can be read [here](#). This study received good coverage and saw articles in the Washington Post, Wired and on the BBC’s Newsday programme.



## GLOBAL CHALLENGES RESEARCH FUND GRANTS

The University of Liverpool is involved in 7 research grants as part of the £1.5bn Global Challenges Research Fund (GCRF). The first phase of GCRF funding results has been released and these Foundation Awards aim to improve the health and prosperity of low and middle-income countries through harnessing the UK’s research expertise.

Professor Matthew Baylis, HPRU Vector Biology and Climate Modelling Theme Leader is co-investigator on a project led by Dr Lisa Reimer from the Liverpool School of Tropical Medicine focusing on detecting pathogens in waste from vectors such as ticks or biting insects.



## CHALLENGES POSED BY THE ZIKA VIRUS INFECTION

In collaboration with the Royal Society of Medicine the HPRU EZI organised a one-day event on 10 March 2017 in London. Delegates heard from experts about the effects of the Zika virus infection on both adults and children. The Chairman of the Board at PHE and also the Chair of the HPRU EZI Scientific Advisory Board, Professor David Heymann, opened the day with his talk on ‘Zika infection and microcephaly: Why was this called a global public health emergency of international concern?’



HPRU EZI research was well-represented with talks from theme leaders: Dr Jolyon Medlock on ‘Invasive aedes vectors in Europe: How do we keep Europe arbovirus free?’, Professor Dilys Morgan on ‘Zika virus – Global epidemiology and public health issues’, Professor Tom Solomon and Dr Lance Turtle on the ‘Neurological impact of the Zika virus on adults and children’.



## HPRU EZI ANNUAL CONFERENCE AND SCIENTIFIC ADVISORY BOARD MEETING

On 13 December 2016 the NIHR HPRU EZI held its annual conference at the Liverpool Medical Institution. Over 115 people attended the event and the conference was well received by all. The conference focused on **'Zika and Other Emerging Infections'** with keynote talks from Dr Patricia Sequeira, Laboratório de Flavivírus, Instituto Oswaldo Cruz, Brazil on *'The FioCruz response to the Zika outbreak'* and Dr Alain Kohl, MRC Programme Leader, MRC-University of Glasgow Centre for Virus Research on *'Zika virus interactions with host cells'*. Visit the [HPRU EZI website](#) to read more about the conference.



On the 14 December the Scientific Advisory Board met with HPRU researchers and PhD students to acknowledge the HPRU's successes and to give recommendations on how the HPRU should move forward during 2017-18.



## HPRU LYME AND TICK-BORNE DISEASES WORKING GROUP

On 14 December 2016 a group of researchers and scientists from the University of Liverpool, the Liverpool School of Tropical Medicine, the Royal Liverpool University Hospital and Public Health England met to discuss work by HPRU EZI on tick-borne diseases (TBD). The meeting brought together people from a range of different backgrounds from public health clinicians to climate modellers. It was organised by PhD students, John Tulloch and Liz McGinley, keen to learn from and collaborate with other researchers in their fields.

To find out more about this Working Group visit the [HPRU EZI website](#).



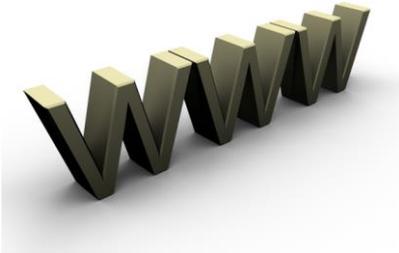
## FIRST ZikaPLAN MEETING

On 18 January 2017, the European Union funded ZikaPLAN (Prepared Latin American Network) Neuro Group met in Glasgow to celebrate their first meeting. HPRU EZI Director Professor Tom Solomon, PhD student Raquel Medialdea-Carrera and HPRU EZI members Dr Lance Turtle, Mark Ellul and Dr Michael Griffiths attended this meeting at the University of Glasgow. All of them gave brief talks presenting the latest updates on their Neuro Zika Work and the future plans.



## HPRU EZI ANNUAL SCIENTIFIC MEETING

The 2017 HPRU Emerging and Zoonotic Infections Conference will be held at the University of Liverpool in London (33 Finsbury Square, London, EC2A 1AG) on Tuesday 12 December 2017. A call for abstracts will be made over the summer.



## HPRU EZI WEBSITE & TWITTER

Our website address is [www.hpruezi.nihr.ac.uk](http://www.hpruezi.nihr.ac.uk) and Twitter name is [@HPRUezi](https://twitter.com/HPRUezi). Please don't forget to let us know about any news items, public engagement events, or anything similar, for the website, Twitter and next edition of this newsletter.

## EVENTS

### Informatics for Health 2017

**24-26 April 2017, Manchester Central, UK**

The Congress will bring together: Europe's leading conference, Medical Informatics Europe (MIE2017) from the European Federation for Medical Informatics (EFMI) and The Farr Institute International Conference 2017. With more than 250 presentations, the conference will explore the latest developments in health data science through a variety of cross-sector panels, workshops, demos, posters and more. To compliment the main conference programme we also have a diverse and popular pre-conference programme that includes tutorials from leaders in the field (full details below) along with a selection of pre-conference tours highlighting Manchester's rich cultural and historical heritage.

Visit the Informatics for Health website for details of the full programme and to register for the event: <http://informaticsforhealth.org>

**Note that researchers at the Farr Institute of Health Informatics academic centre will receive a discounted rate.**

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### Springboard Women's Development Programme

**University of Liverpool staff only**

**The programme will be delivered across 4 workshops over 3 months (28 April, 18 May, 9 June & 7 July 2017)**

The Springboard training course is targeted at female Early Career Researchers and teaching staff to support their career development. Springboard is the University of Liverpool's first in-house women's personal career development programme. Each delegate sets aims and objectives for herself from the first workshop. Many use the programme to plan for work related outcomes, such as promotions, new skills or new qualifications, a new attitude to change and more control and confidence in the workplace. Others focus on results in their personal life, such as sorting out difficult relationships, improving health, dealing with stress and gaining a work/life balance.

Anyone who wishes to attend will be committing to full attendance at the 4 workshops, with follow up reading and exercises for each module. If you are at a stage in your career where you believe that you would benefit from such an opportunity and you have the agreement of your line manager, please contact: [training@liverpool.ac.uk](mailto:training@liverpool.ac.uk) with your Name, Job Title, Staff Number and Contact Details.

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### **PHE Training**

Public Health England are offering a range of different training courses which are open to both PHE staff and external delegates:

- 25-26 April – Outbreak Investigation: a practical course
- 3 May – Bioinformatics – Introduction to Galaxy (½ day event)
- 9 May – Hitchhikers Guide to Epidemiology
- 11 May – Bioinformatics – Sequence Analysis with Bionumerics
- 16 May – Zoonoses: risk assessment, investigation and control – Defra London
- 25 & 26 May - Bionumerics – Next Generation Sequence Data Analysis for Public Health – 2 Days
- 5-9 June – Introductory course on Epidemiology & Surveillance
- 8 & 9 June – Bioinformatics – Programming for Biologists
- 20 June – Hitchhikers Guide to Microbiology course
- 21 June - STATA Training
- 22 June - Zoonoses: risk assessment, investigation and control – PHE Greater Manchester

If you would like to attend any of these courses then please contact Gloria Wilson, PHE Education and Training Coordinator at [gloria.wilson@phe.gov.uk](mailto:gloria.wilson@phe.gov.uk)

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### **8<sup>th</sup> International Conference on Emerging Zoonoses**

**7-10 May 2017, Manhattan, Kansas, USA**

This conference will focus on Emerging and Transboundary Infectious Diseases. In order to properly address these issues in the conference, special workshops will be organized by experts in their fields. Potential topics include: the ecology of emerging zoonotic and transboundary diseases; the role of wildlife in emerging zoonoses and transboundary diseases; cross-species transmission of zoonotic and transboundary pathogens; emerging and neglected influenza viruses; haemorrhagic fever viruses; emerging and transboundary bacterial diseases; outbreak

responses to zoonotic and transboundary diseases; food-borne zoonotic diseases; prion diseases; and modelling and prediction of emergence of zoonoses and transboundary diseases.

If you wish to register visit the website for more details: <http://www.zoonoses-conferences.com/>

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### **Research Design North West event**

#### **From research idea to funding application – putting your grant proposal together support event**

**16 June 2017, Manchester, UK**

This RDS NW event is for health and social care professionals and researchers in the North West of England who want to develop and submit an application to NIHR Research for Patient Benefit (RfPB) or another NIHR research funding stream. Attending the event will help to make your application stronger and increase your chance of getting your research idea funded.

This is a free event and lunch is provided.

To book on this support event please see the RDS NW website: <http://www.rds-nw.nihr.ac.uk/news-training-events/>

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### **Emerging Viruses of Zoonotic and Veterinary Importance**

**24-26 July 2017, Churchill College, Cambridge, UK**

This meeting, building on the success of Emerging Viruses 2015 held in Nottingham, will bring together international researchers with an interest in tackling emerging viruses that affect all species, whether human, pet, production or wild. This will allow cross-fertilisation of ideas and common trends to be identified, as well as discussion of methodologies and prospects going forward. Proposed sessions for this meeting are: gastrointestinal infections; respiratory infections; systemic infections; and drivers of emerging infections.

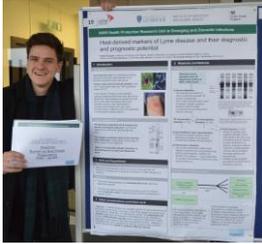
For more information and to register and submit an abstract please visit the Emerging Viruses website: <http://emerging-viruses.uk/>

## **STUDENT NEWS**



PhD students **Liana Kafetzopoulou**, **Soeren Metelmann** and **Andrew Bosworth** were amongst the winners presented awards at the HPRU EZI annual conference on 13 December 2016. Soeren won first prize for best poster presentation, and Andrew Bosworth was awarded the runner up prize. Liana was presented with a double prize for best oral presentation as judged by the Scientific Advisory Board and the 'People's choice award' for best oral presentation as voted by the delegates at the conference.

On 25 January 2017 **Kim Steeds** presented at the South Wiltshire Virus Group Meeting, a forum for virologists. Kim entered the Research in Three competition where the challenge was to sell her research on 'Effects of mutations within Ebola virus glycoprotein on immune escape' using only one slide in three minutes. Congratulations to Kim as she won first place.



**Greg Joyner** attended the HPRU PhD Academy 30-31 January 2017. His poster on 'Host-derived markers of Lyme disease and their diagnostic and prognostic potential' won joint runner up poster presentation as voted by his peer HPRU PhD students.

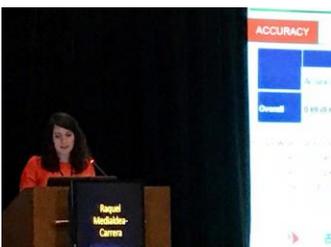


**Natasha Rickett** and **Sarah Bar-Yaacov** both presented their research at the HPRU PhD Academy as representatives of the HPRU EZI PhD students. Sarah gave an oral presentation on 'Using label free mass proteomics for discovery of host biomarkers of hantavirus infection'. Madison gave a talk on 'Elucidating the determinants of patient outcome following acute Ebola virus infection'.



Congratulations to **Raquel Medialdea Carrera** for being awarded the prestigious Porterfield Prize in International Virology 2017 by the University of Oxford. This prize will help with her research project entitled: "Investigation of the spread of Zika Virus in the State of Rio de Janeiro since 2013" at the Flavivirus Reference Laboratory – Oswaldo Cruz Institute – Fiocruz, Rio de Janeiro (BRAZIL).

PHE PhD student day on 8 February 2017 saw four of our PhD students' present their research on topics ranging from: 'Investigating the drivers of *Ixodes ricinus* activity and *Borrelia* prevalence' to 'The assessment of the risk to the UK human population from tick-borne viruses. Year One Overview.' **Maya Holding**, **Liana Kafetzopoulou**, **Liz McGinley** and **Kim Steeds** all attended the day at PHE's Centre for Radiation, Chemical and Environmental Hazards Training Centre in Chilton. Congratulations go to Liana who won first prize for her poster on 'MinION Sequencing for Viral Clinical Sample Investigation'.



On 23 February 2017 **Raquel Medialdea Carrera** presented at the First International Zika Conference in Washington, USA. Her oral presentation was on 'Improving the Diagnosis of Zika Virus in Brazil - Anti Zika NS1 ELISAs exhibit poor accuracy in Brazilian Population'. Congratulations to Raquel as she was awarded the ESCMID young scientists grant to assist in travelling to Washington and presenting at the conference.

On 21 March 2017 **John Tulloch** presented his poster on 'Do hospital episode statistics

improve the surveillance of Lyme disease?’ at the Public Health England Research and Applied Epidemiology Scientific Conference 2017 at the University of Warwick.

## PHD STUDENT PROFILES



### **Caoimhe McKerr**

Caoimhe joined the HPRU team in January 2017 as a joint appointment across both EZI and Gastrointestinal Infections, with supervisors Rob Christley, Sarah O’Brien, Roberto Vivancos, and Rachel Chalmers from Public Health Wales. Her project is around understanding and identifying the populations at risk of *Cryptosporidiosis*.

Caoimhe was an epidemiologist at the Health Protection Agency for four years, and before that spent four years in local public health. Most recently, she completed a two-year Field Epidemiology/EPIET program with Public Health England and the European Centre for Disease Control, involving various research projects and outbreak investigations across the world.

Outside of work, she enjoys family time, reading and 70s rock music.



### **Ravi Mehta**

Ravi began his NIHR HPRU PhD studentship “Investigating the association between Zika and other arboviruses and neurological manifestations in Latin America” in November 2016, with supervisors Tom Solomon of the University of Liverpool, and David Brown of Public Health England. Ravi is a graduate in Medicine from the University of Oxford and University College London, and completed the Diploma of Tropical Medicine and Hygiene in early 2016. He has completed his foundation medical training in the UK, has previously worked abroad in New Zealand and is currently based in Rio de Janeiro, Brazil. Outside of work, he enjoys trekking, Muay Thai and football.

## **PUBLIC INVOLVEMENT AND ENGAGEMENT**

### PUBLIC INVOLVEMENT AND ENGAGEMENT ACTIVITIES

Involving and engaging the public in our research is a key focus for the unit. Here are some activities that took place from October 2016 to April 2017:

#### Public Engagement Case Studies

The University of Liverpool’s Faculty of Health and Life Sciences website has recently been updated and now has a dedicated Public Engagement area to showcase the inspiring public engagement work carried out by staff and students. One such example is by Raquel Medialdea Carrera, HPRU EZI PhD student; her case study describes her excellent experience of public engagement work. Activities include taking part in Meet the Scientists, running science workshops in Sierra Leone and organising Infectious Science in the Pub which saw researchers give inspiring and fascinating talks about their work to the public over a pint! Visit the website to [download the case study](#).

## Mosquito Diaries exhibition

Aislinn Currie-Jordan presented work on Vector Biology as part of LSTM Mosquito Diaries Exhibition at the Manchester Science Festival, 25 October 2016.



## Infectious Science

On 12 December 2016 we held the '[Infectious Science in the Pub](#)' event at The Vines public house in Liverpool. This free-of-charge evening event was held in the lead up to the [NIHR HPRU EZI annual conference](#) and was attended by 55 members of the public. It featured 6 fast-paced scientific TEDx-style talks from HPRU researchers including Dr Maya Wardeh (PDRA) and an international speaker from Brazil, Dr Patricia Sequeira. Their topics ranged from big data to the Fiocruz response to Zika virus outbreak in Brazil.

On 6 March 2017 we held the third in the series of '[Infectious Science in the Pub](#)' events at The Everyman Bistro in Liverpool. 70 members of the public listened to HPRU PhD students Margaux Mesle, George Lock and Research Fellow Dr Cyril Caminade discuss topics such as climate change and poliovirus. The objective of the event is to encourage people from all ages and backgrounds to take an interest in emerging and zoonotic infections, and the event provides an opportunity for our researchers to develop their public engagement skills.



Both of these events were funded by the NIHR HPRU in Emerging and Zoonotic Infections through public engagement funding awards.



## Meet the Scientist

On 21 January, we organized an 'Infections of the Brain' stall as part of the Meet the Scientists 'Brainiacs' event at the World Museum of Liverpool. Nearly 2,000 children with their families came to learn about infections on the brain, how to prevent them and how to cure them. Children (and adults) had the unique opportunity to dress as a scientist or physician and try to destroy infections inside tasty jelly brains! Visitors also had the opportunity to see what the brain looks like in sections and learn about the importance of recognising brain infections.

## British National Science and Engineering Week

As part of the 2017 British National Science and Engineering Week, we organized two workshops for 12-14-year-old students coming from a school in a less privileged area. During the workshops, students had the unique opportunity

to become scientists for a day and learn about infections in humans and animals and global health. Students extracted DNA from strawberries and bananas, observed through the microscope mosquitoes from the same species that transmit many infectious diseases. They also observed through the microscope their own cells from their cheeks and prepared some cool science badges and some beautiful colourful mosquitoes with “pipe cleaners”.



#### Ness Botanic Gardens Family Science Fair

On 11 March 2017, during British Science Week, HPRU EZI held a '[Mosquito Madness](#)' exhibit at the Ness Botanic Gardens Family Science Fair which saw 250 members of the public interact with the stall. This exhibit highlighted PhD student Aislinn Currie-Jordan's work on improving our understanding of UK mosquito species through hands-on activities and demonstrations.

#### Public Engagement Training

On 4 April 2017 HPRU EZI and HPRU Gastrointestinal Infections joined together to organise and fund a bespoke training day in Liverpool on 'Presenting about Science'. This day was aimed at PhD students and HPRU researchers and run by James Piercy, from Science Made Simple. James holds the LAMDA gold medal in public speaking, is a trainer for FameLab International and recently won the Royal Society Radio prize. The training focused on enhancing public engagement skills in order to present to and engage effectively with different audiences.

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### **UPCOMING EVENTS**

There are numerous ways in which researchers can get involved, including the following events - please contact [hpruezi@liverpool.ac.uk](mailto:hpruezi@liverpool.ac.uk) for further information.



#### **NIHR launches - Let's Get Digital Competition!**

The competition is designed to recognise those involved in NIHR research using video, photography, infographics, websites and online communities to help promote the research. Closing date for all categories is **Friday, 30th June 2017**.



Winning entries will be promoted across the NIHR's communication channels and will also be invited to a special training session at Google's headquarters to learn all things digital. To find out more about the competition, visit:

<https://www.nihr.ac.uk/news-and-events/support-our-campaigns/lets-get-digital.htm>



**'Meet the Scientists' World Museum Liverpool Programme, World Museum, Liverpool**  
Weekend family-friendly events focused on key topics researched within the University of Liverpool's Faculty of Health and Life Sciences, including the HPRU EZI. Providing an opportunity for visitors to meet real scientists and to find out about the latest research happening at the HPRU, in an informal, interactive and enjoyable way.

The next events are:



- 13 May 2017, 10am-4pm on **'World of Wonder'**. Activities can cover a broad range of topics including the food we eat; pets we play with; trees we climb; and how we can protect this wonderful world.

- 8 July 2017, 10am-4pm on **'Disease Detectives'**. Your activities can cover a variety of subjects including how diseases work; how we can spot them; and how we can fight against them!



For more details on this and future events, visit: <http://www.liv.ac.uk/health-and-life-sciences/meet-the-scientists/>



### **Cheltenham Science Festival**

**6-11 June 2017**

Cheltenham Science Festival is one of the biggest and most exciting Science Festivals in the country and this year for the first time the University of Liverpool's Faculty of Health and Life Sciences will be running a stand at the event, supported by the Wellcome Trust. We want you to get involved and come and share your research with the public!

We're looking for people to run hands on activities and experiments which explore their research in an engaging and fun way. The Festival audience can be anyone from primary school children up to retirees, so the activities would need to be suitable for a broad audience, and this is a great opportunity to be involved in a really high-profile and exciting event: <http://www.cheltenhamfestivals.com/science>

**If you are interested in running an activity please contact Public Engagement Officer [Laura Winters](#).**

If you are involved in any relevant activities, please inform the HPRU EZI Administration Team at [hpruezi@liverpool.ac.uk](mailto:hpruezi@liverpool.ac.uk). Please provide the activity title, brief description, date, audience (schools, public, etc.), audience numbers, and any photographs or additional information.

## WINNERS - PUBLIC ENGAGEMENT FUNDING AWARDS

In November 2016 HPRU EZI put out a call for members to apply for public engagement funding and the following projects were successful:

Name(s)	Details	Award
Raquel Medialdea Carrera	Infectious Science in the Pub event at Everyman Bistro, Liverpool	£250.00
Alan Radford, Fernando Sánchez-Vizcaíno, John Tulloch	One Health Big Data at the Edinburgh International Science Festival	£580.00
Calum Semple, Janet Scott	Plasma Therapy for Ebola Disease – Ebola Survivors Workshop in Sierra Leone	£580.00
Raquel Medialdea Carrera	Infectious Science in the Pub event in Rio de Janeiro	£580.00

In January 2017 The University of Liverpool's Faculty of Health and Life Sciences, supported by Wellcome Trust Institutional Strategic Support Fund, funded 13 projects as part of their Public Engagement Grants Scheme. Grants were awarded up to £2000 for each activity of which 3 were successfully granted to the following HPRU researchers:

Name(s)	Details
Matthew Baylis and Rob Christly	R School – taking R, a programming language that is becoming the industry standard in science for data analysis and visualisation, into Secondary schools to teach to A-level students.
Alan Radford	Pets, Vets and Datasets at the Edinburgh International Science Festival
Tom Solomon	Roald Dahl's Marvellous Medicine Children's Show

## IMPACT AND KNOWLEDGE EXCHANGE

On 22 December 2016, **Professor Matthew Baylis** spoke on Newsday, a BBC World Service programme, about how El Niño contributed to the Zika Virus outbreak. To listen to the clip, go to the BBC website:

<http://www.bbc.co.uk/programmes/p04m5v5v>

**Dr Cyril Caminade** on 11 January 2017 held a Skype interview with NTN24, a news station in Latin America. His interview on how El Niño contributed to the Zika Virus outbreak was translated into Spanish and broadcast via the internet. To view the interview, visit NTN24's website: <http://www.ntn24.com/video/zika-129198>

Also, in February **Dr Cyril Caminade** conducted a radio interview with Yale Climate Connections, an online radio service broadcasting on issues of climate change. Currently in post-production, this audio interview will be broadcast to over 200 US radio stations.

### PUBLICATION APPROVAL AND ACKNOWLEDGMENTS

#### **Acknowledging HPRU in Publications**

Acknowledging the NIHR HPRU is vital as we need to capture all your relevant work. If a publication is acknowledged as an HPRU one it can be counted as an output for the Unit.

Anything HPRU related that is published by any HPRU researcher should have the following included as an address, in addition to your usual address:

**- NIHR Health Protection Research Unit in Emerging and Zoonotic Infections, UK.**

Where a publication is a result of work directly funded or indirectly supported by the HPRU this too needs to be acknowledged.

#### **Acknowledgment and disclaimer for work directly funded by the NIHR**

The research was funded by the National Institute for Health Research Health Protection Research Unit (NIHR HPRU) in Emerging and Zoonotic Infections at University of Liverpool in partnership with Public Health England (PHE), in collaboration with Liverpool School of Tropical Medicine. [name of researcher] is based at [name of institution]. The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR, the Department of Health or Public Health England.

#### **Disclaimer for work not directly funded by the NIHR but where they have been acknowledged in the address**

[name of researcher] is affiliated to the National Institute for Health Research Health Protection Research Unit (NIHR HPRU) in Emerging and Zoonotic Infections at University of Liverpool in partnership with Public Health England (PHE), in collaboration with Liverpool School of Tropical Medicine. [name of researcher] is based at [name of institution]. The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR, the Department of Health or Public Health England.

#### **Submission**

A draft of research articles should be submitted to NIHR at the same time as submission for publication or at least 28 days before the date intended for publication, whichever is earlier.

Please submit your paper directly to [joanna.topping@nhr.ac.uk](mailto:joanna.topping@nhr.ac.uk) and [mike.rogers@nhr.ac.uk](mailto:mike.rogers@nhr.ac.uk) copying in [hpruezi@liverpool.ac.uk](mailto:hpruezi@liverpool.ac.uk) to the email so that a record of outputs can be maintained. Please include details of the publication/journal the article is to be submitted to.

#### **Dissemination of results**

NIHR would now like sight of any publication or work where the results of HPRU research are being disseminated

(book chapters, abstracts from congress participation or poster presentations for example) to ensure the correct acknowledgments are being used, since these too are deemed to be research outputs. Again **please submit these directly to [joanna.topping@nihr.ac.uk](mailto:joanna.topping@nihr.ac.uk) and [mike.rogers@nihr.ac.uk](mailto:mike.rogers@nihr.ac.uk) copying in [hpruezi@liverpool.ac.uk](mailto:hpruezi@liverpool.ac.uk) to the email.**

**A guide on how to affiliate and acknowledge the NIHR HPRU, including the updated poster and oral presentation templates are available to download on the [HPRU EZI website](#).**

## STRATEGIC RESEARCH AND TRAINING FUNDING OUTCOMES

Following review by committee a number of Strategic Research and Training grants were awarded.

### OPEN PUMP PRIMING FUND

The call for funding was open for applications in any of the following areas: commercial strategy; cross NIHR infrastructure; impact/added value; and new people. The projects listed below were selected and began on 1 April 2017.

Investigators	Research Project Title	Award
Melissa Gladstone, Tom Solomon, Mike Griffiths, Paula Williamson, Gail Carson, Archana Patel, Hannah Kuper	A core outcome set for neurodevelopmental outcomes of congenital Zika	£5,000
Mike Griffiths, Raquel Medialdea-Carrera, David Brown, Tom Solomon, Jen Cornick, Mac Mallewa, V Ravi, S Satiti, Ana Bispo, Ravi Mehta, Lia Lewis	Investigating the seroprevalence of Zika and other emergent viruses worldwide: An international multi-centre study in Brazil, Malawi, India and Indonesia	£5,000
Ian Hall, Emma Bennett, James Hayward	Developing resources for HPRU Public Engagement activities in schools	£3,600
Gordon Nichols, Jolyon Medlock, Giovanni Lo Lacono, Christophe Sarran	Thirty year daily environmental time series for infectious and zoonotic disease research	£5,000
Jenny Warner, Amanda Semper, John Tulloch, Tim Brooks	Lyme disease research in the UK: the present and the future	£3,000

## TRAINING FUND

Applicant	Training	Theme	Amount
Liana Kafetzopoulou	Training visit to Professor Gunter's lab, Bernard Nocht Institute	Pathogen Discovery and Characterisation	£6,500

## PUBLICATIONS

**Congratulations to the following who have published in recent months.**

Al Abri S, Al Maani A, Al Abaidani I, Elsheikh M, Beeching, NJ. **Ebola preparedness in Oman: An experience from the Middle East**. Journal of Infection and Public Health. 2016; 9: 200-202.

Available from: [http://www.jiph.org/article/S1876-0341\(16\)00013-7/pdf](http://www.jiph.org/article/S1876-0341(16)00013-7/pdf)

Atkinson B, Graham V, Miles RW, Lewandowski K, Dowall SD, Pullan ST, Hewson R. **Complete genome sequencing of Zika virus isolated from semen**. Genome Announcements. 2016; 4(5)e01116-16.

Available from: <http://genomea.asm.org/content/4/5/e01116-16.full>

Beeching, NJ. **Endemic Treponematoses**. In: Cohen J, Powderly WG, Opal SM, ed.by. Infectious Diseases. 4th ed. Elsevier Science: London; 2016. p. 961.

Available from: <http://bit.ly/2nJ3d7Y>

Bosworth A, Dowall SD, Garcia-Dorival I, Rickett NY, Bruce CB, Matthews DA, Fang Yeah, Aljabr W, Kenny J, Nelson C, Laws TR, Williamson ED, Stewart JP, Carroll MW, Hewson R, Hiscox JA. **A comparison of host gene expression signatures associated with infection in vitro by the Makona and Ecran (Mayinga) variants of Ebola virus**. Scientific Reports. 2017; 7: 43144

Available from: <http://bit.ly/2o256yQ>

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**NB If you have published, but it has not been listed here, please let us know about it!**

## GRANT SUCCESS

HPRU members have been successful in obtaining the following research funding.

Name	Details	Funder	Award
Rob Christley, Alan Radford	Fully Integrated, real-time detection, diagnosis and control of community infection outbreaks	Wellcome Trust (UK)	£188,000
Julian Hiscox	Rapid sequencing of Ebola virus	WHO	£84,432
Tom Solomon	Addressing the urgent research gaps against the Zika virus and other emerging threats in Latin America - SC1-PM-22-2016 (Zika Tools)	European Commission	£823,381
Tom Solomon	ZikaPLAN	European Commission – Horizon 2020	1,500,000 Euros

## NEW MEMBERS

- **Dr Emily Adams**, Lecturer in Diagnostics for Tropical Disease, Liverpool Tropical School of Medicine/ University of Warwick
- **Professor Luke Alphey**, Group Leader, Vector-borne Viral Diseases, Pirbright Institute
- **Dr Barbara Ann Blacklaws**, Senior Lecturer in Molecular Virology, University of Cambridge
- **Daniel Carter**, Research Scientist, Public Health England
- **Dr Thomas Edwards**, Post-Doctoral Research Assistant, The Research Centre for Drugs and Diagnostics, Liverpool Tropical School of Medicine
- **Kaitlin Foldes**, Department of Virology, Faculty of Veterinary Science, University of Ankara
- **Isabel Geiger**, MPhil student, University of Liverpool
- **Dr Patrick Howlett**, Ebola Volunteer Doctor, King's Sierra Leone Partnership
- **Dr Elizabeth Mathai**, Clinical Microbiologist
- **Dr Benedict Michael**, NIHR Academic Clinical Lecturer in Neurology and Neurological Infection, University of Liverpool
- **Professor Kenton Morgan**, Professor Epidemiology, School of Veterinary Sciences, University of Liverpool
- **Professor Aykut Ozkul**, Department of Virology, Faculty of Veterinary Science, University of Ankara
- **Dr Chitra Pattabiraman**, Royal Society SERB Newton International Fellow, Honorary Associate, Institute of

Infection and Global Health, University of Liverpool

- **Dr Derren Ready**, Clinical Scientist / Technical Manager, National Infection Service, Public Health England
- **Dr Holly Shelton**, Research Fellow - Avian Influenza, Pirbright Institute
- **Dr Alexander Stockdale**, Wellcome Trust Clinical Research Fellow, Wellcome Trust Centre for Global Health, University of Liverpool
- **Dr Edward Wright**, Senior Lecturer, Faculty of Science and Technology, University of Westminster
- **Elsa Zekeng**, PhD student, Institute of Infection and Global Health, University of Liverpool

## SUBMIT YOUR NEWS

If you have any items for inclusion in the next newsletter please send them to [hpruezi@liverpool.ac.uk](mailto:hpruezi@liverpool.ac.uk)

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