



Parliamentary and Scientific Committee

Zika Meeting – 10.3.16

Event held as a contribution towards British Science Week

Professor Jimmy Whitworth and Dr James Logan from the London School of Hygiene and Tropical Medicine, and Professor Trudie Lang of Oxford University spoke on: ‘What are we Doing About Zika?’ Below is a summary. A full transcript of the meeting, as well as the speakers’ slides can be found at www.scienceinparliament.org.uk.

Zika was first identified in humans in Uganda in 1952, but it is not until 2015 in Brazil that it has come to global attention. The symptoms of Zika infection are mild, and may include a rash, itching, fever, muscle pain and conjunctivitis. However there are **two conditions associated with Zika** which are especially worrying: **microcephaly** (a condition where babies are born with small and malformed craniums, and non-fully developed brains) and **Guillain-Barre syndrome** (GBS, a temporary ascending paralysis, which is seen on recovery from a number of viral infections).

Zika is a flavivirus transmitted by the *Aedes* genus of mosquitoes, although some sexual transmission occurs. The primary vector is *Aedes aegypti*, which bite aggressively day and night. While this is mainly absent from Europe, the secondary vector, *Aedes albopictus*, can survive in temperate regions, and has been recorded in France. Dr James Logan warned that it is **only a matter of time before the species arrives in the UK** – and we are not doing enough to monitor and prepare for such an incursion. He also called for a global database of where different species of mosquitoes occur in the world, and what diseases they carry.

Professor Jimmy Whitworth gave recommendations of what the UK should be doing to tackle Zika, suggesting it is **urgent to: develop a reliable diagnostic test** that can be used at the bedside; assess modern anti-mosquito measures; assess risks of microcephaly and GBS in order to give accurate risk predictions, and to converse with communities in affected areas more clearly. He also highlighted that in the medium term we need to be supporting the international effort to develop a vaccine and anti-viral drugs, establish which other species could act as vectors, and plan to care for those born with microcephaly.

Professor Trudie Lang felt that drugs would probably not be a priority as they are unlikely to be given early enough in a new infection and to be unsafe for use in pregnancy. She worked on the Ebola crisis, and said whilst it was a great achievement that they were able to set up trials on the ground in 16 weeks (the usual is 18 months) more work was needed to be able to execute research studies even faster in these situations. There is also a **need to strengthen the capacity for research** in areas of the world where there are gaps in the ability to gather medical research data. This currently leads to a void in evidence and the ability to answer key questions in outbreaks. A change requires funding agencies, such as the MRC, DFID and the Wellcome Trust to alter their funding frameworks in order to **support cross-cutting research platforms and capacity development efforts**. Networks need to be supported that would enable global collaboration, methods and data sharing and standardisation, for Zika and other potential future outbreaks. Such abilities and infrastructure needs to be put into operation in-between outbreaks, tackling ongoing burdens on public health, so that the response can be faster and stronger when the next outbreak emerges.