Late-breaking result of studies evaluating novel diagnostic tools and therapies for infectious diseases presented at ECCMID

12 April 2016, Amsterdam: New data from ten late-breaking abstracts is released at ECCMID 2016 – the annual meeting of the European Society of Clinical Microbiology and Infectious Disease (ESCMID). At the congress, a dedicated session will examine recently released research across the full spectrum of infectious diseases both from a clinical and laboratory perspective.

Researchers presented recent data on a number of diagnostic tools to rapidly identify pathogens and therapies promising to treat challenging infections. The abstracts presented dealt with topics including meningitis, pulmonary tuberculosis, Zika and human papilloma virus.

Abstracts described the long-term clinical implications of Zika virus exposure, demonstrating that it can produce a number of neurological and ocular complications. Additionally, scientists found that the drug bedaquiline used to treat multidrug-resistant tuberculosis was a safe and effective long-term treatment option in selected cases. Finally, urgent changes were recommended to the technology and temperature management during open-heart surgery to prevent the growth of *M. chimaera* bacteria.

**Abstract No.: 7564** Neurological and psychiatric sequelae of Ebola virus disease in Sierra Leone

Researchers studied Ebola survivors from Sierra Leone and reviewed on-going neurological and psychiatric effects one year after recovery. The researchers found that intermittent headaches were the most common side-effect, and that psychiatric symptoms including insomnia, depression and anxiety were also prevalent.

**Abstract No.: 7596** Ocular manifestations of post Ebola syndrome in Sierra Leone

The researchers examined whether there are more types of ocular side-effects than previously though in Ebola survivors from Sierra Leone. They observed a more diverse range of complications than previously thought and recommend applying broad treatment options including cataract surgery.

**Abstract No.: 7586** Multicentre evaluation of the FilmArray meningitis / encephalitis panel

In this study, the recently launched FilmArray meningitis/encephalitis panel was tested to demonstrate its sensitivity and specificity. The authors concluded that the
FilmArray ME panel is a promising and useful assay for the diagnosis of central nervous system infections.

**Abstract No.: 7614** Prolonged bedaquiline treatment for multidrug-resistant tuberculosis: first report of safety and long-term outcome

The authors evaluated how suitable a longer course of the new drug bedaquiline is in the treatment of multidrug-resistant tuberculosis. They conclude that bedaquiline is a safe and effective treatment, and that prolongation beyond 24 weeks should be considered.

**Abstract No.: 7044** A novel three-gene diagnostic for pulmonary tuberculosis based on host gene response

Researchers identified a new three-gene diagnostic for active pulmonary tuberculosis. Further validation of the test procedures is necessary before clinical application but its use for children and co-infected HIV patients may be a significant advantage.

**Abstract No.: 7256** Performance evaluation of Papilloplex(TM) HR-HPV kit – a novel multiplexing assay for genotyping all 14 HR-HPV types in a single closed tube real-time PCR reaction

Researchers comparatively evaluated the performance of the Papilloplex(TM) HR-HPV assay, and concluded that this new assay is equivalent to established assays in terms of generic HR-HPV detection and type specificity. The assay therefore shows promise as a new tool for both disease management and epidemiological applications.

**Abstract No.: 7468** Analytical sensitivity and specificity of the VERSANT Zika RNA 1.0 Assay (kPCR)

Researchers presented data on a new diagnostic assay to detect Zika virus for which there is currently no standard diagnostic test. They found that the new VERSANT® Zika RNA 1.0 Assay (kPCR) is able to identify Zika virus and is highly sensitive and able to differentiate its presence from other similar flaviviruses.

**Abstract No.: 7483** Serodiagnosis of acute and past Zika virus infections without cross-reactivity to other flaviviruses by NS1-based ELISA

The authors tested a new (serological) diagnostic test for Zika virus for both, individuals with an active infection, and crucially, for those who have had the infection in the past. This ability to test for the virus’ presence after the active stage means it could provide a useful tool to examine the link between Zika, Guillian-Barré syndrome and microcephaly.

**Abstract No.: 7305** Re-emergence of *Mycobacterium chimaera* in heater-cooler units despite an intensified cleaning and disinfection protocol
The researchers looked at the conditions within heated cooler units (HCUs) that were giving rise to an emerging pathogen, *Mycobacterium chimaera* during open-heart surgery. They concluded that even thorough disinfection did not remove the bacteria entirely and, as a result, they see an urgent need to improve the protocol and the temperature management systems.

**Abstract No.: 7129** Clinical and laboratory features of Crimean-Congo haemorrhagic fever: predictors of lethality

The researchers explored predictors that would help estimate the potential lethality of the disease Crimean-Congo haemorrhagic fever – for which previous estimates for the case fatality rate varied widely between 15% and 85%. They concluded that an altered mental state, a decreased thrombocytes count and increased AST levels may be used to more accurately predict the potential lethality of the disease.

Prof. Winfried Kern, ECCMID Programme Director, commenting on this year’s selection and the significance of these findings: “Some of the most exciting research published in infectious disease is across the rapidly developing field of diagnostics. The ability to accurately detect and monitor diseases like HPV, TB and meningitis is crucial to earlier and more specific treatments. Additionally, the released research on the long-term effects of recent outbreaks of Zika and Ebola will enable the medical community to ensure that patients receive the correct treatment”.

- ENDS -

**Notes to editors:**

Two special tracks were opened for topics that not only are of high scientific importance, but are also relevant on a global scale: colistin resistance and migrant and refugee health. A total of 340 late-breaker abstracts have been submitted, 25 related to refugee health, 44 on colistin resistance, and 271 on other topics. The ECCMID Programme Committee selected the most interesting and scientifically significant late-breaking abstracts to be presented to the global infectious disease and microbiology community in three dedicated oral sessions and additional poster presentations.

**Media information**

For a full programme of educational workshops, poster presentations and oral sessions at ECCMID 2016, please visit: [http://eccmidlive.org/](http://eccmidlive.org/)

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**About ECCMID 2016:** The annual meeting of the European Society of Clinical Microbiology and Infectious Diseases will this year take place from April 9 - 12 in Amsterdam. As the world’s largest congress focused on infectious diseases and clinical microbiology, researchers will present more than 3,000 abstracts with the
latest findings and recommendations, which are set to help improve diagnosis, prevention and the clinical care given to patients. The congress offers more than 150 presentations, including keynote lectures, symposia, oral sessions, educational workshops and meet-the-experts session, as well as more than 2,000 poster presentations. In total, more than 10,000 scientists and clinicians are expected.