ITM participates in monitoring project to contain impact of new diseases

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Dit is de omschrijving

The international MOOD project aims to identify, monitor and analyse outbreaks of new and existing diseases at an early stage. The Outbreak Research Team of the Institute of Tropical Medicine (ITM) is participating in the project, establishing a bridge between scientists and national and international public health and animal health institutions.

Due to climate change, worldwide mobility of humans, animals and goods, a growing global population and quick urbanisation, the risks of an accelerated and threatening worldwide spread of diseases are now much higher. This is why early identification of new diseases as well as outbreaks of existing diseases is extremely important, as is monitoring them before they grow into an epidemic. The MOOD project started in January and examines a variety of model diseases, including the recent breakout of COVID-19.

ITM's Outbreak Research Team is working with their peers at international public health and animal health institutions to jointly develop the necessary tools, models and services. "We find out what the organisations need exactly in order to obtain better insights into new diseases and their characteristics", tells ITM researcher Dr Wim Van Bortel. Based on the new models, data and tools, clearer and quicker measures can be taken to contain the impact of new as well as existing diseases.

One of the challenges is to analyse big data – a large, complex and often unstructured amount of data. "How can we pick up signals from scientific data, from the media, and even from social media?", Van Bortel explains. "If we remove the static from that enormous flow of information, for example by applying computer algorithms, signals and trends can be detected in time".

To this end, ITM is collaborating with 25 partners from 12 countries. Key international partners include the European Centre for Disease Control, the World Health Organization, the Food and Agriculture Organization of the United Nations and the World Organisation for Animal Health. The MOOD project stands for 'monitoring outbreak events for disease surveillance in a data science context'.

Partners:

- France: Anses, Cirad, INRAE, Inserm, Université de Montpellier, GERDAL
- Germany: Mundialis GmbH & Co KG
- Belgium: Institute of Tropical Medicine, Université Libre de Bruxelles, Catholic University of Leuven, AVIA-GIS
- Spain: Instituto de Salud Carlos III
- Italy: Fondazione Edmund Mach, Istituto Superiore di Sanita
- Finland: National Institute for Health and Welfare
- The Netherlands: Stichting OpenGeoHub
- Portugal: Instituto de Engenhariade Sistemas e Computadores, Investigacao e Desenvolvimento em Lisboa

- United Kingdom: University of Oxford, Environmental Research Group Oxford Limited, University of Southampton
- Serbia: Institute of Public Health of Serbia
- Switzerland: ETH Zürich, SIB Institut Suisse de Bioinformatique
- United States: International Society for Infectious Diseases