

## Antibiotic resistance: InBev-Baillet Latour supports ITM

â,¬ 1.35 million for three research chairs on diagnostics, treatment and human behaviour

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Dit is de omschrijving

**Without effective drugs against infections, health care will recede to 19th century standards. Antibiotic resistance is real and is increasing worldwide, especially in developing countries. Over the next five years, the InBev-Baillet Latour (IBL) Fund will finance three research chairs at the Institute of Tropical Medicine Antwerp (ITM), for a total amount of â,¬ 1.35 million. The laureates will carry out interdisciplinary research into the biological, clinical and anthropological causes of, and solutions for, antibiotic resistance in the tropics.**

Antibiotic resistance is a pressing problem in Asia and Africa, but globalisation, migration and (medical) tourism are exposing European countries like Belgium to the risk of a future without efficient drugs against bacterial infections. The sanitary and socio-economic conditions which provide a conducive environment for resistance have not seen significant changes in many developing countries. Until very recently, bacterial infections were often not even discovered because of a lack of diagnostic equipment and skilled personnel.

Malaria is often the "default diagnosis" in case of fever and broad-spectrum antibiotics are used to "ensure that all infections are covered". The pharmacist has a hard time finding good quality products, while the patient has high expectations of antibiotics and will buy them without prescription at the market.

Although reliable data are lacking in many countries, the World Health Organisation reports increasing resistance worldwide in common bacteria such as *Escherichia coli*, *Klebsiella pneumoniae* and *Staphylococcus aureus*. An example from Phnom Penh, Cambodia: a quarter of all serious skin infections due to *Staphylococcus aureus* and half of the infections with the intestinal *Escherichia coli* bacterium are multi-resistant. Only reserve antibiotics will help in those cases but they are often too expensive or unavailable. The cost of one day of treatment can easily amount to a month's salary.

ITM Director Prof. Bruno Gryseels said: "Antibiotic resistance requires urgent action on multiple levels, like the diagnosis, prescription and distribution of antibiotics, as well as their use by the patient. Think about it, millions of people face the choice between completing a course of antibiotics or literally putting food on the table. We should not forget the role of veterinary medicine and hygiene in healthcare either.

The support of the IBL Fund allows us to study and address the very specific conditions in developing countries. This is badly needed, because bacteria know no borders and antibiotic resistance is quickly becoming a global threat."

Alain De Waele, Secretary General of the IBL Fund: "People's health has always been a priority for the Fund and because of international mobility bacterial infections no longer have borders. Through this important gift the Fund wishes to support research to answer this problem."

### Three new research chairs at ITM

As a result of the overriding importance of AIDS research, bacterial infections became a lower priority in tropical medicine since the 80s. The worldwide problem of antibiotic resistance brings them to the forefront again. The funding of the IBL Fund enables the creation of three ITM "tenure-track" chairs, allowing the laureates to focus for five years on a particular research topic and work towards a full professorship.

[Prof. Stijn Deborggraeve](#) is appointed head of the new Unit of Diagnostic Bacteriology in the Department of Biomedical Sciences. Deborggraeve and his colleagues develop new and better tests for the diagnosis of bacterial diseases and the detection of antibiotic resistance in the tropics.

[Prof. Koen Peeters](#) leads the new Unit of Medical Anthropology in the Department of Public Health. His unit examines, among other things, how patients, health workers and policy makers in developing countries perceive the use of medication and the role they can play in countering the development of antibiotic resistance.

[Dr. Erika Vlieghe](#) and [Prof. Jan Jacobs](#) will study the clinical care of patients with serious bacterial infections in the tropics, from laboratory diagnostics to the prescription of medicines and hospital hygiene.

The different lines of research are part of a common, multidisciplinary project entitled "Bacterial Infections in the Tropics" or "BIT".

Thanks to the support of the IBL fund, two promising postdoctoral scientists at ITM were able to carry out innovative research from 2008 to 2014 into visceral leishmaniasis, a neglected tropical disease. These lines of research are now consolidated in an institutional research portfolio with its own resources.