

Editorial

World-Wide Challenges and Perspectives for Handling HIV/*Mycobacterium tuberculosis* Co-Infections

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This special issue of the *Open Journal of Infectious Diseases* is dedicated to the particular threat caused by the co-infection of the Human Immunodeficiency Virus (HIV) and *Mycobacterium tuberculosis* (MTB). These pathogens induce the acquired immunodeficiency syndrome (AIDS) and tuberculosis (TB), two major communicable diseases with severe public health impact worldwide. Estimates of the World Health Organisation (WHO) and UNAIDS reveal a frightening prevalence: around 33 million individuals are infected with HIV and one third of the world's population carries MTB. While both infections are representing global public health problems in their own right, their combination is particularly threatening due to considerable mutual interactions: In HIV-positive individuals infected by MTB, the risk to develop active TB is 21-37 times higher than that of the HIV-negative population [1]. As a consequence, TB has become the leading cause of mortality for people living with HIV/AIDS, even in regions where highly active antiretroviral therapy (ART) has been implemented, and HIV is the most potent force driving the TB epidemic in countries with a high prevalence of HIV infection. Currently, this "cursed duet" of AIDS/TB is exerting its detrimental effects in settings where HIV and MTB prevalence is highest (such as in Sub-Saharan Africa, India, Russia or Latin America) and where multidrug- (MDR) and extensively drug resistant TB (XDR-TB) are present [2-4].

In this context, the European Union financed a multi-national support action named "EUCCO-Net" (<http://www.euco-net.eu>)

bringing together over 60 experts from Europe and those regions mainly affected by the two diseases, namely Russia, India, sub-Saharan Africa and Latin America. The aim of the EUCCO-Net project was to provide a platform for scientists with complementary expertise and background to form new consortia for future projects addressing the global threat of AIDS, TB, and their deadly combination. The group worked together to identify priority areas for future research in order to prepare future community research and technological development policies. Together, the EUCCO-Net experts analyzed and discussed the situation of AIDS, TB, and HIV/MTB co-infection on a national level and subsequently proposed priority areas for trans-national research and concerted actions in a jointly elaborated AIDS/TB Roadmap.

This special issue of the *Open Journal of Infectious Diseases* provides an overview of the HIV/MTB epidemiology and disease management in the different partner countries, and identifies global research priorities in order to boost international cooperation between leading HIV and TB experts from Europe and those countries mainly affected by the two diseases - Africa, India, Latin America, and Russia.

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