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Programme en maladies infectieuses et immunité en santé mondiale
Infectious Diseases and Immunity in Global Health Program
La recherche pour le bénéfice de la santé mondiale
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17 mars / March 17 (12:00)

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Human genetics of TB resistance in HIV-infected persons

Tuberculosis (TB) is globally the leading cause of death due to a single pathogen. In 2018, there were an estimated 1.45 million deaths caused by TB, which included 250,000 people living with the human immunodeficiency virus (HIV). Of the estimated 10 million people who fell ill with TB, 850,000 were persons living with HIV, indicating a 2.2-fold increased risk of death due to TB in HIV-positive relative to HIV-negative persons. Even people on long-term antiretroviral therapy still have significantly increased risk of developing TB, which is usually the result of new infections. Transmission of *Mycobacterium tuberculosis*, the causative agent of TB, occurs by aerosols that are inhaled by an exposed person. Yet, even under conditions of high transmission of *M. tuberculosis* a proportion of exposed persons remains uninfected and, hence, displays resistance to TB. In our studies, we addressed the role of the host genetics component of resistance to *M. tuberculosis* and how HIV modulates this resistance.