

## **Deciphering Buruli Ulcer Dynamics: The Power of Mathematical Modelling**

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Buruli ulcer (BU) is a neglected tropical skin disease caused by an infection with a bacterium called *Mycobacterium ulcerans*. The transmission mode of the disease into the skin remains largely unknown, which poses a significant challenge in terms of prevention and timely diagnosis. In this talk, I will discuss the crucial role of mathematics in comprehending the dynamics of BU. To begin, I will present a mathematical model that we have developed, focusing on the processes of cell death that contribute to the formation of observed wounds. Subsequently, I will introduce an epidemiological model that elucidates the progression of the disease and the various treatment pathways.