

## **Podoconiosis**

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Podoconiosis is a non-infectious geochemical disease that results in swelling of the lower legs. It is caused by long term exposure of bare feet to red clay soil derived from volcanic rock. In southern Ethiopia, where much of our research has been conducted, and north-western Cameroon, it affects 5-8% of the population and is more common than HIV, TB or malaria. Podoconiosis imposes immense economic burdens (the estimated cost to Ethiopia's economy is \$208 million per year) and severe social stigma. Very little research on disease aetiology or pathogenesis has been done, yet such research is needed for rational deployment of limited resources towards prevention, treatment and ultimately eradication of the disease. There is convincing evidence that an area of the genome commonly involved in human responses to infectious and environmental challenges plays a major role in susceptibility to podoconiosis. In this talk I will discuss the work we have undertaken to identify the genetic variation that predisposes to podoconiosis and how this work could have impact on the lives of people affected by the condition. For example, establishing the importance of genetic susceptibility has justified the use of a family history tool in determining which children should be offered shoes for prevention of disease, when shoes are a scarce resource.

