The Problem

While HIV and TB are devastating on a global scale, the African continent is disproportionately affected by these diseases. Additionally, HIV infection progresses more rapidly in children than in adults, but little research has been undertaken to understand why. Similarly, TB is common in Africa and is particularly difficult to diagnose in children, as the underlying mechanisms are not well understood.

Project Strategy

1. Expand studies in Africa on the genomics of HIV and TB progression in children with HIV infection.
2. Provide short and long-term support of genomics and bioinformatics training in Africa.
3. Engage local communities in Botswana, Uganda, and Eswatini to discuss the ethical, legal, and social issues related to genomics research.

Preliminary Outcomes

CAfGEN has used modern genomic techniques to identify genes that may be influencing HIV and TB progression in children, paving the way for future studies. The group has also leveraged scientific studies to develop genomics capacity, technology, and expertise in Uganda and Botswana, where there was little existing infrastructure for such research.

They've also effectively engaged local communities in addressing ethical, legal and social issues related to genomics research while educating communities through a comic book series (seen right), making complex scientific concepts accessible to the public in a highly effective manner.

Project Leads

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Project Sites

A. Botswana
Botswana-Baylor Children’s Clinical Center of Excellence and University of Botswana

B. Eswatini (formerly Swaziland)
Baylor College of Medicine Children’s Foundation-Swaziland

C. Uganda
Baylor College of Medicine Children’s Foundation-Uganda and Makerere University College of Health Sciences

Non-African Collaborators
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This work is supported by the U.S. National Institutes of Health (NIH), Office of the Director (OD), the Office of AIDS Research (OAR), the National Institute of Allergy and Infectious Disease (NIAID) and the National Human Genome Research Institute (NHGRI) grant number U54AI110398.