Drugs for treatment and prevention, and other novel therapies

**OC - (8489) - CLINICAL DEVELOPMENT OF A THERAPEUTIC VACCINE FOR PREVENTION OF POST KALA AZAR DERMAL LEISHMANIASIS**

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**Background**

The leishmaniases represent a complex of human diseases, with 350 million people at risk of infection worldwide. Although the potential benefits of vaccination have been well-recognized, no human vaccine is registered. Post kala azar dermal leishmaniasis (PKDL) is a chronic skin disease often following treatment for visceral leishmaniasis (VL). In addition to affecting quality of life, evidence suggests that PKDL patients may also act as reservoirs for VL transmission. Hence, PKDL vaccines may have a significant impact on disease burden. We recently developed a third generation adenoviral vaccine for leishmaniasis (ChAd63-KH) that has been evaluated for safety and immunogenicity in healthy volunteers (Osman et al, 2017). ChAd63-KH is currently being evaluated for safety as a therapeutic in Sudanese PKDL patients, with a Phase IIb RCT starting in late 2018. With EDCTP funding, we are initiating a new Phase IIa/IIb study (PREV_PKDL) to determine whether ChAd63-KH can prevent PKDL development.

**Methods**

In PREV_PKDL, we will conduct an open-label Phase IIa safety study, followed by a placebo blinded, Phase IIb RCT. Safety and clinical response represent primary outcome measures, and immunogenicity is a secondary outcome measure. In addition, working across the four countries of Leishmaniasis East Africa Platform (LEAP), we will use deep phenotyping methods to study the immune status of patients before and after treatment for VL to understand why PKDL development is limited to specific geographic regions. This work, and other research in the region, will be supported by the creation of a new flow cytometry “centre of excellence” within LEAP.

**Results**

An update on the progress of our current therapeutic trial in PKDL patients will be provided.

**Conclusions**

PREV_PKDL represents an important step in the clinical development of ChAd63-KH and will help develop capacity to support future vaccine and drug trials for leishmaniasis in the East Africa Region.