



Project: The Diagnostic Accuracy of HBV-DNA Quantification Using Dried Blood Spots in Chronic HBV Carriers in The Gambia.

'It is a great feeling to have won a national competition and to know that the work I put into my BSc year has been recognised. Being involved with a project aimed at improving healthcare in a developing country is extremely rewarding, utilising my interests in Global Health and Gastroenterology. Working within the Medical Research Council Gambia unit gave me exposure to academic medicine and has strengthened my desire for an academic career in the future. I will use the prize money to help fund my medical elective to Panama'

Mario Lepore is a fifth year medical student at Imperial College School of Medicine, London.

'During my fourth year at Imperial College School of Medicine I undertook a special one-year BSc programme specifically focussing on diseases of the gut and liver', says Mr Lepore. 'As part of this I was given the opportunity to undertake a project at the Medical Research Council Unit, The Gambia.

'The Hepatitis B virus (HBV) causes life-long infection in over 350 million people worldwide, with some of the highest rates observed in sub-Saharan Africa. It is a major cause of death, and in West Africa, it is the leading cause in young men. It is important to measure the amount of virus present in an infected person's blood as it helps determine the necessity of treatment. This is currently performed in The Gambia using conventional blood tests and proves to be both expensive and time consuming.

'The aim of my study was to investigate the use of Dried Blood Spots (DBS) as an alternative method of blood collection for HBV diagnosis. This involves acquiring blood drops via finger-prick (as has been used in diabetes for many years) and dropping them onto a filter paper card. There are no energy or laboratory requirements at the point of collection, saving both time and money. Carried out as part of the wider Prevention of Liver Fibrosis and Cancer in Africa (PROLFICA) platform, this is the first study of its kind to validate the use of DBS for this purpose within West Africa.

The method has shown promise as a means to improve access to HBV viral load monitoring, hopefully leading to an improvement in healthcare for a greater proportion of the Gambian population and for the developing world in general.'

Mr Lepore's supervisor, Professor Simon Taylor-Robinson states:

'Mario worked tirelessly in The Gambia on our PROLIFICA project. This project aims to screen and treat 20,000 people for hepatitis B in three West African countries with tenofovir as a proof-of-principle for mass treatment in sub-Saharan Africa (funded by the European Union).

'Mario spent a three-month period at the MRC Gambia and learnt valuable laboratory skills in addition to performing fieldwork up-country along the Gambia River. I cannot recommend him highly enough as a shining example of industriousness and a beacon for the coming generation.'