The Gambia Hepatitis Intervention Study (GHIS)

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The Gambia Hepatitis Intervention Study (GHIS), now in its fourth decade, is a collaborative project undertaken by IARC, the government of the Republic of The Gambia, and the Medical Research Council (MRC), United Kingdom. GHIS was initiated in 1986 to evaluate the effectiveness of hepatitis B virus vaccination in childhood for the prevention of infection, chronic liver disease, and hepatocellular carcinoma in adulthood in a high-risk population. Led by the Director's Office, GHIS is a high-profile project of the Agency. At the beginning of GHIS, a population-based National Cancer Registry (NCR) was established.

The final phase of the project is under way. The focus is on identification of cases of liver cancer and chronic liver disease among patients who fall within the age range of the GHIS participants, and on establishing linkage of these patients to the GHIS database. The team of tumour registration officers, supported by the GHIS Group Head, is performing enhanced surveillance of liver cancer and chronic liver disease in hospitals and health centres across the country. Suspected cases of liver cancer are assessed clinically and by ultrasonography/computed tomography imaging and quantitative α-fetoprotein assay. Where possible, diagnosis has been strengthened by conducting histopathology at IARC, performed by Dr Behnoush Abedi-Ardekani (GCS); Dr Ousman Leigh, a Gambian pathologist, has been trained in liver pathology at IARC to provide a medium- to long-term improvement in capacity in The Gambia. All confirmed cases of liver cancer are recorded in the NCR, and cases of chronic liver disease are recorded in a linked database.

Efforts are ongoing to match the liver patients to the GHIS database on the basis of a number of identifiers. However, the variety of Gambian names, different spellings, and changes in names over time present major challenges to establishing this linkage more than 30 years after the study began. Evaluation of the palm prints and footprints offers one key linkage parameter, and this work is being conducted in collaboration with Interpol in Lyon.

An evaluation of GHIS, comprising a review of the NCR, liver cancer, and chronic liver disease data spanning the period 2012–2017, was carried out in a special one-day meeting held in Lyon on 24 October 2017. Among other issues, diagnoses (including pathology review), record linkage with vaccination status, and time to accrual of a sufficient number of cases for the statistical analysis plan were discussed. The meeting was attended by Dr Ramou Njie, Dr Ousman Leigh, IARC Director Dr Christopher P. Wild, Sir Andrew Hall, Professor Hazel Inskip, Professor Nick Day, Dr Behnoush Abedi-Ardekani, and Mr Morten Ervik.