



because of inaffordability, or to become self-sufficient through local manufacture. The expertise undoubtedly exists locally and it merely needs to be harnessed to produce products of international standard.

In a developing country with strained financial resources the obvious non-medical economic benefit of such an implant system is local manufacture which provides employment for South Africans, the potential for export and savings on foreign exchange. It allows local surgeons an opportunity to provide input into the design and development of this and similar products and even customisation of products in selective cases.

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#### SHORT REPORT

## AN INVESTIGATION OF THE OCCURRENCE OF SV40 ANTIBODIES IN SOUTH AFRICA

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We developed an enzyme-linked immunosorbent assay (ELISA) for the detection of antibodies to simian virus 40 (SV40) in human serum. We then used the ELISA to test for anti-SV40 antibodies in healthy individuals and patients suffering from cancer and renal diseases. The aim of the study was to determine the presence of antibodies against SV40 in sera of individuals who received the South African poliovirus vaccines from 1958 to the present. Detecting such antibodies could give an indication of whether any of the poliovirus vaccines used in South Africa were ever contaminated with the SV40 or not. A total of 5/164 samples were repeatedly positive for SV40 antibodies by the ELISA. Four of the samples were from the healthy population group and the remaining 1 (1/64) was from the patient group. An SV40 antibody-blocking assay and a Western blot were used as additional confirmation for the SV40 antibodies, whereas the Western blot assay developed a single common band on all 5 samples.

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Sweet and Hilleman<sup>1</sup> first described simian virus 40 (SV40) in 1960 as a latent infection of cell cultures derived from the kidneys of rhesus and cynomolgus monkeys. It belongs to the *Papovaviridae* family which includes the subfamilies *Papillomavirinae* and *Polyomavirinae*, with SV40 belonging to the *Polyomavirinae* subfamily.<sup>2</sup> At the time of discovery, Sweet and Hilleman were involved in the isolation and elimination of endogenous viruses from cell cultures of rhesus monkey kidneys.<sup>3</sup> These cell cultures were being widely used at that time, for the production of poliovirus and other human viral vaccines. Several human virus vaccines had already been prepared from these cell cultures by that time, the majority of

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