Renaissance of Cancers Linked to Infections

Zur Hausen Harald (DE) [1]

Before 1964, no infectious agent had been linked to human cancer. Subsequently, during the past decades a number of different agents have been identified as cancer risk factors. Presently, viruses, parasites and one bacterium, Helicobacter pylori presently contribute to approximately 21% of the global cancer incidence. Some agents contribute directly to cancer occurrence by leaving genomic DNA within the transformed cells. Others act indirectly, by inducing immunosuppression (HIV) or by causing chronic inflammatory events (e.g. parasites, Helicobacter, Hepatitis B and C viruses). Global epidemiological studies point to an additional involvement of infectious agents in a number of specific cancers. Attempts are presently being made to isolate factors involved in these cancers. Based on the geo-epidemiological analyses it seems to be likely, that the number of infectious risk factors for human cancers will increase in the future.