



Further evidence in support of our long-held suspicion that prostate cancer is caused by viruses

Dear Premium Customers,

Human papilloma viruses (HPV) combining with other viruses to cause prostate cancer.

Here at Salvagene, we have long suspected that prostate cancer is caused by viruses, and that conviction has now been reinforced by a new case-control study published in *Infectious Agents and Cancer*. As with the other most common cancers, research is increasingly indicating that the cause is to be found in infectious diseases.

In Germany, for example, prostate cancer is the most common cancer in men, ranking behind only lung and colon cancer in terms of morbidity rates. In women, cervical cancer has traditionally been regarded as the most common form of cancer. Here it is known that HPV is the cause, and a program of vaccination that began in 2006 has significantly reduced the number of infections. Cervical cancer does not arise spontaneously, but rather as a late consequence of infection with HPV. Human papilloma viruses are also increasingly found in prostate cancer samples.

In the case of HPV, the blueprint exists as a short DNA molecule. It is sent on its way wrapped in a protein "envelope", and here the protein E5 plays an especially important role. This protein controls the growth and differentiation of the host cell and communicates with the immune system. On one single molecule, therefore, all three of the

classic ingredients for the development of a malignant tumor can be found. Acting under the influence of the viruses, the infected cells first lose the specialization they have for a particular tissue. They then grow in an uncontrolled manner under a kind of viral cloak of invisibility, which ensures that the immune system overlooks the degenerated cell.

The viruses are passed on via the route of sexual transmission. They penetrate human tissues via small tears. This is already well documented in women, where the viruses mainly attack the mucous membrane of the cervix. If they are not eliminated by the immune system in timely fashion, the cell changes go completely unnoticed over the course of several years.

Since 2018 there have been urgent calls for the vaccination not only of girls but also of boys against HPV. The problem is that, so far, this only applies to teenagers. In our opinion, however, it is also useful for risk groups in adult males, for example if they exhibit the genetic polymorphisms for prostate cancer.

Way back in 1991, there was a theory that human papilloma viruses might also be present in the tissue of prostate cancer. Unfortunately, this was not investigated at the time. It wasn't until 2013 that the viruses were shown to be not only detectable in samples but also loitering in the cell itself.

In order to detect HPV, the prostate cells are normally dissected and the viral DNA is searched for as a kind of homogenous mass. This is why a test has been developed in Australia – a so-called in situ PCR (Polymerase Chain Reaction) method – which amplifies the viral traces directly in the host cells and enables the lab technician to detect them much more easily. For example, out of 50 cancer samples, more than 40 were found to contain viruses.

We believe that, in addition to HPV, other viruses play a role and that these viruses lead to the cell becoming degenerated with other viruses, thereby opening up the way for HPV.

In previous reports to our members, we have often pointed out that prostate cancer presents a much more complex situation than cervical cancer, and we also think that HPV in general play a more complex role in triggering cancer. There is some evidence that HPV works in combination with other viruses to blindside the immune system.

The Prostate Cancer Prevention Report already forms part of our Premium Program package, and all members who have a Salvagene Risk Ratio of 1.0 or greater (as determined by our in-house AI program SAIP) will receive individual recommendations for HPV vaccination.

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