Effective Genital Herpes Vaccine

**Summary:**
The invention is a novel vaccine useful in preventing diseases related to the herpes simplex virus (HSV).

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**Applications:**
- Vaccination against genital herpes and other HSV diseases
- Treatment and control of genital herpes and other HSV diseases

**Overview:**
Genital herpes is an incurable disease caused by herpes simplex virus 2 (HSV-2). The ICP0 protein of HSV-2 is a viral protein that counteracts the natural interferon response in a host immune system, and thus helps allow HSV-2 to establish and maintain infection. This new technology consists of several live, attenuated HSV-2 strains with ICP0 gene mutations that prevent virulence. The strains are very promising candidates for a safe and effective genital herpes vaccine, especially over current potential vaccines, which are composed of replication-deficient viruses or viral proteins and are ineffective at protecting against HSV-2 diseases. Over 1 billion people worldwide are currently infected with genital herpes. Approximately 10 to 20 million more people will contract the disease each year, making a successful genital herpes vaccine a promising and useful technology.

**Why it is Better:**
- High level of safety due to multiple mutations
- 100 times more effective than any other HSV-2 vaccine previously studied
- Quality control tests built in to ensure safety and lack of disease-causing viruses in large batches

**Patents:** US 7,785,605, US 2010/0226940

**Inventor(s):** David Davido

**Tags:** Ophthalmology