

## VPM2001

VPM2001 is a novel multivalent vaccine candidate for the prevention of human cytomegalovirus (HCMV) infections, an unmet medical need. VPM2001 aims at induction of both, lasting humoral and cellular immune responses to HCMV infection. VPM2001 contains dense bodies (DB), which are defective HCMV particles. DB contain all major viral antigens, but in contrast to HCMV, DB are non-infectious.

HCMV is distributed worldwide. In immuno-compromised patients, e.g. transplant or HIV patients, HCMV is a well-known cause of morbidity and sometimes fatal infections. Furthermore, congenital HCMV infection is the second most frequent cause of birth related mental retardation in the Western world. Immunity of pregnant women almost always prevents severe congenital HCMV disease.

Annual costs for the treatment and care of congenitally infected infants are estimated to range up to 1 billion US\$ in the USA alone. The market potential is estimated to be at approx. € 100 million for transplantation and up to € 500 million for prevention of prenatal infections.

DB are produced naturally by human fibroblast cultures infected by a particular non-pathogenic strain of human cytomegalovirus. The concept of DB is to elicit a strong and lasting both humoral and cellular immune response to a broad panel of HCMV antigens. DB contain all major antigens of HCMV (pp65, pp150, gH, gM and gB), but lack the viral capsid and DNA, i.e. are not infective. This makes them an ideal vaccine candidate.

In studies in mice DB induced both, strong and lasting cellular and neutralizing humoral immune responses against HCMV. They were directed to the most important epitopes gB, gH, pp65 and pp150.

### **Contact for products and licensing:**

Dr. Leander Grode  
+49 (0)511.169908-0

[grode\(at\)vakzine-manager.de](mailto:grode(at)vakzine-manager.de)