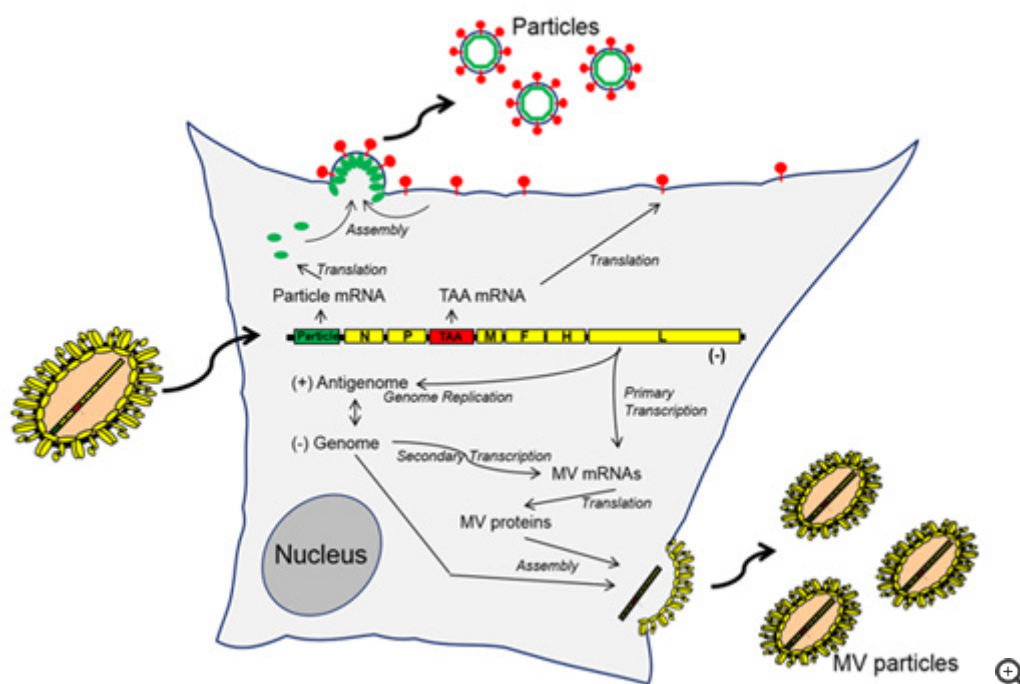


Measles viruses for tumor therapy

Oncolytic viruses or viral vectors conditionally replicating in cancer cells form an attractive novel class of agents for the therapy of solid tumors. We are engineering replication competent vectors derived from attenuated strains of measles virus to achieve enhanced anti-tumoral responses. For this purpose, recombinant MV expressing different tumor-associated antigens presented by the infected cells or on virus-like particles are generated and assessed for induction of anti-tumoral immune responses in inoculated animals and their therapeutic efficacy and mechanisms. On the other hand, retargeting strategies and interactions of replicating viruses with host immune cells will be analyzed with respect to the induction of anti-tumoral immunity and therapeutic outcome.



Schematic depiction of infection, antigen-presentation, and life-cycle of tumor-associated antigen (TAA)-encoding measles virus (MV) giving rise to presentation of virus-like particles. Yellow, MV genes and gene products; green, murine leukemia virus (MLV)-gag gene and Gag protein; red, TAA-display gene or gene product. Source: Hutzler S et al. 2017, Scientific Reports 7: 16892