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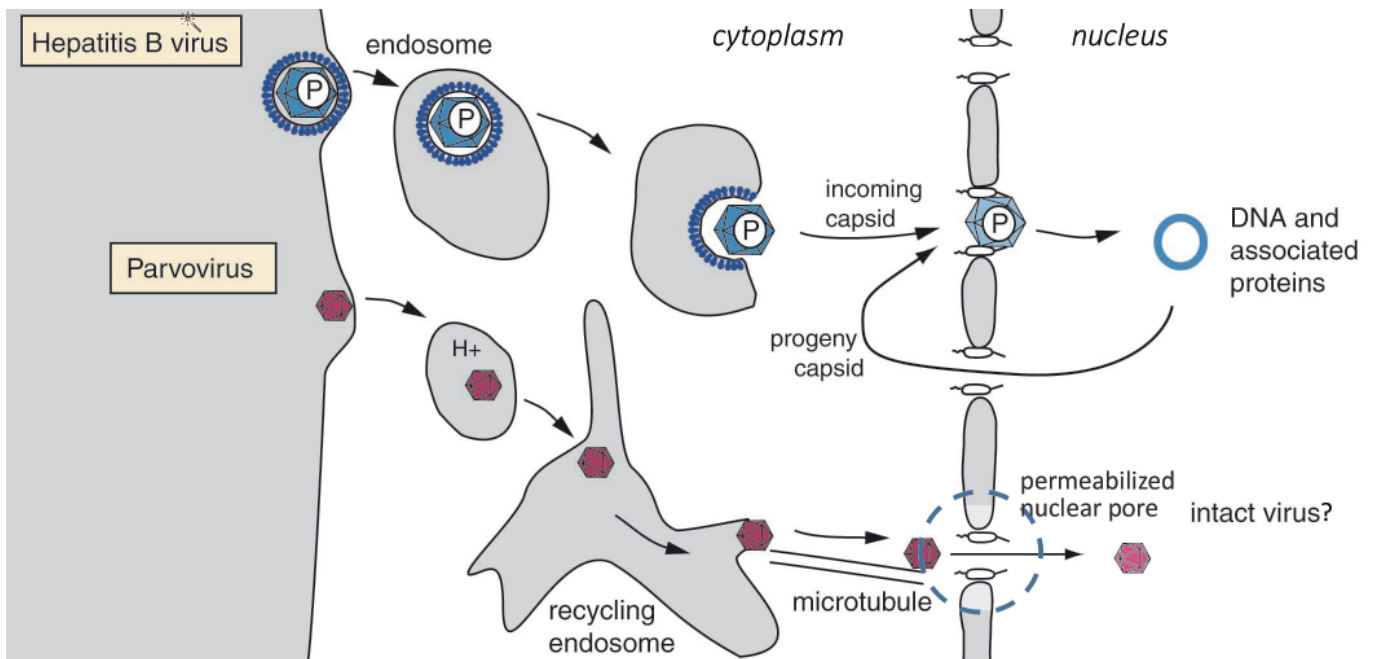
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Intracellular trafficking of subviral structures

We are interested in the intracytoplasmic transport of different viral components that are involved in nuclear delivery of viral genomes. The main focus is the human hepatitis B virus (HBV) and adeno-associated viruses (AAV). While HBV exhibits an extreme efficiency and is a major human pathogen, counting for 600,000 deaths per year, AAVs do not cause any human disease, are inefficient but they are a major platform for gene transfer. We like to understand the reasons of efficacy of both viruses, which are largely based on their intracellular transport and in particular on their interaction with the cell nucleus. For HBV, we aim to decrease efficiency for cure, while for AAV we like to increase efficiency for a better use in therapy. Being at the interphase between virology and cell biology our research targets the molecular interactions with cellular partners mainly by using real-time microscopy.



Modified from Whittaker, Kann, Helenius, Annu Rev Cell Dev Biol., 2000