## Cover Page



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Title: Mechanisms of immune evasion in Epstein-Barr virus infection

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## Propositions belonging to the thesis

## Mechanisms of immune evasion in Epstein-Barr virus infection

- 1. EBVs possess, similar to humans, the ability to sugar-coat its actions (this thesis).
- 2. The mere cellular presence of proteins from a signalling cascade does not constitute a functional pathway (this thesis, and Berg *et al.*; *PLoS One* 2014; e84513).
- 3. BILF1 re-routes HLA I molecules unselectively from different cellular compartments (Zuo *et al.*; *J Virol* 2011; 85(4):1604-1614), but it acts selectively on particular HLA I molecules (this thesis).
- 4. BGLF5 mediates shut-off of protein synthesis by mRNA degradation (Rowe *et al.*, *PNAS* 2007; 104:3366-3371), but it appears difficult to hoist BGLF5 by its own petard i.e. RNA silencing (this thesis).
- 5. Highly prevalent viruses, such as herpesviruses that co-evolved with their host, may be considered as part of the host's genetic landscape. It depends on the host's genes whether the nature of the interaction with the virus is parasitic or symbiotic (Virgin *et al.*; *Cell*, 2009; 138(1):30-50; Virgin; *Cell* 2014; 157(1):142-50; Cadwell; *Immunity* 2015; 42(5):805-13).
- 6. Infectious mononucleosis is mainly observed in adolescents and adults, yet young children, too, may develop the disease in response to primary EBV infection (Dunmire *et al.*; *Curr Top Microbiol Immunol.* 2015; 390(Pt1):211-240).
- 7. Glycosylation is more than just some "sweet additions to a protein" and can be important to the protein's function. Viruses are likely to be masters in making use of glycosylation to efficiently spread, interact, and manipulate (Van Breedam *et al.*; *FEMS Microbiol Rev* 2014; 38(4):598-632; Cook *et al.*; *PLoS Pathog* 2013; e1003258).
- 8. Considering the large number of cytoplasmic DNA sensors identified, it is questionable whether they are all *bona fide* receptors (Unterholzner; *Immunobiology* 2013; 218(11):1312-1321).
- 9. It is curious how similar findings are sometimes made at the same time, even in rather uncompetitive fields.
- 10. The lesson from cases of fraud or unintended mistakes could be: Trust in science, not in scientists!
- 11. Considering the trend at universities to increase the pressure on scientists to attract external funding and to publish high-impact papers in shorter and shorter periods of time, the requirement to add propositions to the thesis appears outdated.