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**Title:** Human papillomavirus targets crossroads in immune signaling  
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Stellingen

01. High-risk human papillomavirus (hrHPV) upregulates and exploits the cellular proteins UCHL1 and IFRD1 to impair signaling initiated by both innate and adaptive immune signals (this thesis).

02. The attenuation of CD40 signaling in keratinocytes by hrHPV highlights the importance of the cellular immune response in the clearance of hrHPV (this thesis).

03. HrHPV induces resistance in keratinocytes to anti-proliferative signals secreted by the immune system (this thesis).

04. Hampered expression of cytokines and chemokines during EGFR signaling (this thesis) suggests that cell growth requires local suppression of immune responses.

05. It is crucial to impair immune-driven RelA-associated NFκB-responsive gene expression for hrHPV to persist.

06. Enhancing the expression of pro-inflammatory and anti-proliferatory genes in hrHPV-infected keratinocytes is a promising therapeutic strategy.

07. Studies on basic HPV virology should focus more on the influence of the viral episome and not only on one or more of the early proteins per se.

08. Viruses are evolutionary playgrounds, they tell us how cells work.

09. ‘It is the mark of an educated mind to keep a thought without accepting it’ Aristotle, Metaphysics, 384 - 322 bc

10. ‘Science is a way of thinking much more than it is a body of knowledge’ Carl Sagan, Broca’s Brain, 1986

11. ‘Science is not only a disciple of reason but, also, one of romance and passion’ Stephen Hawking, Interview with Parade, 2010

12. ‘Life is either a daring adventure, or nothing’ Helen Keller, Let Us Have Faith, 1940

Bart Tummers