Mechanisms underlying the resistance of human papillomavirus-infected or -transformed cells to Th1 immunity

Ma, W.

Propositions

To the thesis

Mechanisms underlying the resistance of Human papillomavirus-infected or -transformed cells to Th1 immunity

By Wenbo Ma

1. HPV can prevent type 1 immunity mediated necroptosis by downregulating RIPK3 via histone methylation. (this thesis)
2. HPV infected cells resist the anti-proliferation effects of IFNγ by downregulation of IFITM1. (this thesis)
3. EGFR signaling not only supports cancer cell growth but also suppresses the attraction and function of immune cells. (this thesis)
4. The effector molecules IFNγ and TNFα produced by the type 1 HPV16-specific T cells present in HPV16-positive OPSCC synergize with cisplatin-induced cell death. (this thesis)
5. Therapeutic vaccines aiming to induce a type 1 T cell response require combinations with different treatment modalities to become effective as cancer therapy.
6. The capacity of HPV to impair necroptosis, thus preventing the release of the intracellular content into the extracellular space and thereby reducing inflammation, may underlie its stealthy behavior.
7. Overexpression of EGFR and mutant increased PD-L1 expression, combination of EGFR inhibitor and checkpoint inhibitor such as PDL1 inhibitor may increase the therapeutic effects to cancer patients.
8. The infusion of large amounts of T cells engineered to recognize peptides from HPV oncoproteins may have the ability to successfully target HPV+ tumor cells.
9. Science and art belong to the whole world，and the barriers of nationality vanish before them. - Goethe
10. The scientific demarcation is like the horizon; the closer you are to it, the further it moves. This makes being a scientist the greatest job. - Based on Bertolt Brecht
11. Cherish the time, live in the present.
12. The highest level of ethics is like water, it is beneficial for all things, without striving for fame and gain.---Based on Laozi