



Targeting Epstein-Barr Virus infections to treat cancer and other EBV-associated diseases.

Market need and potential

EBV is a ubiquitous and life-long persistent herpesvirus predominantly asymptomatic that infects more than 95% of the global population. EBV-associated cancers account for over 200 000 new cases of cancer and cause 150 000 deaths worldwide each year. The virus is 100 % linked to nasopharyngeal carcinomas (NPC) and the endemic form of Burkitt's lymphoma. Hodgkin's lymphoma and gastric cancers are linked to the virus but to a lesser extent. Overall, EBV causes approximately 2% of all human cancer. Patients undergoing induced immunosuppression following organ transplantation run a high risk of developing EBV-associated lymphoproliferative disease. EBV infections are also associated with infectious mononucleosis and in recent reports to multiple sclerosis. By targeting the virus, the reason of all EBV associated diseases can be treated.

Business idea

The project is focusing on developing small chemical compounds that interfere with EBV infection and proliferation, and consequently eliminate the cause of NPC. Positive results treating NPC lead to treatment of other EBV associated malignancies, such as immunosuppression or multiple sclerosis.

Advantages

- Large unmet medical need
- Novel approach targeting EBV-associated cancer
- Several indications associated to EBV infections
- Low likelihood of resistance development using small chemical compounds
- Global growing market

Competition

Standard of care treating NPC are surgery, radiation, chemotherapy, and/or combinations of above. Treatment is directed against the upcoming cancer and not to the associated EBV infection itself. There are several ongoing trials to develop an anti-EBV vaccine.

Current status

A lead compound showing proof of concept for a small chemical substance to neutralize the virus and stop NPC growth in-vivo (nude mice) is identified. To optimize options of administration and IPR protection the project is currently working on expanding the number of analogues to the current lead chemical compound.

Contact information

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Vision

The vision of the project is to develop and bring to the market the first ever drug that specifically targets EBV and that can benefit and treat patients that are affected by cancers and other EBV-associated diseases.