

Rekombinant parvoviruses in gene therapy of Cancer

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Abstract

The Cancer is the second most common cause of death after cardiovascular disease. The therapy is currently predominantly with traditional methods, which include the surgical removal of tumors, Chemotherapy and radiotherapy count. The chemo- and radiotherapy lead as well as strong cytotoxic side effects in healthy body cells significantly affects the quality of life of patients.

Gene therapy approaches to fight cancer:

In cancer gene therapy, three approaches are currently dominating:

(i) the direct Correction of genetic defects (for example mutations) in tumor cells, (ii) the

Pursuit of new strategies for drug therapy and (iii) the Improvement of immunotherapy. The

Methods of improved drug therapy and immunotherapy usually aim at an active destruction of the tumor cells, while the

Method of correction at the genetic level a causal therapy of the causes represents.

Correction of genetic defects in tumor cells: Tumor cells show by a loss of function of tumor suppressor genes (for Example p53, p21) and / or an overactivity of tumor-promoting oncogenes (For example, ras, c-myc, bcl-2) an altered genetic material compared to normal body cells on. The goal of so-called causal therapy is to remedy this genetic defect. In a hyperactivity of oncogenes, the Gene expression by inhibition of protein synthesis or equivalent Transcription factors are inhibited. This method is considered very promising, but requires the most selective gene transfer in the

Tumor. The introduction of a tumor suppressor gene, for Example p53, already showed strong antitumoral effects in clinical trials. This gene is present in normal body cells anyway, the vector must be there have no absolute tumor selectivity. However, for an efficient Therapy all tumor cells are taken. This absolute tumor targeting poses still the fundamental problem of gene therapy dar.

Summary: Both the production method, as well as the storage of viruses can be the viral Strongly influence infectiousness. Iodixanol gradients lead to higher levels Yield of infectious virus as CsCl gradient. A longer storage decreases usually the infectiousness of a virus stick. A recombinant virus stick should therefore be best directly and targeted for a particular application getting produced. Thus, the initial higher infectivity potential of the . Exploited virus production and avoided a loss of quality

Biography

Salka M'bareck has completed her Ingeneering in Tumorbiology and Molecular Virology at the age of 26years from Achse University, Germany / she is the director of the laboratory of tumorcytogenetics, Mauritania. She has 1 publication : tumorsupressor gens andtumor microenvironment in the hepacellular carcinoma(in karger)



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