

Training Plan (max. one A4 page)

Background

The global burden of melanoma, a solid cancer disease, is increasing world-wide. Recent developments in diagnosis and treatment of metastatic (spread) disease has mitigate and increase in deaths but still around 500 individuals die each year in Sweden. Immunotherapy is group of treatments that can cause durable treatment responses in a fraction of patients. But all do not respond and some that do have a short lasting response. The research group is developing new models of melanoma which are being used to devise new ways to treat the disease. Several concepts have reached the clinic at Sahlgrenska University Hospital, including epigenetic therapy and cell therapy. Currently the group is using RNA therapy as a new modality to strengthen cell therapy and other immunotherapies.

Purpose

This research plan aims to help a successful candidate to advance his/her career by improving the skillset used in development of therapy of melanoma.

Method

We will employ histological, biochemical and molecular biology techniques (in vitro transcription, cell culture, retroviral transductions, qRT-PCR and/or immunoblotting), to develop and test new RNA therapies.

Work Plan/Schedule

The first and second month, we will be working on developing and/or validating existing cell biology methodologies to explore the RNA therapy. In the third and fourth month, we will be working on molecular techniques to gain deeper insights into the mechanisms involved in the effect. During the final month, we will focus on analyzing the data and report writing.

Learning outcome

Understand how different RNA therapies impact immunotherapy outcomes. Learn how to design and conduct experiments to explore the role of cytokines and chemokines in immunotherapy. Learn how to write a scientific paper and make illustrations.

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Scholar (printed name)

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Supervisor (printed name)

A copy of this plan is to be handed to the scholar after his/her signature.