

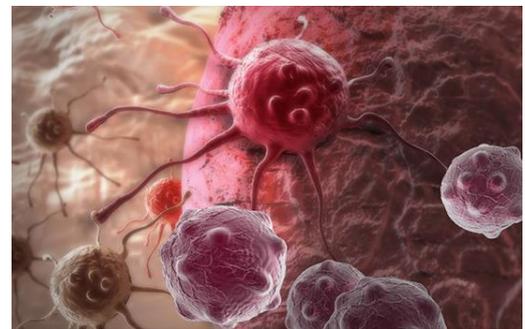
# Immunotherapy of Cancer

## The immune system and it fight against cancer!

Clinical trials show that the patient's immune system can be stimulated to target and destroy large tumors. Still, most immunotherapies cannot be implemented for instance due to severe side effects. Fortunately, we gain more and more insight into the immunological mechanisms that lead to desired anti-tumor responses and undesired toxicity. This half minor is for you, if you want to cure cancer patients as a clinical doctor or develop and improve a new immunotherapy of cancer as a scientist.

### Introduction

Cancer immunotherapy has been named the major breakthrough of the year 2013 by the scientific journal Science and a special issue has been dedicated to cancer immunology and immunotherapy in April 2015. Today, antibodies are routinely used in the clinic, and cellular therapy with gene modified T-cells has shown



ground breaking effects in cancer treatment.

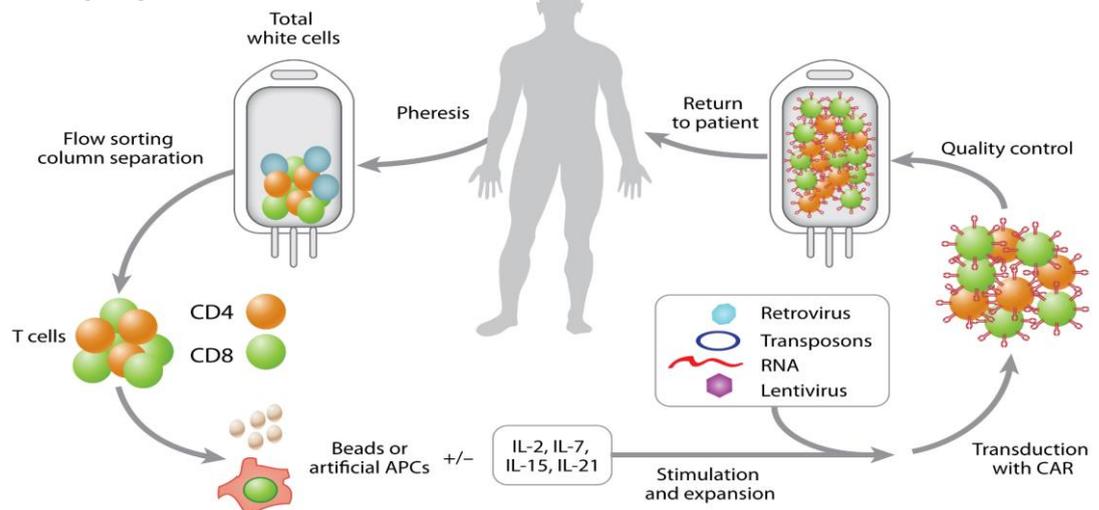
### Quote

“Great focus on state-of-the-art techniques and research.”

### Overview

In this half minor, students will learn the immunological principles and effective mechanisms of anti-cancer immunotherapies which are currently used in the clinic or will be used in the near future, and why certain anti-cancer strategies give rise to serious side effects.

In addition to antigen specific approaches, students will study the contribution of the innate immune system and how this system can be exploited to combat cancer. Finally, the clinical value of allogeneic stem cell transplantation will be studied.

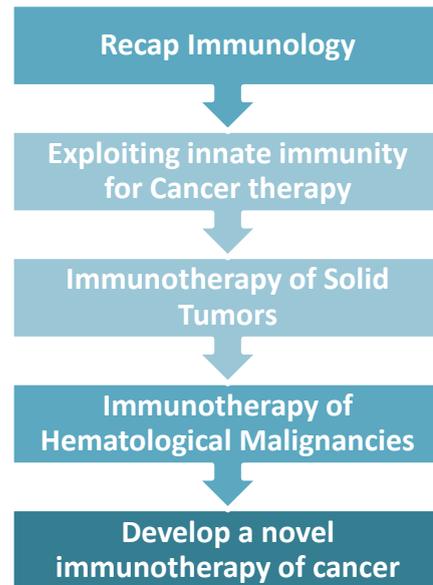


## Learning goals

At the end of this half minor, students are experts the immune systems and the dysfunctions that cause cancer. Students can also compare different immunotherapies, evaluate their benefits and threats and propose improvement. Clinically, students learn how to link side effects and tumor-responses to different types of immunotherapy.

**LUMC Profile area: Cancer  
Pathogenesis and Therapy (CPT)**

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## Assessment

- Oral presentations (20% of final grade)
- Written exam: open ended questions (20% of final grade)
- Literature study (20% of final grade)
- Newspaper article (10% of final grade)
- Clinical protocol (30% of final grade)

## Quote

“The instructors made me enthusiastic to go and do research myself, very motivating!

## Contact us



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