ABSTRACTS
- PLENARY SESSIONS -

Science Park: Sara Landuydt
Building Business on Science

When your research leads to a therapy, service or product, and you are taking steps to actually enter the market, a lot of new things come into play. You may need your own lab or office, you want to test your ideas with experienced experts in the field, you want advice on starting up a business, on regulation or on protecting your IP, you want to broaden your network in a targeted way, learn from the experiences of other start-ups, ...

As a campus and community for innovative, research-driven companies active in Health & Environment, the Science Park University of Antwerp is there to help you overcome these barriers.

Sightera Biosciences: Hendrik Verkammen - Maxim Le Compte
AI powered, patient-centric solutions

Sightera Biosciences, located in Incubator Darwin, is a spin-off project from the University of Antwerp in collaboration with the Antwerp University Hospital. Sightera focuses on developing innovative small molecules for oncology and regenerative medicine by combining patient-relevant models with artificial intelligence.

Sightera's mission is to significantly accelerate traditional drug development by integrating an alternative and complementary technology into conventional small molecule discovery, known as SPAR technology. Through our unique SPAR (Structure-Patient-Activity-Relationship) technology, we combine chemical structures with patient-relevant models to create more effective and relevant therapies from scratch. Sightera aims to enhance the efficiency of traditional drug development by designing highly patient-relevant small molecules from the start of the drug discovery process. Here, we will present the discovery of our potential first-in-class compound, SIGHT001-18, which demonstrated promising results, progressing from initial development to positive in vivo efficacy studies in less than 6 months.

Laboratory of Experimental Hematology, University of Antwerp
Diana Campillo Davó
The search for the Holy ~~Grail~~ TCR: A crusade against cancer

In the past 20 years, immunotherapy has improved cancer treatment tremendously. However, anti-cancer T-cell receptor (TCR)-T-cell therapy, in which potent TCRs are introduced into T cells to target cancer cells, has slowly progressed. Compared to CAR-T therapy, which was approved first in 2017, the first TCR-T therapy was approved in 2024, forty years after the discovery of the TCR. The main reason for this slow therapeutic progression is the difficulty associated with finding effective antigen-specific TCRs with therapeutic potential. While TCR repertoires are immensely large and diverse, tumor-reactive T cells with their desirable TCRs are sparce and difficult to detect. Moreover, distinct therapeutic TCRs are usually required for different (sub)cancer types and, more importantly, for individual HLA alleles. Despite these challenges, there are notable therapeutic opportunities, especially

compared to CAR-T therapy, such as the possibility of better targeting intracellular antigens and solid tumors, overcoming challenges posed by the tumor microenvironment, and lower toxicities related to treatment. These advantages have led to a recent exponential growth in the TCR therapy market, with several companies leveraging the specific properties of TCRs to target different diseases, especially cancer. Many other companies aiming to enter the market are reaching out to research labs with extensive experience in TCR discovery and validation, such as the Laboratory of Experimental Hematology (LEH) of the University of Antwerp, to help them find suitable TCR candidates. In this talk, I will discuss our experience at the LEH in collaborating with industrial partners searching for TCRs in our joint fight against cancer.

Dirk Verellen – Michaël Claessens – Geert De Kerf