

# Advancing Oncology Drug Discovery: A Unique Ecosystem for Innovation

## Overview

The **University of Antwerp** and the **Antwerp University Hospital (UZA)** have built a state-of-the-art drug discovery ecosystem, integrating expertise in patient-derived tumor organoids, automation, AI-powered image analysis, and AI drug development. This ecosystem is further strengthened by its spin-offs **Orbits Oncology** and **Sightera Biosciences**, along with the **DrugVision.AI** robotic organoid screening platform, creating a unique platform for high-throughput, AI-driven drug discovery and precision medicine.

## Our Capabilities



### Organoid Biobank & High-Throughput Drug Screening (DrugVision.AI)

- A patient-derived tumor organoid biobank, enabling clinically relevant preclinical models
- Automated high-throughput screening (HTS) pipeline utilizing robotics for large-scale drug testing
- Advanced live-cell imaging workflows capturing drug responses in real time

Website: [www.drugvision.ai](http://www.drugvision.ai)



### AI-Powered Image & Data Analysis (Orbits Oncology)

- Proprietary label-free image analysis technology, trained on thousands of organoid images
- AI-driven drug response metrics that correlate strongly with clinical outcomes
- Applications for clinical drug response prediction, enabling more precise and effective personalized treatment strategies
- The only software covering the full organoid screening pipeline, from image acquisition to biologically relevant insights

Website: [www.orbits-oncology.com](http://www.orbits-oncology.com)



### AI-Driven Drug Development & Therapy Potentiation (Sightera Biosciences)

- AI-powered, structure-driven drug development engine using proprietary HT organoid drug screening data and AI drug development pipelines
- Focus on identifying and optimizing novel oncology and regenerative therapeutics
- Expertise in co-developing therapy potentiators and outlicensing new drug candidates

Website: [www.sightera-biosciences.com](http://www.sightera-biosciences.com)

## Collaboration Opportunities

### We are seeking partnerships in:

- ✓ Joint drug screening projects using patient-derived tumor organoids as collaborator or as service through **DrugVision.AI**
- ✓ Applications of **Orbits Oncology** for clinical drug response prediction, advancing personalised medicine
- ✓ AI-powered drug development collaborations with **Sightera Biosciences**, focusing on therapy potentiation (synergy) and novel oncology or regenerative therapeutics for co-development or out-licensing of in-house assets