# CORE

## Center for Oncological Research

The **Center for Oncological Research** (CORE) is a joint oncology research platform of the University of Antwerp, gathering research lines and experts in the field of **basic, translational and clinical cancer research,** headed by prof. Dr. Filip Lardon and prof. Dr. Evelien Smits.

Our mission is to advance cancer treatment and to improve patient quality of life through development of more efficient detection methods and new revolutionary therapies.



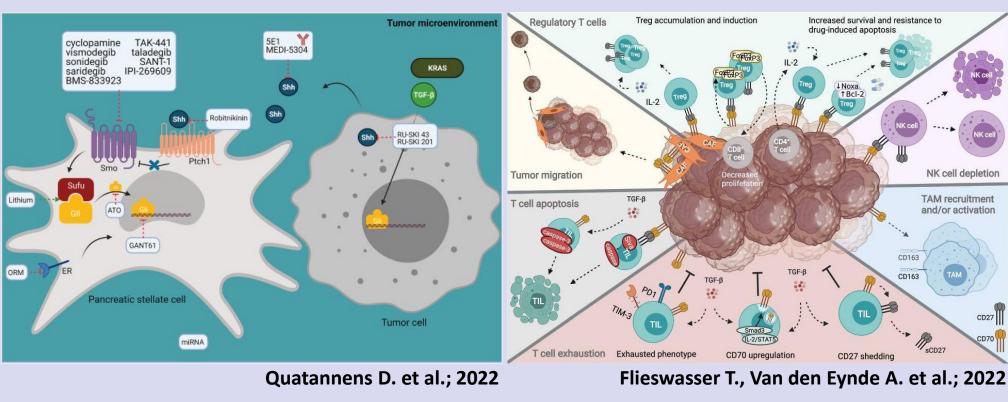
## Solid Tumor Immunology Group

# Targeted and Combination Therapy Team

We focus on developing novel combination therapies for different tumor types by coupling immune stimulation to inhibition of immune suppression.

#### **Research lines**

- Immune checkpoints
- Natural killer cell-based immunotherapy
- Cold atmospheric plasma and oxidative stress



CONTACT

Evelien Smits evelien.smits@uantwerpen.be We focus on the development of new therapeutic strategies to treat cancer, more specifically on targeted therapy and combination strategies.

We study the induction of cellular senescence and the influence of the hypoxic tumor microenvironment on therapeutic outcome and we put efforts in the identification of biomarkers for personalized medicine.

**Tumor types** different solid tumor types, such as lung and head & neck cancer.



**CONTACT** An Wouters an.wouters@uantwerpen.be

#### **Tumoroid Screening lab**

#### **Antwerp Research in Radiation Oncology**

### TUSC

CONTACT

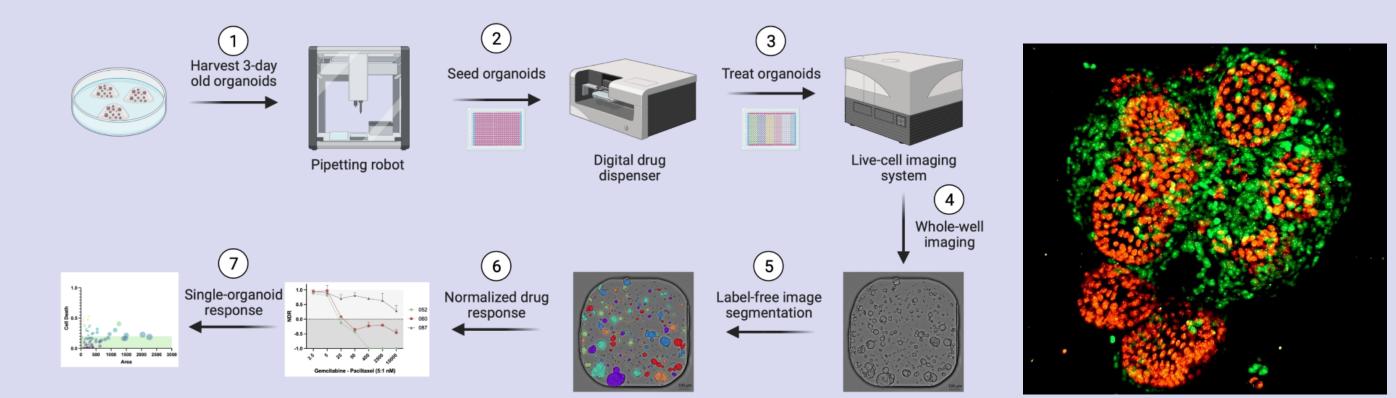
Christophe Deben

christophe.deben@uantwerpen.be

We focus on growing cancer cells from patients with high efficiency as 3D cellular structures or tumoroids in the lab. Using advanced technology we are able to perform high-throughput and in-depth screening of these patient-derived tumoroids.

#### **Technologies and expertises**

- Development of patient-derived tumoroids incorporation of tumor microenvironment.
- Establishing a patient-derived tumoroid biobank.
- Access to our advanced AI image analysis software Orbits (<u>www.orbits-oncology.com</u>).
- High-throughput live-cell imaging-based drug screening for preclinical and clinical applications.



### AReRO

We focus on develop innovative techniques and treatments and increase the therapeutic window of radiation therapy, the irradiation workflow and efficacy, to ultimately improve cancer cure and patient's quality of life.



**CONTACT** Pierre Montay-Gruel pierre.montay-gruel@uantwerpen.be

Oncogenetics



We focus on the identification of genetic susceptibility factors

contributing to tumor initiation. A common central theme is the study and identification of biomarkers leading to therapeutic resistance.

**CONTACT** Ken Op de Beeck ken.opdebeeck@uantwerpen.be



www.uantwerpen.be/core