FOCUS ON BIOMARKERS, TARGETED THERAPY & THE TUMOR MICROENVIRONMENT

Contact person: Prof. Dr. An Wouters; an.wouters@uantwerpen.be

We focus on the development of new therapeutic strategies to treat cancer, more specifically on targeted therapy and combination therapies. We study the influence of hypoxia on therapeutic outcome and we put efforts in the identification of biomarkers for personalized medicine.

Therapeutic targets: e.g. CD70, EGFR, p53 and PLK1
Tumor types: e.g. cervix, colon, head & neck, lung and pancreas
Techniques: cell culture, hypoxia cabinet, radiotherapy, Western blot, immunohistochemistry, immunofluorescence, flow cytometry, liquid biopsies, PCR-based techniques such as ddPCR

FOCUS ON BREAST CANCER AND METASTASIS

Contact person: Prof. Dr. Steven Van Laere; steven.vanlaere@gza.be

The research on breast cancer and metastasis comprises three topics:
(1) Inflammatory breast cancer;
(2) Liquid biopsy: circulating tumor cells (CTCs);
(3) Liver metastases, focusing on growth patterns
Techniques: CellSearch for CTC detection, DEParray for single cell isolation, whole genome amplification, next-generation sequencing, PCR-based techniques, cell culture, flow cytometry, xCELLigence

FOCUS ON IMMUNOTHERAPY

Contact person: Prof. Dr. Evelien Smits; evelien.smits@uantwerpen.be

Central theme:
developing novel combination therapies by coupling immune stimulation to inhibition of immune suppression in order to boost antitumor immunity
Key words:
combination therapy, innate immunity, immune checkpoints, immunostimulatory molecules, stroma, hypoxia and cold atmospheric plasma
Tumor types:
different solid tumors

FOCUS ON ONCOGENETICS

Contact person: Dr. Ken Op de Beeck; ken.opdebeeck@uantwerpen.be

The research on oncogenetics focuses 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.
Techniques: cell culture, next generation sequencing, real time PCR, Western blot, methylation analysis, microarray technology, ...

Contact person:  Prof. Dr. Marcq et al, Cancer Treatment Reviews 2015