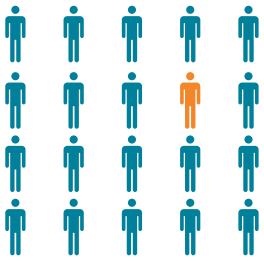
COLORECTAL CANCER THERAPY RESPONSE

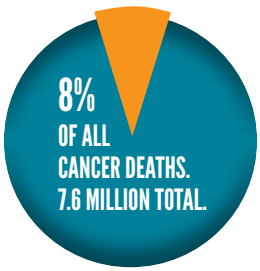
COLORECTAL CANCER



1 IN 20 CHANCE OF DEVELOPING COLORECTAL CANCER

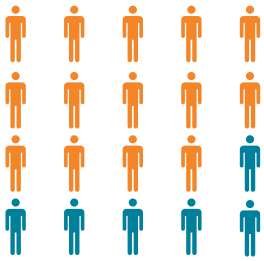
= 60,000 PEOPLE DIAGNOSED

1.2 MILLION NEW CASES DIAGNOSED ANNUALLY WORLDWIDE



608,700 DEATHS ANNUALLY. 8% OF 7.6M CANCER DEATHS

APO-DECIDE POTENTIAL



PREDICTIVE TOOLS COULD IMPROVE THERAPY FOR 70% OF NON-RESPONDING STAGE II/III SUFFERERS

APO-DECIDE WILL CREATE COMPREHENSIVE TOOLS AND TESTS TO PREDICT WHICH PATIENTS WILL BENEFIT FROM CHEMOTHERAPY

APO-DECIDE INFO

Colorectal cancer (CRC) has among the highest cancer mortality rate worldwide, with over 608,700 deaths per year. Annually, over one million new cases are diagnosed worldwide. Current chemotherapy treatments available commonly use DNA damaging agents, which can have toxic side-effects. The APO-Decide project will use new predictive tools that will provide guidance in deciding whether or not a CRC patient will benefit from combination chemotherapy.

APO-Decide will develop and validate systems-based biomarkers for apoptosis susceptibility. This will identify patients who will respond to standard chemotherapy and also indicate if and how novel targeted therapeutics may be used at maximal benefit for patients.

APO-DECIDE TASKS

- ☑ APO-Decide will combine high throughput proteomics (RPPA) with APOPTO-CELL modelling to predict responsiveness to current genotoxic chemotherapy.
- ☑ APO-Decide will combine APOPTO-CELL with advanced digital pathology for use in clinical settings. This will involve tissue microarray (TMA) construction, Protein expression analysis via immunohistochemistry (IHC), automated image Analysis of TMA data, the correlation of results from IHC-based APOPTO-CELL Modelling and the integration of IHC quantification and systems modelling to develop a full clinical workflow.
- ☑ APO-Decide will integrate epidermal growth factor receptor (EGFR)/apoptosis signalling pathways and molecular tumour data to predict responsiveness to anti-EGFR therapy in metastatic CRC.
- ☑ APO-Decide will perform validation of apoptosis sensitisation in CRC by Smac mimetics, and parameterisation of APOPTO-CELL SMAC.
- ☑ APO-Decide will integrate APOPTO-CELL systems models for prediction of optimal treatment regimens & in silico assessment of targeted drugs for future clinical trials.
- ☑ APO-Decide will involve the provision for efficient data storage, alignment and exchange.

The APO-Decide project is funded by the EU's Framework Programme Seven (FP7) under contract #306021. Please visit www.apodecide.eu for more information.

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