

Programme: H2020

Project Start Date: 01/09/2015

Project Duration: 48 months

Project ID: 676421

Call for proposals: H2020-MSCA-ITN-2015

Coordinator: ACADEMISCH ZIEKENHUIS LEIDEN

Project participants: 17

Project website: <https://glycocan.eu/>

Project value: 3,297,697.30€

Genos contribution: 371,641.50€



Co-funded by
the European Union

GlyCoCan

Glycosylation in colorectal cancer

Colorectal cancer (CRC) is a major worldwide cancer burden with about 1.4 million cases in 2012 and an annual mortality of approximately 700,000. Early detection is crucial as treatment is most efficient in early stages where population based screenings could substantially reduce incidence and mortality. Current screening techniques are invasive or lack sensitivity and specificity. Moreover, the molecular mechanisms leading to the formation of different antigens suggested as CRC biomarkers and potential therapeutic targets are poorly understood, especially with regard to carbohydrate-based molecules, such as glycans. Enhancing our understanding of the structure-function relationship of glycosylation in CRC could lead to the discovery of improved diagnostic and prognostic biomarkers and pave the way for novel therapeutic targets.

Building on an established network of analysts with many years of experience in (glyco)proteomics and biomarker research, in collaboration with colleagues in the field of glycobiology and glyco-immunology, GlyCoCan will develop new methods, and use current state of the art methods, to investigate the role of glycosylation in many different aspects of CRC.

The GlyCoCan multi-disciplinary network will principally be a training programme with a substantial industrial focus on technology transfer and teaching of internationally adopted biopharma regulations (GMP, ISO9001, ICH guidelines). The underlying specific research objectives will be addressed within individual ESR projects, giving rise to a generation of ESRs whose main focus is investigating and tackling the challenges of the role of glycosylation within CRC and other diseases. The network will address the currently unmet need for glycosylation researchers with an inter-disciplinary perspective to fully exploit the immense potential of the young scientific field of glyco-oncology and to set them on a path to successful and productive careers in academic and industrial collaborations.