

Advancing a Precision Medicine Paradigm in Metastatic Colorectal Cancer: Systems based patient stratification solutions.

Welcome to the Summer 2018 Newsletter for the COLOSSUS Project



Members of the COLOSSUS Project Team at the Kickoff Meeting in Dublin on 31 January 2018.

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Colorectal cancer is the third most common cancer in Europe. COLOSSUS is an EU-funded H2020 project that aims to provide new and more effective ways to classify people with a specific type of colorectal cancer (MSS RAS mt mCRC) and to develop better treatments for them. Our ultimate goal is to help deliver a novel personalised medicine approach for patients with MSS RAS mt mCRC.



COLOSSUS in a nutshell

Colorectal cancer (CRC) is the third most common cancer in Europe with an estimated 420,000 cases and 150,000 related deaths in 2012. Of total CRC cases, it is thought that approximately 50-55 % involve RAS mutations.

COLOSSUS is an EU funded Horizon 2020 research project that is focused on a specific type of colorectal cancer (MSS RAS mt mCRC). Currently, there are limited treatment options for people with this type of cancer when they develop resistance to standard therapies.

The COLOSSUS consortium will study patient samples and use an immune-based diagnostic test (Immunoscore®) and advanced multi-omic computational modelling approaches to classify MSS RAS mt into defined sub-types. This strategy will help us to improve how patients are divided into sub-groups and to predict patient outcomes under standard treatment.

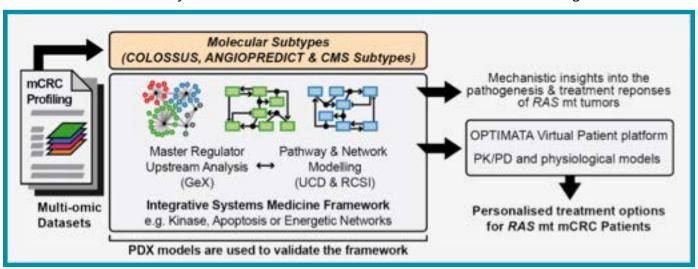


Prof Annette Byrne COLOSSUS Coordinator

The MSS RAS mt classifiers identified will be validated within the COLOSSUS translational trial – a multicentre study for men and women with advanced MSS RAS mt mCRC. The trial will be conducted across Spain, Germany and Ireland and managed by Cancer Trials Ireland.

We also aim to identify new combinatorial treatment options for people with this condition and test them in preclinical models, as well as developing commercially viable clinical tests for classification of MSS RAS mt patients, based on our results. We will explore the potential and the economic benefits of bringing these tests into the clinic.

We hope our work will ultimately enable the design of more targeted and personalized treatment programmes for people with MSS RAS mt m CRC. We aim to benefit CRC patients and their families, clinicians and health care systems and to deliver wider economic benefits in the longer term.



An illustration of the COLOSSUS Work-Plan



The Story So Far

The COLOSSUS Project runs for 5 years from 1st January 2018 to 31st December 2022. In the first 6 months of the Project, we held our kickoff consortium meeting, launched our website (https://www.colossusproject.eu/) and devised our dissemination and exploitation plan.

Partner teams have also been working on the provision of retrospective samples to the COLOSSUS Biorepository, preparations for the COLOSSUS translational trial, applications for ethical approvals and the Project's Data Management Plan.

Press releases were issued at the start of the Project by several partners and COLOSSUS was celebrated in a wide range of online news sources, for example www.news-medical.net, www.medical.net, <

The initial six months of the project have been busy, but the team has presented COLOSSUS at a number of key conferences and events.



Prof Annette Byrne presented at The European Society for Radiotherapy & (ESTRO) Oncology annual meeting Barcelona on 22 April 2018 (pictured left). Her presentation was entitled "Interrogating open issues in cancer precision medicine with patient-derived xenografts".

Prof Byrne also presented "Consensus molecular subtypes improve treatment selection and response in colorectal cancer?" on 26 January 2018 at the DVGS (German Society for Digestive and Metabolic Diseases), AGIO (Gastrointestinal Oncology) winter course in Mannheim, Germany.

Prof Byrne is due to give the keynote address at the 14th International Conference on Gastro Education to be held in London on 6 September 2018.

COLOSSUS researchers, Dr. Dirk Fey (below, University College Dublin) and Dr Alice O'Farrell (Royal College of Surgeons in Ireland), participated



in the Patient Voices Cancer Research in event in Dublin April 11, 2018. At the COLOSSUS exhibit. COLOSSUS flyers were distributed and Dr Fev demonstrated how computer simulation could be used to help researchers understand why different therapies work for different

patients. Dr Fey participated in the lively roundtable discussions of 'Next Generation Sequencing/ Sequence Mutations' alongside other researchers, patients, carers and patient advocates.

COLOSSUS builds on a previous EU FP7 project, ANGIOPREDICT (www.angiopredict.com). Some results from ANGIOPREDICT have just been published (May 2018) in the prestigious international cancer journal "Journal of Clinical Oncology". The article is entitled "Loss of Chromosome 18q11.2-q12.1 Is Predictive for Survival in Patients With Metastatic Colorectal Cancer Treated With Bevacizumab".

COLOSSUS is still in the very early stages but the team has made a promising start. We look forward to submitting a number of key reports to the EU in the months ahead on the analysis of retrospective samples, the COLOSSUS data repository and data exchange platform; the Project's data management plan and ethical approvals for the prospective trial. Plans are already in hand for the first project publication. We look forward to keeping you up to date on progress in our regular newsletters!

Meet the Team

COLOSSUS involves 14 different partners from 8 different countries and brings together a multidisciplinary team with expertise including: cancer immunology, systems biology, computational modelling, bioinformatics, omics analysis, clinical oncology/pathology, preclinical research/imaging, clinical trials, health economics and patient engagement. The organisations involved in the Project are set out below:





























For more information visit the project website:

www.colossusproject.eu

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