

Minutes of Workshop and MC/WG Meeting of COST Action CA17118: Identifying Biomarkers Through Translational Research for Prevention and Stratification of Colorectal Cancer

Skopje, North Macedonia

28/02/2019 and 01/03/2019

28th February 2019

13:00 Lunch

13:50

1. Welcome to participants.

The Local Organizer (Aleksandar Dimovski) and Chair of the Action (Sergi Castellví-Bel) welcomed all the participants. They were reminded to sign the attendance list of the meeting and how to use the Wi-Fi internet connection.

2. Adoption of agenda and approval of last meeting minutes (Barcelona).

The agenda of the meeting was explained by the Chair of the Action and approved without changes or additions by the members of the Management Committee (MC) of COST Action CA17118 that attended. At least 1 MC member, MC substitute or WG leader/participant was present from the following participating countries and 4 countries were not represented by any delegate:

Austria	Andrea Gsur / Stephanie Brezina
Croatia	Iva Kirac / Tamara Cacev
Czech Republic	Pavel Vodicka / Pavel Soucek
Denmark	Claus Andersen / Thorkil Ploug
Finland	Samantha Martin
France	Not represented
Germany	Peer Bork
Greece	Makis Zoidakis
Ireland	David Hughes
Israel	Yael Goldberg / Eitan Freidman
Italy	Alessio Naccarati
Latvia	Pavels Sarajevs
Malta	Romina Briffa
Netherlands	Not represented

North Macedonia	Aleksandar Dimovski
Norway	Wenche Sjursern
Poland	Lukasz Skalniak
Portugal	Cristina Albuquerque / Manuel Teixeira / Teresa Serra
Serbia	Aleksandra Nikolic / Milena Cavic / Ana Krivokuća
Slovenia	Ursula Prosenc Zmrzljak / Rok Košir
Spain	Sergi Castellví-Bel / Jordi Camps
Sweden	Not represented
Switzerland	Not represented
Turkey	Sreeparna Banerjee / Soner Dogan
United Kingdom	Claire Palles

Then, 21/25 countries (84%) were represented corresponding to more than 2/3 of the total. On the other hand, activities in Skopje were very well attended (69 participants). The attendance to this meeting was a bit more than usual due to the fact that the budget available was higher and it was prioritized since it corresponded to our first COST Action meeting. The meeting was brilliantly organized by Aleksandar Dimovski and his team, and the meeting rooms, as well as the city, were fantastic.

The minutes of the last meeting (Barcelona) were explained by the Chair of the Action and approved without changes or additions by the attending members.

3. Workshop focusing on Working Group 3 (Tumor profiling)

This workshop took place in Skopje right before the MC+WG joint meeting. It was very well attended by participants from our Action and local researchers. It included talks by COST Action CA17118 participants. It focused on intratumor heterogeneity and single cell genomics applied to a better tumor profiling. Jordi Camps (WG3 leader) acted as workshop organizer. The program is specified below:

WORKSHOP ON INTRATUMOR HETEROGENEITY AND SINGLE-CELL GENOMICS

Organizer: Jordi Camps

14:00-14:40

Understanding ITH evolution in colorectal cancer at the individual level. David POSADA (Phylogenomics Lab, University of Vigo, Spain, <http://darwin.uvigo.es/dposada/>)

14:40-15:00

Signatures of positive and negative selection reveal cancer related genes in colorectal tumors. Luis ZAPATA (Evolutionary Genomics and Modelling Team, The Institute of Cancer Research, London, UK <https://www.icr.ac.uk/our-research/research-divisions/division-of-molecular-pathology/evolutionary-genomics-modelling>)

15:00-15:20

Synchronous colorectal cancer: tumor heterogeneity. Sandra TAPIAL (Digestive Cancer Group, Research Institute Hospital 12 de Octubre i+12, Madrid, Spain <https://imas12.es/en/research/cancer/digestive-cancer/>)

15:20-15:40

Landscape of genomic alteration in colorectal advanced adenomas and carcinomas. Eva HERNÁNDEZ-ILLÁN (Translational Colorectal Cancer Genomics Group, August Pi i Sunyer Biomedical Research Institute-IDIBAPS, Barcelona, Spain <http://www.idibaps.org/research/410/gastrointestinal-and-pancreatic-oncology>)

15:40-16:00

Adenoma genomes and intra-tumour heterogeneity as predictive biomarkers for colorectal cancer. William CROSS (Cancer Evolution group, Centre for Tumour Biology, Barts Cancer Centre, London, UK, <https://www.bci.qmul.ac.uk/en/staff/item/trevor-graham>)

16:00 Coffee break

16:20-16:40

Heterogeneity and molecular subtypes in colorectal cancer. Beatriz PÉREZ-VILLAMIL (Clinical and Translational Research in Oncology Group, Health Research Institute of the Hospital Clínico San Carlos, Madrid, Spain, <http://www.idissc.org/en/investigacion-oncologia.php>)

16:40-17:00

Generation of CTC and DTC in the gastrointestinal CAM Model. Georg FLÜGEN (Experimental Surgical Oncology Group, Universitätsklinikum Düsseldorf, Germany, <https://www.uniklinik-duesseldorf.de/>)

17:00-17:20

Use of colon cancer transcriptomic profiles for target validation in drug repurposing. Jelena GRAHOVAC (Experimental Oncology Group, Institute of Oncology and Radiology of Serbia, Belgrade, Serbia, <https://www.ncrc.ac.rs/>)

17:20-17:50

Characterization of early molecular alterations and tumour stratification towards the identification of potential biomarkers in colorectal cancer. Cristina ALBUQUERQUE (Research Unit in Molecular Pathobiology, Portuguese Oncology Institute Francisco Gentil E.P.E. IPO Lisboa, Portugal, <http://www.ipolisboa.min-saude.pt/>)

17:50-18:00

Closing remarks. Jordi CAMPS

18:00

4. Close up

5. Group picture



1st March 2019

9:00-9:20

6. Update from the Action Chair. Sergi CASTELLVI-BEL

The Chair briefly updated the participants about the Action including main objective, working groups, implementation of COST policies, main strategies, management roles, participants, effective interaction, 1st and 2nd grant period work and budget plan, EU general data protection regulation, private section of the website and satellite meetings organization.

9:20-9:40

7. Update from the Science Communication committee. Aleksandra NIKOLIC

Aleksandra Nikolic briefly updated the participants about the Action including website, social media (Linkedin, Twitter and Facebook), dissemination (publications, when attending conferences, acknowledging), rules and policies (Vademecum, gender, young and ITC, GDPR form), duties for committee leaders, duties for senior and young participants, and plans for 2019 (dissemination video and European Researchers night).

9:40-10:10

8. Presentations from SMEs

LABENA. Ursula PROSENC ZMRZLJAK (<http://www.labena.si/>)

This SME from Slovenia recently joined COST Action CA17118 and offered a presentation about this company and products of interest to participants such as Droplet digital PCR for mutation detection in tumor tissue.

10:10-10:30 Coffee break

10:30-11:30

9. Working group 1 scientific talk.

The human gut microbiome and its association with colon cancer. Peer BORK (European Molecular Biology Laboratory EMBL, Heidelberg, Germany
<https://www.embl.de/research/units/scb/bork/index.html>)

Peer Bork, a renowned scientist in systems biology, gave an enlightening talk about microbiome characterization. This talk was dedicated to WG1 and Dr. Bork is one of their participants. Besides, he made a collaboration offer to replicate initial results from a colorectal cancer (CRC) project to those with available microbiome samples.

11:30-12:15

10. Satellite meetings (coordinated by WG leaders; to facilitate interaction within WG and between them)

1st round

Disease risk profiling (**WG1**)-Non-invasive biomarkers (**WG2**) (**Amphitheatre**)
Tumor profiling (**WG3**)-Functional genomics and new therapies (**WG4**) (**Meeting room 1**)

We tried satellite meetings in the Skopje meeting, combining all WGs in 3 rounds of paired concurrent meetings. They were aimed to make meetings more dynamic and facilitate intra- and inter-WG collaborations. They were coordinated by Claire Palles (WG1 leader), Claus Andersen (WG2 leader), Jordi Camps (WG3 leader) and Sreeparna Banerjee (WG4 leader).

12:15-13:15 Lunch

13:15-14:15

11. Working group 4 scientific talk.

Cancer genetics and precision prevention. Richard HOULSTON (The Institute of Cancer Research, London, UK, <https://www.icr.ac.uk/our-research/research-divisions/division-of-genetics-and-epidemiology/molecular-and-population-genetics>)

Richard Houlston, a well-known scientist in the cancer germline predisposition field and especially in CRC. This talk was dedicated to WG4 and Dr. Houlston participates in it. His talk covered cancer genetics, precision medicine, prevention programs, early detection, genetic architecture of cancer susceptibility and clinical testing, GWAS results, and population genetic testing.

14:15-15:00

10. Satellite meetings (coordinated by WG leaders; to facilitate interaction within WG and between them) (cont.)

2nd round

Disease risk profiling (**WG1**)-Tumor profiling (**WG3**) (**Amphitheatre**)
Non-invasive biomarkers (**WG2**)-Functional genomics and new therapies (**WG4**) (**Meeting room 1**)

We continued with a 2nd round of satellite meetings.

15:00-15:30

8. Presentations from SMEs (cont.)

REAL RESEARCH. Marcin KRZYKAWSKI (<https://realresearch.life/>)

This SME from Poland recently joined COST Action CA17118 and offered a presentation about this company and products of interest to participants such as LifeGel, a protein hydrogel for 3D cell cultures.

15:30-15:50 Coffee break

15:50-16:35

10. Satellite meetings (coordinated by WG leaders; to facilitate interaction within WG and between them) (cont.)

3rd round

Disease risk profiling (WG1)-Functional genomics and new therapies (WG4) (Amphitheatre) Non-invasive biomarkers (WG2)-Tumor profiling (WG3) (Meeting room 1)

We continued with a 3rd final round of satellite meetings.

16:35-17:15

12. Satellite meetings summaries (10 min each WG leader)

Claire Palles (WG1 leader), Claus Andersen (WG2 leader), Jordi Camps (WG3 leader) and Sreeparna Banerjee (WG4 leader) proceeded to summarize satellite meeting sessions. They all agreed that WGs are ambitious and cover ample objectives. Therefore, there is a need to focus on specific goals to move forward effectively. When asked about the most relevant topic in their respective WGs to focus on in next meetings, they answered the following:

- WG1: CRC screening programme
- WG2: CRC screening programme and liquid biopsies
- WG3: Functional characterization of genetic variants
- WG4: New therapies

They also agreed that intra-WG interactions took place more intensively and inter-WG interactions were almost restricted to WG1-WG2 and WG3-WG4. Restricting future inter-WG satellite meetings to WG1-WG2 and WG3-WG4 was suggested. Also, interesting training schools were proposed and STSMs were discussed between labs. Short presentations from all participants will be available at the private section of our website.

17:15-17:35

13. Updates from STSM and ITC conference grant committee, Training schools committee, Research funding committee, Meetings and Workshops committee (5 min each committee member)

Leaders of these committees went on updating about their respective activities:

STSM and ITC conference grant committee (Yael Goldberg): 3 approved STSMs, still some budget available for the first period. One ITC conference grant awarded to Milena Cavic, which was withdrawn since Milena was awarded with a travel grant by the conference itself.

Training schools committee (Aleksandar Dimovski): First training school dedicated to risk profiling (WG1) took place successfully in Barcelona in January 2019 and was attended by 25 participants. Plans for future training schools include CRISPR-Cas9 (WG4), organoids (WG4) and metabolomics (WG1). Makis Zoidakis mentioned the training school "Workshop on Approaches for Biomarker Discovery and Validation" organized by COST Action CA16113 (CliniMark) in September 2019 and that participants from our Action are very welcome to apply.

Research funding committee: Andrea Gsur offered some research funding calls to be available in the near future (H2020 next calls, ITN). David Hughes added some more (ERAPerMed, Volkswagen Foundation, Marie Skłodowska-Curie Actions, ERC, Worldwide Cancer Research).

Meetings and Workshops committee: Tamara Cacev explained that the next meetings in GP2 are planned in Malta (fall 2019) and Belgrade (spring 2020). Other possible locations in the future could be Krakow, Zagreb, Prague or Greece.

17:35

14. Close up