

Minutes from the WG 3 Meeting

26. & 27. of March 2015

Liverpool, UK

Participants:

Eithne Costello
Marlène Dufresne
Stephan Hahn
Núria Malats
Paulina Gomez
Bill Greenhalf
John Neoptolemos
Fieke Fröhling
Steve Pereira
Jörg Kleeff
Marta Herreros-Villanueva
David Chang
Mert Ercan
Julie Earl
Christine Tjaden
Claire Jenkinson
Lucy Oldfield
Jane Armstrong

Reports, activities, tasks of the subgroups:

Paulina Gomez (risk population group)

Two main goals were initially set for this group. 1) Define a high risk population –new onset diabetes was proposed as a potential way to enrich a population to better delineate this group. This objective has developed into the design of a prospective registry of new onset diabetics. 2) Replicate the UK symptom based diagnostic tool in an independent study population (PanGen) –the PanGen study population has no recorded symptoms for controls, thus we are unable to apply this tool retrospectively in the Spanish population.

We still consider relevant to achieve a short term goal using existing resources -we propose the possibility of joining forces in the validation of current research being carried out in the PanGen study regarding pancreatic cancer comorbidities and multimorbidities. We shall define if we have all the

data necessary for this goal, and the outcome of this new project will be reported in the following meeting.

Steve Pereira (Cystic Tumour Subgroup):

Aims -

1. To develop a tissue and blood biobank
2. To identify diagnostic and prognostic markers

Resources:

Tissue resections

Cyst fluid

Blood

Possible Projects:

1. Immunohistochemistry profiling of cystic tumours – in collaboration with WG1 - Chris to send invitation?
2. Cyst fluid proteomics
3. Serum proteomics
4. GNAS and KRAS mutations by ddPCR
5. Other projects - ?-plasma free DNA etc

Tasks:

1. Set up a registry for already available samples
2. Set up a list of contributors to a prospective collection of patients' samples
3. Establish standard operating procedures (SOP's) for tissue sections, cyst fluid collection and blood collection
4. Agree on minimum data sets for clinical cystic tumour databases
5. Establish ethical framework and material transfer agreement (MTA's)
6. Establish rules for use of biobank material

Stephan Hahn (New onset diabetes collection) reported from the discussion during the Liège meeting.

Discussion:

Following an intense discussion on how to set up the new onset diabetes collection it was agreed that:

The main problem of current biomarker development and testing is the lack of early stage pancreatic cancer biomaterial and biomaterial prior to cancer development defined at the level of imaging sensitivity. The early onset diabetes subgroup is a valid subgroup to enrich from 1:10000 to 1:100 (100fold) for pancreatic cancer (provided the published data is not too far off), thus providing a more realistic ground to collect the missing biomaterials.

- 1.) Eithne Costelloe, Christine Tjaden, Chris Michalsky and Stephan Hahn have been selected as coordinators and are responsible to provide an advanced draft version of a proposal for the collection by End of Mai 2015. This will contain a scientific justification why this collection is needed and why existing collection can't meet the requirements. The proposal has to include the information on 1.) the requirements for groups to join the collection, 2.) the type of material that will be sampled, 3.) the SOPs for each material, 4.) the follow up intervals, 5.) the patient questionnaire, 6.) other issues of the study design, 7.) ethical issues and 8.) a scientific proposal for the biomarker discovery phase once the material has been collected (dining mainly which biomaterial will be sampled). Suggestions for grant agencies where to submit this proposal to (ideally European funding should be gathered, as an alternative national level grants shall be considered, but was felt to have a very high risk for the study to fail already at this level).

The group agreed on the following cornerstones for the collection:

- 1) 15.000 Patients with new onset of type II diabetes after the age of 50 shall be included aiming at the identification of 100-150 PDACs within the follow up time of 5 years with the majority of cancer occurring in the first two years.
- 2) The medical definition and SOP for diagnosis of new onset of type II diabetes will be provided from the Liverpool team.
- 3) The study will recruit patients for a maximum of three years to reach the required 15000 patients and will follow up each patient for five years.
- 4) Patients need to be included into the study within 2 (3?) months after the diagnosis, meaning biomaterial and CT can has to be taken within this time frame and the CT scan should be taken within 2 weeks following or before biomaterial collection).
- 5) In order to potentially safe imaging costs, the first 2000 Patients will get a baseline CT scan (5 mm dual phase, the exact minimal technical requirements for the CT scan will be defined by Ercan). Currently the prevalence of imaging positive patients at the time of new onset diabetes diagnosis is not known The risk of

“incidentalomes” following imaging was discussed at length. It was agreed that imaging is necessary to prevent being blinded regarding the stage of the disease at the time of the diagnosis with new onset diabetes, which is crucial to put the patient samples into the correct disease or pre-disease category for diagnostic biomarker discovery (see also point 6).

- 6) If the incidence of PDAC at the baseline CT scan is below a certain threshold (i.e. 2-5%, needs to be defined), we will stop doing CT scan, if not all patients will receive a CT scan. The rationale being, that in this case the majority (>95%) of the initial samples will be taken at an imaging negative stage of the disease and thus a priori imaging knowledge will not significantly influence the overall outcome of the biomarker discovery study.
- 7) Núria/Marta will try to get information on the US collection at the Mayo clinic (i.e. via Gloria Peterson). We need to make sure that our proposal is not just a repetition of what is already done at the Mayo, furthermore, we need to know what is their prevalence of positive imaging (diagnosis of PDAC) at baseline imaging.
- 8) All participants of the meeting will report to Stephan Hahn whom they will personally approach to support the collection and he will provide a list to streamline this process.
- 9) Information on known national or international patient material collection (with or without focus on new onset diabetics) with follow up data on PDAC development shall be reported to the coordinator group by all WP3 supporters, ideally with information on the type of biomaterial collected, SOPs, follow up time, is there knowledge on the new onset diabetics in the study, the time frame the biomaterial was collected before/after diagnosis, the availability of material for research, has imaging been done on these patients, or other arguments which might be helpful to set our study apart from this study.
- 10) Ideas/suggestions for advanced state of the art biomarker discovery technologies which may be included into the future study shall be collected by all supporters and reported back to the coordinators.
- 11) Following the agreement on the study draft proposal by members of WP3, a finalized version of the proposal will be sent out to all members of the COST action. In addition participants of the Liverpool Meeting will start approaching potential groups during June 2015 at a personal level. The goal is to have by end of September 2015 a list of collaborators committed to support the proposal by collecting patients.
- 12) The first task of groups which agreed and are committed to support the collection based on the proposal will be reporting back the strategy they have to reach the new onset diabetes patients at their site, how many patients they can include within three years based on a realistic estimation of number of involved GPs, patients per GP and number of new onset diabetics and how they are followed-up in each country (how many HbA1c monitoring/year for example, we could take blood samples for our collection at the same time) (suggested deadline for this would be end of September 2015).
- 13) Exchange of patient recruitment strategies at the national level should take place to prevent doubling of efforts, thus people at the national level who are willing to get involved in the action will be put into contact with each other.

The next WG3 meeting will be in Toledo on the 23rd of June 2015. This platform might be used to present the proposal to the whole pancreas COST action.