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| I. Project Title |
| Pathways relevant for hematopoietic stem cell transplantation and its underlying diseases in the Onco Array Data | **Date:3/31/2023** |
| **II. Project Leaders (List Names and Institutes)**  | **Primary Contact****Information** |
| **Heike Bickeböller, Dieter Kube, University Medical School of Göttingen; Germany****Chris Amos, Baylor College, USA****Rayjean Hung,** **Dalla Lana School of Public Health, University of Toronto, Canada** | **Name:Heike Bickeböller****Email:hbickeb@gwdg.de****Tel:+491743154462** |
| III. Progress to date. *What has been done so far to move the project forward (data pooling, grant submission, etc), and when it was done* |
| The identification of variants/genes with HSCT outcomes (disease relapse, death, graft-versus-host disease) took us much longer than expected. This applies to all aspects: money aquision for probands, genotyping, harmonization (partly EU funds, partly institutional funds), proband aquisition, data harmonization, as well as the methodological difficulties in these competing risk scenarios. For our GWAS samples have been genotyped with the OncoArray. With our HSCT GWAS we have a first draft of the manuscript which will go within the next week to all co-authors, with a successful finding. (We are in close communication with Olga Gorlova also carrying out a US HSCT GWAS.) [Often previously associated variants could not be replicated. In this respect we participated in the publication of a review article Front Immunol. 2020 Oct 19;11:575492. doi: 10.3389/fimmu.2020.575492. eCollection 2020.]Next steps are a meta-analysis with Olga Gorlovas sample as well as potentially the sample of Jukka Partanen (Finland) and then this project. In my view we are in contact with all players that could do such a study as proposed in this project. Important  |
| **IV. Project Status and Preliminary Results**. *S****ummarize the current status of the project. Report preliminary results if there is any***  |
| As stated above sofar we have published one manuscript on molecular variants of HSCT and more importantly have a draft of our HSCT GWAS including competing risks. * review article Front Immunol. 2020 Oct 19;11:575492. doi: 10.3389/fimmu.2020.575492. eCollection 2020.
* draft: GWAS on HSCT reveals novel genomic loci associated with GvHD and Relapse
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| **V. Justification of Extension** |
| The project is still of high interest as HSCT is given to patients with malignancies of the blood. As these are longitudinal transplantation data, it took a long time to make the multicenter collaboration and harmonization work. Now we are far enough to really have an impact – and are also only with the manuscript in draft in a position to continue with the work and relating HSCT with the cancer data of INTEGRAL.  |
| **VI. Future Plans & Timeline** |
| Time line will still be long. * Publish GWAS manuscript.
* Write a grant application within Germany for this project (but carrying it out does not depend on this. We needed the manuscript first.)
* Harmonize with other HSCT groups (Olga Gorlova, Jukka Partanen) for meta-analysis.
* Get the proposed project of joint analysis of HSCT and INTEGRAL going.

A timeline is difficult, but I think these things might be manageable in a total of another 3 years.Note: Of cause Olga should be able to participate in this project. However, I did not feel entitled to change the names of the original proposal.  |