PERMIT – PERsonalised MedicIne Trials

Report on the Advisory Boards

Work Package 1 - Deliverable 1.5

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Executive summary

The PERMIT project has been supported by two advisory boards that provide insight and council for the good conduct of the project. The Scientific Advisory Board (SAB) and the Ethics Advisory Board (EAB) of the PERMIT were consulted on the final recommendations developed by the project, as well as the overarching publication on these recommendations, that has been developed for a broad dissemination of the recommendations to a non-expert audience. Their feedback has been instrumental and will contribute to shaping the overarching publication, as well as the subsequent communications material on the PERMIT recommendations.

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Document log

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Background

The Scientific Advisory Board (SAB) and Ethics Advisory Board (EAB) of the PERMIT project provide insight and council for the good conduct of the project. These boards were constituted in April 2020 for the Scientific Advisory Board (SAB) and June 2020 for the Ethics Advisory Board (EAB) (more details on their composition can be found in Deliverable 1.1). They have met throughout the project and have been periodically updated on the evolution of the project. The SAB has provided insight to the PERMIT consortium on the overall approach, the methodology and the scientific content of the project, while the EAB has provided insight on all the ethical aspects related to the PERMIT project and to personalised medicine research. The members of the EAB in particular, were also involved in the preparation of deliverable D1.3 – Inventory of ethical and data protection issues in personalised medicine research. This report summarizes the feedback of the board members on the PERMIT recommendations and the scientific publication that gives an overarching view of the recommendations.

Approaches (Methods)

The members of both boards were invited to participate in the Implementation Workshop of the PERMIT project, which took place in March 2022. Prior to this event, a copy of the full set of the PERMIT recommendations was shared with them for feedback. Then, as a scientific publication that would provide an overview of the recommendations was prepared, the members of the boards were consulted again. The feedback of the board members on these documents was collected by email exchange.

Results

The members of the SAB and EAB received a copy of the condensed PERMIT recommendations (see Appendix I) prior to the Implementation Workshop. Then, they received a draft of the scientific publication prepared by the PERMIT Steering Committee that aims to provide a non-expert audience with an overview of the PERMIT recommendations. The members of the boards provided their comments and feedback in writing.

The following is a summary of their feedback:

- Additional references to the ethical challenges of PM research could be included in the overarching paper. Although this is not the main focus of the paper, providing references can allow the readers who are interested to further analyze these aspects. It can also allow raise their awareness on the ethical challenges of PM research.
- The necessary infrastructure for adequate data integration in the first stage of the pipeline also requires the necessary expertise on the regulatory framework. This can help to ensure that all data management, processing and integration is done not only under the best methodological framework, but also in alignment with the relevant legal framework. When presenting this recommendation for the stratification and validation cohorts (Deliverable 3.1- Guidelines on cohort design) in patient stratification studies it is important to mention this second element.
- When presenting the recommendation on improved reporting of preclinical methods (Deliverable 5.2 - Report on translational research to select treatment options), further details could be provided on the challenges/gaps that were identified in terms of reporting of the preclinical phase. The audience should be able to understand if the lack of transparency was in terms of how the data was collected, or if it was other aspects that were underreported.
- The recommendation of further involving patients in the preclinical stage (Deliverable 5.2 - Report on translational research to select treatment options) could also be further detailed. The

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audience should get a notion of what kind of involvement patients could have at this stage of the research.

- When presenting the recommendations on machine learning algorithms for stratification of patients (Deliverable 4.1 -Report on AI algorithms for patient stratification), emphasizing the importance of the "explainability" of these algorithms from the ethical perspective could help readers to better understand the weight of this issue.
- The introductory diagram in the overarching paper (see Appendix I), which has been used throughout the project to illustrate the stages of the PM research pipeline could be updated to better reflect the four stages of the pipeline. Non-expert audiences might expect to easily recognize the four stages at a single glance. Adding a series or harmonized sub-headings that coincide with the diagram can help readers easily follow each of the stages.
- Further emphasis should be given to the lack of publications on negative results. This challenge is not unique to personalised medicine, but has a particular impact in this field due to the length and breadth of research programmes in this area. Sharing negative findings is essential not only to reduce research waste, but also to allow investigators to focus efforts on the most promising pathways in the timeliest manner.
- The recommendation on robust preclinical model development (Deliverable 5.2 - Report on translational research to select treatment options) could be further expanded to include the complexity and high costs of model maintenance. Not only is it challenging to develop preclinical models, it is also difficult to have the right infrastructure and resources to maintain them.

Discussion and Conclusions

The members of the PERMIT advisory boards have provided valuable feedback on key points that should be expanded and further explained when presenting the recommendations to a non-expert audience. These feedback will help to strengthen the scientific paper that provides an overview of the PERMIT recommendations, but can also help to strengthen the individual publications on each of the recommendations of each of the four stages.

The complementary perspective of members from the SAB and EAB throughout the project have provided PERMIT with balanced input; as the members provided both technical oversight as well as insight on the ethical aspects of the PM research pipeline. It has been instrumental in the development of the overall approach of the PERMIT project, and of the recommendations.

Next Steps

The comments and feedback of the board members will be integrated into the scientific publication, which will be finalized and submitted to a high-impact factor scientific journal, with a broad audience. Furthermore, this insight will also be integrated into the individual scientific publications focusing on a specific stage of the personalised medicine research pipeline.

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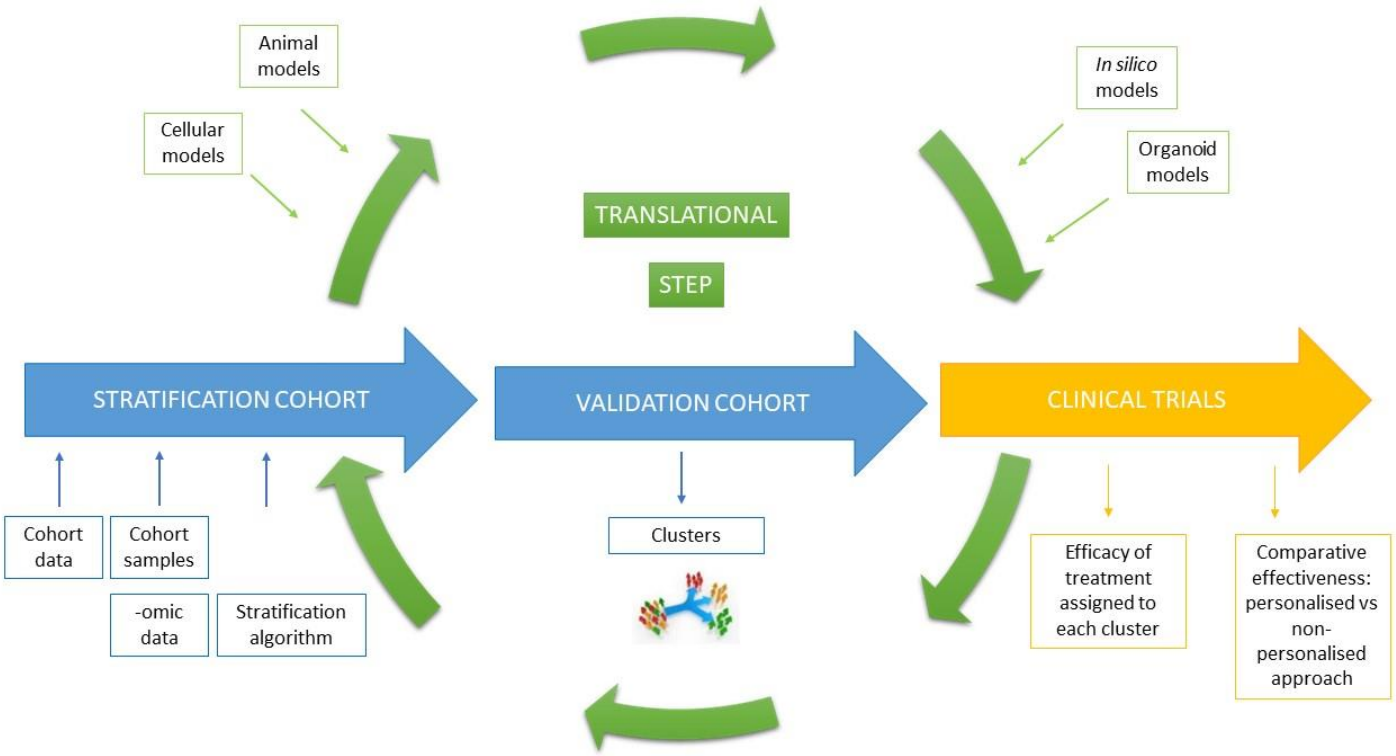
Appendix I

PERMIT personalised medicine research pipeline – to be updated for publication



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