Final assignment

We would like you to develop a fictional human genetics study design in groups for the final assignment. Each group needs to decide on a human trait/disease to be studied. For this research project, you have successfully applied to access the UK Biobank data. An overview of the available data can be found here. Please find below some points you should think about before starting the analysis and include in your final presentation:

- What questions do you want to answer?
- What are the steps needed to address your question?
- Which results do you expect?
- Do you anticipate any challenges? If yes, how can you overcome them?
- Is the data available large enough to draw conclusions from? If not, what can you do to increase the statistical power of your study?

Additionally, you have a research grant that covers the costs of profiling 1000 people to embellish your research results based on the UK Biobank. Please think about how to perform the sample collection and how to use the data wisely. Below you will find some questions that might help you:

- Which technology are you going to use? Why?
- How are you gathering participants? Randomly or at a specific location?

Please make sure to apply the knowledge gathered throughout the course by using the teaching material found on our <u>GitHub repository</u>.

Please prepare a 20 minutes oral presentation followed by a 10 minutes discussion. Additionally to your work's content, your presentation skills and slide layout will be considered in the evaluation. You can find the presentation guidelines from the American Society of Human Genetics here. Please take them into account when preparing your slides.