**Grant writing template – Scientific research grant**

This template is used to aid in the writing of a scientific research grant. This has been constructed over a number of years to aid in the process.

This document can be used by itself or in combination with the power calculations excel sheet also included in the package.

If you’d like to add changes or make suggestions, please let me know.

James Grist [jamesgrist@gmx.co.uk](mailto:jamesgrist@gmx.co.uk).

**Key**

(REF) = reference, GMO = Grant Making Organisation

**Abstract**

In this section you will introduce the problem, solution, and approach for the project. Try to be brief, but exciting.

A good way to start is with a statistic exemplifying the problem (e.g. number of people affected by a condition per year), to give context for your project.

Briefly mention your new method or solution to the challenge, and then round off with the potential of what your work could do.

**Lay summary (May not be required)**

This is a section that is sometimes used by GMOs when they have members of the public on the review panel. Here you should state the problem, solution, and why your novel project is highly important in words that are readily accessible and understandable.

**Project background and current state-of-the-art**

Here you provide the bulk of the writing describing the problem, current state of the art, and your new method or idea. Plenty of references!

Why pick you institution for this? Why you and your collaborators?

Finish with a statement around why this will benefit the population involved.

**Project approach and methods**

This section is a clear, detailed, description of your project. Start with listing key aims and objectives for the study. Is this hypothesis driven? If so, make sure use your aims and objectives to test the hypothesis.

If you have more than one hypothesis, break down this section focusing on one hypothesis or work stage at a time.

**Project data analysis**

How will you analyse the data and derive quantitative results? Have you included test re-test? What statistics will you use?

**Project deliverables**

What will you deliver from the project? Papers? Abstracts? Software? Break this down into a list, with a timeframe for each deliverable if required.

**Project power calculations (for studies involving medical or population-based research)**

Power calculations are key for any application seeking to observe the difference between a control and ‘treated’ group. Here I commonly use a paper published to demonstrate different methods for calculating the number of participants required for a fully powered study (<https://pubs.rsna.org/doi/abs/10.1148/radiol.2272012051?journalCode=radiology>).

Here you should describe where you have got preliminary data to power the project, basic assumptions about the calculations (what type of study is this, what zcrit and zpwr did you use?).

**Ethical considerations**

This section most applies to medical research, where there are a number of ethical considerations to make for a project. Below are three key areas: animal, clinical, and human tissue use.

**Animal research**

Have you thought about the three Rs? (<http://www.understandinganimalresearch.org.uk/animals/three-rs/>)

What species have you chosen and why?

Do you have a license to do this work?

**Clinical study**

Do you have ethical permission for this study? If not, have you started to apply? (<https://www.hra.nhs.uk/about-us/committees-and-services/integrated-research-application-system/>).

**Use of human tissue**

Have you complied with the human tissue act? (<https://www.hta.gov.uk/guidance-professionals>).

**Risk management**

This section is about showing that you have thought about the potential risks, and subsequent mitigations, for your project. Be realistic, and make sure you have 2-4 clear and sensible risks mentioned.

**Dissemination of results**

How will you share your results with other researchers and the public? Social media? Conferences? Blog posts?

**Data storage and availability**

Will you make your data and code available for other researchers? When will this happen? How will you store the data?

**Intellectual property**

Can IP be generated from this project? Your institution should have standard working to put here.

**Supporting figures and tables**

Here include your supporting figures and tables.

**References**

References go here – pick a standard format unless specified.