

Guidance on Writing an Outline Research Proposal

Research proposals are required for applications to some, but not all PhD programmes. Please first read the application guidelines for your particular course to find out what is required. In most cases you will need to write a research proposal, unless you are applying for a distinct PhD programme that for example includes rotation projects in the first year – in those cases you will only decide your PhD project once you have started the course.

In most instances we would recommend that you submit a Departmental PhD application, even if this is alongside your other application to a specific PhD course. To apply to a Department, you must first identify a supervisor you would like to work with. To get started, send a few informal emails to different potential supervisors introducing yourself and telling them about your overall research interests. Some supervisors will not have space or may be too busy to respond, so it is worth asking a few and see who responds enthusiastically.

Supervisors will want to know your overall area of interest, but if you are planning a project in medical research they are unlikely to ask you to devise your own PhD project without offering some help and advice. Biomedical science moves very quickly, so your proposed supervisor will probably have some very good suggestions about specific research areas you could work on in their lab. These might be based on recent advances in the field that you haven't covered in your course or preliminary data that aren't even published yet, so listen to what they suggest and be prepared to do some additional background reading.

Together with your proposed supervisor, you can then put together a draft outline of the types of question you would like to answer and the experimental approaches this would involve. Make sure that your supervisor can provide training in the relevant experimental techniques, if needed. Once you have agreed on an outline, you can start to write your project proposal.

Base it around the following sections:

- Proposed supervisor name and location
- Title of project
- Aims - include an overall aim, together with some more specific focussed aims
- Background - show that you have read and understood the key relevant literature, and that you can use this to explain why the project is important
- Project description – outline a project that is feasible for you to complete in the 3-4 years of a PhD. Make sure that you focus on what you could actually get done in this timeframe, and within the limited budget of a PhD. Your proposed project should address your aims.
- Methods – indicate the techniques you propose to use in the project, and what training you would need. If you plan to work with human participants, how many do you think you will need, and are there any ethical issues?
- Bibliography – this only needs to be short, but should include the main papers that have helped you to develop the project, and that demonstrate why it is important.

We do not expect a highly detailed project description at this stage, but we will be expecting you to demonstrate that you can gather together your ideas and articulate them clearly. Your proposed supervisor will most likely be happy to take a look at your draft proposal and may suggest some changes before you submit it.