Programme summary and assessment guidelines

The CIMR 4 Year PhD Programme is one of the 1+3 Programmes offered by the Graduate School of Life Sciences. The first year of the programme forms the basis for an MRes in Medical Sciences. The assessment for the MRes is based on the reports and presentations produced at the end of each mini-project, and also an oral assessment towards the end of year 1, subject to the approval of an external examiner. Please note it is not intended for the MRes to be undertaken as a stand alone qualification; the MRes is integrated as part of the 4 year programme.

Year 1

End of Autumn Term

1. Mini-project report prepared in standard scientific paper format; reviewed by supervisor and assessor orally and in writing in format of standard referee’s report on paper (transferable skills training).
2. Oral presentation by student.

End of Spring Term

1. Mini-project report prepared in standard scientific paper format; reviewed by supervisor and assessor orally and in writing in format of standard referee’s report on paper (transferable skills training).
2. Oral presentation by student.

End of Summer Term

1. Poster presentation of 3rd rotation project, (or Mini-project as above) reviewed by supervisor and Programme Director.
2. Choice of main project and supervisor.

July / August

1. Preparation of research proposal for PhD project in form of mock project grant application (transferable skills training).
2. Oral assessment of mini project reports and research proposal by Programme Director, internal assessor (usually the Head of one of the participating departments) and external assessor. This will determine whether you have met the criteria for the award of an MRes in Medical Science.

Year 2

End of Summer Term

1. Preparation of the upgrading 1st year report (up to 10,000 words including literature review and account of 1st year’s work on main project in standard scientific format)
2. Presentation on project work at summer symposium
3. 1st year oral examination
4. The main project supervisor will send their assessment report to the Board of Graduate Studies through Cam Grad for the upgrading to the PhD status by the appropriate Degree Committee

Year 3
End of Summer Term

1. Presentation on project work at summer symposium

Year 4
End of Summer Term

1. Presentation of work at summer symposium
2. Preparation of thesis for submission (by 30th September)
3. Final Viva in October / November (following standard University of Cambridge procedures)

Instructions for preparation of mini-project reports

The results of your Mini-Project should be written in standard scientific paper format.

Title page: Authors name, Supervisor (main supervisor and lab supervisor if appropriate), Laboratory / Department address.

Abstract: 250 words (= 1 page Times Roman 12 pitch double-spaced).

Abbreviations: List key abbreviations used throughout the text. Remember that these should still be spelt out in full the first time that you use them, with the abbreviation in brackets.

Introduction: ~500–750 words (= 2-3 pages Times Roman 12 pitch double-spaced). This should provide a concise and fairly specific background to the project, and the hypothesis / questions specifically being addressed. It should NOT be a full literature review.

Materials and Methods: ~1500 words (= 6 pages Times Roman 12 pitched double-spaced). This should provide sufficient detail (or reference to sufficient detail) to allow another worker to carry out the same experiments. If you are referring to a published method, it is often useful to outline the protocol “in brief”.

Results: ~1500 words (= 6 pages Times Roman 12 pitched double-spaced). This should provide a concise account of the results obtained, in a logical order that hopefully tells a story. This will not necessarily be the order in which you carried out the experiments! Make maximum use of figures / tables – remember a picture often replaces a thousand words. A standard scientific paper in most journals will contain ~6 (maximum 8) figures or tables.
**Discussion:** ~1500 words (= 6 pages Times Roman 12 pitched double-spaced). This should NOT be a repetition of the Results, but should critically evaluate the significance of your results in relation to published works, which should also be critically appraised. It will usually contain ideas of further work required to clarify your findings. This is a valuable inclusion in a project report where you may not have had sufficient time to complete the research as you might otherwise have hoped for.

**Acknowledgements:** This should acknowledge key assistance and funding sources.

**References:** Please provide these in a standard format (i.e. all the same throughout the list!), and include authors, year, title of paper, journal, volume, and first and last page numbers. You may use numbers throughout the text for your references, but please include the full reference in the reference list. 30-40 references should be adequate (~1250 words = 5 pages Times Roman 12 pitch double-spaced).

**Figures and Table legends:** Please make sure that sufficient detail is provided in the legend for the reader to understand the figure or table fully without reference to the text. Figure legends go at the bottom of the figure. Table legends go at the top of the table.

**Total length:** ~7000-7500 words (ABSOLUTE maximum 10,000 words). Please adhere to this as we ask independent reviewers to assess your project report and provide feedback in the form of a standard referee report such as they might be asked to prepare for a manuscript submitted to a journal. This is a major commitment as we have 10 projects, i.e. 10 referee reports to obtain for you throughout the year.

**Instructions for preparation of mock grant application**

This project is designed to provide students with basic training in grant writing skills. The grant proposal will be based on the student's main project, and in the format of a mock grant application. This will be used in the assessment of the MPhil awarded at the end of Year 1.

These instructions should be read in conjunction with the mock application form (download word version of mock application form).

For the purpose of the exercise, the student should:

- Briefly describe the research project proposed in terms that will be understood by an external reviewer whose scientific expertise might not be in the area of the proposed research.
- Prepare a one page summary of the main project, including reference to the research training and skills that the project will provide, as well as the background rationale and research proposed.
- Prepare a (maximum 8,000 words – please see exam regulations for further details) description of the main project, under headings: (a) Hypothesis / Rationale; (b) Background work which has led up to the study; (c) Plan of investigations. Further subheadings may be used under these two main headings. Two additional pages are provided for...
Proposed budget giving detail of expenditure broken down by the categories that you justify below

Budget justification, under headings
(a) Staff requested
(b) Materials and consumables
(c) Miscellaneous costs
(d) Equipment

Separately you should justify animal costs, answering the questions outlined in the mock application form. For the staff requested, you should justify your own cost as if you were a single research assistant employed on the grant, i.e. the research project outlined should be able to be done by a single RA. For material and consumables, please give a reasonable breakdown of the costs - more than might be given on a normal project grant application by your supervisor. It is important that you fully understand the costs involved in carrying out your research project. For miscellaneous costs, you should justify any additional expenses such as freight costs to purchase animals or supplies internationally, access to core specialist equipment, etc. For equipment costs, you should work out the main specialist equipment items that you will need to access to carry out your research and justify items you will require regular access to (in reality, these should already be available to you through your supervisor's laboratory, but for the purposes of the grant writing exercise it is important that you cover this aspect). For project viability, it is important that the reader is assured that you have access to all of the equipment required for your project.

Please talk to your main project supervisor for further advice on how to prepare a grant application.

**Instructions for upgrading assessment**

Your upgrading assessment will take place in Term 3 of the first year of your main project, i.e. at the end of the second year of your 4 Year Programme.

You will be required:

- To give a presentation on your 1st year main project work at the Summer Symposium.
- To write a full report of your 1st year project work - including a literature review of sufficient depth to demonstrate your knowledge of the field - which can act as the template for the introduction to your final PhD thesis.
- The general instructions for preparing the upgrading assessment report (i.e. what is known as 'first year report' in the context of a normal 3 Year PhD) are provided on the Graduate School of Life Science website. The only modification to this is that we allow an overall word limit of 10,000 words for the literature review plus scientific report of the first year of research.
- To attend an oral examination. Your oral examination and written report will be assessed by your supervisor and at least one assessor external to
your PhD project. The examiners will assess your knowledge of the area of research, and will also discuss with you the progress you have made during the first year of study as well as future directions for the work

- Your supervisor will prepare a report of your upgrading assessment to be sent to the Board of Graduate Studies and appropriate Degree Committee through CamGrad. This report should contain a recommendation regarding your formal upgrading to the PhD status.