

## Peer reviewer assessment form

Please read the guidance within before undertaking your assessment.

Application reference number: HF-14-29

Lead Applicant: Mr. Arwel Wyn Jones

Please enter your score using the scoring scale in Appendix 1:

7

Please return forms to:  
[NISCHRGrants@Wales.GSI.Gov.UK](mailto:NISCHRGrants@Wales.GSI.Gov.UK)

## **Guidance for completing the scientific review**

Please read the application you have been sent thoroughly and provide comments under the following assessment criteria headings:

- A: Scientific merit
- B: Methodology
- C: Planning and resources
- D: Impact and dissemination
- E: Overall impression

You are asked to provide an overall rating for the application. Information on the scoring system is provided in Appendix 1.

An indication of the kind of factors you should take into consideration when assessing the application under each criterion is provided below each heading.

## A: Scientific merit

- The aims of the project are clearly stated.
- The study is well-designed.
- The outcome measures are clearly defined.
- The research will fill a clearly identified gap in current research knowledge.
- The project is ethically acceptable.
- The work will be of interest and relevance elsewhere in the UK and beyond.

### Comments:

The aims of the project are clearly stated and the study seems well-designed although I find the timeplan too ambitious. The research addresses an important gap in our knowledge and could provide very useful insight. I see no ethical problems and the research is of interest in the UK as well as outside.

Nevertheless, I think there is one important shortcoming in the project – and this should be addressed. However, I think the study proposal can with little effort be changed to address my concern. I am mainly worried that the outcome, COPD exacerbations, are too heterogeneous events to be lumped together. It seems highly likely that different biomarkers will predict different types of exacerbations and that different pathways are involved. I think the project should address the heterogeneity of exacerbations by e.g. trying to type them by presence/absence of viral infection, bacterial infection and other treatment as this in combination with slightly better phenotyping of patients beyond frequent/infrequent exacerbators is necessary. The phenotyping could include type of previous exacerbations, treatment of these, +/- colonisation (clinically) in stable state and underlying treatment.

## B: Methodology

- The methodology is clearly described.
- The methodology is rigorous and unbiased.
- Will the methodology enable collection of the required data?
- The methodology is appropriate for the specific aims of the project.

### Comments:

Methodology is well described, ambitious and the applicant / team seem capable of taking this forward.

## C: Planning and resources

- The resources requested are essential for the work.
- The work is well planned.
- The project can be completed within the budget and timescale proposed.
- The project team has the necessary experience and expertise.
- The project offers good value for money.

### Comments:

The project seems well planned although the timetable seems ambitious given the number of subjects that the applicant wants to recruit. I therefore have slight worries as to the time plan.

The budget seems very reasonable but may need slight expansion if the project has problem with time plan.

The project would in my view offer good value for money.

## D: Impact and dissemination

- The findings are likely to stimulate further research.
- The findings are likely to lead to improvements in social care services.
- The research addresses the inequalities in social care.
- The plans for disseminating the results of the research are appropriate and adequate.
- There are appropriate plans for promoting public understanding of the research

### Comments:

The study – if carried out according to plan – is very likely to have an impact and will stimulate further research. However, this is based on the assumption that further subtyping of exacerbation events is possible (as outlined in A). With studies like this there will always be some concern about how to implement results in future strategy but it does not seem impossible and it seems outside the scope of the current project to actually address this in detail.

The plan for result dissemination seems appropriate.

## E: Overall Impression

- What are the main strengths and weaknesses?
- Is the application innovative and original?
- Will it make a difference?
- What, if any, improvements could be made?

Comments:

Strengths: Well picked topic, good eye on current weakness and good methodology, adequate supervision.

Weakness: Ambitious / over-ambitious timeplan and concerns about lack of exacerbation phenotyping.

## Appendix 1

### Peer reviewer scoring system

At the end of the assessment form you are asked to provide a score for the application out of ten.

You should first decide whether the application is excellent, good, potentially useful or unacceptable, and then provide a score that falls within that category using the table below. You should use only whole numbers when scoring.

Please note that your score and comments will be fed back to applicants, though applicants **will not** be made aware of your identity.

NISCHR Peer reviewer scoring scale	
Score	Indicators
<b>Excellent quality research (9-10)</b>	
10	Exceptional
9	Excellent quality research which is (or will be) be at the forefront internationally. Addresses very important medical or scientific questions. Likely to have a high impact on health or social care practice (in the relevant field).
<b>Good Quality Research (5-8)</b>	
8	Good, bordering on excellent.
7	Good quality research which is internationally competitive, and at the forefront of UK work. Important research which will be highly productive, and likely to have a significant impact on health and social care practice (in the relevant field).
6	Good quality research, on the border between national and international standing.
5	Good quality research which is at least competitive at a UK level. Addresses reasonably important questions, and will be productive. Good prospects of making some impact on health and/or social care practice (in the relevant field). Any significant concerns about the research approach can be easily corrected.
<b>Potentially useful study (2-4)</b>	
4	Potentially useful, bordering on good quality research.
3	Research plans which contain some good ideas or opportunities, but which are very unlikely to be productive / successful. Major improvements would be needed to make the proposal competitive.
2	Potentially useful in some aspects, bordering on unacceptable in others.
<b>Unacceptable (1)</b>	
1	Serious scientific or ethical concerns. Should not be funded.