Name and Title: Professor David MacEwan
Email: macewan@liverpool.ac.uk
Home institution: University of Liverpool
Award or subject area examined: Pharmacology NST/BBS
Associated University of Cambridge Faculty/Department: Pharmacology

**Please tick the statement which most closely reflects your views of the examinations.**

| The standards set for the award(s) or subject area(s) above were appropriate. The processes for assessment, examination and the determination of awards were sound and fairly conducted. | ✔ |
| The processes for assessment, examination and the determination of awards were sound and fairly conducted. | ☐ |
| **Any recommendations made are for the purposes of enhancement to the course and its assessment.** | |
| The standards set for the award(s) or subject area(s) above were appropriate. The processes for assessment, examination and the determination of awards were sound and fairly conducted. | ☐ |
| **HOWEVER, there are some risks to the future assurance of the course and its assessment, as outlined in my recommendations.** | |
| There are immediate concerns or risks relating to the standards set for the awards or subject areas above and/or the processes for assessment, examination and the determination of awards. These require immediate action on behalf of the University to prevent reoccurrence in the next set of examinations. | ☐ |

**Please tick as appropriate:**

| Are you satisfied that you received sufficient programme materials (programme handbooks, regulations, and marking criteria)? | Yes | No | N/A |
| Are you satisfied that you were consulted adequately on draft examination papers, and that the level of questions was appropriate? | Yes | No | N/A |
| Were you given sufficient opportunity to scrutinise the general standard and consistency of marking of examination scripts and coursework? | Yes | No | N/A |
| Have issues raised in previous report(s) been addressed to your satisfaction? | Yes | No | N/A |

Please return this form, with your full report, to: vcexternalexaminers@admin.cam.ac.uk by July 31st for undergraduate examinations, 1st October for Masters Degrees, and 12th October for resits. 
Or: The Vice-Chancellor, University of Cambridge, The Old Schools, Cambridge, CB2 1TN.
Please also forward copies to your Chair of Examiners.

This form can be downloaded from: http://www.admin.cam.ac.uk/offices/education/examiners/eecoversheet.pdf
NOTES FOR EXTERNAL EXAMINERS

Submitting reports to the University

1. All External Examiners are required to submit a written report at the conclusion of their involvement with the examination, and may comment on any aspect of the examination, including the fairness of the assessment and the standards of the candidates for the part of the examination that they are involved with.

2. Reports should be addressed to the Vice-Chancellor of the University; payment of the fee and expenses is conditional on receipt of the report.

3. Full guidance on the roles and responsibilities of External Examiners is provided on appointment. It can also be found at: www.admin.cam.ac.uk/offices/education/examiners/external.html. All External Examiners will receive feedback on their full report in line with University policy.

Report structure and content

4. The written report is made available for discussion by the appropriate Faculty or Department concerned with the examination and by the General Board's Education Committee. Reports are usually considered by the senior committees of the relevant Faculties and Departments. These committees include student representatives and reports should therefore be written in a form that avoids discussion of individual candidates by name or candidate number.

5. There is no University standard reporting template, but reports are expected to cover four main areas:
   • the extent to which standards are appropriate for the examination and the qualification;
   • the extent to which standards are comparable with similar programmes in other UK institutions with which you are familiar;
   • the extent to which processes for assessment, and the determination of awards were sound and fairly conducted;
   • any good practice which you feel could be usefully identified for further dissemination.

6. Reports may also include commentary on the following topics, at the discretion of the individual External Examiner:
   
   the examination
   • the design, structure and marking of the examination;
   • the procedures for assessment, including the basis and rationale for any comparisons of standards made;
   • the strengths and weaknesses of the students as a cohort;
   • whether your role is appropriate for the examination to which you were appointed, including whether or not you had sufficient access to any material needed to make the required judgements;

   the course
   • the curriculum, its aims, content and development;
   • resources as they impact upon student performance;
   • the quality of teaching and learning, which may be indicated by student performance.

General points

7. Submitted reports will only be used in accordance with General Board policy (for the monitoring of academic standards within the institution) and in line with current legislation.

8. Consistent with Indicator 4 of the QAA’s UK Quality Code (Chapter B7), all External Examiners’ reports will be made available, in full, to all students, with the sole exception of any confidential report, made directly and separately to the Vice-Chancellor.

9. The University shall own the copyright in the reports made to them by External Examiners; in accepting the appointment, External Examiners assign all present and future rights relating to the reports and any other materials created in relation to their appointment. External Examiners will also waive any rights including moral rights in connection with those materials.

10. The University will take reasonable endeavours to ensure the accurate reproduction of material and information provided by External Examiners; all other warranties and undertakings are excluded, including liability for direct or indirect loss to an External Examiner.

11. External Examiners are advised that, under the Data Protection Act 1998, the University will process personal information on its External Examiners.

12. External Examiners are also advised that, under the Freedom of Information Act, the University may be obliged to disclose details of their report on request.
Report from David MacEwan, Pharmacology external examiner 2017

- The extent to which standards are appropriate for the examination and the qualification.

The standards are consistent with other UK university Pharmacology degrees that I have taught and examined on, as well as acted as external examiner for.

- The extent to which standards are comparable with similar programmes in other UK institutions with which you are familiar.

I have academic experience in Pharmacology teaching at five UK Universities and one US University. Moreover, I have acted as external examiner at three other UK institutions. In short, the academic standards and achievements of these students are indeed comparable to these other institutions.

- The extent to which processes for assessment, and the determination of awards were sound and fairly conducted.

The examination process I believe was fairly conducted and gave the candidates sufficient opportunity to show their knowledge and grade.

- Any good practice which you feel could be usefully identified for further dissemination.

Once again, I felt that the breadth of the Pharmacology topics tested was particularly wide and strong. There was ample opportunity for students to show their abilities across a wide range of related topics and subjects. The project reports that I read were also to a very high standard. The projects that I witnessed were to a very high standard too. Also, being able to viva the students is a positive experience for the student and examiner – the University of Cambridge should be commended for including a viva as part of the examining process. There is the opportunity for the students to ‘shine’ as part of their examination schedule.

- The examination design, structure and marking of the examination.

There was evidence of rigor among the exam marking that I witnessed. The opportunity for two independent blind markers across most exam material was particularly impressive to witness. There was good concordance between the independent markers and mediation between any arising differences.

- The examination procedures for assessment, including the basis and rationale for any comparisons of standards made.

There were clear grading standards that were made known to the marking staff beforehand and to myself. In general, any exam material I read was clearly overall within the degree classification awarded by the Pharmacology exam committee. The way the marks turned out this year, there was no uncertainty at the borders between two degree classifications, therefore there were no borderline candidates to orally examined by me and the exam committee. There were viva examinations to decide on the top student prize however. These viva exams were conducted rigorously and fairly and there was good agreement among those present, after general discussion by all.
The examination strengths and weaknesses of the students as a cohort.

The standard of students among this cohort that I inspected was of a strong average level, with the expected allocation of degree classifications that are similar to those from other institutions awarding undergraduate Pharmacology degrees.

Whether your role is appropriate for the examination to which you were appointed, including whether or not you had sufficient access to any material needed to make the required judgements.

The Head of the level 3 tripos, Prof Laura Itzhaki, kept me informed of the process, expected timelines, expectations of the students and examining staff. The outcomes were for me, very satisfactory, and in line with the expected classifications that were supported by the exam board. Discussion and consensus of opinion was obtained satisfactorily.

The course curriculum, its aims, content and development.

The course curriculum appears nicely balanced among the expected topics to be taught in Pharmacology, without biasing any one particular area. This is my third year as Pharmacology external examiner, and am satisfied with the aims of the course, its content any examination process development.

The course resources as they impact upon student performance.

The course resources are of good quality. Perhaps best among these is the communal tearoom space that the undergraduates share with staff. This is perfect for giving the student’s a feeling of belonging and helping their interaction with academic staff, to the benefit of their studies. There is a very apparent collegial feel between staff and students.

The course quality of teaching and learning, which may be indicated by student performance.

Cambridge is at the very top in terms of student satisfaction, so others could learn from its practices. Similarly, the high number of intercalating medical and veterinary students ensures that the majority of the Pharmacology students are highly motivated and enthusiastic to learn and progress in their studies.
I was asked to review all of the exam papers in good time. This is the first year that a multiple choice, single best answer paper has been used.

**Multiple choice paper**
This paper represented a comprehensive coverage of Pharmacology and was challenging. In my feedback to the examiners I highlighted a number of questions which were dated (e.g. relating to reserpine) and although I appreciate this is a preclinical exam, I would request that the teaching staff and examiners aim to focus on drugs and therapeutic strategies which relate to current clinical practice. Many Medical Schools have formularies of commonly used drugs and use these to guide curricula. I also noted that some of the questions focused on highly specific details and detailed factual recall and questions which relate to application of knowledge would improve the paper. Again this format also lends itself to the use of more interpretative questions e.g. based on pharmacokinetic and pharmacodynamic data.

For MCQ papers to be examined it is normal practice to apply a correction factor for guessing (CFG) to allow for fact that, in a best of one from five exams, students are ‘gifted’ 20% of marks. I would urge Teaching Committee to review this and aim to apply a CFG or Standard Set the paper. These approaches will certainly be used in exams taken by latter year medical students and junior doctors.

**Data analysis paper**
Compared to other medical degrees this is a challenging paper and very consistent with the Medical Sciences Tripos and its ethos. The 2 questions were fair and challenging. I would request that questions are broken up into numbered sub questions so that it is explicit as to what is required. This should also be accompanied by a mark allocation for each sub question. I would also request that a fuller marking scheme is provided with the Pharmacokinetics question and this would help the external to appreciate the mark allocation.

**Review of papers**
I visited the Department on Monday the 12th June and had access to all of the relevant scripts. I would like to commend Dr Ladds the Senior Examiner for his excellent and efficient hosting of my visit, which made the process transparent and greatly assisted review.

I had access to all of the scripts and can report that the best candidates were outstanding and demonstrated a thorough knowledge of drug action. I reviewed all papers at the borderline and all of the papers deemed to have failed 2nd MB. The marking had been applied fairly and consistently. However, external review is hampered by the practice not to annotate scripts. I understand why this instituted by the University but question its value. Script annotation is considered good and important practice at all other universities.
that I have examined at and would certainly help the external examiner review papers and understand the justification of the award of marks.

Overall, I was impressed by the depth and range of assessments, which were overall challenging. The material and assessment are certainly consistent with this level of study of Pharmacology on a medical degree at other Medical Schools. The examination process at the University was fair and consistent.

Professor Michael D Randall
Associate Pro-Vice Chancellor
(Education and Student Experience)
And Professor of Pharmacology
University of Nottingham Medical School