Dear Professor Richard

NST Pharmacology Part II Examinations

I was pleased again to act as external examiner for this year’s part 2 Pharmacology examinations in the Natural Sciences Tripos. There were thirty-seven candidates split between medical and science undergraduates.

I perused the draft examination papers in February supplied by the Senior Examiner, Dr RM Henderson, and reported that I was satisfied with their coverage of the course.

The examination consisted of four three hour papers, two in Molecular and Cellular Pharmacology, and two in Systems Pharmacology. In addition, students submitted a dissertation outlining an experimental project they had carried out over the course of one term. Students had previously given an illustrated oral account of their project to the Examiners, for which I was not present.

Furnished with the mark sheets, I looked over the written scripts and experimental project write-ups over two days in Cambridge in June. Generally the quality of the answers was of a high standard. With the four internal examiners, I conduct viva voce examinations of ten students. One was examined to confirm the winner of the experimental project prize, three for consideration for placement in the First class, and others for their relative positions in the second class divisions. In addition, I examined one BBS candidate who had deemed to fail outright, and indeed this was the case.

The Senior Examiner, provided me with extensive information, including copies of past papers and summaries of examiners’ comments on the papers of those to be vivaed. This was most useful and showed a great deal of thought and organization.

Last year I had recommended that more material dealing with experimental techniques might be introduced into the lecture course since no general practical classes are at present offered. I was pleased to see that this recommendation had been adopted for this year.

I think that it is fair to say that the standard this year had not been as high as last year. This was reflected in fewer being placed in the first class division (three). Perhaps the Department could be more selective about admission to the NST Part 2 course with regard to weaker candidates. The fact that one candidate failed outright illustrates this point rather dramatically. Additionally, it was very disappointing that a particularly promising candidate had withdrawn during the
examination process.

Finally, I would like to express my sincere thanks to the examiners, Dr Henderson (Senior), Professor Cooper, Professor Edwardson, Dr Barrand and Dr Sarnyai for making my task so enjoyable and rewarding. They were exceptionally helpful, insightful and judicious in their deliberations with me. The comprehensiveness of the material made available to me is a testament of their professionalism as examiners. I would also like to record my thanks for their excellent hospitality, and for my enjoyable stay at Emmanuel College.

This was my second year as external examiner, and I look forward to a further year of working with Cambridge’s excellent Department of Pharmacology.

Yours sincerely,

Antony Galione

Professor Antony Galione FMedSci
Professor and Head of Pharmacology
University of Oxford
5 July 2010

Dear Professor Richard

Medical and Veterinary Tripos Part IB - Mechanisms of Drug Action

I am writing to report my findings as external examiner on the above examination. I attended the Department of Pharmacology on 7 June to look at scripts from this examination and to agree the pass list with the internal examiners. Once again I was happy with the way the examination had been conducted and was able to approve the marks awarded by the internal examiners as an appropriate reflection of the candidates' abilities. The quality of the top students in this examination is extremely high and the format of the examination enables one to evaluate the depth of understanding of pharmacology and their ability to apply this to problem solving (data handling) questions.

This examination serves two purposes. Firstly it is part of the Medical and Veterinary Sciences Tripos and secondly it is a professional examination (2nd MB / VetMB) determining whether the candidates have sufficient knowledge and understanding of the subject as a basis for their subsequent professional qualifications. This makes the assessment process and setting of standards for these two purposes difficult. I focussed my attention on those candidates at the borderline between pass and fail of the professional examination and examined these cases in detail. In all instances I looked at, bar two, the marks allocated were, in my opinion, entirely appropriate. In two cases which were particularly close to the borderline I felt the candidates deserved to pass the examination and I was able to recommend where additional marks could be allocated. The internal examiners were in agreement in both instances.

At the examiners' meeting this year we focussed on the issue relating to an error on the practical paper of the above examination. The last part to this question incorrectly referred students to Fig 1 and Fig 2. The students should have been referred to Fig 2 and Table 1. This error was pointed out at the start of the examination in all except one examination hall. We examined the marks of candidates who had been given the correct information and those that had not. There was no evidence that those who had not received the correction were disadvantaged by this. I read a sample of scripts from both groups of students across the range of abilities and was convinced, in so doing, that all students understood which data set pertained to this part of the
question and not having had the correction had not affected the way the students approached answering this question. We were unanimous in our decision that no further action was required on this matter.

We did briefly discuss the format of the examination and covered ground which I have detailed in previous reports. I would suggest some further thought is given to the style of paper 1, the possibility of introducing different formats of questions and the acquisition of a large bank of reliable questions (as mentioned in my report last year) would seem achievable and sensible goals. Each year I have examined on this course there have been a small number of questions which have been thrown out at the mark collation stage because they have proved unreliable. Some further thought probably needs to go into how questions are selected for this paper and how the pass mark is determined since this need not always be 50% - it should reflect the difficulty of the questions used.

Paper 2 (data handling paper) is the one where I have commented in the past that a marking scheme should be published with the question. This would show the students how the examiner intended to allocate marks for these multipart questions. Both examiners had produced a marking scheme to go with a model answer against which they marked, which was very helpful to me in assessing the appropriateness of the marks they had allocated. Some of the examiners felt publishing the distribution of marks on the question paper would be too prescriptive and would not allow them the freedom to give additional marks for a part of the question where the student showed innovation and ingenuity in their answer. This is clearly the case but in the interests of fairness to the majority of candidates, in my view, the benefits of inclusion of the marking outweigh the potential disadvantages.

The third paper (essay paper) only contributes towards the Tripos on the understanding it is testing depth of knowledge and understanding rather than breadth of knowledge. Clearly this free format allows the really good students to demonstrate their grasp of the subject and is appropriate for the Tripos. Depth of knowledge is not really tested as part of the professional examination – use of different formats of MCQs would facilitate this as suggested in my report last year.

I hope this short report is helpful to you and to the Department of Pharmacology. Please do not hesitate to contact me if I can provide further clarification on the points made above.

Yours sincerely

[Signature]

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