Review Panel:

Professor Frank Coton     Vice Principal (Learning and Teaching), Convener
Professor Richard Donnelly University of Nottingham, External Subject Specialist
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Dr Mary McCulloch Learning and Teaching Centre
Mrs Catherine Omand Senate Office, Clerk to the Review Panel

1. Background Information

1.1 The Undergraduate School of Medicine is part of the School of Medicine that also incorporates Dentistry and Nursing and Healthcare. The School of Medicine is one of three schools within the College of Medicine, Veterinary Medicine and Life Sciences. Within the College, there are also seven Research Institutes. The College was established at the time of the restructuring of the University in August 2010.

1.2 The Review Panel considered the following range of provision offered by the Undergraduate School of Medicine:
   - MBChB (accredited by the General Medical Council (GMC))
   - 1-year intercalated BSc (Med Sci) Clinical Medicine programme

1.3 The Undergraduate Medical School is based within the purpose-built Wolfson Medical School Building (opened in September 2002) to provide accommodation for the predominant use of Problem Based Learning (PBL).

1.4 The Undergraduate School of Medicine was last reviewed in 2006. Following recommendation from that review, the School had developed a second sitting of the first diet of examinations for final MBChB students, allowing sufficient time for successful candidates to enter the medical workforce at the annual entry point in August.

1.5 This Periodic Subject Review was being undertaken during a period of transition for the curriculum for the MBChB and therefore the Self Evaluation Report discussed changes that have yet to be implemented.
1.6 A significant number of staff contribute to the Programme: 116 academic staff (68 Clinical, 9 Clinical Consultants and 39 Research and Teaching), 249 Case Based Learning tutors, 60 Vocational Studies Tutors (mostly GPs), plus contribution from 192 Problem Based Learning (PBL) facilitators.

1.7 Student numbers for 2010-11 were as follows:

<table>
<thead>
<tr>
<th>Students</th>
<th>Headcount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>249</td>
</tr>
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<td>Level 2</td>
<td>245</td>
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<td>Level 3</td>
<td>265</td>
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<td>Level 4</td>
<td>232</td>
</tr>
<tr>
<td>Level 5</td>
<td>269</td>
</tr>
<tr>
<td>BSc Medical Science</td>
<td>57</td>
</tr>
<tr>
<td>Undergraduate Total</td>
<td>1261</td>
</tr>
</tbody>
</table>

1.8 The Panel met with the following members of staff: Professor M Pignatelli (Head of School), Professor A Jardine (Head of Undergraduate Medical School), Professor P Cotton (Academic Director of Vocational Studies and Coordinator of the undergraduate curriculum in General Practice), Mrs E Duncan (Undergraduate Medical School Administrator), Professor J Morrison (Dean (Learning and Teaching)) and with Professor A Dominiczak (Head of College).

1.9 The Panel also met with the following groups: 25 undergraduate students from each level of the 5-year programme, 32 members of staff, 28 tutors/facilitators and with 6 NHS staff.

2. Overall aims of the Department's provision and how it supports the University Strategic Plan

As stated in the Self Evaluation Report (SER), the overall aims and core values of the School were consistent with GMC requirements, with the overarching aim to train highly respected and successful doctors. The aims were also consistent with the University Strategic Plan, in relation to research, infrastructure, innovative teaching, internationalisation and the learning and teaching strategy.

3. An Evaluation of the Student Learning Experience

3.1 Aims

3.1.1 The aims of the Subject’s undergraduate taught programmes were clearly laid out in the programme specifications which were made available to students by means of Course Handbooks. However, the Panel considered there was a need for a better understanding of learning aims amongst the student cohort and recommends highlighting the aims and intended learning outcomes more directly to students.
3.1.2 The Review Panel, guided by the views of the External Subject Specialist, confirms that the programmes offered by the School remained current and valid, in light of developing knowledge in the discipline, and practice in its application.

3.2 Intended Learning Outcomes (ILOs)

3.2.1 The Intended Learning Outcomes (ILOs) were considered to be appropriate to the programme of study. The revised programme specification was currently going through programme approval with the ILOs clearly outlined in terms of knowledge, skills and professional attributes. However, given the very wide range of staff that contributed to the programme, the Panel sought assurance at the meeting with the Head of the Undergraduate School that arrangements were in place to ensure that ILOs were set in a pattern seen as consistent by students.

3.2.2 The ILOs were published in the student handbooks but ILOS for Problem Based Learning (PBL) were released retrospectively. The Panel considered it appropriate to provide information prior to commencement of PBL. (see recommendation at 3.1.1)

3.3 Assessment, Feedback and Achievement

Assessment

3.3.1 The Panel was satisfied that the School offered a diverse range of assessment practices. The development of a bank of multiple choice examination questions was considered good practice. The Panel commends the use of Blueprinting that maps ILOs against methods of assessment. This process provided substantial clarity to students, linking assessment with the aims and ILOs for the MBChB programme.

3.3.2 At the meeting with students, OSCE examinations were described as “hectic” and the students supported the reduction of stations to improve consistency. The students suggested that it would be useful if some general guidance was provided, such as videos of OSCE scenarios, to help with preparation for this type of examination. Students who had been on placement at the Western Infirmary, confirmed that they had participated on an orthopaedic video. At the final meeting with senior management, the Panel was advised that videos were available, but the NHS firewall created difficulties for student access. The Panel recommends that videos and podcasts are available to provide guidance and support for clinical skills and that accessibility is improved.

3.3.3 The Panel considered it desirable to protect as much of Year 5 as possible for “preparation for practice” and recommends that consideration be given to introducing final summative clinical assessments at the end of Year 4 in order for Year 5 to be devoted to preparation for foundation training and portfolio-based assessment.

Feedback to students

3.3.4 The National Student Survey (NSS) highlighted that students were dissatisfied with feedback and there was evidence in the Self Evaluation Report (SER) that the School had reflected on the poor student satisfaction results and had attempted to address this. The Panel recognised that variability in teaching and learning across sites and the provision of regular feedback whilst on
clinical placement was a major challenge. However, there was little detail in the SER about the methods used to enhance consistency and whether OSCE examiners received training and guidance on the provision of student feedback. The Panel recommends the provision of guidance on appropriate feedback to clinical staff.

3.3.5 At the meeting with the students, those who had previously taken the intercalated degree programme indicated that they had received thorough feedback throughout their programme of study, although it was acknowledged that it was a smaller group.

Student Feedback

3.3.6 The SER highlighted that there were a number of opportunities for obtaining student feedback. At the meeting with the senior management team, Professor Cotton advised that Ms E Laing, Additional Costs of Teaching (ACT) Officer, had been running a project in relation to tracking feedback, obtaining feedback from students and distributing this to respective clinicians.

3.3.7 The Panel was pleased to note the introduction of a mock formative examination in Year 4, in response to student feedback. At the meeting with the students, this had been well received and they found it very useful.

3.3.8 At the meeting with the students, the Panel was advised that the “You said, we did” table had been a one-off initiative to highlight action taken following feedback received but was now out of date. The Panel recommends that the School develop a more responsive feedback process and ensure closure of feedback loops. The Panel suggested highlighting on an annual basis, issues raised by previous student cohorts and what action had or had not been taken, accompanied by supporting evidence as to why some action had not been taken. Previous Staff Student Liaison Committee minutes should also be made available on-line and brought to the attention to new Student Representatives at the beginning of each year.

Achievement

3.3.9 The Panel noted that graduate destinations were not tracked, although it was known that 70% of graduates entered the NHS. The NHS provided feedback on performance during the Foundation Years only.

3.4 Curriculum Design, Development and Content

3.4.1 The SER highlighted the vision for the revised Undergraduate Teaching Programme. In 1997, significant revision had been made to the medical curriculum, moving from a traditional curriculum to an innovative one, predominantly based on Problem Based Learning (PBL); a programme highly praised and supported by the professional regulatory body, the General Medical Council (GMC). However, revision was now deemed necessary as a response to a number of issues: progressive disengagement of clinical teachers, changes to the contracts of NHS staff, changes to the structure of the NHS in Greater Glasgow and in response to the latest GMC requirements as stated in Tomorrow’s Doctors 3 (2009).

3.4.2 The SER stated that changes to the curriculum were largely organisational and did not significantly change the content or subject matter, but would allow for a
The revised structure would be more transparent, with objectives and assessment clearly stated. Whilst the Panel supported these changes, it stressed that, since the GMC advocated Problem Based Learning (PBL), the School should emphasise at the next GMC accreditation, that the changes being made were progressive, enhancing provision by the introduction of complementary skills and by re-engagement with bio-medical science, making PBL more meaningful.

3.4.3 At the meeting with the students, Year 3 students stated that they particularly enjoyed the tutorial style classes and very much liked Case Based Learning (CBL) where students were given more direction. Students were encouraged to think on the spot and expected to contribute and could not avoid participation, which could occur with PBL. The Panel proposes inclusion of this when considering the School's reasons for the proposed changes to the curriculum at the next GMC visit.

3.4.4 The Panel sought reassurance that the School had been considering the other GMC requirements on inter-professional education and prescribing skills. At the meeting with the senior management team, Professor Cotton confirmed that the School was committed to inter-professional education, with shared teaching with Nursing and Physiotherapy taking place and a joint course in Pharmacy was run with Strathclyde University. The Panel encouraged the School to develop inter-professional education further, if possible.

3.4.5 The Head of the Undergraduate Medical School, Professor Jardine, advised that the School was participating in the pilot for national assessment of prescribing skills. Students were being prepared for this by specific training, but also prepared via an increase in pharmacology teaching and via an OSCE examination, where a station had been developed on medicine safety and prescribing.

3.4.6 It was evident to the Panel that proposed changes to the curriculum of the MBChB programme had been driven in part by disengagement of clinical staff. Feedback from clinicians criticised Problem Based Learning (PBL) for not providing sufficient depth of clinical knowledge, although the GMC, External Examiners and students were all satisfied with PBL. There was also no evidence to suggest that it had impacted negatively on the adequacy of junior doctors. However, at the meeting with the tutors and facilitators, although PBL was strongly supported, it was considered limited as a main tool for learning and it was agreed that incorporating additional forms of study would enhance learning and clinical context.

3.4.7 In response to clinical staff feedback, the Undergraduate School of Medicine had been working hard to re-establish good working relations with NHS clinicians. The revision of the curriculum and increased Case Based Learning (CBL) provided an opportunity for clinical staff to contribute to the curriculum, ensuring that the ownership of clinical teaching was shared between the School and clinical staff. At the meeting with the NHS staff, it was confirmed that staff appreciated involvement with the revised curriculum, but it was highlighted revised contracts created time pressures for staff that wished to contribute to teaching and that the allocation of time for teaching was increasingly difficult (see 3.8.2). Although the Panel endorsed the engagement with clinical staff, it was concerned that the School was investing substantial reliance in clinical staff for the delivery of teaching, in a changing environment which limited their ability to deliver the new curriculum. The Panel strongly
recommends that the School seeks agreement with the NHS in Greater Glasgow and Clyde that adequate facilities and support would be provided for the revised curriculum (also see recommendation at 3.8.3).

3.4.8 At the meeting with senior management, Professor Jardine confirmed that the School had regular meetings with the Deanery. Sub-Deans also had access to VALE and student records. However, at the meeting with NHS staff, it was raised that inadequate lines of communication for day-to-day issues existed and it was proposed that engagement had to be improved between the Undergraduate School of Medicine and hospitals. The Panel strongly recommends further investment in strengthening operational procedures to ensure robust lines of communication are established and maintained with key contacts in the NHS. (also see recommendation at 3.6.8).

3.4.9 The External Subject Specialist highlighted that the Glasgow Medical School had a world-wide reputation. It was in a unique position of having access to a diverse range of specialist and sub-specialist tertiary services and that this should be used to promote the School and to maintain good working relationships with the NHS. The Panel recommends that the vision for the curriculum should be shared with key NHS contacts to ensure that they are fully engaged with developments.

3.4.10 Due to the changes brought into the curriculum this year, the students advised that some lectures were either too extensive, with two or three lectures condensed into one or were too general, with no concept of the appropriate level (please see recommendation 3.6.7).

3.4.11 It was further noted at the meeting with the students, that due to the changes introduced, some aspects of anatomy normally taught in Year 3 had been moved in the curriculum to Year 1 and there was concern that knowledge was limited in this area as a consequence. The Panel recommends that action is taken to ensure that any possible gaps in knowledge that arise, as a consequence of the reorganisation of the curriculum, are rectified.

3.4.12 The change in the length of blocks from 5 to 10 weeks was very well received by Year 4 students as this gave a better opportunity for students to feel that they ‘belonged’ to the area allocated.

3.4.13 At the meeting with students, it was noted that although Student Selected Components (SSCs) offered flexibility as well as the opportunity to self propose, SSCs were not always consistent and some hospitals were unwilling to support the delivery of SSCs. At the meeting with the senior management team, Professor Jardine brought to the attention of the Panel that popular SSCs were to be reintegrated into the course, allowing for new SSCs to be developed. He assured the Panel that the number of SSCs available would still be above the GMC requirements.

3.4.14 At the meeting with the students, it was evident that PBL was popular as it gave students the opportunity to manage their own learning. It was emphasised that this benefit was not universal, particularly in First Year where students did not have any prior experience of self-learning. Along with limited input from facilitators, it was initially considered a ‘culture shock’. PBL delivery was also considered inconsistent and the students suggested more support and guidance to both staff and students would be of benefit (see recommendations under 3.4.8).
3.4.15 From discussion with PBL tutors and facilitators, the Panel considered there to be some misunderstanding of Intended Learning Outcomes (ILOs) in relation to PBL. Some facilitators considered ILOs as restrictive to student learning as students focussed too heavily on these, preventing them from taking a wider perspective. The Panel was also advised that students were able to obtain facilitator notes from preceding sessions which contradicted the PBL philosophy. One facilitator commented that some students appeared driven to pass examinations rather than to learn. The Panel recommends regular review of the guidance given to Problem Based Learning (PBL) tutors and facilitators and that more regular meetings be established to provide additional support (also see recommendation under 3.8.7). Furthermore, the Panel strongly recommends that the Undergraduate School now undertakes a review of PBL provision to ensure uniformity of depth of content and to ensure that proper controls are put in place to prevent the educational benefits of PBL being undermined by inappropriate practices.

3.4.16 It was evident to the Panel that students who had previously taken the intercalated BSc degree very much enjoyed the course content and format which was more lecture based.

3.5 Student Recruitment

The Panel found the SER to lack reflection on possible initiatives to increase applications and improve selection methods. From the discussion with staff, tutors and facilitators, it became apparent that the Selection Process was using a complex mix of procedures based on academic achievement and personal statements and appeared out of date and possibly did not select students most suited to PBL and subsequent medical practice. The Panel therefore recommends that the School reviews its Selection Process to ensure that students are selected based on skills aligned to the revised curriculum.

3.6 Student Progression, Retention and Support

Student Progression

3.6.1 The Panel commends the use of a Progress Committee. Students who did not meet the requirements to progress automatically were invited to the Progress Committee for advice and support. The Progress Committee membership included Year and Course Directors.

Retention

3.6.2 Retention rate was high, although it was acknowledged that retention rates were normally high for professional degree programmes.

Support

3.6.3 The Panel considered the Year 1 ABC course document as good practice. It explained to students many aspects of studying at Glasgow University and the array of information students needed to know regarding the processes of Higher Education. However, at the meeting with the students, commentary was received that course information had been poor and that the Handbooks were not considered useful. Whilst the Panel acknowledged that substantial information had been provided via the Student Handbooks, it recommends
more use of on-line provision and the provision of quick links to useful information to make the Handbooks more user-friendly.

3.6.4 A number of pastoral support structures were highlighted within the SER and it was noted that small group work tutors, especially Vocational Studies tutors, provided support and advice. This was verified at the meeting with the students who indicated that the majority of staff provided support. Strong relationships had also developed with particular facilitators.

3.6.5 The Panel was particularly impressed by the support provided by fellow students, such as the Medic families in which Year 1 students’ were allocated to a pair of Year 3 students. In addition a student-led mentorship scheme had been introduced in 2012 as part of a revised careers strategy where Year 3 and 4 students were matched to Foundation Year doctors who gave advice on careers, training opportunities and how to prepare for speciality training. The Panel **commends** both these practices.

3.6.6 At the meeting with the students, it became evident that students became detached from the School whilst on placement, particularly as they progressed from Year 3 to Years 4 and 5. The Panel’s attention was drawn to the variability of integration and support, with smaller hospitals providing better support than the larger more established city centre hospitals. Students at the smaller hospitals felt more adequately prepared for Foundation Year 1. Staff agreed that there was inevitable variation in the student experience but that ways to minimise this were considered very challenging. At the meeting with NHS staff, it was agreed that students should be allocated teaching support whilst in hospitals. The Panel **strongly recommends** that the School places greater emphasis on student support from Years 3 to 5, offering some level of supervision, ensuring that students were aware of whom to contact if additional support was required and/or if a problem arose. (see 3.8.6)

3.6.7 The students highlighted that often clinical staff were unaware of what level the students were at and consequently taught to an inappropriate degree of detail. In addition, repeated requests for lecture power points to be made available on Moodle had not been acted upon. The Panel **recommends** that NHS staff are fully briefed on content, level of provision, appropriate student feedback and be given guidance on adequate student support, such as the availability of power point presentations to students.

3.6.8 The Panel noted from the meeting with NHS staff that, although students had complained about clinicians not turning up when expected during placement, similarly clinicians had complained that students were often absent. NHS staff confirmed that students signed student agreements in their Handbooks and on VALE attendance requirements and that a retrospective fail could be awarded if the minimum attendance requirement had not been met. The Panel **recommends** that operational procedures should be established to resolve issues arising during placement. In addition, the Panel **recommends** that student expectations on placement were clearly highlighted, emphasising student responsibility to be pro-active.

3.6.9 It was brought to the Panel’s attention during the meeting with students that there had been limited integration of St Andrew’s students who had transferred to Glasgow in Year 3 and that they had not been given adequate support. This was acknowledged at the meeting with key staff. Staff advised that the changes made to the curriculum had made it difficult to coordinate, but next
year, a 1-week induction would be introduced to support new students and integration with current students would be encouraged. The Panel **recommends** that appropriate induction and mentoring is introduced for all students entering the programme in Year 3.

3.6.10 Students who had taken the intercalated degree indicated that they had been well supported, perhaps due to the small class size. Students had been allocated an academic supervisor who students perceived as ‘caring’ about them as individuals as well as in relation to progress. Students felt motivated to do well for their supervisor and not just for themselves.

3.6.11 At the final meeting with the Head of School, the Dean and the Head of College, the Panel brought to their attention that it was unusual that there had been no cases brought to the Undergraduate School of Medicine Fitness to Practice Committee during Session 2010-11. It was recognised that the pre-fitness procedures were robust but proposed that the School ensured it was confident in these procedures.

3.7 **The Quality of Learning Opportunities**

3.7.1 The range of provision was considered to be impressive by the Panel. However, the restructuring of hospital services in Glasgow had clearly had an effect on teaching facilities and investment in educational facilities on the site of the new Southern General Hospital would be required.

3.7.2 The quality and enthusiasm of the students was evident to the Panel. The students, who met with the Review Panel, although critical of several aspects of the programme, expressed overall satisfaction with the quality of their learning opportunities and their experiences as students and advised that they would recommend studying Medicine at Glasgow.

3.8 **Resources for Learning and Teaching**

**Staffing**

3.8.1 The substantial range of staff that contributed to the assessment process was impressive. However, the School recognised that this led to variations in assessment and feedback. At the meeting with the senior management team, the Panel queried how non-University staff were supported and evaluated and whether there were opportunities for Continuing Professional Development (CPD). Professor Cotton highlighted, that following the last GMC visit, a senior University teacher, Mr P Evans had been appointed to provide training to junior doctors in Medical Education. Both he and Dr M Field also provided information on-line. The Panel proposed running workshops to supplement current support.

3.8.2 At the meeting with key staff and with the NHS staff, it was highlighted that there were a number of clinical staff that were committed to teaching. However, willingness did not necessarily reflect ability to teach. The Hospital Sub-Deans highlighted funding for teaching was currently not ring fenced and therefore it was difficult to guarantee clinical availability, especially in light of the revised NHS contracts that had reduced the time allocated to Supporting Professional Activity (SPA). The difficulty in allocating time to teaching was considered the most significant problem. It was recognised that the provision of teaching was the University’s responsibility but its provision was heavily reliant on NHS staff. The Hospital Sub-Deans confirmed that it was crucial that
protected time was allocated for teaching, but this was currently not included in the revised consultant contracts. However, Professor Jardine at the final meeting advised that there were plans to include teaching as part of the consultant job description as well as in all junior doctor contracts. This would formalise the commitment to teaching. The Panel reiterated that accountable, protected funded time was crucial to ensure stability and strongly recommends that the School seeks confirmation from the NHS that the revision of contracts include contractual teaching obligation. The Panel considered this necessary if the revised curriculum was to be effective.

3.8.3 The Panel considered interaction with NHS staff and that securing a strong commitment to teaching was crucial to the School’s revised strategy. The Panel noted that Honorary status was important to NHS staff in this regard. Difficulties with awarding or continuing Honorary status had been experienced in the past and it was hoped that this would not happen in future. At the meeting with the senior management team, Professor Cotton advised that clinical teaching fellows had also been appointed by some Health Boards. NHS staff supported the appointment of Teaching Fellowships which gave students access to consultants, staff at the top of their fields. The Panel strongly recommends that the Undergraduate School of Medicine establish joint standardised service level agreements with each hospital. Service level agreements should identify expectations in relation to teaching, mentoring, feedback and assessment.

3.8.4 To promote further clinical engagement with the School, the Panel also recommends inviting clinicians to the School to present guest lectures or seminars on a regular basis.

3.8.5 The Panel recognised that small group learning and increased regular assessment placed pressure on resources. However, the Panel’s attention was drawn to the unwillingness of some University staff to teach. This created tension, with NHS staff questioning why they should teach. The Panel strongly recommends that the School ensures that all University staff, especially clinical academics, are made aware of their obligatory teaching responsibilities.

3.8.6 At the meeting with the NHS staff, it was suggested that administrative support would be useful and would also create useful links with the Undergraduate School of Medicine. At the final meeting with senior management, the Head of College advised that the College had been considering placing administrative support within hospitals to provide additional support for students, reduce the burden on clinical staff and to enhance engagement between hospitals and the School. The Panel supported this proposal if such provision was available.

3.8.7 At the meeting with PBL tutors and facilitators, experienced staff considered themselves to be very prepared in relation to teaching PBL. A ‘buddy’ system had been introduced for new tutors to be mentored by more experienced staff in their first year of appointment. In addition to this, the Panel recommends introducing Peer observation for PBL tutors and facilitators, and PBL facilitator briefings at the start of each case to minimise variation in facilitator practice and PBL group experience.

3.8.8 The role of the University teacher was discussed at the meeting with staff. At the last review, this category of staff had not feel adequately supported. One newly appointed University Teacher, with a research background, advised that
he still perceived there to be a “them” and “us” attitude and there was no infrastructure within Research Institutes to support the careers of University Teachers. There was a perception that University Teachers were undervalued throughout the University and not just within the Undergraduate Medical School as there was a lack of clarity for research and promotion. The Panel recommends that University Teachers are appropriately supported, particularly those based in Research Institutes.

Accommodation

3.8.9 The Panel was given a tour of the facilities. The purpose-built Wolfson Medical School building was considered by the Panel to be one of the Schools greatest assets, with a 24-hour access dedicated medical library and specialised PBL tutorial rooms. The Panel commends these resources. However, the SER and, at the meeting with the senior management team, reference was made to a sense of loss of community within the Wolfson School Medical Building, following restructuring and the consequent loss of space to accommodate College offices. From discussions with the students, it was evident that this group felt a strong identity within the building and that the sense of loss of community might only be from a staff perspective. The students suggested further staff engagement with some student activities to enhance their sense of belonging.

3.8.10 At the meeting with the senior management team, the Panel queried as to whether the revised curriculum could be accommodated within the Wolfson Medical Building given that it had been purpose built for PBL, especially as the SER highlighted the loss of teaching resources elsewhere. In addition, advice was sought as to what infrastructure was considered appropriate for future requirements. Professor Jardine confirmed that the majority of teaching would be PBL and small group teaching. There was also reorganisation of clinical services at the Royal Infirmary and developments at the Southern General Hospital for a University block. However, it was acknowledged that there was a time lag before these facilities would be available. The University also had limited influence over the NHS prioritisation of space.

4. Maintaining the Standards of Awards

4.1 The Panel considered the processes for the maintenance of standards of awards as robust. As noted in this report, the School has carefully observed the requirements of the General Medical Council (GMC).

4.2 The mainly positive external examiners’ reports reflected that high standards were being maintained. In addition, the Panel considered the appointment of a Programme External Examiner to oversee the totality of assessment throughout the 5-year programme to be an excellent initiative.

4.3 The processes developed around assessment processes were comprehensive and rigorous. However, there was some acknowledgement that, since the assessment process itself was delivered by a very wide range of staff and the quality of exam processes could be variable depending on where assessment took place, there was a potential vulnerability in the assurance of standards. It was hoped that the revised curriculum and the recommendations made by the Review Panel would address this.
The intercalated BSc degree was considered robust offering individualised teaching with the course rated highly in student feedback.

5. **Assuring and Enhancing the Quality of the Students’ Learning Experience**

5.1 The reorganisation of the programme with the introduction of more lectures, Case Based Learning (CBL) and sub-speciality attachments would be welcome changes that should enhance the student experience.

5.2 The Panel was impressed that more than 50% of students undertook study periods abroad, including placements at partner institutions in developing countries, giving an international and broader prospective. Students were also given the opportunity to take language courses and research methods via Student Selected Components (SSCs) giving opportunities for transferable skills.

5.3 The Panel **commends** the piloting of a national e-Portfolio for Year 3 students, in association with Brighton, Bristol and 2 London Schools. The SER stated that the portfolio was developed from the Foundation training portfolio that all junior doctors complete. At the meeting with the senior management team, Professor Jardine highlighted that the e-portfolio had only recently been introduced in February 2012, although UCL had used one for the whole academic year. Student expectations had been clearly stated; responsibility for their own learning. The Panel considered this a useful tool to prepare students for the transition to the Foundation Years and for professional development.

5.4 The videoing of Year 3 core lectures and on-line provision was considered **good practice**.

5.5 At the meeting with students, the usefulness of VALE and Moodle was discussed. Students found VALE difficult to navigate and found the provision of information ad hoc. At the meeting with staff, it was clarified that VALE was used for the administration of courses rather than delivery. VALE provided a useful timetabling tool and examination analysis. At the final meeting with senior management, it was confirmed that the School recognised the growth in virtual learning and increasing student expectations of the provision of a virtual learning environment. The School was moving more towards Moodle and was in discussion with Mr Gardiner, Learning and Teaching Centre regarding e-learning.

5.6 With regard to Moodle, the students brought to the attention of the Panel that often course information expected to be uploaded onto Moodle had not appeared and that there was inconsistency of available teaching material. There was no system in place for NHS staff to upload information onto Moodle. At the meeting with key staff, it was recognised that the use of Moodle varied between staff but the learning capabilities were increasingly being recognised with Moodle 2 to be introduced over summer. The Panel **recommends** a more consistent approach to the provision of course material on Moodle to ensure its usefulness as a tool for communication.
6. **Summary of Perceived Strengths and Areas for Improvement in Learning and Teaching**

The following key strengths were noted:

- Case Based Learning worked well
- The diverse range of assessment methods, including the development of a bank of multiple choice examination questions
- Blue printing of ILOS onto assessment
- Student support arrangements, in particular, the Medic families and the student-led mentorship scheme
- The introduction of the e-portfolio (examples of good practice elsewhere in the School should be exploited)
- Videoing of Year 3 core lectures
- High retention rate and the Progress Committee
- The appointment of a Programme External Examiner
- The Wolfson Medical Building and facilities
- The Year 1 ABC course document

The Panel considered the following to be the main areas for improvement:

- **Development of the revised curriculum**
  
  The Panel endorsed the School's decision to review its curriculum in light of responding to clinical staff feedback and to the latest GMC requirements as stated in *Tomorrow's Doctors 3* (2009). However, the Undergraduate School of Medicine should ensure that it clearly highlighted to the GMC that the proposed changes to the curriculum would enhance PBL by the inclusive support of specialists and provide evidence that the other GMC requirements relating to inter-professional education and prescribing skills were being addressed.

  The Panel also considered it crucial that appropriate operational procedures were established with NHS staff and service level agreements introduced to guarantee that the new curriculum would be adequately supported.

- **Student Support**
  
  The Panel considered it important that student support was strengthened for Years 3-5 to ensure students on placement did not become isolated from the School. The Panel proposed the provision of a School contact who could be contacted for advice or support. The Panel further proposed that the e-portfolio was developed to ensure continuity of the student experience and to retain the student connection with the School and provide a link to the Foundation Year 1 experience.
• **Review of Problem Based Learning**

As part of the revision to the curriculum, a review of Problem Based Learning should be undertaken to ensure uniformity in the depth of learning and to ensure intended learning outcomes reflected depth of content. This should include greater engagement with tutors and facilitators, a revision of the guidance and support for tutors and facilitators and the introduction of peer observation for tutors and facilitators. In addition, the PBL teams should be reviewed giving consideration as to whether more clinical subject specialists should be involved.

**Conclusion and recommendations**

The Review Panel was very impressed by the range of provision by the highly reputable Undergraduate School of Medicine with the programmes offered by the School remaining current and valid in light of developing knowledge in the discipline, and practice in its application. The Undergraduate School of Medicine provided an excellent learning environment offering students a unique range of access to specialist hospital and community services within the NHS.

**Commendations**

The Review Panel commends the Undergraduate School on the following, which are listed in order of appearance in this report:

Commendation 1

The Review Panel commends the use of Blueprinting that map ILOs against methods of assessment. [*paragraph 3.3.1*]

Commendation 2

The Review Panel commends the Progress Committee. [*paragraph 3.6.1*]

Commendation 3

The Review Panel commends the support provided by fellow students, such as the Medic families in which Year 1 students were allocated to a pair of Year 3 students. In addition, a student-led mentorship scheme had been introduced in 2012 as part of a revised careers strategy where Year 3 and 4 students were matched to Foundation Year doctors who gave advice on careers, training opportunities and how to prepare for speciality training. [*paragraph 3.6.5*]

Commendation 4

The Review Panel commends the facilities, in particularly, the purpose-built Wolfson Medical School building, with a 24-hour access dedicated medical library and specialised Problem Based Learning tutorial rooms. [*paragraph 3.8.9*]

Commendation 5

The Review Panel commends, as an excellent initiative, the appointment of a Programme External Examiner to oversee the totality of assessment throughout the 5-year programme. [*paragraph 4.2*]

Commendation 6
The Review Panel commends the piloting of a national e-Portfolio for Year 3 students which would be a useful tool to prepare students for the transition to the Foundation Years and for professional development. [paragraph 5.3]

Recommendations

A number of recommendations have been made, many of which concern areas that the Undergraduate School of Medicine had itself highlighted for further development in the SER or during discussion. The recommendations interspersed in the preceding report are summarised below. They have been cross-referenced to the paragraphs in the text of the report to which they refer and are grouped together by the areas for improvement/enhancement and are ranked in order of priority.

Curriculum Design, Development and Content

The Panel recognised that the revised programme was envisaged to re-engage clinical staff by increasing their contribution and ensuring that all staff had ownership of the curriculum. To ensure its success, the Panel recommends the following:

Recommendation 1

The Review Panel strongly recommends that the Undergraduate School of Medicine seeks agreement with the NHS in Greater Glasgow and Clyde that adequate facilities and support would be provided for the revised curriculum. [paragraph 3.4.7] (Also see Recommendation 3)

For the attention of: Head of School
For information: Head of the Undergraduate Medical School

Recommendation 2

The Review Panel strongly recommends that the School seeks confirmation from the NHS that the revision of contracts would include contractual teaching obligation. [paragraph 3.8.2]

For the attention of: Head of School
For information: Head of the Undergraduate Medical School

Recommendation 3

The Panel strongly recommends that the Undergraduate School of Medicine establish joint standardised service level agreements with each hospital. Service level agreements should identify expectations in relation to teaching, mentoring, feedback and assessment. [paragraph 3.8.3]

For the attention of: Head of School
For information: Head of the Undergraduate Medical School

Recommendation 4

The Review Panel strongly recommends further investment in strengthening operational procedures to ensure robust lines of communication are established and maintained with key contacts in the NHS. [paragraph 3.4.8] (Also see Recommendation 10)

For the attention of: Head of School
For information: Head of the Undergraduate Medical School
Recommendation 5

The Review Panel strongly recommends that the School undertakes a review of Problem Based Learning (PBL) provision to ensure uniformity of depth of content and to ensure that proper controls are put in place to prevent the educational benefits of PBL being undermined by inappropriate practices. [paragraph 3.4.15]

For the attention of: **Head of School**
For information: **Head of the Undergraduate Medical School**

Recommendation 6

The Review Panel recommends that the vision for the curriculum should be shared with key NHS contacts to ensure that they are fully engaged with developments. [paragraph 3.4.9]

For the attention of: **Head of School**
For information: **Head of the Undergraduate Medical School**

Recommendation 7

The Review Panel recommends that action is taken to ensure that any possible gaps in knowledge that arise, as a consequence of the reorganisation of the curriculum, are rectified. [paragraph 3.4.11]

For the attention of: **Head of School**
For information: **Head of the Undergraduate Medical School**

Recommendation 8

The Review Panel recommends inviting clinicians to the School to present guest lectures or seminars on a regular basis. [paragraph 3.8.4]

For the attention of: **Head of School**
For information: **Head of the Undergraduate Medical School**

**Student Support**

Recommendation 9

The Review Panel strongly recommends that the School places greater emphasis on student support from Years 3 to 5, offering some level of supervision, ensuring that students are aware of whom to contact if additional support was required and/or if a problem arose. [paragraph 3.6.6] The Panel supports the College's consideration of placing administrative support within hospitals. [paragraph 3.8.6]

For the attention of: **Head of School**
For the attention of: **Head of College**
For information: **Head of the Undergraduate Medical School**

Recommendation 10

The Review Panel recommends that operational procedures be established to resolve issues arising during placements as early as possible. [paragraph 3.6.8]

For the attention of: **Head of School**
Recommendation 11

The Review Panel recommends that student expectations on placement were clearly highlighted, emphasising student responsibility to be pro-active. [paragraph 3.6.8]

For the attention of: Head of School
For information: Head of the Undergraduate Medical School

Recommendation 12

The Review Panel recommends that NHS staff are fully briefed on content, level of provision, appropriate student feedback and be given guidance on adequate student support, such as the availability of power point presentations to students. [paragraph 3.6.7]

For the attention of: Head of School
For information: Head of the Undergraduate Medical School

Recommendation 13

The Review Panel recommends regular review of the guidance given to Problem Based Learning (PBL) tutors and facilitators, and that more regular meetings are established to provide additional support. [paragraph 3.4.15] (Also see Recommendation 23)

For the attention of: Head of School
For information: Head of the Undergraduate Medical School

Recommendation 14

The Review Panel recommends a more consistent approach to the provision of course material on Moodle to ensure its usefulness as a tool for communication. [paragraph 5.6]

For the attention of: Head of School
For information: Head of the Undergraduate Medical School

Recommendation 15

The Review Panel recommends videos and podcasts are available to provide guidance and support clinical skills and that accessibility is improved. [paragraph 3.3.2]

For the attention of: Head of School
For information: Head of the Undergraduate Medical School

Recommendation 16

The Review Panel recommends more use of on-line provision and the provision of quick links to useful information to make Handbooks more user-friendly. [paragraph 3.6.3]

For the attention of: Head of School
Recommendation 17

The Review Panel recommends the introduction on an appropriate induction and mentoring programme for all students entering the programme in Year 3. [paragraph 3.6.9]

For the attention of: Head of School
For information: Head of the Undergraduate Medical School

Recommendation 18

The Review Panel recommends highlighting aims and intended learning outcomes more directly to students. [paragraph 3.1.1]

For the attention of: Head of School
For information: Head of the Undergraduate Medical School

Assessment

Recommendation 19

The Review Panel recommends that consideration be given to introducing final summative clinical assessments at the end of Year 4 in order for Year 5 to be devoted to preparation for foundation training and portfolio-based assessment [paragraph 3.3.3]

For the attention of: Head of School
For information: Head of the Undergraduate Medical School

Feedback

Recommendation 20

The Review Panel recommends the provision of guidance on appropriate feedback to clinical staff. [paragraph 3.3.4]

For the attention of: Head of School
For information: Head of the Undergraduate Medical School

Recommendation 21

The Review Panel recommends that the School develop a more responsive feedback process and ensure closure of feedback loops. [paragraph 3.3.8]

For the attention of: Head of School
For information: Head of the Undergraduate Medical School
Learning and Teaching Resources

Recommendation 22

The Review Panel strongly recommends that the School ensures that all University staff, especially clinical academics, are made aware of their obligatory teaching responsibilities. [paragraph 3.8.5]

For the attention of: Head of School
For information: Head of the Undergraduate Medical School

Recommendation 23

The Review Panel recommends introducing peer observation for Problem Based Learning (PBL) tutors and facilitators and PBL facilitator briefings at the start of each case to minimise variation in facilitator practice and PBL group experience. [paragraph 3.8.7]

For the attention of: Head of School
For information: Head of the Undergraduate Medical School

Recommendation 24

The Review Panel recommends that University Teachers are appropriately supported, particularly those based in Research Institutes. [paragraph 3.8.8]

For the attention of: Head of School
For information: Head of the Undergraduate Medical School

Recruitment

Recommendation 25

The Review Panel recommends that the School reviews its Selection Process to ensure that students are selected based on skills aligned to the revised curriculum. [paragraph 3.5]

For the attention of: Head of School
For information: Head of the Undergraduate Medical School