# Report on the Review of the MB ChB Programme conducted in May 2009

# **1. Introduction**

#### Review Panel membership

- Professor Poon Wai Yin (Panel Chair, Member of the Senate Committee on Teaching and Learning, Associate Dean (Education) of the Faculty of Science)
- Professor Roy Pounder (External Examiner, Emeritus Professor of Medicine, University of London)
- Professor Jimmy Lee (Department of Computer Science and Engineering, Faculty of Engineering)
- Professor Gordon Clark Mathews (Department of Anthropology, Faculty of Arts)
- Professor Carmel McNaught (Panel Technical Secretary, Member of the Senate Committee on Teaching and Learning, Director of the Centre for Learning Enhancement And Research)

#### In attendance at all meetings

Ms. Wong Kit May and Ms. Kathryn Ng from the Academic and Quality Section were present at all meetings and produced detailed notes of the proceedings.

#### Meetings

The Review Panel held a preliminary meeting on 20 May 2009. Also on 20 May 2009 the Panel met seven MB ChB teachers. On 21 May 2009 the Panel met nine current undergraduate student representatives (elected by peer students) from Years 1, 2, 3, 4 and 5; and six recent graduates who graduated in the years 2006, 2007 and 2008. Also on 21 May 2009 a final Panel meeting took place to plan this report.

All meetings were very cordial and highly interactive.

The outcomes of the review are reported under the following headings:

- 2. Overall discussion of key strengths and challenges. These will be described as *commendations* (clear achievements), *affirmations* (ongoing actions and planned future enhancements) and *recommendations* (areas that the Panel feels that the programme needs to explore in more detail).
- 3. Detailed feedback in each of the areas (a) to (g) listed, corresponding to the areas noted in section 7 of the 'Integrated framework for curriculum development and Review. I. Undergraduate programmes'

  (a) aims and desired learning outcomes;
  (b) subject content;
  (c) learning activities;
  (d) assessment scheme;

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- (e) programme management and quality assurance;
- (f) professional development of all teaching staff; and
- (g) action plan.
- 4. Concluding remarks

# 2. Overall discussion of key strengths and challenges

# Commendations

- 1. Those involved in this MB ChB programme review have taken the review process seriously. The self-evaluation document and the presentation to the Review Panel were very well structured and coherent. Supplementary information was quickly provided to the Panel.
- 2. The senior management of the Faculty shows a strong commitment to the quality of the MB ChB programme
- 3. There is a strong coherence between the programme's stated learning outcomes and programme design, especially with respect to providing a clear path for students to follow. The decision to have a system-based curriculum with horizontal and vertical integration suits the needs of training and educating medical doctors in Hong Kong very well.
- 4. Students, on the whole, are very pleased with the design and implementation of the MB ChB programme. The students and alumni are unanimous that they receive an excellent training in the MB ChB programme.
- 5. The programme is committed to continuous improvement. The students and alumni realize and appreciate the commitment of the MB ChB staff to resolving the challenges of this complex programme.
- 6. There is a comprehensive mechanism for quality assurance and curriculum revision.

# Affirmations

There are a number of ways in which the MB ChB is tackling its current challenges. The members of the teaching staff in the programme are to be congratulated on their dedication to their students and their determination to constantly improve quality. In particular, the Panel wishes to affirm the following actions:

- 1. A number of changes over the last few years that have taken place as a result of careful reflection on feedback.
- 2. The streamlining of the programme so as to reduce workload and stress levels on students. Undoubtedly, further changes will continue to enhance the curriculum. (See sections 3b and 3c.)

#### Recommendations

The report has been designed to be as practical as possible and has been written to include many suggestions. This does not imply that all the recommendations need to be enacted. Indeed, many of them are couched as suggestions for consideration.

- 1. The highly diverse and distributed management is acknowledged, as is the ongoing efforts to maintain consistency and communication across the programme. There will always be variation in the quality of teaching but there are a number of suggestions in the report that might assist the programme in improving the overall quality of teaching. For example:
  - more explicit mentoring of teachers with low course and teaching evaluation (CTE) scores (see 3f R1, p. 8)
  - rotation of teachers (see 3f R2, p. 8)
- 2. While the variety of assessment strategies is commended, more could be done to explicitly map the multiple-choice questions (MCQs) and the short-answer questions (SAQs) to desired learning outcomes (see 3d R1, p. 6).

3. While the constraints of maintaining a database of MCQs are clear, students could receive more feedback on common errors as a matter of programme policy. Further, SAQs are much easier to write and so students might be able to view their scripts (see 3d R3, p. 7).

# **3. Detailed feedback in each of the areas (a) to (g)**

#### (a) aims and desired learning outcomes

# Commendations

- 1. The programme has a comprehensive set of learning outcomes that cover multiple dimensions. The Student Learning Outcomes (SLO) Task Force oversees the development of learning outcomes and has been assisting panels and clinical module leaders with the development of the key learning outcomes. The website at http://facs.med.cuhk.edu.hk/slo/ is clear and useful. The work of the Task Force thus far, which has taken place over a fairly short period of time, is impressive.
- 2. Students seem to be quite aware of the desired learning outcomes of the MB ChB programme. They appreciate the need for not only medical knowledge but also the need to have good communication skills and effective lifelong learning skills.

# Affirmation

1. There is a clear contrast to the 'old' curriculum which focused mainly on memorization. The Panel observed initial evidence of success of the new curriculum. The programme management took the modest view that, as there have been only a few cohorts of graduates from the 'new' curriculum, definitive comparisons cannot be usefully made. Besides, the context of Hong Kong and medical education internationally constantly shifts. What is more useful is the approach that the MB ChB programme management has adopted – constant monitoring and progressive adjustments.

#### Recommendation

1. The alignment of MB ChB's specific learning outcomes with the vision of the University's Strategic Plan might be made clearer.

# (b) subject content

*Commendations* 

- 1. The MB ChB Programme adopts an integrated systems-based curriculum. In the first two years, teaching is mainly by system panels, together with clinical skills and selected study modules (SSMs). In Year 3, there is less system-panel teaching and medicine/ surgery components are introduced; there is also a longer period of a medical research SSM. In Years 4 and 5, there is a clinical rotation. At the end of Year 4, there is an elective clerkship. A year of internship follows after Year 5. This is a complex programme design but one which has been carefully crafted and is constantly adjusted.
- 2. In the curriculum, the lifelong learning skills panel introduces some knowledge about research and teaches students how to critically appraise research papers and reports. The SSMs also aim to show students what research is like, though not to train them as researchers.
- 3. While medical students have a heavy workload, the Review Panel feels that the programme has reached a satisfactory compromise in terms of providing students with some flexibility in their choices. Students do say they feel part of the University and can engage in College and other activities, especially early in the programme. The students

# Affirmations

- 1. The streamlining of the programme so as to reduce workload and stress levels on students is affirmed. Undoubtedly, further changes will continue to enhance the curriculum. For example, some of the laboratory practicals in the pre-clinical courses might be reviewed. The advent of the School of Biomedical Sciences may provide opportunities for such reviews.
- 2. There is an awareness of the tension between acquiring theoretical knowledge (as, for example, needed for formal clinical research) and mastering appropriate professional skills. The programme seems committed to an ongoing exploration of this tension.
- 3. In the additional year available after 2012, the Faculty has put a high priority on strengthening students' language and communication skills, and other general areas. This seems appropriate.

# Recommendations

- 1. It is timely to consider the future role of the Monitoring and Evaluation Committee which was established to oversee the coherence across the curriculum. A major role of the Committee is to meet with the students' representatives over dinner three times a year. In the first five years after the implementation of the new curriculum (the first cycle), the Committee reviewed the PowerPoint slides prepared by all teachers annually, to ensure that there was no compression or omission. Currently the review is conducted once every few years. One possible role for the future is to monitor incremental creep in the curriculum due to teachers adding too many extra bits related to their own interests.
- 2. The Review Panel heard some comments on the lack of connection between statistics classes (taught by statisticians) and clinical medicine. More collaboration between statisticians and clinical professors in the design of the examples used during statistics teaching could be useful.

#### (c) learning activities

#### Commendations

- 1. Students receive and value the significant amount of clinical exposure they receive throughout the five years of study. Clinical exposure starts in Year 1.
- 2. A wide range of learning activities is used to assist students' learning. Examples are lectures, laboratory work, tutorials, demonstrations, and web-assisted learning activities.
- 3. The medical curriculum website is very good. Teaching schedules can be viewed online. Teachers are required to upload their teaching materials (e.g. PowerPoint presentations) to the website for access by students. Supplementary teaching materials are also made available through this website. Students can also post their presentation materials on the web. At the end of each SSM, academic results are announced online. Students can log into the website to check their own grades whilst teachers can have a comprehensive view of the performance of the whole class. The system also enables students to contact professors through the panel secretaries whose contact details can be found online.
- 4. The use of technology to support other aspects of teaching and learning is also commendable. There are a number of innovative eLearning strategies developed by medical teachers. These include the suite of Formative Assessment Case Studies (FACS), the Virtual Patient and the electronic logbook. It is hoped that there will be continued refinement and extension of these eLearning strategies and resources (see 3c,

- 5. There is a good balance between formal and informal teaching. For example, safety is an important aspect of the Objective Structured Clinical Examinations (OSCEs).
- 6. In the Kai Chong Tong Clinical Skills Learning Centre, small group teaching is conducive to learning and enables more interactions between students and teachers.
- 7. Interns are invited to teach the Years 1 and 2 students in the Clinical Skills Learning Centre. This practice is a good learning opportunity for both students and interns.
- 8. The clinical elective in Year 4 is an excellent opportunity for students to learn from other systems and medical environments. The fact that most students leave Hong Kong is commendable.

# Affirmations

- 1. A mentorship programme has been run on a voluntary basis, and 508 students from all five years have participated. The programme will be made mandatory starting from next year. Each mentor group comprises teachers, junior and senior students. It should be noted that the use of email and SMSs can support the development of relationships within mentorships.
- 2. The formative assessment examinations are seen by students as being useful learning activities (see also 3d R2, p. 6).

# Affirmations/ Recommendations

- 1. In the lifelong learning skill panel, students learn how to read and search journal articles. The intention of the panel is affirmed. However, students' learning outcomes might be enhanced if similar activities occur in other panels. This might mean less time formally in the lifelong learning skill panel because there would be application of the skills in other panels.
- 2. It is a very good practice for students to be an assistant intern for one week before the beginning of their first internship. Also, all students can volunteer to be an assistant intern throughout their final year of study. The programme might consider formalizing this by providing students with a schedule they could follow.
- 3. One suggestion on how to bridge the basic science subjects to clinical medicine is the use of video cases as a substitute for more time in wards. While ward time is an authentic situation, there are many issues such as cross-infection, being able to see a wide range of diseases and conditions, crowding in the wards, and patients' willingness to be seen by lots of students. High-quality video vignettes could be a very useful resource for the Faculty to invest time and resources into (see 3c C4, p. 4).

#### **Recommendations**

- 1. Regarding SSMs: Several alumni expressed the view that they wished they had focused more on their SSM in Year 3. It would be useful for alumni to tell undergraduate students that the time spent on SSMs is worthwhile. A video of several alumni reflecting on the value of sections of the MB ChB curriculum might be valuable.
- 2. Some students did not get the topics they wanted for their Year 3 SSM because of their preference for clinically-based topics rather than laboratory-based ones. One way to increase the number of clinical SSM topics is to further explore the opportunities for students to join existing actual research projects in some areas.
- 3. Out-patient clinics are a resource that is already utilized during clinical rotations, but they are often exceptionally busy. Students may not get much one-on-one teaching by the clinical staff, but nevertheless they can have a valuable learning experience. The External Examiner (Professor Roy Pounder) suggested that occasional less-intense 'teaching

clinics', where the pressure is less intense, might involve a few 'classic' out-patients specifically recruited for the teaching role.

- 4. It may be useful to consider requirements of each clinical rotation to see if it can be fulfilled in terms of the conditions in the hospital at the time. This might mean that at some times, the number of required examinations of a particular nature might be reduced. There were comments that students have to conduct a certain number of specific examinations or procedures and it is hard at times to 'fill the quota' during the time period of the clinical rotation.
- 5. Some rethinking on the details of clinical rotations might be useful to ensure that all groups have a meaningful experience. On clinical rotations students are divided into groups. The schedule of some teams is not full and students can end up with not much to do in the wards. Students of these teams then join other teams, making the wards very crowded.

# (d) assessment scheme

*Commendations* 

- 1. The MB ChB is an unclassified degree and so students are not obsessed with Grade Point Averages (GPAs). The existence of a large number of prizes, which successful students can record in their CVs, gives balance to this assessment policy.
- 2. There is a broad range of assessments. This allows for diversity in assessment and a rich set of resultant data. While there is a heavy reliance on multiple-choice questions (MCQs) and short-answer questions (SAQs), students are required to write-up reports, do presentations for SSMs and prepare posters. When clerking the patients starting from Year 3, students need to write case reports, each of might be three to four pages. During clinical presentations, students are required to practise their spoken English and ability to make cogent explanations.
- 3. The programme receives feedback on the performance of the interns every three months, to ensure the students are knowledgeable and have safe practices.

# Affirmation

1. For some SSM group projects, students have been asked to rate the performance ('good', 'satisfactory' or 'poor') of their group mates. Starting this year, teachers will interview the students whose performance is rated 'poor' twice and those who give multiple 'poor' ratings to their classmates.

# Affirmation/ Recommendation

1. The regular process of providing statistics on MCQs is affirmed. Providing that the statistics are comprehensive enough, the benefits of this strategy could be strengthened if teachers were requested to change items that are defective soon after they receive the statistical summary.

#### Recommendations

- 1. While the variety of assessment strategies is commended, more could be done to explicitly map the MCQs and the SAQs to desired learning outcomes. In what way do the different types of questions support different learning outcomes? If they do have a different role, should students be required to obtain a minimum mark in each type of question?
- 2. There appears to be a gap between the level of the formative assessment tests and the summative assessment examinations. The reason for the level in each test/ examination should be clearly explained to students.

- 3. The provision of feedback on examination performance was a keen topic of conversation in all the Review Panel meetings. While it is understandable why answers to MCQs are not given out, explanations of concepts and topics where there is poor performance by a number of students would not be difficult and could be posted online. SAQs are much easier to write than MCQs and so students might be able to view their scripts at designated times. Other programmes have viewing times where students can look at their scripts to gauge areas of strength and weakness.
- 4. Students could receive more detailed information about the format of the clinical examination, such as the content and the depth to be covered in the examination. Also, there seems to be misunderstanding about the role of the examiners. For example, students can be prepared for the fact that an examiner asking a challenging question could be a good thing because the examiner is impressed and probing to see if a high mark is justified. These comments are offered to the programme so they can investigate appropriate action in more depth than is possible in a brief set of review meetings.

# (e) programme management and quality assurance

Commendations

- 1. The commitment to change shown in 2001 is commendable, as is the clear evidence of ongoing curriculum enhancements.
- 2. The programme has a good management system with clear procedures to facilitate reflection on practice and implementation of changes.
- 3. The programme is owned by the Faculty and covers a wide range of topics which are taught by teachers across many departments. There is a good spirit of collaboration in order to meet the learning needs of students rather than the research interest of teachers.
- 4. The programme is very conscientious in collecting and utilizing feedback from various sources (students, alumni, external examiners, etc.). Student feedback is seriously taken and the programme takes follow-up action as appropriate. For example, students thought that the Year 5 curriculum was too packed and suggested removing SSMs in higher years; this was done.

# (f) professional development of all teaching staff

*Commendations* 

- 1. To maintain enthusiasm and facilitate communication across the programme, the Faculty organizes a number of events each year.
- 2. New teachers in the clinical areas can observe other teachers in action.

#### Affirmations

- 1. In the area of Family Medicine, the general practitioners (GPs) who are recruited as parttime teachers are volunteers. They are paid at an hourly rate of \$680 as a token of appreciation, though not all actually claim this money because of the paper work involved. The programme is aware of the quality assurance issue in this case. The Faculty (together with the Faculty of Medicine of The University of Hong Kong) is negotiating with the Hospital Authority about whether extra funding can be provided for buying time from GPs.
- 2. The Faculty holds orientation sessions for new teachers twice a year. Compared with those of other programmes, new teachers in the MB ChB programme may take a longer time to get acquainted with the whole curriculum. It is also expected that Department Chairs will brief new teachers.

# Recommendations

- 1. For small-group teaching, the CTE scores usually exceed 5.0 (on a 6-point scale), and on some occasions may reach 6.0. For lectures, the average score is 4.5 or 4.6. The Associate Dean (Education) writes emails, approximately eight times a year, to teachers with a CTE score lower than 3.8. The formalization of a mentoring scheme for teachers with low CTE scores could be useful.
- 2. As predicted by the programme's teachers, students complained that some students are assigned good tutors whilst some are tutored by less effective teachers. Students' suggestion of a rotation of teachers might be possible so that there is an equal opportunity for each student to attend classes taught by teachers who are more adept at teaching.
- 3. Medical students have high expectations. If the language skills of some teachers are not high, students may be more critical than they would be in other faculties. Some of the pre-clinical teachers may need additional support in becoming confident in teaching always in English.

# (g) action plan

- 1. There are clearly a number of initiatives that are ongoing and others that are planned. The Review Panel trusts that the ideas presented in this report will assist in the refinement of the MB ChB programme's action plan. A table of prioritized actions with target dates for completion should support the programme in monitoring its progress.
- 2. In particular, careful strategic thinking about how the proposed School of Biomedical Sciences will impact on the MB ChB programme will be beneficial.

# 4. Concluding remarks

The Review Panel saw evidence of sound teaching and learning, and wishes to congratulate the teaching staff in the MB ChB programme on its continued well-deserved high reputation and its ongoing development.

Students enjoy their studies and feel that they are gaining valuable knowledge and skills.

The programme is responsive to feedback in an open and positive fashion.

It is hoped that the recommendations presented in this report will support the programme in continuing its fine work in the next few years. Overall, these comments are designed to help enhance the programme, and are offered in a collegial spirit.

Professor Poon Wai Yin Professor Roy Pounder Professor Jimmy Lee Professor Gordon Clark Mathews Professor Carmel McNaught

June 2009