

## CEPC Review of Unit 2 Reports and Data IPC 2013/2014

The CEPC committee discussed the 2013 implementation of Unit 2 of the Integrated Pathways Curriculum (IPC) on March 6, 2014. Discussion was lead by an *ad hoc* subcommittee for Unit 1 that consisted of Lee Eisner, Sheldon Landesman and Kristin Twomey (MS4).

Sources available to the *ad hoc* subcommittee were:

1. Weekly evaluations by the students during the Unit (19-21 students)
2. End-of-unit evaluations by the students at the end of the Unit (182 out of 191 students)
3. SLC Report that consisted of a slide presentation prepared for the Unit review meeting with Unit 2 leadership, John Lewis, CEPC, Academic Development
4. Weekly formative assessment summary (106-191 students (Mean ranged from 68% - 85%), and end-of-unit mean scores: VM Histology Practical (mean 85%), Medical Knowledge Essay (mean 81%), Clinical Skills exam (mean 84%)
5. Unit 2 Report presented by Unit Director Miriam Feuerman to the Dean's Council on February 17, 2014.
6. Unit 2 Report presented by the Associate Dean of Foundations curriculum John Lewis to the Dean's Council on February 17, 2014.

Both reports in #5 and 6 were made available to CEPC members.

### DISCUSSION SUMMARY

The reports from the Unit Director Miriam Feuerman and Associate Dean of Foundations John Lewis both offered an overview of the unit with a discussion of what unit elements were successful and unsuccessful, with further analysis and recommendations on curriculum policy, unit content and calendar issues affecting multiple units as well as intra-Unit 2 issues. Both reports were thoughtful, balanced and covered important substantive issues crucial to the outcome of Unit 2 and to future units in the IPC. The CEPC committee is in general agreement with the review of the Unit and the recommendations for decision-making and action outlined in both reports. Many of the problems in Unit 2 can be fixed by such easy repairs as adding specific lectures, reducing the number of POPS, improving the writing of POPS, restructuring the histology and pathology labs (improvements already achieved in Unit 3) or changing the schedule of the summative assessment week for Unit 2 to before Thanksgiving or just before Christmas. In the interest of not repeating these well-prepared reports, the CEPC will particularly focus attention on broader issues for decision that could affect the implementation of these easier "repairs".

### PRIOR DECISIONS ON UNIT 2 CONTENT

- Due to decisions made well before the start of the IPC on what content would be the responsibility of Unit 2, it is a more complex unit to integrate than Units 1 or 3. This is due to the different basic science disciplines and subject themes that were integrated, not including the Clinical Skills topics. These subjects (Genetics and Embryology, Hematology, Molecular and Cell Biology, Pharmacology, Metabolism, and Neoplasia) are derived from both years of the former pre-clerkship curriculum and from disparate former blocks and contexts: the MS1 Genes to Cells, Musculoskeletal, Blood Lymph/Head and Neck, GI, and the MS2 Triple I and Hematology/Oncology Blocks. Furthermore, the time allocated for coverage of these topics was necessarily reduced by as much as 50%. By contrast, at least two thirds of the content of all other units in the IPC are derived from whole and/or related blocks in the previous curriculum, although reduced coverage of many topics was also required in other units. The linking of these themes was a challenge and raised disagreements from those within and outside the unit on the sequence and clinical application of the basic principles. Unit 2 was forced to pick up topics that, intuitively, may have served students better if they had been taught in Unit 1 or later units.
- **Recommendation** The unit leadership team should re-evaluate the depth of coverage on each of the disciplines to determine whether there should be any changes for version 2. Did the

faculty start at the appropriate level for genetics, cell and molecular biology? Was the level too low? too high? Should hematology be moved to a later unit or at the end of Unit 2? How best should the coverage of biochemistry be reduced from the past curriculum, yet prepare them for integration within Unit 2 and for later systemic units.

### **SHORTAGE OF EXPERIENCED COM FACULTY SUBJECT EXPERTS**

- Although the logic of the unit content threads became apparent to students by the end of the unit, it is telling that the most successful subject themes were those that were blessed with participation of subject experts to develop specific subject curriculum and participate in lecture and/or small group sessions as, for example, Carol Luhrs for Hematology and Stacy Blain for Neoplasia. Regardless of the content and sequence of integration, subject themes will succeed if there are willing and dedicated faculty subject experts to develop the curricular materials and teach. Attempts were made to recruit medical geneticists from University Hospital, but both declined because of lack of time. The hematologist and oncologist were recruited from the VA Hospital with uncompensated appointments, and therefore their ability to participate in the future is uncertain.
- Unit 2 cannot be allowed to go to version 2 of the IPC without enlisting the dedication and participation of qualified and experienced medical educators in the disciplines of medical genetics and metabolism. These subject areas are two for which the COM desperately needs passionate and experienced advocates to develop strong foundational and clinically relevant curricula.
- **Recommendation** The Integrated Pathways Curriculum requires adequate faculty support for its success. The success of Unit 2 was seriously impaired by the shortage of faculty resources and experts. The Dean of the COM and the Office of Medical Education should make it a priority to recruit current COM faculty who fulfill the needed credentials for developing curriculum and teaching in the IPC, or to recruit new faculty for this purpose. The OME should have short and long term goals in mind to start the process of preparing future COM medical educators – educators that have strong medical knowledge credentials, some experience in teaching and curriculum development and have potential for medical education innovation to contribute to helping the IPC to thrive in the future.

### **REDISTRIBUTION OF UNIT 2 TOPICS AND THE UNIT CALENDAR**

- The shortening of the Foundations curriculum and weaving of the subject threads in Unit 2 appears to have been achieved at the expense of some content that deserves better coverage in the IPC to insure that students have a solid foundation of basic principles to build upon in Units 3-6. We concur with the reports that the cell and molecular biology thread should be carefully re-examined before finalizing version 2 of Units 1, 2 and 3. This includes the coverage of skin biology, Dermatology and Dermatopathology
- Students and faculty both want a change in the calendar to accomplish the goal of a Unit 2 assessment week before Thanksgiving and a start to Unit 3 just after Thanksgiving or just after the winter vacation. At the start of Unit 3, with a Thanksgiving lost to studying and only two weeks of classes before Winter break, students were disengaged from learning and fixated on their upcoming vacation. Two weeks of the curriculum were essentially wasted. Although there

was time to catch up with Gross Anatomy (it took until late January for that to occur), there was no time to catch up on the lost immunology focus as the unit progressed.

- **Recommendation 1** Bone, skin and connective tissue biology and histology, (including wound healing, bone fracture, nerve regeneration? and some histopathology) should be moved to Unit 1. This may free up some time to increase the genetics, molecular and cell biology components to fulfill needs for clinical medicine. . [Discussion in the CEPC meeting indicates that some of this may already be in process in Unit 1.]
- **Recommendation 2** A redistribution of topics should be implemented which would facilitate making changes in the calendar. CEPC members did not favor holding classes on holidays for which other members of the center wide community are given a holiday as for example, Columbus Day, Veterans Day. Suggestions offered include starting COM one week earlier in the summer, adding content from Unit 3 to Unit 2, although no suitable material has been found, or adding content from Unit 2 to Unit 1, as previously suggested, or Unit 3 (Hematology?).

## **DEVELOPMENTAL EXPECTATIONS OF INDEPENDENT STUDENT LEARNING**

- The commitment and perseverance of the Unit 2 leadership to follow for at least two of the subunits the philosophy and mandate of Doc 2 worked to their disadvantage. Students are unhappy with contrasting expectations between units for independent adult learning. Even within Unit 2 there were contrasting expectations between subunits. Subunit 3 was most successful because of the emphasis on high quality lectures (the subunit leadership is calling for even more in version 2) that were reinforced further in the small group sessions. A student states the feeling clearly. (“ [In the] Last Unit POPS was my favorite activity because it was based on material already presented to us in lecture. In Unit 2 POPS are being used to teach us entirely new information which I do not think they are suited to.” *Comment by student in evaluations*). Furthermore, the more lectures given by faculty subject experts on a subject, the happier the students were!
- CEPC discussion elucidated a general sense that the level of adult learning expectations eventually in Unit 1 and currently in Unit 3 is generally comfortable for students and faculty. Therefore, it is clear that in the early subunits of Unit 2 the expectations were an anomaly compared to other units, although in line with the original guidelines mandated by the Office of Medical Education. Self -learning should not be used for complete coverage of a broad subject area or conceptual information. Ideally, expectations by faculty for adult and active learning by students should be developmental through the first four units, if a suitable approach to do this can be clarified. Initially, students transitioning to the tremendously increased demands of medical school should be guided and given models to follow. Some CEPC members felt that developmental expectation models would be difficult to implement. Nevertheless, from the beginning of medical school there should be a hybrid of learning styles offered with increasing emphasis during and between the first 3 units on independent active learning.

## **REALIZATION THAT MANY ISSUES RAISED IN THE UNIT REVIEWS ARE BEING RESOLVED OR CLARIFIED IN EACH ENSUING UNIT**

Discussion summarized by CEPC *ad hoc* subcommittee for Unit 2. March 6, 2014.