The Medical Student Education Committee of the Quillen College of Medicine met on Tuesday, March 5, 2013 at 4:15 p.m. in the Academic Affairs Conference Room, Stanton-Gerber Hall.

Dr. Olive thanked Dr. McGowen for chairing the 2/19 meeting in his absence.

1. Approval of Minutes

The minutes from the 1-29-13 Retreat & 2-5-13 meeting were approved as distributed.

2. Topics

   a. Report to MSEC – [M1/M2 Review Subcommittee]

Dr. Johnson, Subcommittee Chair

Annual Review of M1 Communication Skills for Health Professionals (CSHP), Course Directors: Dr. Rick Hess (Overall), Dr. Reid Blackwelder (QCOM)

- Observations:
  - This is an excellent interprofessional course that uses small groups and emphasizes adult learning techniques to develop individual skills; also, It provides students with immediate faculty and peer feedback
  - Although the course director noted weaknesses of 1) group variability possibly limiting individual practice and 2) some scenarios being hard to translate easily to all professions, these are felt to be inherent in an interprofessional course
Recommendation
- No MSEC action is needed at this time

ACTION:
MSEC accepted this recommendation.

Comprehensive Review of M1 Cellular & Molecular Medicine (CMM), Dr. Mitch Robinson, Course Director [Submitted by subcommittee members – Dr. Rob Schoborg (chair), Dr. Rich Feit & Ms. Melissa Robinson, M3]

Observations regarded:
- Course director and most of the instructors being strongly dedicated to student education and highly responsive to student concerns
- Units on carbohydrate and lipid metabolism appearing to be well executed and clinically integrated; Block 4 being organized and clinically relevant
- Students appreciating the "cafeteria plan" of material presentation – class time, recorded lectures, PowerPoints and notes, GUTS modules and quizzes, presentations by clinical faculty and M4s (students only rarely using the recommended text; 50% “Seldom or Never”)
- Course incorporating novel teaching approaches – flipping the classroom, clicker questions and self-directed activities; blood draw lab, in particular, seeming to be very successful
- Student rating of biochemistry on AAMC GQ being above the national average in 2011 and 2012
- NBME Subject Exam overall scores in biochemistry having decreased over the last three years (mean of 50 in 2010, 47.3 in 2011 & 42.7 in 2012)
- Students commenting on errors in handouts, factual inconsistencies and more emphasis being put on learning large numbers of facts rather than on concepts and clinical utility, i.e., the big picture

Immediate action items:
- CMM course should emphasize 1) the clinical relevance of biochemical pathways, 2) biochemical principles in the pathophysiology of disease and 3) details of signal transduction pathways and biomolecular genetics that form the basis for pharmacologic and therapeutic applications
- CMM faculty should review NBME objectives and the itemized Biochemistry NBME Subject Exam reports to determine where the addition or alteration of specific topics might benefit students on the “shelf” and USMLE Step 1 (areas of concern include the endocrine system, nutrition and cell and molecular biology)
- Significant parts of the course should be rearranged into a logical, contiguous order to create a sequential learning framework
- Course faculty could recommend that entering M1s complete certain CMM foundational material, such as online GUTS modules and self-assessment activities, before Fall classes begin
- Errors in course material should be corrected; excessive detail and factual inconsistencies should be eliminated
- More emphasis should be placed on overarching concepts and assessment that requires reasoning
- MSEC should facilitate integration of material between basic sciences courses (including CMM) by requiring periodic meetings between all basic science and clinical faculty involved in delivering the M1/M2 curriculum

- Long-term recommendations:
  - Clinical faculty involvement should be expanded
  - Text/review book options should be explored
  - Lab values obtained in the CMM blood draw session could be used by other basic sciences courses to introduce lectures or concepts
  - Classroom technical support for all courses should be increased

**Topics of discussion included:**
- Dr. Robinson finding the thorough review to be helpful and how he has already shared it with teaching faculty and is acting on recommendations
- Options for pre-matriculation preparation for the course; all basic science faculty being more involved in Orientation
- Implications of genomics expanding into human health applications
- Course benefitting from more clinical faculty involvement

**ACTION:**
*On a motion by Dr. Herrell and seconded by Dr. McGowen, MSEC accepted the report and approved the recommendations. The committee stated the course director and faculty’s responsibility to respond to the recommendations and make improvements in the Fall 2013 course. The course director is to report changes on next year’s Annual Course Review form, answering “Did MSEC require any changes to this course in the past year? If yes, what were they and how were they accomplished?”*

**Comprehensive Review of M2 Clinical Neuroscience**, Drs. Ron Baisden & Terry Harrison, Co-Course Directors [Submitted by subcommittee members – Dr. Caroline Abercrombie (chair), Dr. Antonio Rusinol & Mr. David Crabtree, M2]

- Recommendations to Course Directors / faculty

**Restructure & reorganize course:**
- Content delivery and organization should be more clinically directed
- Use Neuroscience NBME Subject Exam topics list and review the exam
- Make objectives for every session available to students and guest lecturers
- Provide handouts/outlines of session content
- Begin the course with an introduction to the language of neuroscience and an overview of the nervous system
Reevaluate content delivery methods:
- Increase opportunities for clinical application of content
- Increase active learning components; expand popular components already in place, such as clinical cases and patient presentations
- Communicate more with directors for Medical Human Gross Anatomy and Embryology and Introduction to Physical Exam Skills to improve vertical integration and planned redundancies
- Reorganize content in D2L by listing sessions sequentially
- Narrow down the choice of recommended resources/textbooks

Regarding assessment methods:
- Review Neuroscience NBME Subject Exam for exposure to the style of questions and depth of material appropriate for medical students; continue to increase use of clinical vignettes
- Involve all faculty in development of written exams; improve question quality
- Ensure that good quality images are used for exams
- Have a set grading system to decrease ambiguity
- Continue adding more graded activities (making the comprehensive exams less high stakes)

Regarding laboratory:
- Wet lab, as currently delivered, appears ineffective and should be considered for removal from the course
- Continue search for 3D software to facilitate students’ visual transition of the gross brain to a “sectional” brain
- Improve alignment and application of course content in small groups and lab; consider creating a teaching lab director position to assist with the coordination

- Immediate action items:
  - Restructure and reorganize course to allow delivery of basic science and clinical content in a more integrated, sequential and clinically-oriented format
  - Increase active learning components
  - Decrease student to faculty ratio in small groups and lab
  - Recruit faculty and community clinicians to assist with the course
  - Evaluate classroom / large auditorium projection system in regard to the need to more clearly project digital images

- Long-term recommendations:
  - Conduct another comprehensive review of Clinical Neuroscience after the first rendition of redevelopment is delivered in Fall 2013
  - Expand all faculty’s awareness of content across courses, available resources and administrative requirements for course delivery
  - Increase faculty development for all new/emerging course directors; facilitate the process of current course directors mentoring others for future leadership
Topics of discussion included:

- Dr. Kelly Smith and his concept and vision for the 2013 Clinical Neuroscience course being consistent with the subcommittee's recommendations
- Attention to Neuroscience NBME Subject Exam content list
- Neuro review subcommittee members researching other curricula and resources
- Additional considerations and challenges in regard to inclusion of Physical Therapy students
- Recruitment of faculty in this field (one position is posted at this time)

ACTION:

On a motion by Dr. Herrell and seconded by Jeremy Brooks, MSEC accepted the report and approved the recommendations.

On a motion by Dr. Monaco and seconded by Dr. Herrell, MSEC agreed that the projection quality in the Large Auditorium must be improved and the search for a solution should begin immediately.

b. Integration of M1 Course Content = Cellular & Molecular Medicine, Cell & Tissue Biology, Physiology and Human Genetics

Dr. Mitch Robinson

- Addressed possibly unplanned redundancies in the first year as identified in the M1/M2 Review Subcommittee’s comprehensive review of CMM (above)
- Presented a comparison of content (from D2L course sites) that showed overlap in these four courses under the general topics of cell biology, genetics-molecular biology, pulmonary, musculoskeletal, metabolism-GI and hormones-endocrine
- Proposed to MSEC a way to improve integration of M1 basic science courses, also including “Anatomy”
  - Identify similar topics taught in the first year and arrange in broad categories
  - Convene meetings of faculty who teach similar topics
    > Review content
    > Identify gaps to be filled and redundancies to be eliminated
    > Coordinate teaching and reassign topics as needed
  - Generate coordinated and integrated learning objectives for basic science topics
  - Generate a first year curriculum map with an organized arrangement of topics
- Outlined an example of coordinated learning objectives in regard to general principles for skeletal, cardiac and smooth muscle for CMM, Cell & Tissue and Physiology
- Noted that implementation could require an initial curriculum retreat focusing on content and the need for topic coordinators
- Acknowledged possible impediments that regarded the extra work involved, the perceived threat to course independence and challenge of overcoming disciplinary boundaries
- Mentioned that this could eventually lead to true integration like an organ-system approach and listed advantages of improving curriculum integration:
  - Eliminates gaps and unintended redundancies; reduced redundancy = increased time for delivery
  - Presents material in a logical sequence across courses
    > Overall continuum of learning can be understood and assessed for continuity
    > Students will be better prepared with the foundation of knowledge needed for subsequent courses
    > Instructors can properly reinforce and build on concepts learned in preceding courses
  - Creates a curriculum map that charts the curricular content across courses
    > Can locate delivery of specific content within the curriculum.
    > Will provide a means to assess integration of content and progression of learning
  - Responds to LCME Standard ED-33
- Further discussed ED-33, and regarding curriculum content and integration, quoted Dr. Dan Hunt from the April 2012 accreditation consultation visit

**Topics of discussion included:**
- Appreciation of Dr. Robinson’s effort and opinion that feasibility of better integration has improved with the advent of the Department of Biomedical Sciences
- Dr. Robinson’s example of building on content related to muscle across courses
- Faculty retreat to concentrate on a new initiative toward integration; M1/M2 Course Development Luncheons (last Wednesday of every other month) providing a new opportunity for faculty communication
- MSEC monitoring and learning from work with these five courses as it continues to systematically review and improve progression across all four years; use of our milestones and Curriculum Integration Framework (CIF) cases in the integration process
- Biomedical faculty and staff developing another example like muscle component to present to MSEC
- Corresponding integration of exam questions
- Benefit of planned and organized redundancies; addressing unplanned redundancies

**ACTION:**

*On a motion by Dr. Johnson and seconded by Dr. Abercrombie, MSEC agreed to charge course directors Drs. Ecat, Kwasigroch, Monaco & Robinson, plus Dr. Feit with continuing the work on coordinating content in the M1 curriculum and reporting their plan to MSEC; Dr. Monaco abstained from the vote.*
c. Curriculum Content (Gaps) Report: End-of-Life Care

The committee reviewed the report summarized as follows.

- From our database, content in required curriculum:

M1
Communications Skills – end-of-life interviewing, palliative care
Lifespan Development – death & dying in geriatric population
Profession of Medicine – palliative care, end-of-life introduced in context of chronic disease

M3
Community Medicine – end-of-life care, intermediate level
Family Medicine – palliative care workshop, fmCASES #29 - palliative care and hospice in dementia patient
Internal Medicine – end-of-life care, intermediate level, exposure in clinical care
(Rural Primary Care – end-of-life care, hospice in clinical care; work with VA chaplains)
Surgery – palliative care exposure in clinical assignments

M4
Critical Care Selectives – clinical exposure
Keystone Course – end-of-life care/palliative care session

- Elective curriculum noted:

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<thead>
<tr>
<th>M1- M4</th>
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<tbody>
<tr>
<td>Healer’s Art</td>
<td>Palliative Care elective</td>
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<tr>
<td>Interprofessional End-of-Life Care</td>
<td>Hematology-Oncology elective</td>
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<td>Pediatric Hematology-Oncology elective</td>
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<td>Geriatrics elective</td>
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- Outcome data

2012 AAMC Graduation Questionnaire (GQ) items:

(Rate) your instruction in the following area – End-of-Life
[25.6% Inadequate  74.4% Appropriate  0% Excessive]

(Rate) your instruction in the following area – Palliative Care/Pain Management
[20.5% Inadequate  79.5% Appropriate  0% Excessive]
2012 Quillen Residency Questionnaire items (not a direct correlation); Program director rating in regard to PGY-1:

- [Outstanding Excellent Satisfactory Fair Unsatisfactory]

1) Provides care with compassion and respect for all patients – 79.6% Outstanding or Excellent
2) Exhibits respect, compassion, humility, altruism, duty and honesty with patients, faculty, staff and fellow residents – 81.6% Outstanding or Excellent
3) Is a patient advocate – 61.2% Outstanding or Excellent

Discussion regarded:
- Increased awareness in regard to how a topic should be labeled
- Delivery of this content being somewhat inconsistent
- Teaching this topic, as others, in a more cohesive, coordinated way
- Ethics M4 elective potentially including this focus
- Faculty most involved in this area, such as Drs. Robert Enck and Tom Townsend

ACTION:
On a motion by Dr. Abercrombie and seconded by Dr. McGowen, MSEC agreed to appoint and charge an ad hoc committee to look closer at coverage of palliative care in the curriculum and report back to MSEC in late May or June.

3. Recent documents / topics {Linked or on file in Academic Affairs – contact myers@etsu.edu}

Reports: [M1/M2 Review Subcommittee]
- Annual Review of M1 Communication Skills for Health Professionals
- Comprehensive Review of M1 Cellular & Molecular Medicine
- Comprehensive Review of M2 Clinical Neuroscience

Proposal: Integration of M1 Course Content

Curriculum Content (Gap) Report: End-of-Life Care

The University of Nevada School of Medicine (UNSOM) new integrated curriculum

4. Announcements

The next MSEC meeting will be on March 19, 2013.

5. Adjournment

The meeting adjourned at 6:14 p.m.