| REDUNDANCIES | ACTIONS for 2013-2014 |
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| A detailed pathway of catecholamine biosynthesis is presented <i>in</i> <i>The Molecular Basis of Medicine (MBM), Neuroscience</i> and <i>Endocrinology.</i> | The details of the catecholamine synthetic pathway will be covered in <i>Elements of Medicine (EoM)</i> . Students will be referred to the <i>EoM</i> lecture when catecholamines are covered in other blocks. |
| Three lectures are presented specifically on the autonomic nervous system (ANS). There are major overlaps in the content of these lectures. Other systems (GI, cardiovascular, etc.) cover the ANS only as it relates to that specific system. | The ANS <i>per</i> se will be presented in two complementary lectures. One which will provide a functional overview of the system will be presented in S&F II. The second lecture will stress the structural organization of the ANS. It will be given in S&F III just before the anatomy of the ANS is covered in the laboratory. |
| Two clinical correlations on atherosclerosis are presented in year one. One is given during <i>MBM</i> and the other is given with the cardiovascular system. They both cover essentially the same material. | The clinical correlation on atherosclerosis will be retained only in <i>EoM</i> because it complements the section on lipids. A different clinical correlation will be used during the cardiovascular system. |
| Edema is covered in detail in pulmonary physiology, cardiovascular physiology and renal physiology. | Since all 3 disciplines will be covered in S&F III, a detailed account of the basic principles that cause edema will be presented with the cardiovascular system. When edema is covered in the pulmonary and renal systems, students will be referred to the basic principles covered in the cardiovascular system. |
| There are two lectures that presented an overview of the cardiovascular system that cover much of the same material. One is presented with the musculoskeletal system, the other at the beginning of the cardiovascular system. | The overview lecture at the beginning of the cardiovascular system was removed because it was a holdover from a time when there were many contributors to that system. It has been eliminated because of the extensive overlap with the lecture in the musculoskeletal system and because it is no longer necessary now that Dr. Kim is teaching the majority of lectures on cardiovascular function. |
| Significant overlap occurs between the lectures that cover hemoglobin (Hb) in MBM and pulmonary function. | In 2013-2014, the biochemistry of Hb will be covered in EoM and the Hb dissociation curve will be introduced. In S&F III, the use of the Hb dissociation curve to determine a patient's state of oxygenation will be emphasized. Students will be referred to their EoM notes to review the biochemistry of Hb. |
| Diabetes lectures in the endocrine section of physiology and MBM | In 2013-2014, the causes, classification and consequences of diabetes |

ED-33 Appendix: Unnecessary Curricular Redundancies

| cover essentially the same material. | will be covered in EoM. There will be a small group discussion and an |
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| | independent learning activity on diabetes in S&F IV. |
| There is overlap in the coverage of Dalton's gas laws in MBM and | Dalton's gas laws will be covered in EoM. In the pulmonary function |
| pulmonary physiology. | section, emphasis will be placed on how the partial pressures of gases |
| | change as they move into and out of the lungs. |
| There are multiple areas in the MS- curriculum where α 1- | In S&F III, students will be referred to their EoM notes on α1- |
| antitrypsinase is mentioned. | antitrypsinase for its biochemistry. The role of α 1-antitrypsinase in |
| | emphysema will be covered in the pulmonary function section of S&F |
| | III. |
| There is significant overlap between lectures on sexual | Sexual differentiation has been combined into a single lecture. Small |
| differentiation in gross anatomy and physiology. These two lectures | group discussions will be used to emphasize the issue of errors in sexual |
| are presented within days of each other. | differentiation. |
| There is significant overlap between information presented on male | Efforts will be coordinated in the 2013-2014 to avoid significant |
| sexual function in gross anatomy and physiology. Again, the | overlap. |
| lectures were presented within days of each other. | |
| There is significant overlap among lectures covering Sertoli cells in | Sertoli cell function will be covered in the function section of the |
| gross anatomy, physiology and histology. | course. Structure will be covered in the microscopic anatomy laboratory |
| | on the male reproductive system. |
| Micturition is currently taught in renal physiology and gross | In 2013-2014, micturition will be covered only with the pelvic cavity. |
| anatomy. | |
| | |
| There is significant overlap between MBM and Physiology | The amount of coverage of digestive system function by EoM will be |
| regarding the coverage of lipid digestion in the GI tract and the | reduced. |
| formation of chylomicrons by enterocytes. | |
| ADH is covered extensively in cardiovascular physiology, renal | Most of the physiology of ADH (actions, regulation, etc.) will be |
| physiology and endocrinology and there is major duplication | covered in the renal section in S&F III since it is so important in renal |
| between the material presented in the endocrine and renal sections. | function and body fluid homeostasis. |
| | The lecture on ADH currently presented in endocrine physiology will be |
| | eliminated. |
| There are two lectures devoted to calcium homeostasis in the | Delete the non-renal actions of PTH and vitamin D and the section on |
| endocrine physiology and a section on calcium homeostasis in renal | calcium homeostasis from S&F III. Retain lectures on the calcium |
| physiology. | homeostasis in S&F IV. |
| There is significant overlap between the material covered in the | Sections on the distribution of metabolites during the post absorptive |

| integration of metabolism in MBM and the endocrine regulation of | period and metabolic changes during fasting will be eliminated from the |
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| metabolism in the endocrine section of physiology. | endocrine function section |
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| The topic of <i>advanced directives and surrogate decision makers</i> is | It has been suggested that the ICS course director and Dr. Petrany |
| covered both in ethics and ICS. | coordinate their activities in 2013-2014 to avoid significant overlap. |
| The topic of <i>conflicts of obligation and confidentiality</i> is covered | It has been suggested that the ICS course director and Dr. Petrany |
| both in ethics and ICS. | coordinate their activities in 2013-2014 to avoid significant overlap. |
| There is significant overlap in the coverage of acid-base balance in | MBM teaches only the basic biochemistry. The renal lectures were |
| pulmonary and renal physiology lectures. Acid-base balance is also | revised to complement the respiratory lecture. In 2013-2014, one of the |
| taught in MBM. | renal lectures on acid-base balance will be replaced by a case-based |
| | learning exercise. |
| There is overlap in coverage of special senses between Gross | This redundancy will be handled by integration of head and neck (from |
| Anatomy and Neuroscience, especially for structures of the eye and | Gross Anatomy) with special senses (for Neuroscience) in the new |
| inner ear. | Structure and Function II course. Lectures covering special senses will |
| | be given consecutively, rather than separated by weeks-months, |
| | allowing removal of unnecessarily repeated material. |
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| The hormone profile during the female reproductive cycle is | One lecture will be used to cover the cycle in detail and its content will |
| presented 3 times during the reproductive system block. | be determined collectively by faculty teaching the female reproductive |
| | system. In the laboratory, the hormone profile will be used as a point of |
| | reference when studying the changes in uterine histology that occur |
| | during the reproductive cycle. |
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| There is overlap in coverage of neurohistology between the | This material will be covered only in the neurohistology lecture. |
| Overview of Nervous System lecture and the neurohistology | |
| lecture. | |
| There is overlap in the lecture on Axonal Transport with material | This information will be removed from S&F I. Students will be referred |
| on microtubule function in MBM. | to the notes from EoM on this topic. |
| The structure and function of membrane transporters and ion | EoM will continue to present a broad overview of membrane transport. |
| channels is covered in MBM and lecture in Neuroscience on | Details of specific transporters and channels will be given as they apply |
| excitable membranes and muscle function. | to the function of specific systems. |
| Overlap in signal transduction in Neuroscience lectures on Synaptic | During S&F I, students will be referred to EoM for review of signal |
| Transmission II and IV and MBM. | transduction. |

| Overlap in Gross Anatomy Lower Limb and Abdomen lectures on | Hernias will be given in S&F IV. |
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| hernias. | |
| Overlap in coverage of meiosis between MBM and Gross | Presentation of meiosis will remain in EoM. Review will be in form of |
| Anatomy. | a quiz in embryology component of S&F I and in reproductive |
| | component of S&F IV. |
| Homologies of upper and lower limb have many redundancies with | Homologies will be eliminated as a lecture and given as an independent |
| lectures in gross anatomy. | learning exercise. |
| Several lectures cover classification of joints. | These will be combined into a single lecture. |
| Material covering mechanisms and regulation of gene expression, | This material has been reorganized in EoM to provide a smooth flow |
| protein synthesis, and protein processing was provided in multiple | from initiation to completion of gene expression processes, without |
| lectures within MBM | repetition. |
| The LDL receptor was covered extensively in MBM as an | A different example will be chosen for protein trafficking, leaving |
| illustration of protein trafficking, which overlaps considerably with | coverage of the LDL receptor to the lipoprotein metabolism and clinical |
| later material on lipoprotein metabolism | correlate on cardiovascular disease. |
| Peripheral smear: Dr. Richardson covers peripheral smear in first year | Dr. Griswold will no longer cover the basics of peripheral smear in the second |
| and Dr. Griswold covers peripheral smear in the second year. | year but will expand on the material learned in first year by discussing more |
| | advanced topics such as flow cytometry. Dr. Griswold will assist Dr. |
| | Richardson with the peripheral smear lab in the first year. She will bring |
| | abnormal smears so the students can see the difference between normal and |
| Common Lab Tasta. In the next Dr. Dougharty delivered a lecture to first | abnormal smears. |
| Common Lab Tests. In the past Dr. Dougherty derivered a fecture to first vear students early in Molecular Basis of Medicine on common lab tests | tests. When they are doing case studies in small groups with fourth year |
| so the students would have some background when they see lab results in | students, the first year students will have an opportunity to clarify any |
| various case studies that are done in the first year. Dr. McGuffin also | questions they may have about particular lab tests. The second year students |
| gives a lecture in the second year on common lab tests. | will be able to review the document also and refer to it if/when they have |
| | questions about lab tests. Dr. McGuffin's lecture on common lab tests will be |
| | removed from the second year. |
| Innate Immunity (Immunology, Jackman) and Acute Inflammation and | Darshana Shah and Susan Jackman met and decided who would cover each of |
| Chemical Mediators (Pathology, Shah) had some concepts that currently | these concepts and will coordinate their sessions back-to-back. In addition |
| are redundant. | they will give an integrated TBL on Innate Immunity. |
| There was overlap in review material on lymphoid organs in Immunology | Susan Jackman and Laura Richardson (who cover this material in year 1) will |
| (Jackman) and Pathology (Griswold). | work review material and be sure it is acceptable to Doreen Griswold. The |
| | document will be a self-study session provided in Principles of Disease only in |
| Dermetalogy Musculoskeletel and Hemotology The main | 2013-2014. The plan for resolution is to develop a review document based on Dr |
| Dematology, musculoskeletal and hematology. The main | The plan for resolution is to develop a review document based on Dr. |

| redundancies that we have noted are in the review of | Richardson's coverage of the topics that includes all the information |
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| hematopoiesis, lymph node, bone marrow, spleen and thymus | needed as a basis for immunology and WBC disorders. Before the |
| histology and physiology which are done by both Jackman and | students start immunology they will be referred to this document |
| Griswold in the second year after they have been covered by | (handout or PowerPoint) for review then will be given a quiz in class |
| Richardson in the first year. | before the first immunology lecture. Dr. Jackman will remove all |
| | review slides from her lectures. Several weeks later, when Dr. Griswold |
| | covers WBC disorders she will again suggest the document for review if |
| | the students need it and she will remove all review slides from her |
| | lectures. |
| Gastrointestinal, Genitourinary, Endocrine and Toxicology. I am | My plan for the review redundancies is similar to our plan for |
| finding some of the same redundancies in review of GI anatomy, | redundancies in hematology - at the beginning of each section the |
| histology and physiology in pathology and pharmacology. Other | students will be directed to review specific handouts from first year and |
| redundancies are in the coverage of GI infectious diseases between | will be quizzed. The quizzes will add to the objective points that are not |
| pathology and microbiology (e.g. Salmonella, Shigella, | from Block exams. Then the lecturers will be able to delete their review |
| Helicobacter pylori) and the coverage of certain GI diseases (e.g. | slides from their lectures. |
| GERD, diarrhea, PUD) between pathology and microbiology. | My plan for the redundancies between pathology, pharmacology and |
| | microbiology lectures is to collect the redundant material from the |
| | various lectures and meet with the lecturers individually or together, |
| | whichever can be arranged, to come to an agreement about what |
| | material should be covered by each lecturer. |
| EKG is presented in detail in the cardiovascular blocks of Y1 and | Y1 and Y2 will work together to coordinate better the coverage of this |
| Y2 with some excessive redundancy. | topic. It is anticipated that he basics principles underlying EKG and its |
| | interpretation will be covered in Y1 with some limited examples of how |
| | it is used in the diagnosis of cardiac disease. In Y2, the emphasis will |
| | be on the use of EKG in the diagnosis of cardiac disease and |
| | dysrhythmias after a brief review of the principles of EKG covered in |
| | Y1. |
| Diuretics are specific class topics in Y1 and Y2 with considerable | Y1 and Y2 will work together to coordinate better the coverage of this |
| redundancy. Further, the diuretics class in Y1 is the only class in | topic. It will be recommended that the Y1 class on diuretics be |
| the Y1 CV section which is dedicated to a class of drugs. | eliminated and that the diuretic classes be discussed as part of the |
| | presentation of tubular function. The class on diuretics in Y2 will be |
| | maintained. |
| Redundancy exists in the some coverage of atypical pneumonias in | Didactic presentation of atypical pneumonias in Y2 will be limited to |

| Y2. | the class specifically dedicated to that topic. |
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| In Y2 CV and respiratory sections, some redundancy exists in | Introductory material for each topic in these Y2 sections will be |
| introductory portions of topics. | reviewed and repetitive introductory material eliminated. |