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In Class Project (10%): This in class exercise concerns “integrating metabolism”, i.e., understanding how several key organs in your body manage your fuel and energy resources in response to different metabolic states. The goal of the exercise is to break the class into groups, each focused on a particular organ or disease. The goal of each group (4-5 students) is to become the ‘knowledge base’ for their particular organ/disease, and then be prepared to share that knowledge with the rest of the class. The organs & diseases are as follows: (a) Brain; (b) Heart; (c) Liver; (d) Muscle; (e) Adipose; (f) Kidney; (h) Diabetes.

At the first class meeting, we will draw cards out of a hat to assign each member of the class to a particular group. Absent students will be randomly assigned by the instructor. The groups will then organize, split up duties. These consist of researching the topic, developing and presenting the Powerpoint, and writing the Review article. Each group will schedule an orientation meeting with Dr. Francklyn to talk about the scope of the projects. At that meeting, each group signs up for the date upon which it will make its presentation: first come, first served. Hence, the sooner your group schedules a meeting, the better its selection of presentation dates. The groups will then develop the specific content, which consists of a Powerpoint lecture (see examples on Blackboard) worth 5% of final grade, and a “Review Article” that covers various topics that are developed and bylined by the individual members of the group (remaining 5%). Note that each student’s contribution to the Review will be graded individually. The Powerpoint presentations (in their near final form) are due at the end of the first day of presentations, March 4th. The Reviews are due at the end of the in class presentations (March 21<sup>th</sup>).

The in class presentations will take place on \_\_\_\_\_.  
The presentations come in the form of a 20 minute short lecture (using Powerpoint, overheads, or chalk) with members of the group taking turns. After each presentation, there is a five minute Q/A while the second group sets up. Each group gets graded (by instructor) and members of the winning group receive a prize, bragging rights, and bonus points with respect to grading. Grading/evaluation is based on clarity of presentation, depth of knowledge, and general evidence of hard work and scholarship. Cribbing all of your work from one bogus website will generally be frowned upon. Penetrating and insightful questions from the audience (a.k.a ‘stump the chumps’) will also garner extra credit points for the questioner.

To start, read and re-read Chapters 17 and 27 in your book, but also don’t be afraid to venture out on the web and PubMed (the real source) for additional information.

Here is the essential/compulsory section of what should be included for each organ:

What does your organ expend most of its energy (ATP) doing? (Be specific, i.e. what enzymes require ATP)

In what form, if any, is energy stored in your organ?

F Tf (am 11 >>BDC BT /Ta)-6 (n)-6 (Bo..(t)12 (f a)-6t )12 (s)2 (p)1 (e)1 (c)2 (i)7 (f)6 (i)7 (c )8 (c)2 (o)1 (

What biosynthesis does your organ do; in particular, does your organ export any fuel sources to other organs?

Where does your organ receive its fuel sources? How much comes froBo.4 (h)7 (a)7 (t )26 (i)

What hormones does your organ secrete and/

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Illness: Students need to submit appropriate documentation from the Center for Health and Wellbeing or another medical professional when exams are missed due to illness. This documentation needs to be presented to the Instructor as soon as possible, and no later than one week following the absence.

Religious Holidays: Students should submit to their instructor in writing their documented religious .

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