# New Course

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<td>Program Change Form Submitted?</td>
<td>N (Simple Change) - For the B.Sc. Major and Honours Programs in Biochemistry, please add this course to the first subsection (&quot;at least 3 credits selected from...&quot;) of the U3 “Complementary Courses” list. For the B.Sc. Honours in Biochemistry, please add this course to the second subsection (&quot;3-6 credits from...&quot;) of the U3 “Complementary Courses” list.</td>
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| Subject/Course/Term | BIOC 470  
- one term |
| Credit Weight or CEU's | 3 credits |
| Course Activities |  
| **Schedule Type** | **Hours per week** |
| A - Lecture | 2 |
| G - Small Group Teaching | 1 |
| **Total Hours per Week:** | **3** |
| **Total Number of Weeks:** | **13** |
| Course Title |  
| **Official Course Title:** | Lipids & Lipoproteins in Dis. |
| **Course Title in Calendar:** | Lipids and Lipoproteins in Disease |
| Rationale | In North America, heart disease accounts for the majority of deaths and will account for a growing number of deaths in industrializing countries (eg. China, India). Obesity and diabetes are major health epidemics that will plague the health care system for decades. Currently, no course exists at McGill that discusses at an undergraduate level the important subjects of lipids and lipoproteins and their relation to health and disease. This course will present the basic biochemical knowledge of lipids and lipoproteins in the context of medically relevant diseases (such as lipid storage diseases, obesity, diabetes and heart disease). Furthermore, by presenting the information in the form of seminars and discussion groups, the students must actively participate in the acquiring of understanding, facilitating their own learning. |
| Responsible Instructor | Dr. Kiss (20 hours); Dr. Nilsson (12 hours); Dr. Genest (3 hours); Dr. Engert (3 hours) |
| Course Description | Structure, function and metabolism of lipids and lipoproteins as they relate to lipid storage diseases, obesity, insulin resistance, diabetes, heart disease, Alzheimers disease and other neurological diseases. |
Transcriptional and post-translational mechanisms governing the synthesis and degradation of important enzymes, lipids, and lipid transport molecules; role of lipid mediators in signaling pathways and protein modification; assembly and dynamics of lipoproteins and biological membranes; genetic disruptions of lipid regulatory proteins such as cell surface receptors leading to human disease.

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# Approvals Summary

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<th>Departmental Curriculum Committee</th>
<th>Departmental Meeting</th>
<th>Departmental Chair</th>
<th>Other Faculty</th>
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Detailed New Course Proposal – BIOC 470 - Lipids and Lipoproteins in Disease

BIOC 470  Lipids and Lipoproteins in Disease: Structure, function and metabolism of lipids and lipoproteins as they relate to lipid storage diseases, obesity, insulin resistance, diabetes, heart disease, Alzheimers disease and other neurological diseases. Transcriptional and post-translational mechanisms governing the synthesis and degradation of important enzymes, lipids, and lipid transport molecules; role of lipid mediators in signaling pathways and protein modification; assembly and dynamics of lipoproteins and biological membranes; genetic disruptions of lipid regulatory proteins such as cell surface receptors leading to human disease.

Marking:
Midterm examination: 40%
Final examination: 50%
Participation (class discussion) 5%
Short oral presentation 5%

Each week (3 hours of in-class time) will be divided into two hours of lectures and one hour of discussion/presentation. The one-hour discussion period will involve an instructor-led discussion on the topic that was discussed in the lectures previously. Each student will be asked to read the same review article or relevant scientific paper and will be asked questions regarding that paper. Each student will be given an opportunity to answer. Depending on the size of the class, each discussion group would consist of 10-15 students (e.g., 26 students = 2 small groups of 13 students). This discussion group participation would continue for the first 10 weeks of classes and would constitute 5% of the final mark. For the final 3-4 weeks of classes (depending on the size of the class), each student would have to present a 10-minute power point presentation of a summary of a scientific paper chosen by the instructor. This presentation would constitute 5% of the final mark.

Rationale: In North America, heart disease accounts for the majority of deaths and will account for a growing number of deaths in industrializing countries (e.g., China, India). Obesity and diabetes are major health epidemics that will plague the health care system for decades. Currently, no course exists at McGill that discusses at an undergraduate level the important subjects of lipids and lipoproteins and their relation to health and disease. This course will present the basic biochemical knowledge of lipids and lipoproteins in the context of medically relevant diseases (such as lipid storage diseases, obesity, diabetes and heart disease). Furthermore, by presenting the information in the form of seminars and discussion groups, the students must actively participate in the acquiring of understanding, facilitating their own learning.

Textbook:
Biochemistry of Lipids, Lipoproteins and Membranes (Fifth Edition; Eds. Vance and Vance).

Course Coordinator: Dr. Robert Scott Kiss

Lecturers: Dr. Tommy Nilsson (12 hours); Dr. Jacques Genest (3 hours); Dr. Jamie Engert (3 hours); Dr. Robert Scott Kiss (20 hours)
Syllabus

Week 1 Fatty acid biosynthesis, beta-oxidation

Week 2 Phospholipid biosynthesis

Week 3 Phospholipases, Eicosanoids and ether lipids

Week 4 Sphingolipids, Lysosomal storage diseases

Week 5 Lipid transport

Week 6 Lipid modification of proteins

Week 7 Cholesterol biosynthesis, Lipoproteins

Week 8 LDLR, SREBP2, HMGCoA reductase

Week 9: Reading Week

Week 10: HDL, ABC transporters and Reverse cholesterol transport

Week 11: Glucose -fat metabolism, insulin resistance

Week 12: Triglyceride absorption, synthesis, and storage;

Week 13: VLDL/CM assembly, apoB/MTP; hyperlipidemia

Week 14: Triglyceride turnover in adipose vs. hepatic tissue; obesity, steatosis
Dear Dr. Multhaup,

Sorry for the intrusion. I am currently teaching the lipids section of BIOC311 (which a number of students in the Department of Pharmacology and Therapeutics take) and a U3/graduate level course (BIOC570) called the Biochemistry of Lipids. Through a number of discussions, it was put forward that splitting BIOC570 into an undergraduate course (seminar course) and a graduate level course (discussion group) may be well received. I have contacted the relevant people in Biochemistry and we are exploring it at different levels (John Silvius, Course Coordinator for the Department of Biochemistry is cc'ed). However, it was noted that a number of students from Pharmacology and Therapeutics take BIOC311 and might be interested in such a course. I am sending this email as a feeler to sense if there would be any interest from your department, your students. I will pose a number of questions to you or your undergraduate student coordinator below. Feel free to discuss or ignore if there is no interest. I am not asking anything from your department except feedback. But, if you feel that there might be some interest from your department in having such a course, I would ask that you kindly think about and respond to the following questions.

1. Is there any indication from the faculty in your department or the students in your department that there is a void in the teaching of lipids at McGill? Could such a course fill this void?
2. If such a course existed, as a U3 course, would any students from Pharmacology and Therapeutics be interested in taking this course? Would there be any material conflicts with current courses taught in Pharmacology and Therapeutics? Would there be any course conflicts (ie. no available course space in the current curriculum for an option such as this new lipid course (let's call it BIOC470)? If there were BIOC470 and interest from your students, when would it have to be offered to best serve them?

Let me put it this way, the last thing in the world that I would want to do is step on someone's toes. So, before I go ahead and put the effort in, I hope you can clear my conscience and help direct me, at least as far as the Department of Pharmacology and Therapeutics is concerned. I attach a potential syllabus for your information.

Thank you very much for your time.
Kind regards,
Scott Kiss

Hi Scott
This is something that I am are interested in.
I am on my way to Europe now, but I will be back next week. Let us have a meeting then.
Best
GM
Met on Friday, October 24\textsuperscript{th}, 2014. Dr. Multhaup expressed overwhelming support for such a course as it will complement courses taught in his department. He agreed to add it to the “Complement” list for the U3 students in his program.

**Re: Possible introduction of a new lipids course in Biochemistry**

Craig Mandato, Dr.

**Sent:** Wednesday, October 15, 2014 10:22 AM  
**To:** Robert Scott Kiss, Dr  
**Cc:** John R. Silvius, Dr.; Vittoria Catania, Ms.

Hello Dr. Kiss,

I am glad to hear you are happily rolling along. My understanding is that ACB students who take BIOC311 are doing so to meet a UBC med. school requirement. It is difficult to assess the interest in such a course you are suggesting. Based on our description of this new course, I do not see it conflicting with any ACB courses - however, I would need to see the full course outline before signing off on a consultation form. So to clear your conscience - no toe stepping from this end. Good luck.

all the best,  
Craig

**FW: Possible lipids course in Biochemistry**

John Orlowski, Dr.

**Sent:** Tuesday, October 14, 2014 1:20 PM  
**To:** Robert Scott Kiss, Dr  
**Cc:** Ann Wechsler, Dr.; Sonia Viselli; John R. Silvius, Dr.

Attachments: BIOC_470_(Biochemistry_of_~1.doc (32 KB)

Dear Scott:

Thank you for your inquiry which I am forwarding to Dr. Ann Wechsler who is the Chair of our Undergraduate Curriculum Committee and who is in the best position to answer your queries. Without trying to pre-empt Dr. Wechsler’s response, my impression is that the material in this course would not overly conflict with content in other courses offered by the Department of Physiology and may be a useful addition to other acceptable elective courses approved by the department. As we offer ~30 courses, it is difficult to predict an optimal time to offer such a course that would make it accessible to the majority of our students, but Dr. Wechsler may have some suggestions.

Best Regards,  
John
RE: Possible lipids course in Biochemistry
Ann Wechsler, Dr.

Sent: Tuesday, October 14, 2014 3:31 PM
To: John Orlowski, Dr.; Robert Scott Kiss, Dr
Cc: Sonia Viselli; John R. Silvius, Dr.

Dear Dr. Kiss,
Dr. Orlowski’s impression regarding your course proposal certainly coincides with my own – but we will be having a Curriculum Committee meeting in a couple of weeks, and I will present your proposal to the members and solicit a broader opinion. For now, I will just make a few comments:

a) PHGY 311 is currently a required course for all our students in the Majors and in the Honours Programs in Physiology, and as such, practically all our U2 students are registered in it.

b) Our programs are quite packed at this point: (64(65) credits for the Majors and 75(79) credits for the Honours), leaving little room for the addition of new courses. (Just a bit of history: there was a time - a long time ago – when BIOC 312 included a lot of lipid biochemistry, and - like the current BIOC 311 - was also a required course).

c) The one possibility would be to include your BIOC course on the list of Complementary courses (under the category of “6 credits of Upper Level Science courses” from which the students would then be able to select your course). As either 400 or 500 level courses, all BIOC courses already fall in this category.

d) I cannot, at this point, comment on the best time to offer the course, since by U3 our students take such a large variety of different courses that there is no consistency in their timetables.

I wish you good luck with the planning of your course – the topics are certainly very interesting, and would provide a useful perspective to a number of our Upper Level Physiology courses. I will get back to you after our Curriculum Committee meeting.

Best regards,

Ann

Department of Physiology
Dear Dr. Kiss (Scott),

I am well, thank you. I hope you are also doing fine.

We introduce lipid metabolism in an introductory U1 course (mainly lipoprotein metabolism at this level), and then in a more advanced U2 course. For the U2 course, the material covered spans lipid biochemistry to mechanisms of regulation of gene expression and metabolism by lipids in the context of inherited and acquired metabolic disorders. Both are required courses with a registration of ~160 students for the U1 course and ~120 students for the U2 course. Students the downtown campus was able to take the U2 course downtown until this year, so I could see why there would now be a lipid biochemistry course at your campus. Our students could take another lipid biochemistry course if available, but we would have to look at how much overlap there is between the new course and our existing ones. If they were different enough, I could our students taking the new course as an elective or as one of the complementary courses for one of our specializations.

For graduate students, we offer a 600 level course that covers lipid and protein metabolism as an integrated process and discussed from the molecular to the systems level. This course runs like the Biochemistry 655 course you took at University of Alberta. It is offered every other year. You mentioned that the course offered by the Biochemistry department has been taken by nutrition grad students. I knew this was the case before I joined the McGill but I am did not know that our students have taken that course in the recent past. For interest, I would like to know who they were if you are at liberty to tell me their names.

Previously, the U2 course was available in real time at both campuses and I alternated delivering the lectures live at each campus. Although downtown students can still take our U2 course, it might not be convenient for them because of travel. (Our U2 course were taken by biochemistry, biology, cell biology and physiology students.) This would be a good argument for starting a new course.

Let me know if I can provide you with more information. I am happy to
help.

Regards,

Lou Agellon

From John Silvius

Dear Scott,

Please excuse me for my slowness in contacting you about your email to Albert re: possible undergrad.- and grad.- course versions of the current BIOC 570. The (excessive) delay has allowed me to mull over the proposal, and there are a few initial points/questions that have come to my mind:

(1) What was the breakdown between undergrad. and grad. students in BIOC 570 over the past several years? - I ask because we'd like to know if without the undergrad. component, there would still be enough grad. students to keep a new grad.-only version of 570 as a viable entity (probably a class size of at least 7-10 grad. students [?], at least as an average). On a minor note, I can check with Jason if/how BIOC 605 is coordinated with your course in terms of what years they're offered.

(2) (Just a comment) An undergrad. version of the course would have to be offered in the winter semester; most U3 Biochem, students have to take both BIOC 450 and BIOC 454, and don't have room to take other BIOC courses, in the fall term.

(3) Particularly for an undergrad. course 'evolving' out of BIOC 570, we'd need to be sure that the teaching lineup is 'assured' and fairly stable from year to year. In our undergrad. courses this usually means that all of the lectures are taught by prof.'s and not by e.g., postdoc's or professional assistants. Would there be other faculty members from your unit [or others] who could assist you in the proposed new undergrad. course? (I would think that for you to take on the entire course, or a large majority of the lectures, would be awfully difficult given your teaching in the proposed grad. course and elsewhere, as well as the other pressures we all work under in the Med.
(4) For U3 Complementary courses there's a somewhat complex interplay between the format of the course, the content/scope of coverage and the numbers of students who will register. The scope of the course can of course have a significant impact on enrolment, as can the manner in which it is taught (in theory upper-level students generally are attracted to smaller, more interactive classes). We like to see an ongoing undergrad. enrolment that, among things, ensures a good class dynamic - 15-20 students might be a reasonable number for a more interactive (not entirely lecture-based) course, substantially more students in a fully lecture-based course... All of which is to say that you and I should perhaps discuss what you see as the course content/scope and mode of teaching, with an eye both to giving the best 'product' to the students (I know that's a given for you, natch), and ensuring that the course consistently steadily attracts a good number of students each year. The latter point can be challenging because Biochem. students presently have a number of choices in the U3 Winter semester, notably including Neurochem., Immunochem., Membranes and Cellular Signaling and Pharmacology), only they have room for only one or (sometimes) two in their schedules. I think that there may ay still be room for additional courses alongside the ones just noted (and other dept.'s like Anatomy might become interested as well, if the course prerequisites accommodate their students), but it will means that any proposed new course would need to be carefully considered with these points in mind.

Let me know when you'd have some time, and we can maybe get together to talk these things over - I'm here for pretty much all the time until mid-August.

Take care,

John

Dear John,

Thank you once again for your careful and thoughtful letter. I will never be able to say that you didn't give it full consideration!

To answer your questions:

1. To answer the last question first, two years ago I did try to coordinate with Jason so that BIOC605 and BIOC570 would be offered in
alternate years. I took a year off, as arranged, and then Jason offered BIOC605 the following year also. I was a little miffed because I was also "dinged" for my less than 25 hours of teaching for that year by my department in the yearly evaluation. So, I won't be skipping a year again (unless you ask me to).

Breakdown between undergrad. and grad. students in BIOC 570 over the past several years:

Jan 2011 - 5; U = 0, G = 5  
Jan 2012 - 10; U = 5, G = 5  
Jan 2013 - 0 (thought I was alternating years with Jason Young???)  
Jan 2014 - 5; U = 2, G = 3  
Jan 2015 - 9 (so far); U = 7, G = 2

It is my observation that there are actually very few graduate students in Biochemistry taking my course. I am not sure if my course is being properly advertised, or isn't appealing to Biochemistry students. Many other departments (Nutrition, Anatomy and Cell Biology, MIMM, Medicine) have provided graduate students. The same applies to the undergraduates. So, up to now, I do not think I have been in competition with other Biochemistry courses. As I stated before, I lost some momentum the year I took off, and now may be picking some momentum up again. I think we can take a wait and see approach for what the actual numbers are for this year. But I must say, that I was surprised to have so many undergraduate register so early. Typically, the graduate students who would take my course haven't even started yet. If 5 graduate students want to register after September, then we will have our answer. I don't want to turn away graduate students (my actual target for the course), and would rather turn away undergraduates. So, we will have to wait and see.

Is it possible for you to see if I am taking undergraduate students from another course (I am assuming that the number of undergraduate Biochemistry students is not changing greatly year to year)?

2. Winter semester best suits me, in any case, so I am prepared for that possibility. I should add that if we go ahead and split the courses, then I could consider teaching the graduate level course every other year, hypothetically.

3. This is an excellent point. There would be no post docs or RAs teaching the proposed courses. What I would envision is that my colleague Dr. Tommy Nilsson would take over a larger part of the graduate level course (he needs hours for his teaching requirement). This would be in addition to Drs. Engert, Sniderman, and Genest remaining as part of the graduate course. As the course evolves, it was also my intention to get Dr. Nabil Seidah (from IRCM, expert on PCSK9 - the next big thing in lipids) to teach a section. I would remain the coordinator. For the undergraduate level course, I would be the coordinator and main instructor. I would hope to recruit a few more professors (eg. Martin Schmeing, if he is still looking for teaching hours) and the same suspects from the list above. Of course, this is still up in the air, as we are hypothetically musing here, but you are correct - this is a huge commitment. My commitment to BIOC 311 has been reduced to 4h and I am not teaching in any other course at the moment. The truth is that BIOC570 is easy and a joy for me to
teach. Should the need arise (remains to be seen), I would be willing to commit to another course with the understanding that Dr. Nilsson would take on a larger role in BIOC570 (which he wanted).

4. Yes, I can appreciate the complexities of the details that you have described. Indeed, if we do see a large enrolment for BIOC570, then it would be best if we sat down and discussed this in person. My vision is only to satisfy a need (potentially). The details in my head match the undergraduate level lipid course at the University of Alberta (I will try to dig up an outline). I know exactly what I teach in BIOC311 and it is so superficial, basically mentioning that these lipids exist. There are so many details missing and so many topics untouched. BIOC311 also takes the perspective of metabolism, less of the basic biochemistry of lipids. If an undergraduate course on lipids existed, I would change some of the details of what I teach in BIOC311 and focus more on the cholesterol metabolism pathways rather than the cholesterol biosynthetic pathway, for example. I envision that BIOC470 (undergraduate lipids course; let's call it that) would be entirely a lecture style course. See the course description below at the U of A. This would also mean that BIOC570 could be changed to be more demanding (as I had to accommodate undergraduates up to now).

BIOCH 455 Biochemistry of Lipids and Lipoproteins Advanced course focusing on specific aspects of the regulation of lipid and lipoprotein metabolism. Topics include the transcriptional and post-translational mechanisms governing the synthesis and degradation of important enzymes, lipids, and lipid transport molecules; the role of lipid mediators in signaling pathways and protein modification; the assembly and dynamics of lipoproteins and biological membranes; genetic disruptions of lipid regulatory proteins such as cell surface receptors leading to human disease. Prerequisite(s): BIOCH 310, 320, and 330, or BIOCH 203 and 205, all with a minimum grade of B- or consent of Department. Notes: Intended for undergraduate students. Graduate students may not register for credit (see BIOCH 555). Coordinator: Dr. D. Vance - See more at: http://biochem.med.ualberta.ca/Education/Undergraduate/Pages/Courses.aspx#sthash.8mgoHkLR.dpuf

So, John, let's meet in the next weeks after I send you the outline for this course.

Take care,

Scott

Feedback from Albert re: course proposal
John R. Silvius, Dr.
Sent: Thursday, December 18, 2014 7:36 PM
To: Robert Scott Kiss, Dr

Hi Scott,

I met with Albert as mentioned earlier, and he had a couple of suggestions/requests concerning the proposal:
The most significant one is that he would like to see the Proposal incorporate (and explicitly indicate) some small-group/interactive aspects. This is something that most of the existing 400-level courses in Biochem. are also being pushed to do, and in some cases are already doing. The Proteins (BIOC 450), for example, added a group-project component this year and allocated several in-class hours to it so that students could work on the project with lecturers and a TA present for input/guidance. BIOC 454 is going to add clickers and structured questions/discussions next fall, and I'm looking at bringing similar 'structured discussions' into BIOC 404. There's no requirement for one specific type of activity, but the overall 'mandate' is to get away from pure lecturing in the U3 courses.

On a more minor note, since there will be an assigned text, when the formal proposal is submitted we should indicate (if there still is an appropriate place on the Proposal form to do so) that we would be asking the Library to purchase a copy of the Vance text (or an e-version if that's how it's available) and to put it on reserve. (There used to be a space on the form to indicate if any new library resources would be required - I don't remember if it's still on the current version).

I'll be happy to discuss this further with you; the only real difference from what you and I had been discussing previously is that the small-group/interactive aspects would be explicitly incorporated into the BIOC 470 proposal, while you and I had been discussing this in a more informal manner. Like I mentioned before, Albert (deliberately) didn't specify specific 'small group' activities that he would like to see, but he was clear about the wish to see some such content in the course proposal.

Take care,

John

Re: 'Consultation' with Biochem. students about a potential new undergrad. course

BUGS VP Internal [bugs.internal@gmail.com]

Sent: Sunday, December 07, 2014 11:34 PM
To: John R. Silvius, Dr.; Robert Scott Kiss, Dr
Attachments:Lipids Course Survey.xlsx (59 KB)

Hello!

We have had some responses about the course, but unfortunately not as many as I had hoped! I can send over the answers that I have received so far, and we can ask again in January if you want. I know there has been problems with the website, something to do with SUS, so we couldn't post the poll online on the BUGS website. A lot of answers were repeated, so I only put them once. But I think overall a positive response!

Lari
Is there any feeling among students in Biochemistry that there is a void in the teaching of lipids at McGill?
Yes, despite being a major part of metabolism, they constitute a small section of the metabolism course and are never really seen again.
i just really enjoyed dr.kiss's stuff
Yes the only exposure we get to it is the three lectures done by Dr. Kiss in 311 and the one lecture in 300D but that raises the question of how important is lipid knowledge at an undergraduate level
From among students, no. But I myself would consider taking the course if it were made available
Yes. There are classes for proteins and nucleics, but not lipids
I'm a human nutrition minor as well, and I would find this class very interesting!
Very pertinent to the greatest health crises facing our population.
The subject really has not come up.
Yes, I would definitely say it is a void in teaching lipids at McGill. There is very little mention of lipids for Biochem students until U2 (which is third year for out-of-province students), and the only introduction given is very brief and not well encompassing.
I didn't think so, when now that I think about it I suppose it would make sense for there to be a 400-level lipid course, since there are already 400-level protein and nucleic acid courses.

Could the proposed new course fill this void?
Yes, it looks very interesting
Yes.
Yes. However, I believe it would be interesting to focus more on the roles lipids play in signalling rather than just their synthesis
Yes it could but again, at an undergraduate level do lipids measure up to courses such as proteins and nucleic acids? Are they really that necessary to know at this point in our education? At the same time I personally would be interested. Yes, the syllabus looks good if strong emphasis on medical applications is maintained throughout to maintain interest. Its not as much as a void, more a topic that could be greatly expanded upon. For enthusiasts, yes. Yes, I definitely think so.

If such a course existed, as a U3 Complementary course, would you be interested in taking it?

I will be graduating this year and wouldn't be able to take the course, but if such a course existed when I was registering for my U3 classes I definitely would have taken it. Yes.

I would. It sounds more interesting than membranes. Yes I would. I like the concept of the lipoproteins course which is more seminar based. Perhaps make the course similar to that so that students have a good transition into graduate school. If I decide to give up my minor, I would take the course. God yes please! I would love this class. Potentially. Although considering that most upper-year biochemistry courses are difficult, a 450 level course is somewhat intimidating. No I would not be interested in taking the course. While this may be due to my lack of knowledge / introduction to the topic, I find lipids to be a very unstructured area and thus, quite uninteresting. Yes, I do recognize lipids to be important but no, I would not want to take a full course dedicated towards it.

Would there be any conflicts (excessive overlap) of material with current Biochemistry courses OTHER than BIOC 311 (Dr. Kiss' and Dr. Schmeing’s sections)? If so, in what course(s)?

It says biochemistry department, but since Biochem students are required to take it: ANAT 262 has a bit about cholesterol at the end, but it was a long time ago so I don't really remember how much of it was actually covered. No, it should be more in depth - we barely touched the function of phospholipids for instance. Perhaps BIOC 570, but I haven't taken it so I'm not sure.

Would there be significant overlap with any other course (outside Biochemistry) that you have taken/are taking? If so, which one(s)? ANSC 551 possibly.
Scott,

Sounds like a good compromise. We do cover PPARgamma agonists in the diabetes lecture, but it is but one of many drugs. We don't cover statins in PHAR563, but I think they might be covered in PHAR300 or 301. I am copying Barbara Hales as she will know.

Barbara, BIOC470 is a new course on lipids. I have been consulting with Scott to make sure there is minimal overlap with PHAR563, especially as it seems likely that some PHAR majors might take this course. Once it is approved by the curriculum committees, we will probably want to add this as an elective for our U3 students.

Dan

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From: Robert Scott Kiss, Dr
Sent: Friday, February 27, 2015 2:38 PM
To: Daniel Bernard, Dr.
Cc: David Ragsdale, Dr.
Subject: BIOC470

Dear Dr. Bernard,

I have been contacted by Dr. Ragsdale about my new course BIOC470 and there were some concerns about overlap with your course PHAR563. I was hoping we could discuss this so that there would not be any overlap. I am certainly flexible in this regard. Please tell me of your earliest convenience (I am currently moving to the Glen site - Tuesday and Thursday of next week, but otherwise free).

Kind regards,

Scott Kiss

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