

HUMAN BIOCHEMISTRY II (BCMB 4130)
11:10 – 12:25 PM, TUESDAY AND THURSDAY, SPRING 2022
COVERDELL ROOM S175

WE STRONGLY ENCOURAGE ALL STUDENTS TO WEAR MASKS
WHILE IN CLASS

Date	Topic	Instructor
JAN 11	1. Human Pluripotent Stem Cells (hPSCs) Intro/overview	Zeltner
13	2. hPCSs and cell therapy I	Zeltner
18	3. hPCSs and cell therapy II (paper discussion)	Zeltner
20	4. hPSCs and disease mechanism	Zeltner
25	5. hPSCs and drug discovery	Zeltner
27	6. hPSCs, disease mechanism and drug discovery II (paper discussion)	Zeltner
FEB 1	7. Assigned paper discussion	Zeltner
3	8. Exam #1	Zeltner
8	9. Biochemistry of development I	Haltiwanger
10	10. Biochemistry of development II	Haltiwanger
15	11. Birth defects (paper discussion)	Haltiwanger
17	12. Biochemistry of cancer I	Haltiwanger
22	13. Biochemistry of cancer II	Haltiwanger
24	14. Molecular defects in cancer (paper discussion)	Haltiwanger
MAR 1	15. Assigned paper discussion	Haltiwanger
3	16. Exam #2	Haltiwanger
8,10	SPRING BREAK	
15	17. Overview of the drug discovery process	Cassera
17	18. Drug discovery I	Cassera
22	19. Drug discovery II	Cassera
24	20. Isoprenoid biosynthesis as drug target	Cassera
29	21. Introduction to clinical pharmacology I	Cassera
31	22. Introduction to clinical pharmacology II	Cassera
APR 5	23. Assigned paper discussion	Cassera
7	24. Exam #3	Cassera
12	25. Hemoglobinopathies: Thalassemia/Sickle Cell Disease	Sabatini
14	26. Biochemistry of Sickle Cell Disease	Sabatini
19	27. Plasmodium (malaria) and SCD	Sabatini
21	28. Cures for SCD: Gene Therapy	Sabatini
26	29. Cures for SCD: Genome Editing (CRISPR-Cas)	Sabatini
28	30. Gene Drives and Vector control	Sabatini
MAY 3	32. Assigned paper discussion	Sabatini

Note: Exam #4 will be given during the final exam period (Tues, May 10, 12-3 pm)

The course will be assessed for the four exams (each worth 20%) as well as the student's performance during the assigned paper discussion (20%). The format of the lectures will closely parallel the format of BCMB 4120.

Instructions for in-class paper presentation:

This assignment will constitute 20% of your total grade and will be graded on a 100-point scale like the regular exams. Your goal is to work together in small teams to present the context and data in a research article from the primary literature. In most cases, there will be a "news and views" summary that will accompany the paper that can be used to help you gain an overview of the topic and finding. Your instructor will either provide guidelines as to how the paper should be divided or leave that task to your team but everyone should aim to present about 8-10 minutes each during the in-class presentation. This assignment will 1) develop your abilities in condensing and simplifying complex subjects, 2) hone your skills analyzing and interpreting experimental data, and 3) build your oral presentation capability.

Your presentation should be prepared as a PowerPoint or Keynote file with a reasonable amount of information on each slide (e.g. one figure or part of a figure). Not all of the figures in the paper need to be shown. A suggested plan is to have 1 team member provide the background for the study including the major question being addressed and the hypothesis (this information is usually found in the introduction of the article), 3-4 team members should cover the data in the paper (found in the results section), and the 1 team member the conclusions/discussion (found in the discussion section). You will be graded on the quality on your presentation and grasp of the material, but not your presentation skills. In other words, points will not be taken away for nervous speakers. That said, the most confident and clearest presentations come from speakers who know their subject matter well. We recommend that you share your presentation along the way with your instructor and schedule a time to meet so they can provide constructive feedback before your presentation.

Course Faculty:

Robert Haltiwanger (Course Director)	3065 CCRC	rhalti@uga.edu
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The course syllabus is a general plan for instruction; unannounced deviations to content may occur. UGA Student Honor Code: "I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others." A Culture of Honesty, the University's policy and procedures for handling cases of suspected dishonesty, can be found at <https://honesty.uga.edu>. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to an instructor.

Mental Health and Wellness Resources:

- If you or someone you know needs assistance, you are encouraged to contact Student Care and Outreach in the Division of Student Affairs at 706-542-7774 or visit <https://sco.uga.edu/>. They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services.
- UGA has several resources for a student seeking mental health services (<https://www.uhs.uga.edu/bewelluga/bewelluga>) or crisis support (<https://www.uhs.uga.edu/info/emergencies>).
- If you need help managing stress anxiety, relationships, etc., please visit BeWellUGA (<https://www.uhs.uga.edu/bewelluga/bewelluga>) for a list of FREE workshops, classes, mentoring, and health coaching led by licensed clinicians and health educators in the University Health Center.
- Additional resources can be accessed through the UGA App.