Hormones & Their Receptors

Rutgers 16:718:581
Fall 2022 (2 credits)

Course Time: Wednesday 2:00 – 4:00 PM
Classroom: Room V14 RWJMS Tower Building and/or Remote

Course Directors

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Paper Facilitators:

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Overview: Hormones & Their Receptors is a literature-based seminar course focusing on recent discoveries in the mechanisms and actions of hormones and their cognate receptors at both the cellular and molecular levels. The two-hour class meets once a week on Wednesday afternoons. Each week, a team of two students will be responsible for presenting a single research article pre-chosen by the students and course facilitators. Student 1 will present the introduction and general background of the article; Student 2 will present the article's findings and discussion sections. The presentation schedule will be set up such that each student will do an introduction/background for one paper and a results/discussion for another paper (i.e., each student will have the opportunity to present twice). It should be emphasized that all students are expected to read the assigned paper before coming to class. In addition, if you are not actually presenting that day, you are expected to come to class with at least three questions for the presenters and to actively engage in class discussions. The questions you ask during class will count towards your final participation grade (30% of the final grade).

Grading: Students and facilitators will both evaluate and score the presentations. Facilitators will also record attendance and participation. Final grades will be based upon: attendance (20%), participation (30%), and presentations (50%). Students and facilitators should record their evaluation online at: https://forms.gle/G1bL9wuTbF5ALAhs5 or by scanning the QR code here or on the top:

Selected Papers: Faculty and students work together to select appropriate papers and sent out to all by email in advance of the class.

Tips for presenting the Introduction/Background: Introduce your audience to all the relevant 'players' in the paper (e.g., specific hormones, receptors, etc.) as well as the biological context (e.g., specific organs or tissue-types and their normal functions, malignancies, etc.). Explain the rationale for why the authors set out to do the work. What was already known before the paper was published? What are the hypotheses or objectives of the paper? Why is the work interesting or important? Use as many slides as you need; they do not need to come from the assigned paper.

Tips for presenting the Results/Discussion: When presenting data from the paper, be sure to discuss or 'explain' the key concepts relevant to the data. For example, when presenting a figure from the paper, describe: a) why the experiment was done, b) how it was done, and c) what the results are. Bear in mind your audience may not be familiar with newer/novel experimental assays in your paper. Feel free to include additional methodological background slides briefly explaining how a particular assay or technique works. If you decide to use schematic drawings or figures taken from another source or review, be sure to reference the source. Alternatively, to explain or make a particular point, you can generate your own schematic model or cartoon. Summarize how the results of the paper can be interpreted, how they fit into a bigger picture, and what future experiments might be done to confirm or further extend the physiological relevance of the work. Feel free to be as critical as you like in your discussion pointing out potential flaws in the paper (e.g., weak conclusions drawn by the authors, exaggerated claims, missing experiments, missing controls, etc.). Remember that the class is 2 hours so you'll have plenty of time.