Course Description
This seminar in Cell and Molecular Biology (CMB) will teach Masters and PhD students to critically read scientific literature, present to their peers, and discuss scientific findings as a group. This course will emphasize active participation, in the form of weekly attendance, weekly questions submitted by students, meaningful contribution to our in-class discussions, and one individual presentation.

Learning Outcomes
When you have successfully completed this course, you should be able to:
• Summarize the main scientific findings from a published article
• Critically evaluate the scientific claims from a published article
• Use verbal and visual methods to present information from a published article in a manner that is both scientifically rigorous and accessible to the audience

General information
Meeting time/location: Wednesdays, 4:00-5:40pm Lapham Room 257
Instructor: Dr. Claire de la Cova
Instructor email: delacova@uwm.edu
Instructor office hours: Thursdays, 10:00-11:00pm Lapham N409

Student Resources
Canvas site: https://uwmil.instructure.com/courses/207504
Course materials and assigned articles will be made available on the BIO SCI 925 Canvas site. All course materials are property of UWM and/or copyrighted materials and are for your personal use only.

Discussion materials
All students are responsible for selecting one published primary research article to present, as well as reading any additional literature needed to understand background information. Please note that articles must be approved by the instructor; criteria for their selection are described under “assessments.” Below are two resources that students may find useful to access published articles:

Pubmed is a searchable database of biomedical literature maintained by the National Center for Biotechnology and Information (NCBI), providing PDF documents and/or links to published articles. Through our UWM campus network, students have access to all UWM subscribed journals.

UW Interlibrary Loan: https://uwm.edu/libraries/ill/request/
For journals outside of our UWM subscriptions, students may request a specific article using the UW interlibrary loan system, ILLiad. Although requests are delivered electronically, please plan for a turn-around time of 1-2 business days.
Seminar Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Assigned reading (PDF in Canvas)</th>
<th>Presenter name</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Sep 4</td>
<td>N/A</td>
<td>N/A - Organizational meeting</td>
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<tr>
<td>2</td>
<td>Sep 11</td>
<td>A cold-sensing receptor encoded by a glutamate receptor gene. Gong, et al. 2019, Cell 178</td>
<td>Claire de la Cova</td>
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<tr>
<td>3</td>
<td>Sep 18</td>
<td>TBA</td>
<td>TBA</td>
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<tr>
<td>4</td>
<td>Sep 25</td>
<td>TBA</td>
<td>TBA</td>
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<td>5</td>
<td>Oct 2</td>
<td>TBA</td>
<td>TBA</td>
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<td>6</td>
<td>Oct 9</td>
<td>TBA</td>
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<td>7</td>
<td>Oct 16</td>
<td>TBA</td>
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<td>8</td>
<td>Oct 23</td>
<td>TBA</td>
<td>TBA</td>
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<tr>
<td>9</td>
<td>Oct 30</td>
<td>TBA</td>
<td>TBA</td>
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<tr>
<td>10</td>
<td>Nov 6</td>
<td>TBA</td>
<td>TBA</td>
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<td>11</td>
<td>Nov 13</td>
<td>TBA</td>
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<td>12</td>
<td>Nov 20</td>
<td>TBA</td>
<td>TBA</td>
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<td>13</td>
<td>Nov 27</td>
<td><strong>Thanksgiving recess</strong></td>
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<td>14</td>
<td>Dec 4</td>
<td>TBA</td>
<td>TBA</td>
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<tr>
<td>15</td>
<td>Dec 11</td>
<td>TBA</td>
<td>TBA</td>
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<tr>
<td>16</td>
<td></td>
<td><strong>No final exam</strong></td>
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Assessments and grading

Final grades will be based on the following assessments, described further below.

- 10% - Attendance
- 25% - Participation during in-class discussion
- 25% - Homework (submitted via Canvas)
- 40% - Individual presentation (includes submitting one journal article for approval and giving a ~45 minute presentation to the class)

**Attendance:** Students are expected to attend every seminar meeting. Students will receive a +/- attendance grade each week.

**Participation:** Students are expected to participate during our in-class discussions. Students should prepare by reading the assigned article and completing the homework (below). A participation grading rubric will be posted in Canvas.

**Homework:** All students are expected to read the assigned journal article. Students will submit homework weekly, consisting of two thoughtful questions about the assigned reading. A homework description and grading rubric will be posted in Canvas. Homework is due by 12:00am of the day (Wednesday) we have a scheduled presenter. During a given week, the scheduled presenter is excused from this homework.

**Individual presentation:** All students are expected to give one individual presentation to our class. Presentation dates will be scheduled during our organizational meeting. (See seminar schedule).

For a successful presentation, students are expected to:

1) **Submit a proposed journal article** to the instructor. Proposed papers are due **no later than one week** before the scheduled presentation. Approved articles will be posted in Canvas by the Friday preceding a presentation.

**How to choose a journal article?** Please keep in mind the following criteria:

- The paper is a primary research article
- The paper is published since 2013
- The paper is in long format, not a “brief communication” or “letter.” To avoid overly condensed articles, **do not** select a paper published in Science, Nature, or PNAS
- There are many rigorous research journals with long-format articles: Cell (and other Cell Press journals), Genes and Development, Genetics, Development, Blood, Nature Cell Biology, Journal of Cell Biology, Plant Cell, Molecular and Cellular Biology. (And many more; this list is only a sample.)
- Finally, students should choose a topic that interests them!

2) **Give a verbal presentation** with visual aids (e.g. Powerpoint slides) to our group.

**Before preparing a presentation, please see the presentation description and grading rubric to be posted in Canvas.** To further guide students, slides from the instructor’s presentation will be posted on Canvas. Students should expect a presentation with questions to require ~45 minutes.

Presentations are expected to communicate the following topics:

- Relevance of the research question to a broader human interest
- Concise background information needed to understand the research and methods
- Main scientific findings of the research
- Evaluation of the authors’ scientific claims and their support from the presented findings
A note on grading: Grading in this seminar is not a “zero sum” game. If all students earn an A, that is fabulous! Our learning outcomes (summary of scientific findings, critical evaluation, verbal/visual presentation) are best achieved in a constructive, supportive (rather than competitive) environment.

Final grading scale:

- 92.5-100%  A
- 89.5-92.4%  A-
- 87.5-89.4%  B+
- 82.5-87.4%  B
- 79.5-82.4%  B-
- 77.5-79.4%  C+
- 72.5-77.4%  C
- 69.5-72.4%  C-
- 67.5-69.4%  D+
- 62.5-67.4%  D
- 59.5-62.4%  D-

Accommodations
If applicable, students should contact the instructor and request accommodations through UWM’s Accessibility Resource Center. The ARC website is: https://uwm.edu/arc/

Seating
For students requesting special seating arrangements, please contact the instructor during the first class.

FAQs
What are the prerequisites/recommendations?
- Required: graduate student
- Recommended: Previous coursework in cell biology, genetics, or molecular biology

What happens if I am absent?
- Students must have a physician's note in order to “make up” an attendance and participation grade. If you will be absent for reasons other than illness, you must contact the instructor at least 1 week before you miss our seminar meeting. In such cases, the instructor will assign a make up assignment and due date.

What happens if there is a snow emergency/campus closure?
To find out if classes have been canceled due to a snow emergency, call 414-229-4444. Meetings canceled due to campus closure will be rescheduled by the instructor.