**Journal article critique**

Students are to review one research article for this course topic. These will be provided by the course organizers. Students will present their critiques in their groups during a seminar session at the completion of this course topic. It is expected that students deliver a powerpoint presentation for a maximum of 10 minutes to the others in the course (10 min per group member). This should cover all of the following aspects:

Introduce the article title, topic, journal, date, authors, etc. Comment on author and journal quality, quantity, author relationships, research history, publication record, laboratory, institution, article citations, etc. **Identify the relevance and significance of the topic.** Define and/or explain critical terms. You may need to preface the presentation of the article with some background to the area.

Summarize the introduction. Does it convince you that the research question and approach to answering it were worthwhile (original and important). Are they?

Present the approach to answering the research question(s) asked, objectives or hypotheses tested. Explain the experimental design and highlight important methods re the chosen subjects, measurements, assays, controls, statistical comparisons. Do they seem appropriate to answer the questions asked? Are they well-explained, valid, substantiated and repeatable?

Summarize and evaluate the main results. Were they easy to follow? Were they presented in a way that fits with the objectives/hypothesis of the study? Were the figures helpful or confusing? Was the data presented in a way that favors a selected interpretation of the data? Do the numbers seem reasonable/accurate? How well were the statistics presented?

Summarize and evaluate the discussion. Has the data been interpreted or just presented as a repetition of the results? Is there consideration of previous conflicting evidence or supporting evidence? Are studies and data from other labs and labs that have opposing views in the area considered? Is it clear how this study makes a contribution to the literature in the area? Do you agree with the authors?

Describe the conclusions made; are they supported by the data? You may wish to present the authors’ perspectives as to where the research might lead, and new or continuing gaps in the field, or present your own ideas in this regard.

In summary: What is the message? Do you have confidence in the message? Do you see a different one than they emphasize? **How valuable and significant is that message?** Identify strengths and weaknesses of the research as you go.