

Biological Crystallography Journal Club
2003-2004
Thursdays, 1:30PM, CBSE 2nd Floor library

1. Papers for presentation should be approved by Dr. Walter.
2. There are a number of different types of papers that are appropriate. Some are listed below.

a. High impact crystal structure papers that provide novel structural data. This might be a new membrane protein structure etc. Two areas need to be emphasized for these papers. Often, these structures are technically difficult to obtain. What is the background (biochemistry, crystallization, data collection, other methods from other papers or supplemental data) that allowed them to perform the work? Second, what question is the paper trying to address? What are the major observations of the structure? Are any additional experiments to test structural hypotheses performed well? Do they justify the author's conclusions?

b. Technique papers. These papers emphasize a new or improvement in one particular technique. If a paper states that they have a new method, provide other references that show what has been done in the past and how the new work advances the field.

c. Broadly related papers. These papers may not use crystallography directly, but may have relevance to structural biology in general. These are often very interesting and may provide new directions or thinking about how to define structure-function relationships. Topics that may be covered include high resolution microscopy, cryo-em reconstructions, 2D crystallography, protein dynamics, mass spectrometry, FRET protein-protein interactions etc.... Once again, evaluate the work, don't just parrot what the author's conclude.

3. Choose quality research papers from good journals. Often, people choose a paper and then later decide it is poor quality or provides little or no insight into the topic. Try to figure this out ahead of time. Spend a little time with the paper and then consult with Dr. Walter.
4. Usually, Nature and Science articles are very brief. These journal articles need to be supplemented with supporting papers and/or online material as discussed above.
5. Papers need to be sent out by email to all club members on the Sunday BEFORE you present in the Journal Club.
6. Overhead or powerpoint may be used. Let me know (ahead of time) if you need powerpoint. You will have to bring a CD with your presentation (we have PCs only). Try to enlarge the figures so you show what is being talked about.

Grading and expectations of participants.

1. This is a pass/fail course.
2. **Participation** in the discussion of the paper is critical. This only happens if you read the paper ahead of time.
3. **Attendance** is critical. 3 unexcused absences in the semester will lead to an F.

4. **Presentation.** The presentation should be well prepared and high quality.