Syllabus for BIO 5084

Course Title: Single Molecule Biophysics Journal Club

Schedule: Thursdays at 12 PM
264 McDonnell Medical Sciences Building

Course master: Michael Greenberg
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253 McDonnell Medical Sciences Building

Course Description: Single molecule techniques have revolutionized our understanding of macromolecular interactions, revealing hidden details that are obscured by ensemble measurements. The goal of this journal club is to discuss how these techniques are being applied to the mechanistic study of macromolecular interactions. Special emphasis will be placed on understanding and critically evaluating single molecule data.

Course Format: Each week, there will be a formal presentation and in-depth discussion of a selected paper for ~1 hour. Each student will present at the formal session at least once per semester and they must email their selected paper to greenberg@wustl.edu by the Sunday night preceding their presentation. The presenter is responsible for giving sufficient background so that the group can understand both the biological question as well as the techniques used to address that question. Non-presenting students are required to have read the paper ahead of time and to come prepared to ask questions (at least one per class).

Student evaluation: Students will be evaluated based on their participation in three areas. (1) Each student will lead at least 1 full (~1 hour) discussion of an assigned paper. (2) Students will come prepared to ask thoughtful questions on presented papers. (3) Since the class grade is based solely on participation, it is expected that students will attend all sessions. If they cannot make it to class, they must contract the course master.

Course website: The syllabus, presentation schedule, and list of papers that were presented in short format can be found on the course website, which is accessible through: http://glab.biochem.wustl.edu/. Presenters are should email their papers to greenberg@wustl.edu.