

Teaching with *Chlamydomonas*

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This hands-on workshop will introduce faculty to the advantages of using *Chlamydomonas* and provide experience in several of the key types of experiments that can be done at the undergraduate level. The basics of *Chlamydomonas* culturing and life cycle will be presented, along with the advantages of working with this organism. A short examination of the appearance and behavior of normal and mutant strains is followed by two sets of experiments. In the first, gametes of the two mating types are mixed and the various steps of the mating process are observed. This is combined with mating two paralyzed mutants and seeing ‘dikaryon rescue’ in which each provides the missing protein to the other. The second set of experiments follow the kinetics of regrowth of flagella after removal by pH shock. In both sets of experiments additional, follow-up, exercises are suggested. For all aspects of the workshop, more information is available at the *Chlamydomonas* Teaching site at <http://149.152.132.141/~mikeadams>.