

### Challenge Questions: Lab 14

1. You're a technician working in a medical lab. A patient comes to you with a sore throat and a doctor's request for a throat culture. What procedures could you carry out to identify any bacteria in the culture? If there are bacteria, and they turn out to be gram-positive, what antibiotic would be effective against them? What disinfectant would be most effective to clean your lab bench after working with this culture?
2. You are a taxonomist who is completely dissatisfied with the polyphyletic nature of Kingdom Protista. You are certain that some groups should be separated from this kingdom and put in their own kingdom. Using the (somewhat hypothetical) phylogeny on page 578 of your textbook, suggest an answer to ONE of these pressing taxonomic questions: 1) Which groups belong in Kingdom Protista? 2) Which groups that are currently included in Kingdom Protista deserve to be in their own Kingdom? 3) What should be done with those pesky green algae? Do they belong with true plants or not?