

**In-class exercise for**  
**“Mutations in the *P. falciparum* Digestive Vacuole Transmembrane Protein PfcRT and Evidence for Their Role in Chloroquine Resistance”**

Group 1 (Jennifer, Romaisa, Jen, Emily)

- Look at Figure 1. How hydrophobic are the amino acid residues in, say, the first 3 predicted transmembrane domains? (Use the Internet as needed.) What are the other key points from this figure?

Group 2 (Tyler, Chris Choe, Courtnee, Ripp)

- Look at Table 1. Which mutations appear to be necessary for chloroquine resistance to be achieved? Which ones appear optional? What experiments could be done to test the role of the “optional” mutations?

Group 3 (Kristi, Clementine, Chris Franz, Ashlyn)

- Look at the admittedly awful Table 2. What are the main points the authors are trying to make with this table? How strong is the evidence in favor of these points?

Group 4 (Lesley, Emoniel, Michael, Margaret)

- Look at Figure 2. Do a brief “BQMOC” analysis (Background, Question, Methods, Observations, Conclusions) of parts A and B of this figure. (You can write in bullet points rather than whole sentences.)

Group 5 (Tracy, Richard, Avrey, Julia)

- Look at Table 3. Provide a brief “BQMOC” analysis (Background, Question, Methods, Observations, Conclusions) of this table. (You can write in bullet points rather than whole sentences.)

Group 6 (Daniel, Graham, Chad, Kaiser)

- Look at Figure 3. Provide a brief “BQMOC” analysis (Background, Question, Methods, Observations, Conclusions) of parts A and B-D of this figure. (You can write in bullet points rather than whole sentences.)