

ASIC200 – PCR Lab Reflection

THE PCR LAB was intended to show you how molecular biology is, at its heart, fairly straightforward to do, whilst being capable of generating some very weighty data. For this lab reflection (worth 10%), I'd like you to comment on the three queries presented below. You can write informally if you'd prefer, but we are looking for a relatively well thought out response (somewhere in the 300 to 500 word range for each). Ideas are strongly encouraged. Please send your answer to db@mail.ubc.ca (please use "PCR" as the subject heading). I'll do my best to reply to confirm receiving your email, but you may actually just receive your mark a week or so after you submit. Note that this assignment is due by March 8th, but you can hand it in earlier (note that one need not fully get the mechanics of PCR or even CRISPR which will be covered on March 1st to do this assignment).

1. It was important to stress that the experiment we did in the genetics lab aimed at looking for a genetic element with no real consequence. However, the methodology (PCR) can very easily be adapted to look at something of significant consequence - i.e. a diagnosis of a genetic disorder like Huntingtons (a fatal and nasty neurodegenerative disease). What type of ethical situations come to mind when an individual is put in the position of getting one of these genetic tests done.
2. If the opportunity presented itself, would you get one of these tests done? Why or why not?
3. (This part might make more sense after the lecture on March 1st). Currently, there is much excitement over gene editing techniques (such as CRISPR). These could potentially allow genetic code to be edited into more desirable circumstances (to a non-diseased scenario for instance). How do you feel about this capability? What type of ethical situations come to mind if such a technology is available?