

READING WRITING IN THE DISCIPLINES

Peer Teaching Video Transcript

Sam:

Recently in Europe, scientists have found a genetic mutation called CCR5-delta32.

Amanda Micsenyi:

Since my background is in HIV, I know a couple interesting tidbits about it, so I knew that the CCR5-delta32 mutation is something that's been studied.

Sam:

And this mutation has various benefits, and one of them being that it kind of allows a person to have HIV but not really be affected from it.

Micsenyi:

I thought that this would be really an interesting kind of tangent for one of the more educational aggressive students, so the kid that's always hand up in the air, the kid that's always like, "Yes, push me, push me," and say, "Okay, go with it. Teach it. Here you go."

Sam:

It was a result of the plagues in the Middle Ages along with a few other infectious type of diseases...

Micsenyi:

Sam is going to lead us in a lesson. He has read two additional articles and...

I had asked him last week if he wanted to prepare maybe a five-minute PowerPoint presentation kind of summarizing what he read and then teach that to the class. So he agreed. I actually just said, "Read these two articles." I kind of summarized what they would be about -- "Did you know that there's a population that's resistant to HIV?" The response is, "No, I didn't, that's kind of cool." And I say, "Would you like to learn more about it?" "Okay, yes. Read these two articles. Present it how you understood it. I'm not going to give you guidelines, just kind of figure it out."

Sam:

The people who had it developed certain mutations that allowed them... like, the cells in their body to have an advantage over the plagues and stuff like that. So this mutation that they developed, it was passed down from generation to generation and people now have the mutation and they're, like, resistant to HIV.

Micsenyi:

In order for them to teach it, they would have to understand it themselves and put it into context.

Sam:

The plagues most likely made the body develop the CCR5 mutation naturally. This explains why Europe is the only area in which it is present.

Micsenyi:

The student kept referencing the Black Plague, which is something that they're studying right now in humanities, so I knew that they could make those connections and translate it a lot more efficiently than I could ever do.

Sam:

It's hereditary, so essentially that explains why people now have it and it's caused by diseases that happened, like, 300 years ago. When I was reading the articles, I kind of didn't really understand how the CCR5 mutation allows people to be cured, or, like, safe from HIV. And it's because the mutation does not allow the HIV virus to attack the T-cells. So therefore, your immune system is still perfectly fine and you can function well and you won't get, like, diseases like Kaposi's sarcoma and stuff like that.

Micsenyi:

I thought it was really good. I think he understood the material.

Sam:

Many people wonder what scientific advancements this gene may lead to.

Micsenyi:

Does anybody have any questions?

I think that he did a good job answering questions. I also think that the students clearly in the audience understood what he was saying because their questions were more... you know, they were advanced.

Student:

How can the CCR5 help scientists fight of the HIV disease?

Sam:

They could essentially look at this disease and create a vaccine, maybe, or other medicine who, like, kind of mimic the effects of the mutation.

Student:

With all the stuff that's going on with GMOs and gene splicing, do you think this could somehow be given to everyone in the world in the form of, like, an HIV cure?

Micsenyi:

One student referenced, couldn't we mutate this gene and splice and kind of put this into people so that people will become resistant? That's where I wanted them to go.

Student:

Wouldn't it be possible for the virus to actually, like, evolve, like, how it has?

Micsenyi:

You're right. The virus could adapt to maybe not rely so much on CCR5. However, since this only occurs in about ten percent of the population, is that a large amount of pressure.

Student:

Not really.

Micsenyi:

Yeah, not yet. So that's a great point, though. And that's something that, as people that are fighting against HIV and doing research, always need to consider is, you're right, how quickly this virus mutates.

It went really well. They've just gotten into a habit of reading something, answering questions, asking questions, and just trying to see the relevance of what they've read and apply it.

Sam:

The doctors are going to have to do, like, a lot of testing, and it would take them a while for the actual mutation to be, like, contained and then possibly give it to people who...