

### Clip #3 Transcripts: Relationships with Indigenous Nations

It is a mutual relationship. As a bioinformatician, I work with data but I lack field experience of trees. Indigenous peoples have lived with these trees for a long time. They know the trees; they have the first-hand knowledge about the relationship between trees and the environment, they know how these trees are distributed in nature. Using their knowledge, we can understand the current dangers of the trees.

In our disease studies, we found some disease outbreaks only happened in recent decades. Why did these trees suddenly become susceptible to this pathogen? We need experience from Indigenous peoples to help us understand these changes. In the meantime, our knowledge can help Indigenous peoples to sustain the trees and the environment.

My current project is mainly funded by Genome Canada, Genome BC, and Genome Alberta. Our goal is to breed healthy trees that are better adapted to changed climates. We have seen warmer climates are resulting in climatic stresses and disease epidemics that reduce growth and increase tree mortality. We believe our genomics research can accelerate the breeding process.

We aim to acquire the molecular markers that can be used to select better trees and make better planting decisions. We can work with Indigenous peoples to sustain wood production and protect our environment. We need Indigenous peoples' input as well as their support to fulfill our goal.

In general, Canadians are blessed with such beautiful and enriched forest landscapes. We hope to pass on the beautiful forest to our future generations so they can enjoy the beautiful scenery too.

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