Cystic Fibrosis (CF): A Quebec Perspective

By Heather Fice and Veronique Brule

Out of Class

In Class (Instructor)

In Class (Students)

Begin Here.

Start of Semester

Instructor introduces the Cystic Fibrosis (CF) case study* and describes the six modules students will complete over the course of the semester

*Instructions and materials for the case study modules are included under the 'Download Complete Material'

Repeat for Modules 1-5

Instructor includes CF content in the lecture series:

- Examples of CF as it relates to the genetic concepts presented in lecture
- Polling/in-class problem sets

Students answer polling questions/problem sets related to the lecture-based case study content

MODULE 1
Students read Part 1 of the case study and answer questions about CF as it relates to Mendelian genetics and pedigrees

MODULE 2
Students read Part 2 of the case study, as well as a section of a review article, and answer questions about CF population genetics and genetic counselling

MODULE 3
Students read Part 3 of the case study and answer data-based questions about CF as it relates to genotype-phenotype genetics

MODULE 4
Students read Part 4 of the case study and write a Tweet for a lay audience describing the benefits of CF screening

MODULE 5
Students read Part 5 of the case study dealing with primary literature and answer questions about CF as it relates to bacterial genetics

MODULE 6
Students read Part 6 of the case study and design an active agent for a vaccine against CF

End of Semester

GUEST SPEAKER
Students attend a guest lecture with a CF researcher and discuss current work related to treating CF

Instructor consolidates the case study information for students

BONUS
Based on the case study and guest lecture content, **students** draw a cartoon to convey information about CF for distribution to elementary school children

Optional

Individual Work

Whole Class

Reading

Writing

Problem Solving

Discussion

Create