In this folder you will find a 3-day lesson on the mechanism of HIV resistance. Students will collaboratively use scientific evidence to investigate the specific cellular mechanisms of genetically based resistance to HIV. Students will start with a writing activity and then go into learning more about the HIV mechanism. They will look at 2 models and 4 pieces of evidence. They will go through different parts as a class, in pairs and in groups and continue to answer questions and have discussions throughout the lesson.

**Materials for the teacher**

Teacher guide. Filename: *PRACCIS Genetics Lesson 8 HIV Mechanism Teacher Packet*. The first item to look at is the teacher’s guides. This gives you a complete understanding of the lesson and how to implement it.

Teacher powerpoint slideshow. Filenames: *PRACCIS Genetics Lesson 8 HIV Mechanism Models Class*. This is for the teacher to use throughout this unit. It includes slides with directions for what students should do, as well as background information and the models.

Additional Papers. There is 1 additional handout associated with this lesson.

*PRACCIS Genetics Lesson 8 Writing Rubric*. This is a rubric for the teachers to use to grade student writing and to give to students to evaluate an example.

**Materials for the students**

Student packets. Filename: *PRACCIS Genetics Lesson 8 HIV Mechanism Student Packet*. The student packet includes some information needed for the lesson as well as questions for students to answer individually and in pairs or groups.

Additional Handouts. There are 1 additional handouts associated with this lesson.

*PRACCIS Genetics Lesson 8 HIV Mechanism Models Student Packet*. This is a two-page summary of all the models for the students to have in front of them at selected points in the lesson (see teacher’s guide).

Student powerpoint slideshows. Filenames:

*PRACCIS Genetics Lesson 8 Evidence 1 Burke Family.*

*PRACCIS Genetics Lesson 8 Evidence 2 Protein Comparison*.

*PRACCIS Genetics Lesson 8 Evidence 3 Interferon BlogSim*.

*PRACCIS Genetics Lesson 8 Evidence 4 Receptor Comparison*. These contain each piece of evidence (1-4) for the students to look at with their groups. Instructions are given on both the teacher powerpoint and in the student packet on when to go through these.

**Summary of where to find models and evidence**

**Two models and four pieces of evidence are used in this lesson.**

Model 1 first appears on slide 6 of the teacher powerpoint and page 1 of the models student packet.

Model 2 first appears on slide 15 of the teacher powerpoint and page 2 of the models student packet.

Evidence 1 first appears on slide 1 of its powerpoint and page 3 of the student packet.

Evidence 2 first appears on slide 1 of its powerpoint and page 3 of the student packet.

Evidence 3 first appears on slide 1 of its powerpoint and page 4 of the student packet.

Evidence 4 first appears on slide 1 of its powerpoint and page 4 of the student packet.

\*We recommend reading the teacher’s guide first and then familiarizing yourself with the rest of the materials.