

# Cornell Guided Notes

Genetics of Disease (Medical Interventions) | 2026-09-17

Name

Period

Date

Lesson

## Lesson focus

Dilution and ELISA model submission

## Key words and questions

## Prepared details and student notes

**Essential question**  
**What is today's target?**

Submit your standard curve, model ELISA data, and interpretation to close the dilution week. Big idea: How do scientists document a quantitative lab result so it can be reviewed, replicated, and trusted?

**My notes, examples, and questions**

**Key words**  
**What vocabulary unlocks the lesson?**

- antigen
- antibody
- ELISA
- serial dilution
- standard curve
- substrate
- absorbance

**My notes, examples, and questions**

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## Cornell Notes - Continued

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**Must-know ideas**  
**What should I understand by the end?**

- A complete submission packages the visual evidence (graph), the raw data (table), and the interpretation together.
- Naming a source of error is part of good science; it shows you understand the limits of your own data.
- Reviewing your model data before the wet ELISA helps you anticipate where precision matters most.

**My notes, examples, and questions**

**Process notes**  
**What happens during class?**

- 0-15 min: Finalize the standard-curve graph: check axis labels, units, and best-fit line
- 15-30 min: Complete the data table: well ID, observed color, assigned concentration for every well
- 30-50 min: Write the interpretation paragraph: name positive results and explain the evidence from the curve
- 50-62 min: Write the error sentence: name one specific source of uncertainty in reading colors by eye
- 62-72 min: Submit graph, data table, and interpretation to the course shell
- 72-80 min: Confirm all items show as turned in; note one thing to do more carefully in the wet lab next week

**My notes, examples, and questions**

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#### Steps and evidence What do I do and turn in?

- Finalize your standard-curve graph and label the axes clearly.
- Tabulate your model ELISA colors and the concentration you assigned each well.
- Write a short interpretation naming which samples were positive and how you knew.
- Add one sentence on a source of error in reading colors by eye.
- Submit your graph, data table, and interpretation in the PLTW course shell.
- Confirm it is turned in and note one thing you want to do more carefully in the wet lab.

Evidence: Lab report - Standard curve graph, model ELISA data table (colors and concentrations), short interpretation of positive results, and one error sentence.

#### My notes, examples, and questions

#### Checks for understanding How do I know I got it?

- You will be able to submit a labeled standard curve and ELISA data.
- You will be able to interpret model results against a curve.
- You will be able to name a source of measurement error.

#### My notes, examples, and questions

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**Lab or safety notes**  
**What must I handle carefully?**

Supplies:

- Micropipettes and tips
- Microcentrifuge tubes or microplate
- Stock antigen solution
- Buffer or diluent
- Microplate or tube rack
- Lab notebook for the dilution table

**My notes, examples, and questions**

### Summary

Today's lesson focused on Dilution and ELISA model submission. The main target was: Submit your standard curve, model ELISA data, and interpretation to close the dilution week. The evidence of learning is Lab report: Standard curve graph, model ELISA data table (colors and concentrations), short interpretation of positive results, and one error sentence.. In my own words, the most important idea from today is:

**My summary**

### My final question or connection