

Cornell Guided Notes

Genetics of Disease (Medical Interventions) | 2027-04-21

Name

Period

Date

Lesson

Lesson focus

Engineered-protein debate

Key words and questions

Prepared details and student notes

Essential question
What is today's target?

Argue whether engineered proteins made by cloned cells should be widely used and how they should be priced. Big idea: Biotechnology that saves lives also raises questions about access, cost, and whose values guide regulation.

My notes, examples, and questions

Key words
What vocabulary unlocks the lesson?

- plasmid
- recombinant DNA
- ligase
- transformation
- expression

My notes, examples, and questions

Cornell Guided Notes

Genetics of Disease (Medical Interventions) | 2027-04-21

Cornell Notes - Continued

Key words and questions

Prepared details and student notes

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

- Recombinant proteins are produced by host cells carrying an inserted human gene.
- Engineered insulin transformed diabetes care but access remains unequal globally.
- Pricing, intellectual property, and regulatory approval each reflect stakeholder values.

My notes, examples, and questions

Process notes
What happens during class?

- 0-8: Read briefing; note one benefit and one concern
- 8-15: Choose stakeholder role; draft opening claim using recombinant protein
- 15-30: Build evidence list for your claim
- 30-50: Pair debate: swap and rebut
- 50-65: Class vote and discussion
- 65-80: Record final stance; async post if remote

My notes, examples, and questions

Cornell Guided Notes

Genetics of Disease (Medical Interventions) | 2027-04-21

Cornell Notes - Continued

Key words and questions

Prepared details and student notes

Steps and evidence What do I do and turn in?

- Read the engineered-protein briefing in the PLTW course shell and note one benefit and one concern.
- Pick a role: patient, biotech firm, regulator, or ethicist, and write your opening claim.
- Support your claim with one piece of evidence using the term recombinant protein.
- Write a rebuttal to a competing role's strongest argument.
- Record the class position and your personal stance with a reason.

Evidence: Exit ticket - Written final stance on engineered-protein access and pricing, plus a one-sentence rebuttal to the opposing strongest argument.

My notes, examples, and questions

Checks for understanding How do I know I got it?

- You'll be able to weigh benefits and concerns of engineered proteins.
- You'll be able to defend a stance and respond to an objection.

My notes, examples, and questions

Cornell Guided Notes

Genetics of Disease (Medical Interventions) | 2027-04-21

Cornell Notes - Continued

Key words and questions

Prepared details and student notes

Lab or safety notes
What must I handle carefully?

Supplies:

- Plasmid and gene-insert models or DNA simulation kit
- Restriction enzyme and ligase reagents or model cards
- Micropipette and tips
- Host cell transformation simulation materials
- Selection plate reference handout
- Safety goggles and nitrile gloves

My notes, examples, and questions

Summary

Today's lesson focused on Engineered-protein debate. The main target was: Argue whether engineered proteins made by cloned cells should be widely used and how they should be priced. The evidence of learning is Exit ticket: Written final stance on engineered-protein access and pricing, plus a one-sentence rebuttal to the opposing strongest argument.. In my own words, the most important idea from today is:

My summary

My final question or connection