Cornell Guided Notes

Genetics of Disease (Medical Interventions) | 2026-11-19

Name	Period	Date	Lesson
		2026-11-19	

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**

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Cornell Notes - Continued

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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**

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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**

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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