

Gairdner Presentation - D. Janet Rossant

1. Cell culture
2. Regenerative medicine
3. Stem cells
4. Gene
5. Gene expression
6. Genetic marker
7. Biomedical science
8. Gene (or genome) editing
9. Genetic predisposition
10. Research ethics
11. NAS
12. Consensus
13. PhD
14. Pluripotent
15. Cloning
16. Blastocyst
17. Nobel Prize
18. Genome
19. Crispr gene editing
20. Trophectoderm
21. Epiblast

Viewing Questions

1. What two organizations were involved in facilitating this presentation and what are their mandates?
2. What was the main goal of Dr. Rossant's research?
3. Who most influenced her in her initial research?
4. Who do you think most influences you in your current career as a high school student?
5. Do you think your significant influencers will change? Explain.
6. What animal was Dr. Rossant's research first based on?
7. Why did she choose to use a different animal and what animal did she choose?
8. What part of the embryo were the cells injected into?
9. What did the cells carry so that they could be tracked?
10. What type of cell did they find to be the most important in their research?
11. What type of cells did the blastocyst contain?
12. Was her lab able to make embryonic stem cells?
13. Look up Nobel prize winners. Select one winner and briefly explain their contribution to science. Be prepared to give a quick overview of their accomplishment to the class- twitter style- short and sweet.

14. Dr. Rossant mentioned at least 5 potential therapies that might be pluripotent cells might be used for. List at least two of these.
15. What two reasons does Dr. Rossant mention that makes The CRISPR/Editing i(editing DNA at specific sites) a very important tool in research
16. What applications or types of human gene editing do you think would be interesting to pioneer?
- 17.. Why does the scientific community think gene editing is not an ethical process right now?
18. What did the Chinese claim to produce that contravened the NAS guidelines?
19. Dr. Rossant mentions a couple of reasons why she enjoys being a scientific researcher. List a couple of her reasons.
20. List three careers that science might lead you to.
21. Women make up 50 % of the workforce, yet only account for 24% of STEM workforce. What barriers/hurdles do you think account for this difference?
22. Why is a diverse workforce in the STEM career sector important and what do you think could be done to improve diversity in this area?
23. What skills or personality traits do you have that would make you a good scientific researcher?
24. What part of being a researcher would not suit you or your skill set?