

Science Time

Program Content for June 15, 2016

Read the article “Potential benefits of gene editing spur continued research despite risks” on page A1 of the Thursday, June 9, 2016 edition of The Seattle Times.

Pre-reading and Vocabulary: Define each term and then use it in a sentence to demonstrate your understanding.

1. Gene
2. Invasive
3. Moratorium
4. Endorsed
5. Ethics

Comprehension Questions

1. What ability does “gene drive” give to humans?
2. What is one thing that scientists could use gene drive to do?
3. Why are some experts against gene drive?
4. Why did the National Academies of Sciences, Engineering and Medicine endorse gene drive research?
5. List at least two types of organisms that humans have already altered the genetic makeup of.
6. What is CRISPR and why is it controversial?
7. Until now, why has human’s ability to transform an entire wild species over a few generations by modifying just a few individuals been stymied (blocked)?
8. How do gene drives overcome the problem identified in question #8?
9. What is one problem with gene drive that a recent report pointed out?
10. Name one (1) of the three (3) case studies a scientific committee considered when making their recommendation on gene drive research.
11. What is the “key risk” that the pioneer of gene drive technology cited as being missing from the recently released National Academies’ report?

Prompts and Extensions

1. Watch this short [video clip](#) on what gene drive is. For a more in-depth explanation watch this [TedTalk](#)
2. View a summary of the National Academies of Sciences Engineering and Medicine’s [report](#) that was highlighted in this article.
 - o Also read the [opinion](#) of the developer of gene drive technology on the recently released report.
3. First, identify why some scientists are in favor of pursuing more gene drive research and others are against this new technology. Next, write down whether or not you are in favor of or against gene drive. Be sure to support your position with evidence and reasoning. Be prepared to share your response.

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