

Scientists give mice night vision

6th March, 2019



Would you like to be able to see in the dark? One day this might be possible. Scientists have done tests on mice and have given them the ability to see near-infrared light. This is a kind of light wave that mice (and humans)

cannot normally see. Research teams from the University of Science and Technology of China and the University of Massachusetts Medical School changed the vision of the test mice. They injected special nanoparticles into their eyes. These tiny particles let the mice see better in the dark. The effect of the injections lasted for around 10 weeks. The scientists said the eyesight of the mice was not damaged and the eyes did not suffer from any side effects.

The research is now published in the research journal 'Cell'. The researchers say they hope the same tests could be done with humans. Researcher Dr Tian Xue explained what he hopes for the future. He said: "Human beings have been trying to develop new technology to enable abilities that are beyond our natural abilities." He said future tests could let humans see things in the dark that they cannot see now. Dr Tian added: "Another cool thing about this potential technology is that it wouldn't require a person to wear heavy and energy-intensive equipment, such as night-vision goggles." He also said: "The military will very likely be interested in this work."

Sources: gizmodo.com.au / geek.com / cell.com /

Writing

We should all be able to see in the dark. Discuss.

Chat

Talk about these words from the article.

the dark / scientist / mice / ability / light / vision / injections / eyesight / side effects / research / tests / humans / develop / natural abilities / technology / potential / work

True / False

- a) The article said we will be able to see in the dark for one day. T / F
- b) Humans can see near-infrared light. T / F
- c) Scientists injected things into the eyes of mice. T / F
- d) The effects of the injections lasted for around 10 days. T / F
- e) The research is published in a journal called "Cell". T / F
- f) Researchers said they would not test this technology on humans. T / F
- g) This new technology means there will be no need for goggles. T / F
- h) The military could be interested in this technology. T / F

Synonym Match

(The words in **bold** are from the news article.)

- | | |
|---------------------|-----------------|
| 1. possible | a. greater than |
| 2. kind | b. very small |
| 3. vision | c. doable |
| 4. tiny | d. gadgets |
| 5. suffer | e. possibility |
| 6. published | f. eyesight |
| 7. beyond | g. army |
| 8. potential | h. type |
| 9. equipment | i. issued |
| 10. military | j. experience |

Discussion – Student A

- a) What do you think of this research?
- b) Would you like to be able to see in the dark?
- c) How would life change if you could see in the dark?
- d) Could we save energy if we could see in the dark?
- e) What is your eyesight like?
- f) Would you have the injection in your eyes?
- g) Should scientists be testing mice?
- h) What do you think of mice?

Phrase Match

- | | |
|-------------------------------------------------|----------------------------|
| 1. Scientists have done | a. journal 'Cell' |
| 2. given them the ability to | b. effects |
| 3. They injected special nanoparticles | c. intensive equipment |
| 4. The effect of the injections lasted | d. into their eyes |
| 5. the eyes did not suffer from any side | e. in this work |
| 6. published in the research | f. tests on mice |
| 7. beyond our natural | g. about this |
| 8. Another cool thing | h. for around 10 weeks |
| 9. wear heavy and energy- | i. abilities |
| 10. The military will very likely be interested | j. see near-infrared light |

Discussion – Student B

- What do you think about what you read?
- Would you like night vision or X-ray vision?
- How interested are you in science?
- What extra-human abilities would you like?
- What other abilities would you like for your eyes?
- What negative things are there to this technology?
- What would the military do with this technology?
- What questions would you like to ask the researchers?

Spelling

- the iibltya to see near-infrared light
- cannot nrmaloyl see
- tiny seiacrtlp let the mice see better
- The effect of the jtecsninio
- the ehisteyg of the mice was not damaged
- the eyes did not suffer from any side fetfsec
- published in the research jorlnua
- dvpeleo new technology
- bdoeny our natural abilities
- this lantoiept technology
- energy-intensive eentqmpiu
- The amltirii will very likely be interested

Answers – Synonym Match

1. c	2. h	3. f	4. b	5. j
6. i	7. a	8. e	9. d	10. g

Role Play

Role A – Night Vision

You think night vision is the best extra ability. Tell the others three reasons why. Tell them why their things aren't as useful. Also, tell the others which is the least useful of these (and why): hypnosis, predicting the future or reading minds.

Role B – Hypnosis

You think hypnosis is the best extra ability. Tell the others three reasons why. Tell them why their things aren't as useful. Also, tell the others which is the least useful of these (and why): night vision, predicting the future or reading minds.

Role C – Predicting the Future

You think predicting the future is the best extra ability. Tell the others three reasons why. Tell them why their things aren't as useful. Also, tell the others which is the least useful of these (and why): hypnosis, night vision or reading minds.

Role D – Reading Minds

You think reading minds is the best extra ability. Tell the others three reasons why. Tell them why their things aren't as useful. Also, tell the others which is the least useful of these (and why): hypnosis, predicting the future or night vision.

Speaking – Extra Abilities

Rank these with your partner. Put the best at the top. Change partners often and share your rankings.

- | | |
|-------------------------|-----------------|
| • super strength | • night vision |
| • run like the wind | • X-ray vision |
| • ability of flight | • reading minds |
| • predicting the future | • hypnosis |

Answers – True False

a	F	b	F	c	T	d	F	e	T	f	F	g	T	h	T
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Answers to Phrase Match and Spelling are in the text.