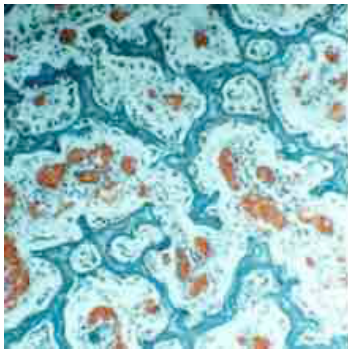


'Third state' exists beyond life and death, says study

23rd September 2024



A thought-provoking study from scientists in the USA has suggested a "third state" that exists after life and death. This somewhat mind-blowing concept posits a phenomenon in which the cells in the organs of a deceased body adopt new functions after the body

dies. Biologist Peter Nobel and bioinformatics researcher Alex Pozhitkov explained how cells transform after their host organism dies. The scientists wrote: "These findings demonstrate the inherent plasticity of cellular systems and challenge the idea that cells and organisms can evolve only in predetermined ways." They added: "The third state suggests that organismal death may play a significant role in how life transforms over time."

The scientists suggested the existence of two kinds of "biobot" that are integral in the mechanics of the third state. Wiktionary.org defines a biobot as: "A robot that is partly or wholly biological in nature, as for example...plant cells or animal cells that can perform tasks such as moving and reacting." The researchers termed one biobot as a "xenobot". This reorganizes cells into a new multi-cellular organism. Other biobots are "anthrobots". These are capable of self-assembling cells and moving around. The scientists said xenobots exist "beyond the traditional boundaries of life and death". They added the bots offer "prospects for new treatments" and personalized and preventive medicine.

Sources:
popularmechanics.com / wiktionary.org / sciencealert.com

Writing

There is life after death. Discuss.

Chat

Talk about these words from the article.

thought-provoking / scientists / third state / life / death / organism / plasticity / time / biobots / plant cells / animal cells / tasks / researchers / treatments / medicine

True / False

- 1) The article says a study from America will make people think. T / F
- 2) The writer says the concept of a third state could blow people's minds. T / F
- 3) Scientists say some cells are made from plastic. T / F
- 4) The death of organs could play a role in our evolution. T / F
- 5) The scientists say two kinds of biobot are active in the third state. T / F
- 6) Biobots are all wholly biological in nature. T / F
- 7) Anthrobots reorganize cells into new multi-cellular organisms. T / F
- 8) Anthrobots and xenobots could lead to personalized medicines. T / F

Synonym Match

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

- | | |
|-------------------------|-------------------|
| 1. suggested | a. fundamental |
| 2. somewhat | b. set |
| 3. adopt | c. dividing lines |
| 4. predetermined | d. relatively |
| 5. significant | e. named |
| 6. integral | f. remedies |
| 7. termed | g. argued |
| 8. boundaries | h. possibilities |
| 9. prospects | i. take on |
| 10. medicine | j. crucial |

Discussion – Student A

- a) What do you think about what you read?
- b) Is there life after death?
- c) What would you think if medicine enabled us to live to be 200?
- d) What do you think of biobots?
- e) What will medicine be like in 100 years from now?
- f) What do you think of science?
- g) How great is life?
- h) What questions would you like to ask the researchers?

Phrase Match

- | | |
|---|----------------------------|
| 1. A thought- | a. of cellular systems |
| 2. the cells in the organs of a | b. of life and death |
| 3. the inherent plasticity | c. a significant role |
| 4. cells and organisms can evolve only in | d. preventive medicine |
| 5. organismal death may play | e. predetermined ways |
| 6. the existence of two | f. perform tasks |
| 7. animal cells that can | g. provoking study |
| 8. This reorganizes cells into a new | h. kinds of "biobot" |
| 9. beyond the traditional boundaries | i. multi-cellular organism |
| 10. new treatments and personalized and | j. deceased body |

Discussion – Student B

- What do you think of life and death?
- What happens after we die?
- What do you know about cells?
- Would you like to live longer?
- What kind of science would you like to get into?
- How mind-blowing is it that there is a third state?
- How does life transform over time?
- What age would you like to live to be?

Spelling

- A thought-nripogkvo study
- mind-blowing concept posits a ponoeenmhn
- the organs of a sdeadeec body
- the ihnenert plasticity
- evolve only in depdetreinemr ways
- play a ntsfiaciign role
- the snxceieet of two kinds of "biobot"
- gailerlnt in the mechanics
- a new multi-luaellrc organism
- capable of self-lbesgamsni cells
- traditional nedbuorsai of life and death
- eitvpevnre medicine

Answers – Synonym Match

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

Role Play

Role A – Baldness

You think baldness is the thing we need a treatment for most. Tell the others three reasons why. Tell them why treatments for their things aren't as important. Also, tell the others which is the least important of these (and why): perfect vision, no wrinkles or better concentration.

Role B – Perfect Vision

You think perfect vision is the thing we need a treatment for most. Tell the others three reasons why. Tell them why treatments for their things aren't as important. Also, tell the others which is the least important of these (and why): baldness, no wrinkles or better concentration.

Role C – No Wrinkles

You think no wrinkles is the thing we need a treatment for most. Tell the others three reasons why. Tell them why treatments for their things aren't as important. Also, tell the others which is the least important of these (and why): perfect vision, baldness or better concentration.

Role D – Better Concentration

You think better concentration is the thing we need a treatment for most. Tell the others three reasons why. Tell them why treatments for their things aren't as important. Also, tell the others which is the least important of these (and why): perfect vision, no wrinkles or baldness.

Speaking – New Treatments

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

- | | |
|------------------|------------------------|
| • Baldness | • No headaches |
| • No teeth decay | • No wrinkles |
| • Bigger muscles | • No hay fever |
| • Perfect vision | • Better concentration |

Answers – True False

1	T	2	T	3	F	4	T	5	T	6	F	7	F	8	T
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Answers to Phrase Match and Spelling are in the text.