

Biotechnology & Health:

On September 13, 2025, a key development in biotechnology was a significant patent approval for plant-based Vitamin D3. A notable development in public health was the launch of new initiatives to support research in women's health.

Biotechnology & Pharmaceutical News

Plant-Based Vitamin D3 Patent: Fermenta Biotech was granted an Indian patent for its unique process of producing plant-based Vitamin D3. Traditionally, Vitamin D3 is derived from animal sources, so this innovation provides a new vegan and vegetarian alternative, addressing the growing global demand for ethical and sustainable nutrition.

Gene Editing for Disease: Researchers have developed a custom gene editor that has successfully corrected a mutation causing a deadly disease in mice. This highlights progress in using gene-editing technology for therapeutic purposes.

AI in Healthcare: IQVIA has unveiled a new AI suite designed to manage the finances of clinical trials. This is a step towards using AI to streamline complex processes in medical research.

Cancer Treatment Innovation: Scientists have engineered a new method to smuggle cancer-killing viruses into tumors using bacteria as "Trojan horses." This approach helps the viruses bypass the body's immune system to deliver a powerful treatment directly to cancer cells.

Public Health Initiatives

Focus on Women's Health Research: The non-profit organization Women's Health Access Matters (WHAM) launched its 2025 Edge Awards. These awards will provide grants of \$25,000 to early-career researchers studying sex-based differences in health outcomes. This initiative addresses the historical underfunding and under-researched aspects of women's health in areas like autoimmune diseases, cancer, and brain and heart health.

Global Biosecurity: A new report by the RAND Corporation outlines a framework for assessing biological weapon threats from emerging biotechnologies. The report emphasizes the need for a transparent and repeatable method to evaluate how technologies like CRISPR-Cas9 and AI could potentially be misused, while still allowing for beneficial scientific research.

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MCQS

1: Which company was granted an Indian patent for a new process to produce plant-based Vitamin D3?

- A) IQVIA
- B) WHAM
- C) Fermenta Biotech
- D) RAND Corporation

Answer: C) Fermenta Biotech

The news report states that Fermenta Biotech received an Indian patent for its unique process of producing plant-based Vitamin D3.

2: What is the name of the new AI suite unveiled by IQVIA?

- A) It was not named in the report.
- B) Clinical Trial Finance Manager
- C) AI suite for clinical trials

D) A new AI suite to manage the finances of clinical trials.

Answer: D) A new AI suite to manage the finances of clinical trials.

The news indicates that IQVIA has unveiled a "new AI suite designed to manage the finances of clinical trials."

3: What is the key innovation in the new cancer treatment method described in the news?

- A) Using gene editing to correct cancer mutations.
- B) Using viruses to attack cancer cells directly.
- C) Using bacteria as "Trojan horses" to smuggle cancer-killing viruses into tumors.
- D) Using a new form of radiation therapy.

Answer: C) Using bacteria as "Trojan horses" to smuggle cancer-killing viruses into tumors.

The report explains that scientists have engineered a new method to use "bacteria as "Trojan horses"" to deliver cancer-killing viruses into tumors, helping them bypass the body's immune system.

4: What is the primary purpose of the new "Edge Awards" launched by the non-profit organization WHAM?

- A) To fund research into a new cancer cure.
- B) To provide grants for research on sex-based differences in health outcomes.
- C) To support the development of AI in healthcare.
- D) To fund research on biological weapon threats.

Answer: B) To provide grants for research on sex-based differences in health outcomes.

The news states that WHAM launched its 2025 Edge Awards to provide grants to early-career researchers "studying sex-based differences in health outcomes."





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5: A new report by the RAND Corporation outlines a framework for assessing threats from which emerging technologies?

- A) New vaccine production methods.
- B) New diagnostic tools.
- C) Biological weapon threats from emerging biotechnologies like CRISPR-Cas9 and AI.
- D) New methods for gene editing in agriculture.

Answer: C) Biological weapon threats from emerging biotechnologies like CRISPR-Cas9 and AI.

The report specifies that the RAND Corporation's new report outlines a framework for assessing "biological weapon threats from emerging biotechnologies," including CRISPR-Cas9



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