

Institution's Innovation Council

IIC Calendar Activity

Title: Essay Writing Competition for World Creativity and Innovation Day (21.04.2025)

Theme: Medical Breakthroughs That Changed the World: What's Next?

Organizing Secretary: Dr. P. Sanjay, Dean Research,
IIC-Convener

IIC Student Coordinator: Deepak V



Objectives:

- To spark creative thinking about the future of medicine.
- To encourage exploration of major medical breakthroughs.
- To promote research-based writing and critical analysis.
- To support the IIC's mission of fostering a culture of innovation.

Participant Details:

The competition had 40 participants from all the phases of MBBS. The submissions were judged by a distinguished judge in innovation and research.

Programme Overview:

The World Creativity and Innovation Day was celebrated on 21.04.2025 with an online essay competition. The participants were given 4 days to work on their essays and were asked to submit their essay through the online portal. Forty participants from all phases of MBBS participated in the competition and were judged based on the

Relevance to the theme, creation, innovation, presentation and description. The winner and runner of the competition were felicitated by the management.

Outcome:

- Students showcased exceptional creativity and futuristic thinking in healthcare.
- The event increased awareness about impactful medical innovations.
- Participants improved their research and writing skills.
- The competition strengthened the spirit of innovation among MBBS students.

Way Forward:

Moving forward, the Institute Innovation Council will continue to conduct various IIC Calendar Activities aimed to promote innovation, research and entrepreneurship.

Medical Breakthroughs That Changed the World: What's Next?

Any medical breakthrough can lead to cure for other diseases too, it provides fundamental knowledge about how organs, tissues and the cells in our body work as a unit. We require such breakthroughs as to improve healthcare system and the human well-being.

The first medical breakthrough is vaccination introduced in 1796 by Edward Jenner. Smallpox was one of the deadliest diseases ever known to mankind. Today smallpox remains the only human disease to have been completely eradicated by vaccination.

Since then, there have been many discoveries up until now without which the world would have been completely different. Such as procedure using anesthesia was performed in the USA in 1846, to remove a tumor from a patient's neck. John Snow, a London physician, is widely regarded as the father of epidemiology in 1854 his groundbreaking work in tracing the source of cholera outbreaks, particularly the outbreak in London's Broad Street. A professor of surgery at Glasgow University, Lister in 1865 applied germ theory to surgery. The X-ray, invented in 1895 a form of electromagnetic radiation, was 'accidentally' by German physicist Wilhelm Conrad. The Scottish biologist, Alexander Fleming's penicillin in 1928 accidentally discovered the anti-bacterial 'Mould' in a petri dish. In December 1954, successful kidney transplant was carried out by Dr Joseph Murray and Dr David Hume in Boston, USA. The incredible potential of stem cells was discovered in the late 1970s, when they were found inside human cord blood. 3D printer was developed in the 1980s by Chuck Hull to print solid structures for manufacturing. Gene therapy trial was launched in 1990, successfully treating a then four-year-old girl with a rare genetic disease that severely affected her immune system. Jennifer and Emmanuelle published research in 2012 that the Cas9 protein (CRISPR-associated protein 9) could be programmed using RNA.

The upcoming breakthroughs complements the modern technology. Such as, Researchers at the Swiss Federal Institute of Technology Lausanne introduced the 'MiniTouch,' a device that enables amputees to sense temperature through their prosthetic limbs. Russia has developed, mRNA-based cancer vaccine that will be free to patients by early 2025. This vaccine is designed to help the patient's immune

MEDICAL BREAKTHROUGHS THAT CHANGED THE WORLD:

WHAT'S NEXT?

Every great leap in human history begins with a single, bold idea. In medicine, these ideas have not only healed wounds or cured diseases - they've rewritten the limits of life itself. From ancient herbal remedies to futuristic gene editing, is a journey of relentless innovation. Some of those innovations.

GENE THERAPY: It involves introducing genetic material into cells to treat or prevent disease. The very first gene therapy was launched in 1990, successfully treating a 4-year girl with a rare genetic disease. Gene therapy is now used by the NHS to treat certain cases of blindness and it holds promise for wide range of other diseases, including heart disease, haemophilia & cystic fibrosis.

Gene therapy is also on the horizon for cancer, with researchers all over the world investigating how to use gene therapy to kill cancer by boosting the immune system, making other treatments work better and to block molecular processes that allow cancer cells to survive.

ESSAY WRITING

Theme: "Medical Breakthroughs that changed the world: what's next".

Throughout history, medicine has danced at the edge of the impossible. From the discovery of penicillin to the mapping of the human genome, medical science has not only extended human lifespan but redefined what it means to be alive. These breakthroughs weren't just innovations - they were revolutions, changing our understanding of the human body, disease, and healing itself. But as we reflect on the milestones that brought us here, one question rises: what's next.

* From leeches to lasers: A quick walk through the past:-

The path of medicine was once paved with superstition and experimentation. Bloodletting and herbal brews gave way to antiseptics, anesthetics, and antibiotics. The invention of vaccines saved millions from smallpox and polio. The 20th century gifted us with MRI machines, organ transplants, and chemotherapy - each a miracle of its time. The Human Genome Project cracked the code of our DNA, setting the stage for precision medicine. These breakthroughs turned deadly diseases into manageable conditions, and once-fatal diagnoses into survivable challenges.

Sri
MANAKULA  **VINAYAGAR**

Medical College and Hospital

Accredited by NAAC with A+ Grade, Accredited by NABH and NABL
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WORLD CREATIVITY & INNOVATION DAY

ESSAY WRITING COMPETITION

**THEME: MEDICAL BREAKTHROUGHS
THAT CHANGED THE WORLD:
WHAT'S NEXT?**

Explore past innovations that transformed healthcare and imagine
the future of medicine with your creative vision!

Submit your essays through Google Forms.

ENTRIES CLOSE APRIL 20

Unleash your imagination, and shape the future of medicine through your words!

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