

Current Affairs search results for: "nobel prize"

1. Karl Barry Sharpless, Carolyn R. Bertozzi and Morten Meldal wins the Nobel Prize for Chemistry 2022 (Oct. 5, 2022)

The Royal Swedish Academy of Science on 5 October 2022 announced the winner of the [2022 Nobel Prize](#) in Chemistry. **Karl Barry Sharpless** and **Carolyn R. Bertozzi** of America and **Morten Meldal** of Denmark were chosen "for the development of click chemistry and bioorthogonal chemistry."

While Carolyn R. Bertozzi and Morten Meldal are the first-time recipients of the Nobel, **Karl Barry Sharpless won the top science award for the second time** in his career.

Karl Barry Sharpless is the **second person to get Nobel in Chemistry twice** after the British scientist **Frederick Sanger** who won it in 1958 and 1980.

Karl Barry Sharpless last won the Nobel in Chemistry in 2001 for his work around chirally catalyzed oxidation reactions.

The 2022 Chemistry prize was given to the three chemists for laying the foundation for a functional form of chemistry, click chemistry, and utilising it in living organisms. "

What is Click Chemistry?

Click chemistry is the special process of joining molecules together to form new molecules. The term "click chemistry" was introduced by Barry Sharpless.

Morten Meldal and Barry Sharpless discovered chemical agents that could bind to molecules, and then add other molecules one after the other to form complex clusters of molecules which can be modified by the scientist according to the needs. At present, through this click chemistry, large and complex structures are being created by connecting molecules. They are being used from making medicines to making polymers and new substances.

The Nobel Prize will be conferred on 10 December 2022 in Stockholm, Sweden.

Persons/Institutions who has won the Nobel prize more than once

- American Physicist **John Bardeen** won the Nobel Prize in Physics in 1956 and in 1972.
- **Marie Curie** was a Polish/ French scientist. In **1903** she got the Nobel Prize in Physics along with her husband Pierre Curie and Henri Becquerel. She won the Nobel Prize in Chemistry in **1911**. She is the first **woman** to get a Nobel Prize. She and Linus Pauling are the only two people to win Nobel prizes in two different fields.
- **Linus Pauling of America**. He won the Nobel Prize in Chemistry in 1954 and Peace Prize in 1962.
- **Frederick Sanger**. He was a British scientist who won the Chemistry Nobel prize in 1958 and 1980.
- **Karl Barry Sharpless**. He is an American scientist who won Chemistry Nobel prize in 2001 and 2022.
- **International Committee of Red Cross**: It won Nobel peace prize in 1917, 1944 and in 1963.
- **United Nations High Commissioner for Refugees**: It won the Nobel peace prize in 1954 and 1981.

2. Alain Aspect, John Clauser, Anton Zeilinger chosen for the Nobel Prize for Physics 2022 (Oct. 4, 2022)

The Royal Swedish Academy of Science has announced the winners of the [2022 Nobel Prize](#) in Physics on 4 October 2022. Three scientists; **Alain Aspect of France, John Clauser of USA** and **Anton Zeilinger of Austria** were honoured for their work in Quantum physics.

According to the Academy the awards were given for their "experiments with entangled photons, and pioneering quantum information science",

Quantum physics is a field of science that aims to study matter and energy at the most fundamental level. Each of the three winners conducted ground breaking experiments using entangled quantum states, where two particles behave like a single unit even when they are separated.

The Academy said that as a result of their work, development was underway to use the "special properties of individual particle systems to construct quantum computers, improve measurements, build quantum networks and establish secure quantum encrypted communication."

On 3 October 2022, **Svante Paabo of Sweden** was announced the winner of the Nobel Prize for Medicine.

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List of Nobel Prize winners from India -

- Rabindranath Tagore (1913) - Literature. First **Asian to get a Nobel Prize.**
- CV Raman (1930) - Physics
- Har Gobind Khurana (1968) - Medicine. He was an Indian born American citizen.
- Mother Teresa (1979) - Peace
- Subhramanyan Chandrashekhara (1983) - Physics. He was an Indian born American citizen.
- Amartya Sen (1998) - Economics.
- Venkatraman Ramakrishnan (2009) - Chemistry. He is an Indian born British and American citizen.
- Kailash Satyarthi (2014) - Peace
- Abhijit Banerjee (2019) - Economics. He is an Indian born American citizen.

3. Svante Paabo, the scientist who discovered the genome of primitive humans, won the Nobel Prize for Medicine (Oct. 3, 2022)

Swedish geneticist **Svante Paabo** won the 2022 Nobel Prize in Physiology or Medicine on 3 October 2022 for discoveries that help in our understanding of how modern day humans evolved from extinct ancestors.

According to the Nobel Committee, Svante Paabo won the prize for "discoveries concerning the genomes of extinct hominins and human evolution."

Svante Paabo is currently the director at the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany.

Svante Paabo is the son of the Swedish biochemist **Karl Sune Detlof Bergström** who won the Nobel Prize in Physiology or Medicine in 1982.

His pioneering work

He discovered a new human species called the **Denisovans**, from a 40,000-year-old fragment of a finger bone discovered in Siberia.

During the discovery of the genome of an extinct species of human named Neanderthal, he developed a technique by which the genome of any fossil could be accessed.

Dr. Pebo's more than 40 years of hard work discovered such a technique, which can be used to analyse the genome of millions of years old. Through this technique, factors such as bacteria, fungus, dust, seasonal changes and external chemical changes are cleaned from DNA. In the last 20 years, this technology has gone so far that now millions of DNA can be analysed simultaneously.

What is Genome

Genome is the set of information about genes within a cell. Within the genome, the complete information of that organism is kept in the form of DNA. This information, called the genome, is made up of DNA molecules. Whenever a cell divides or copies, this information is also copied together.

Nobel Prize

The Nobel Prize, which is considered to be the most prestigious prize in the world, was created in the will of Swedish dynamite inventor and wealthy businessman **Alfred Nobel**. The prizes for achievements in science, literature and peace have been awarded since 1901 and **the economics prize was first given in 1969**.

The prizes carry a cash award of **10 million Swedish kronor** (nearly \$900,000) and will be handed out on 10 December 2022. **10 December is the death anniversary of Alfred Nobel**.

4. 2023 Breakthrough Prize winners announced (Sept. 23, 2022)

On September 22, the winners of the 2023 Breakthrough Prize, called the Oscars of Science, totaling more than \$15 million, were announced.

IMPORTANT FACTS -

- This year three awards were given in the Life Science category while one award each for Mathematics and Physics.
- Daniel Spielman of Yale University was awarded the Breakthrough Prize in Mathematics for his many discoveries in theoretical computer science and mathematics.
- Clifford Brangwyn and Anthony Hyman (British scientist) won the Life Science Prize for their discovery of a new mechanism of cellular organisation.
- Other life science prizes were awarded to Demis Hassabis (British scientist) and John Jumper (USA) for developing AlphaFold, which predicts the structure of proteins, and

Emmanuel Mignot (France) and Masashi Yanagisawa (USA) for discovering the causes of narcolepsy.

ADDITIONAL INFORMATION -***About Breakthrough Prizes :***

- The Breakthrough Prizes were started in 2010 by a group of Silicon Valley entrepreneurs.
- These Prizes were founded by Sergey Brin, Priscilla Chan and Mark Zuckerberg, Yuri and Julia Milner, and Anne Wojcicki.
- These prizes are the most richly endowed prizes in science, the prize money of which exceeds that of the Nobel Prizes.
- Breakthrough has an amount of \$3 million in each prize, which is more than \$1 million in prizes awarded to the winner of the Nobel Prize.
- The awards are presented in the fields of life sciences, fundamental physics and mathematics.

5. UN warns 345 million people at risk of starvation (Sept. 16, 2022)

The United Nations World Food Program warned on 16 September that the world is facing a global emergency, because 345 million people are marching toward starvation.

IMPORTANT FACTS -

- David Beasley, executive director of the UN World Food Program, said 345 million people in **82 countries** are facing acute food insecurity.
- He said that **50 million people** in 45 countries suffer from **acute malnutrition**.
- This widespread and growing food insecurity is the result of direct and indirect effects of conflict and violence.
- Rising food, fuel and fertilizer prices have driven 70 million people near starvation since Russia invaded neighbouring Ukraine on February 24.

United Nations World Food Program :

- It is the food-assistance branch of the **United Nations**.
- It is the world's largest humanitarian organization focused on hunger and food security and the largest provider of school meals.
- It aims to fulfil the **17 Sustainable Development Goals (SDG)**, with a priority on achieving **SDG 2** for "**zero hunger**" by 2030.

- It was awarded the **Nobel Peace Prize in 2020** for its efforts to provide food assistance in areas of conflict.
- Founded - **1961**
- Headquartered - **Rome**

6. 64th Ramon Magsaysay award 2022 announced (Sept. 3, 2022)

The Ramon Magsaysay Award Foundation (RMAF), Manila, Philippines has announced the winners of the 64th Ramon Magsaysay award 2022 on 31 August 2022.

It is given to Individuals and organisation for providing solutions to some of the most challenging problems of human development in Asia or the world.

The award which is considered to be equivalent to the '**Asian Nobel Prize**' will be given to Tadashi Hattori, Gary Benchehib, Sotheara Chhim, and Bernadette J. Madrid on 30 November 2022.

Awardee of 2022

Sotheara Chhim

He is from Cambodia. He has been honoured for his role as an Psychiatrist and mental health advocate who has played a key role in providing treatment of thousands of traumatized survivors of the Khmer Rouge's brutal rule and other patients in his country

Tadashi Hattori

He is from Japan. He is an ophthalmologist and humanitarian who has been honoured for his commitment in providing free eye surgeries in Vietnam.

Bernadette J.Madrid

She is a paediatrician from the Philippines. She has been honoured for her work as championing the Filipino child's right to protection by creating safe spaces for abused children nationwide.

Gary Benchehib

He is from France. He has been honoured for his work in eradicating marine plastic pollution in Bali, Indonesia.

Ramon Magsaysay Award

- The Ramon Magsaysay Award was founded in 1957 in memory of the Philippines President Ramon Magsaysay who died in a plane crash in 1957.
- The award was established by the American philanthropist Rockfellers Brothers fund.
- The first award was given on 31 August 1958 and **Vinoba Bhave** of India was amongst the first five awardee.
- It was till 2008 given in 6 categories annually. They were Community Leadership, Public Service, Government Service, Journalism, Literature, and Creative Communication Arts, Peace and International Understanding, Emergent Leadership.

- Starting in 2009, the Ramon Magsaysay Award is no longer being given in fixed Award categories, except for Emergent Leadership.

7. Barack Obama : President, Nobel laureate, and now an Emmy winner (Sept. 4, 2022)

The Television Academy on September 3 honoured Hollywood newcomer **Barack Obama** with an Emmy Award for his narration of his Netflix documentary series "**Our Great National Parks**".

IMPORTANT FACTS -

- Former US President Obama has already won Grammy Awards for audio versions of his memoirs "**The Audacity of Hope**" and "**Dreams from My Father**".
- Barack Obama, one of the world's popular leaders, who has been two-time President of America, has also received the **Nobel Peace Prize**.
- He has also received the **Grammy**, the biggest award in the music world, twice.
- This time he has also got an **Emmy**, the most prestigious award in the television world.
- Out of the four prestigious awards in the world of entertainment, two awards **Oscar and Tony** are yet to be received.
- These four awards are called **EGOT**, which means achievement of having won all four of the major American entertainment awards.
- If he wins two more awards, he will join the **EGOT club**.
- Before this, another US President, **D. Eisenhower**, received an Emmy in 1956.

8. Former Soviet President Mikhail Gorbachev dies at the age of 91 (Aug. 31, 2022)

Former Soviet President **Mikhail Gorbachev** died on 30 August at the age of 91.

IMPORTANT FACTS -

- In June, he was taken to the hospital after suffering from a serious kidney ailment.
- He played an important role in ending the **Cold War**.

About Mikhail Gorbachev :

- **He was born in 1931 in southern Russia.**
- Gorbachev was the last leader of the former Soviet Union from 1985 until 1991, he pushed for stronger Soviet-India ties.

- During his tenure, he visited India twice in 1986 and 1988.
- He became general secretary of the Soviet Communist Party in 1985.
- He wanted to reform the communist regime on the lines of democratic principles by giving freedom to the citizens.
- Gorbachev's policies helped to open up the Soviet economy and liberalize society in the late 1980s.
- He played a major role in the withdrawal of Soviet troops from a nearly decade-long military operation in Afghanistan.
- He was awarded the Nobel Peace Prize in 1990 "for his role in the radical change in East-West relations".

Cold War :

- The Cold War was an ongoing political rivalry between the United States and the Soviet Union and its allies that developed after World War II.
- This enmity between the two superpowers was first named the Cold War by George Orwell in an article published in 1945.
- Its period is considered to be between 1945 to 1991.
- The term "cold" is used because there was no direct large-scale war between the two sides.

9. Former German Chancellor Angela Merkel wins UNESCO Peace Prize 2022 (Aug. 27, 2022)

Former German Chancellor Angela Merkel has been awarded the 2022 UNESCO Peace Prize for her efforts to welcome refugees.

IMPORTANT FACTS -

- All jurors, including jury chairman and 2018 Nobel Peace Prize winner Denis Mukwege, have been impressed by Merkel's courageous decision to welcome more than 1.2 million refugees from Syria, Iraq, Afghanistan and Eritrea in 2015.
- Additionally, the jury awarded an honorable mention to Julian Lusanz for his commitment to women victims of sexual violence.

Angela Merkel :

- Angela Merkel was born on 17 July 1954 in Hamburg, West Germany.
- In the 2005 national elections, Merkel became the first female chancellor of Germany, and is one of the leading figures in the European Union.

- She became the Chancellor of Germany for the fourth and last time on 14 March 2014.
- Before joining politics, she was working as a research scientist.

About UNESCO Peace Prize :

- Officially it is called the Felix Houphouet-Bougain-UNESCO Peace Prize.
- The honour is named after the former President of Ivory Coast.
- UNESCO's Felix Houphouet-Bogen Peace Prize was created in 1989 to honour living individuals and active public or private bodies or institutions that have made significant contributions to peace.
- The award was established by a resolution supported by 120 countries

ADDITIONAL INFORMATION -***About UNESCO :***

- Establishment of UNESCO - 16 November 1945
- UNESCO Headquarters - Paris, France
- UNESCO members - 193 countries
- UNESCO chief - Audrey Azoulay

10. World Organ Donation Day (Aug. 16, 2022)

Every year 13 August is celebrated as World Organ Donation Day across the world with an aim to raise awareness about organ donation.

Important facts

- Apart from this, “National Organ Donation Day” is celebrated on 27 November every year in India.
- This year's theme is “let’s pledge to donate organs and save lives”.

Importance

- This day is celebrated to dispel the myths of organ donation.
- It wants to encourage people to donate their healthy organs after death as it will save more lives.
- Its aim is to help people realise that many people lose their lives due to unavailability of healthy organs. Thus, voluntarily donating your healthy organs can change the lives of many people.

History of world organ donation

- The first temporarily successful transplant of a human kidney was performed by Jean Hamburger in Paris in 1953.
- A kidney was transplanted from the mother to a 16-year-old child.
- However, the first long-term successful kidney transplant was performed in the US in 1954.
- This successful transplant was performed by Dr. Joseph Murray.
- For this, Dr. Joseph Murray received the "Nobel Prize for Physiology and Medicine" in the year 1990.