



DAN HANSSON/SVDSCANPIX

Each year King Carl XVI Gustaf personally presents a diploma to the winners during a stately ceremony in the Concert Hall in Stockholm.

NOBEL PRIZE:

The Nobel Prize captures the world's attention

The Nobel Prize is considered the most prestigious award in the world. Prize-winning discoveries include X-rays, radioactivity and penicillin. Peace Laureates include Nelson Mandela and Barack Obama. Nobel Laureates in Literature, including Rudyard Kipling and Doris Lessing, have thrilled readers with works such as *The Jungle Book* and *The Grass is Singing*.

Every year in early October, the world turns its gaze towards Sweden and Norway as the Nobel Laureates are announced in Stockholm and Oslo. Millions of people visit the Nobel Foundation's website at this time.

The Nobel Prize has been awarded to people and organizations every year since 1901 (with a few exceptions such as during World War II) for achievements in physics, chemistry, physiology or medicine, literature and peace.

December 10 is Nobel Day. For the prizewinners, it is the climax of a week of speeches, conferences and receptions.

At the Nobel Prize Award Ceremony in Stockholm that day, the laureates in physics, chemistry, physiology or medicine, and literature receive a medal from the King of Sweden, as well as a diploma and a cash award. The ceremony is followed by a gala banquet. The Nobel Peace Prize is awarded in Oslo on the same day.

Prize in Economic Sciences

In 1968, Sveriges Riksbank (Sweden's central bank) established the Prize in Economic Sciences in Memory of Alfred Nobel. The prize is based on a donation received by the Nobel Foundation in

1968 from Sveriges Riksbank on the occasion of the Bank's 300th anniversary.

The Prize in Economic Sciences is awarded by the Royal Swedish Academy of Sciences, following the same principles as for the Nobel Prizes.

Legacy of Alfred Nobel

The Nobel Prize is the legacy of Sweden's Alfred Nobel (1833–1896). The prizes are awarded to "those who, during the preceding year, shall have conferred the greatest benefit on mankind." When he signed his last will in 1895, Nobel declared that the bulk of his estate ►

DID YOU KNOW THAT...**43 WOMEN**

The Nobel Prize and the Prize in Economic Sciences have been awarded to women 44 times between 1901 and 2011. Only one woman, Marie Curie, has been honored twice, receiving the 1903 Nobel Prize in Physics and the 1911 Nobel Prize in Chemistry. This means 43 women in total have been awarded the Nobel Prize between 1901 and 2011. The breakdown for women laureates is as follows: Physics 2, Chemistry 3, Physiology or Medicine 10, Literature 12, Peace 15, Economic Sciences 1.

25 YEARS YOUNG

The youngest Nobel Laureate to date is Lawrence Bragg, who was 25 years old when he was awarded the Nobel Prize in Physics with his father in 1915.

90 YEARS OLD

The oldest laureate to date is Leonid Hurwicz, who was 90 years old when he was awarded the Prize in Economic Sciences in 2007.

TWO HAVE DECLINED

Two Nobel Laureates have declined the Nobel Prize. Jean-Paul Sartre, awarded the 1964 Nobel Prize in Literature, declined the award because he had consistently declined all official honors. Lê Đức Thọ was awarded the 1973 Nobel Peace Prize jointly with US Secretary of State Henry Kissinger for negotiating the Vietnam peace agreement. Lê said he was not in a position to accept the Nobel Peace Prize, due to the situation in Vietnam.

FORCED TO DECLINE

Four Nobel Laureates have been forced by authorities to decline the Nobel Prize. Adolf Hitler forbade three German Nobel Laureates, Richard Kuhn (Chemistry), Adolf Butenandt (Chemistry) and Gerhard Domagk (Physiology or Medicine), to accept the Nobel Prize. The reason was that Hitler was offended when the 1935 Nobel Peace Prize was awarded to Carl von Ossietzky, a German writer who publicly opposed Hitler and Nazism.

Boris Pasternak, the 1958 Nobel Laureate in Literature, initially accepted the prize but was later coerced into declining by Soviet authorities.

► should be converted into a fund and invested in safe securities.

The four institutions in Sweden and Norway (the two countries were united between 1814 and 1905) conferring the prizes were to be “the Swedish Academy of Sciences, the Caroline Institute in Stockholm, the Academy in Stockholm” and “a committee of five persons to be elected by the Storting” (the Norwegian Parliament).

The Nobel Foundation

In 1900, the four institutions awarding the prizes agreed to create the Nobel Foundation, a private institution based on the will of Alfred Nobel. The Nobel Foundation would administer Alfred Nobel’s willed assets, totaling SEK 31 million (USD 4.7 million, EUR 3.3 million), make public announcements and arrange the prize ceremonies. The prize amount each year is based on the most recent return on investment. The capital is currently worth around SEK 3.1 billion (USD 472 million, EUR 337 million), which is almost twice the amount of the initial capital, taking inflation into account.

The Nobel Prize is currently SEK 10 million (USD 1.5 million, EUR 1.1 million) for each prize category, even when the prize is shared. There may be no more than three laureates for each prize category.

Organizations affiliated with the prize

The Nobel Prize is affiliated with several organizations and institutions entrusted with different tasks related to the prize. The Nobel Foundation Rights Association was established in 1999 to meet the demands of an expanding global audience wanting to access quality information about the Nobel Laureates and their achievements via a range of media.

This non-profit association serves as an umbrella organization for the following three entities:

- Nobel Media AB, which manages and develops media rights for the Nobel Prize in connection with TV and web production, distribution, publishing and events.
- The Nobel Museum AB, housed in Börshuset (the Old Stock Exchange Building) in Stockholm’s Old Town depicts a century of creativity through the Nobel Prize and the achievements of the Nobel Laureates.
- The Nobel Peace Center Foundation, an institution whose aim is to present the Nobel Peace Prize and the work of the Nobel Peace Prize Laureates. The Center is located at Rådhusplassen in Oslo, Norway. ■

The father of dynamite

Alfred Nobel was a chemist, engineer, inventor and entrepreneur. He was born on October 21, 1833, in Stockholm and died on December 10, 1896, in San Remo. He was devoted to the study of explosives, and his inventions include a blasting cap, dynamite and smokeless gunpowder. Nobel became famous across the world when the St. Gotthard Tunnel was built in 1882 and dynamite was used for the first time on such a large scale.

At the time of his death, Nobel held 355 patents in different countries. There were Nobel parent companies in some 20 countries and explosives of all kinds were being manufactured under his patents in around 100 factories worldwide.

Nobel lived and worked in many coun-



PHOTO: NOBELMUSEET

Alfred Nobel

tries, including Sweden, Russia, France, the United Kingdom, Germany and Italy. He spoke five languages, had a passionate interest in literature and wrote poetry and drama. He could never have imagined how important his prize would become, or how much media attention future Nobel Laureates would generate. ■

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THE INSTITUTIONS AWARDING PRIZES

These institutions select the Nobel Laureates:

The Royal Swedish Academy of Sciences (Nobel Prize in Physics, Nobel Prize in Chemistry and Sveriges Riksbank's Prize in Economic Sciences in Memory of Alfred Nobel). An independent organization whose overall objective is to promote the sciences and enhance their influence in society. Founded in 1739, some 350 members.

The Swedish Academy (Nobel Prize in Literature). Founded in 1786, consists of 18 Swedes, all elected for life.

The Nobel Assembly at Karolinska Institutet (Nobel Prize in Physiology or Medicine). Founded in 1977, consists of 50 professors at Karolinska Institutet.

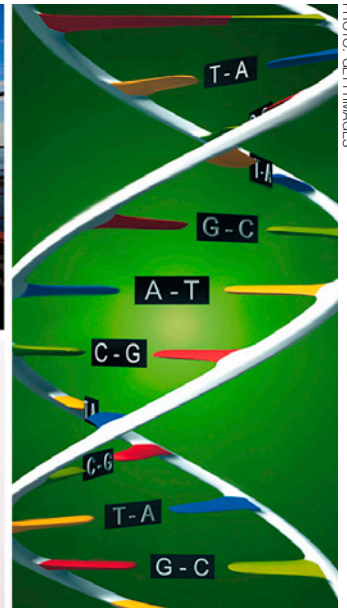
The Norwegian Nobel Committee (Nobel Peace Prize). Founded in 1897, five members appointed by the Norwegian Parliament.

THE BANQUET OF BANQUETS



More than 1,200 guests are invited each year to the grand banquet.

The Nobel Banquet is a magnificent party, often called the banquet of banquets, that takes place in the Blue Hall at Stockholm City Hall. The preparations are meticulous. Hundreds of cooks, waiters and attendants ensure that everything runs smoothly. Some 1,300 guests are invited. Each laureate is entitled to bring 14 guests. Sweden's royal family always participates, and the prime minister and other members of the government. The Nobel family is always represented. The remainder of the guest list should reflect the cultural and scientific community in Sweden and internationally.



Clockwise from left: X-rays; AGA lighthouse, a type of automatic lighthouse that runs on acetylene gas; the molecular structure of DNA – the double helix; Penicillin.

One hundred and eleven years of Nobel Prizes

Between 1901, when the first Nobel Prize was awarded, and 2011, a total of 853 Nobel Prizes have been awarded to individuals and organizations. Together, they represent a major contribution to the cultural and scientific history of the world.

830 Laureates and 23 organizations have been awarded the Nobel Prize between 1901 and 2011. Together, they represent a major contribution to the cultural and scientific history of the world. A small number of individuals and organizations have been honored more than once, which means that a total of 826 individuals and 20 unique organizations have received the Nobel Prize.

The first Nobel Prize in Physics, in 1901, went to Wilhelm Conrad Röntgen, who discovered X-rays, or Roentgen rays, which are used by health care providers every day around the world.

In 1905, the Austrian baroness and author Bertha von Suttner became the first female laureate, winning the Nobel Peace Prize for her work with the peace movement in Germany and Austria.

Marie Skłodowska Curie received her second Nobel Prize in 1911 – this time in chemistry – for isolating and studying the new element radium. That discovery and her research into radioactivity, which led to the Nobel Prize in Physics in 1903, constituted major contributions to medical science.

In 1912, the Swedish inventor and industrialist Gustaf Dalén won the Nobel Prize in Physics for his contributions to lighthouse technology. In the early 1900s, he invented the AGA lighthouse, a type of automatic lighthouse that ran on acetylene gas. The supply of gas was controlled by a sun valve that shut off the gas in daylight, and a revolving light apparatus that allows the beacon to flash by switching the gas supply off and on at brief, regular intervals. The two technologies made it possible to reduce gas consumption by 90 percent compared to earlier constructions.

In the fall of 1945, the Nobel Assembly of professors at Karolinska Institutet gathered to select a Nobel Laureate in Physiology or Medicine. They chose three laureates, including Alexander Fleming, for their discovery of penicillin, which saved millions of lives in the second half of the 20th century.

In 2007, the Nobel Peace Prize was awarded to the UN Intergovernmental Panel on Climate Change and Al Gore. Gore has made a significant contribution in pushing climate change to the top of the

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2011 NOBEL PRIZES

Chemistry

Dan Shechtman, Israel
"For the discovery of quasicrystals".

Literature

Tomas Tranströmer, Sweden
"Because, through his condensed, translucent images, he gives us fresh access to reality".



Tomas Tranströmer.

PHOTO: ULLA MONTAN

Peace

Ellen Johnson Sirleaf, Liberia, Leymah Gbowee, Liberia, Tawakkul Karman, Yemen
"For their non-violent struggle for the safety of women and for women's rights to full participation in peace-building work".

Physics

Saul Perlmutter, USA, Brian P. Schmidt, USA, Adam G. Riess, USA
"For the discovery of the accelerating expansion of the Universe through observations of distant supernovae".

Physiology or Medicine

Bruce A. Beutler, USA, Jules A. Hoffmann, Luxembourg, Ralph M. Steinman, Canada
 The Prize was divided, one half jointly to Bruce A. Beutler and Jules A. Hoffmann *"for their discoveries concerning the activation of innate immunity"* and the other half to Ralph M. Steinman *"for his discovery of the dendritic cell and its role in adaptive immunity"*.

The Prize in Economic Sciences in Memory of Alfred Nobel

Thomas J. Sargent, USA, Christopher A. Sims, USA
"For their empirical research on cause and effect in the macroeconomy".

► international political agenda, primarily as a result of his book and film *An Inconvenient Truth*. Other Nobel Peace Prize Laureates who have influenced the world are Martin Luther King (1964), Nelson Mandela (1993) and Barack Obama (2009).

Nobel Laureates in Literature include Ernest Hemingway (1954), Toni Morrison (1993), Dario Fo (1997) and Harold Pinter (2005). The oldest laureate in literature is Doris Lessing, who won the prize in 2007 at the age of 87. ■

The Nobel Prize calendar

The Nobel Prize Award Ceremony in Stockholm is held on December 10, the anniversary of Alfred Nobel's death. On the same day, the Nobel Peace Prize is awarded in Oslo, Norway.

A number of other activities also take place during the same week, and receptions and dinners are held by the institutions awarding prizes, the Nobel Foundation and the Swedish royal family. The laureates deliver lectures and talk about their work, and panel discussions and other public appearances are usually arranged. Traditionally, the laureates and their spouses sit with the

royal family at the Nobel Banquet. They are also invited to a more intimate dinner at the Royal Palace, where they again meet the royal family. Visiting the Nobel Foundation is a great symbolic event.

The laureates receive a document confirming the prize amount and sign their names in a guestbook, thereby joining hundreds of their famous predecessors. ■

NOBEL WEEK IN STOCKHOLM

Dec 5-6

The laureates (except for the Nobel Peace Laureate) arrive in Stockholm.

Dec 7-8

The laureates deliver their lectures. The institutions awarding the prizes arrange receptions and dinners.

Dec 9

The embassy of each laureate arranges a lunch. The Nobel Foundation holds a reception for all the laureates.

Dec 10

The Nobel Prize Award Ceremony is held in the Stockholm Concert Hall, where the King of Sweden presents each laureate with a Nobel Prize Medal and a Nobel Prize Diploma. A banquet is then held at Stockholm City Hall.

Dec 11

The festivities conclude with dinner at the Royal Palace.



PHOTO: THE NOBEL FOUNDATION

Useful links

- www.kva.se — The Royal Swedish Academy of Sciences
- www.mednobel.ki.se — The Nobel Assembly at Karolinska Institutet
- www.nobelmuseum.se — The Nobel Museum
- www.nobelpeacecenter.org — Nobel Peace Center
- www.nobelpeaceprize.org — The Norwegian Nobel Committee
- www.nobelprize.org — The official website of the Nobel Prize
- www.svenskaakademien.se — The Swedish Academy

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www.sweden.se



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