

THE
NOBEL
PRIZE

UNHCR

1954 och 1981

STOCKHOLM 7–14 oktober. Fira och förstå årets Nobelpris!



ANNUAL REVIEW
THE NOBEL FOUNDATION

2019



Lars Heikensten has been Executive Director of the Nobel Foundation since 2011.

PHOTO: DAN LEPP

During the spring of 2020 we are in the midst of a terrible crisis. At this writing, it is still impossible to say what the consequences of the spreading coronavirus might be for our societies and our economies. A pandemic knows no borders. It strikes us both as individuals and as a species.

The importance of independent research and science is clear. Scientists were able to quickly map the genetic sequence of the new coronavirus and have begun working to develop a vaccine. Scientific analyses and calculations are now being done to try to understand and manage its effects on our society. We must put our faith in science if we are to make wise decisions. But this crisis shows that knowledge is not going to be enough. We also need humanistic values, openness, tolerance and collaboration across national borders.

When I assumed the role of Executive Director for the Nobel Foundation, I was struck by how many people were unaware of Alfred Nobel's comprehensive vision of working for the greatest benefit to humankind. The focus was on the various disciplines of the individual prizes. But Nobel wanted to do more than just award prizes. He wanted to create a better world. For almost 120 years, the Nobel Prize has demonstrated humanity's ability to find solutions to our greatest challenges.

This year we were meant to have gathered some twenty Nobel Laureates together with leading decision-makers and experts in Washington to address the climate crisis in the first-ever Nobel Prize Summit. We were to have created similar dialogues on other themes in

Korea, Brazil and Hong Kong. We have been forced to postpone all of them, and instead we are now using our social media channels to connect with our audience around the world. In light of the current crisis, it is particularly encouraging that we have been able this year to restart the Nobel Center project. The Slussen site in downtown Stockholm is the location chosen for the public cultural and science centre we intend to build.

It has truly been a privilege for me to be able to work with the Nobel Prize for now almost nine years. I have looked forward to every day at work. There have certainly been challenges, but challenge is something this organisation must be prepared for, and which we can expect in the future as well. It is simply a consequence of the prominence of the Nobel Prize in the world. At the end of this year, someone else will be taking over this position. That person will be working together with the institutions that award the Nobel Prize to preserve and strengthen its unique status. The job also includes maintaining the organisation's sound financial condition and further developing a platform of broad public engagement built on Alfred Nobel's vision.

A great many people have made invaluable contributions to that work during the past few years. Its success in the future depends on your continued support. The Nobel Prize stands for belief in science, education and humanistic values, commitment to peace and faith in the future. This is needed – perhaps now more than ever.

THE
NOBEL
PRIZE

NOBEL
CALLING
STOCKHOLM

7-14 oktober

nobelcalling.se



CITYMAP
▼
○
●

JCDecaux

Table of contents

6	The 2019 Nobel Laureates
12	She wants to change the world
14	Celebrate and understand the year's Nobel Prizes
16	Scientists convey knowledge with the aid of theatre
18	A new house for culture and science at Slussen
20	Focus on climate at the Nobel Peace Center
22	The year in numbers
26	For the Greatest Benefit to Humankind
30	Science meets society
32	Italian floral splendour
34	Alfred Nobel
36	The prize-awarding institutions
38	The Nobel Foundation
40	To engage, inspire and spread knowledge
42	Highlights in December
44	Nobel Calling Space

The 2019 Nobel Laureates

In October each year new Nobel Laureates are announced. They have all contributed to the greatest benefit of humankind with their work. The Nobel Prize award ceremonies then take place in Stockholm and Oslo on 10 December.

THE NOBEL PRIZE IN PHYSICS 2019



James Peebles

JAMES PEEBLES
MICHEL MAYOR
DIDIER QUELOZ

“for contributions to our understanding of the evolution of the universe and Earth’s place in the cosmos”



Michel Mayor



Didier Queloz

Fundamental questions about the universe’s structure and history have always fascinated human beings. James Peebles’ theoretical framework, developed since the mid-1960s, is the basis of our contemporary ideas about the universe.

Using his theoretical tools and calculations, James Peebles was able to interpret the cosmic background radiation, remaining traces from the infancy of the universe. The results showed us a universe in which just five per cent of its content is known matter. The remaining 95 per cent is unknown dark matter and dark energy.

In 1995, Michel Mayor and Didier Queloz announced the first discovery of a planet outside our solar system, an exoplanet, orbiting a solar-type star in our home galaxy, the Milky Way. Using custom-made instruments, they were able to see planet 51 Pegasi b, in the Pegasus constellation. Since then over 4,000 exoplanets have since been found in the Milky Way. Eventually, we may find an answer to the eternal question of whether other life is out there.

THE NOBEL PRIZE IN CHEMISTRY 2019



John B. Goodenough

JOHN B. GOODENOUGH
M. STANLEY WHITTINGHAM
AKIRA YOSHINO

“for the development
of lithium-ion batteries”

Storing electrical energy in batteries is a key factor in solving the world’s energy supply. The element lithium is useful in batteries since it willingly releases electrons. Stanley Whittingham, John B. Goodenough and Akira Yoshino have conducted pioneering work in the development of the lithium-ion battery.

Whittingham developed an innovative cathode in a lithium battery. This was made from titanium disulphide which, at a molecular level, has spaces that can house lithium-ions. In 1980 Goodenough developed a lithium battery with a cathode of cobalt oxide, which gave a higher voltage than earlier batteries. In 1985 Yoshino developed a battery with an anode of petroleum coke, a carbon material that, like the cathode’s cobalt oxide, has spaces that can house lithium-ions. This was the first commercially viable lithium-ion battery. Such batteries are widely used in electrical equipment, for example mobile phones and electric cars.



M. Stanley Whittingham



Akira Yoshino

THE NOBEL PRIZE IN PHYSIOLOGY OR MEDICINE 2019



William G. Kaelin Jr.

WILLIAM G. KAELIN JR.
SIR PETER J. RATCLIFFE
GREGG L. SEMENZA

“for their discoveries
of how cells sense and adapt
to oxygen availability”

Animals need oxygen for the conversion of food into useful energy. The fundamental importance of oxygen has been understood for centuries, but how cells adapt to changes in levels of oxygen has long been unknown.

William G. Kaelin, Sir Peter J. Ratcliffe, and Gregg L. Semenza discovered how cells can sense and adapt to changing oxygen availability. They identified molecular machinery that regulates the activity of genes in response to varying levels of oxygen. The seminal discoveries by Kaelin, Ratcliffe and Semenza revealed the mechanism for one of life’s most essential adaptive processes.

They established the basis for our understanding of how oxygen levels affect cellular metabolism and physiological function. Their discoveries have also paved the way for promising new strategies to fight anaemia, cancer and many other diseases.



Sir Peter J. Ratcliffe



Gregg L. Semenza

THE NOBEL PRIZE IN LITERATURE 2018



Olga Tokarczuk

OLGA TOKARCZUK

“for a narrative imagination that with encyclopedic passion represents the crossing of boundaries as a form of life”

Olga Tokarczuk is inspired by maps and a perspective from above, which tends to make her microcosmos a mirror of the macrocosmos. She constructs her novels in a tension between cultural opposites: nature versus culture, reason versus madness, male versus female, home versus alienation. Her magnum opus so far is the historical novel *The Books of Jacob*, portraying the charismatic 18th-century sect leader Jacob Frank. The work also gives us a remarkably rich panorama of an almost neglected chapter in European history.

THE NOBEL PRIZE IN LITERATURE 2019



Peter Handke

PETER HANDKE

“for an influential work that with linguistic ingenuity has explored the periphery and the specificity of human experience”

Peter Handke is one of the most influential writers in Europe after the Second World War. His bibliography contains novels, essays, note books, dramatic works and screenplays. As early as the 1960s Handke left his mark on the literary scene. His works are filled with a strong desire to discover and to bring his discoveries to life by finding new literary expressions for them. One of his books is *A Sorrow Beyond Dreams*, written after his mother's suicide.

THE NOBEL PEACE PRIZE 2019



Abiy Ahmed Ali

ABIY AHMED ALI

“for his efforts to achieve peace and international cooperation, and in particular for his decisive initiative to resolve the border conflict with neighbouring Eritrea”

The relationship between the neighbouring countries Ethiopia and Eritrea has long been tense. An armed conflict took place between 1998 and 2000 and had been followed by renewed threats of war. When Abiy Ahmed became Prime Minister in 2018, he resumed peace talks with Eritrea. After close cooperation between Abiy Ahmed and Isaias Afwerki, the President of Eritrea, a peace agreement was reached.

An important premise for the breakthrough was Ahmed’s unconditional willingness to accept the arbitration ruling of an international boundary commission in 2002. In the wake of the peace process with Eritrea, Ahmed has engaged in other peace and reconciliation processes in East and Northeast Africa. In Ethiopia, he has initiated important reforms to strengthen democracy in the country.

THE SVERIGES RIKSBANK PRIZE IN ECONOMIC SCIENCES IN MEMORY OF ALFRED NOBEL 2019



Abhijit Banerjee

ABHIJIT BANERJEE
ESTHER DUFLO
MICHAEL KREMER

“for their experimental approach to alleviating global poverty”



Esther Duflo

One of humanity’s most urgent issues is the reduction of global poverty, in all its forms. Abhijit Banerjee, Esther Duflo and Michael Kremer have introduced a new approach to obtaining reliable answers about the best ways to fight global poverty. It involves dividing this issue into smaller, more manageable, questions – for example, the most effective interventions for improving educational outcomes or child health.

In the mid-1990s, Kremer used this approach in field experiments to test a range of interventions that could improve school results in western Kenya. They all soon performed similar studies of other issues and in other countries. Their research findings have dramatically improved our ability to fight poverty in practice.



Michael Kremer

"Today it is exactly one hundred ten years since the first woman won the Nobel Prize in Literature – Selma Lagerlöf. I bow low to her across time, and to all the other women, all the female creators who boldly exceeded the limiting roles society imposed on them and had the courage to tell their story to the world loud and clear. I can feel them standing behind me."

Literature laureate
Olga Tokarczuk in her
Nobel Banquet speech



"Colleagues, we hope that our discovery will let all of us work together to build a cleaner environment, make our planet more sustainable, and help mitigate global warming, thereby leaving a cleaner legacy to our children and grandchildren."

Chemistry laureate
M. Stanley Whittingham
in his Nobel Banquet speech



She wants to change the world

Esther Duflo was awarded the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2019, together with Abhijit Banerjee and Michael Kremer, for their work to fight global poverty. Duflo is the second woman ever to be awarded the prize in Economic Sciences.

When the prize was announced in October, Esther Duflo expressed her hope for the future: “Showing that it is possible for a woman to succeed and be recognised for success I hope is going to inspire many, many other women to continue working”.

The trio introduced a new approach to obtaining reliable answers about the best ways to fight global poverty. In brief, it involves dividing this issue into smaller, more manageable, questions – for example, the most effective interventions for improving educational outcomes or child health. They have shown that these smaller, more precise, questions are often

best answered via carefully designed experiments among the people who are most affected. An important part of their work has been travelling to developing countries like Kenya and India to do on-site field studies. Their research findings have dramatically improved our ability to fight poverty in practice.

In an interview with Nobelprize.org on the day the prize was announced, Duflo asserted the importance of women in the field, but also the significance of conveying to young students that the subject of economics is essential to addressing the issues that inspire them today.



While in Stockholm for Nobel Week, Duflo visited schools such as the Lycée Français Saint Louis de Stockholm and Tibble Upper Secondary School.



Esther Duflo and Abhijit Banerjee are the sixth married couple in history to be awarded a Nobel Prize or a prize in Economic Sciences.

PHOTO: BRUCE VICKMARK



PHOTO: NANAKA ADACHI

“When I was in high school I didn’t know that a subject such as economics existed, so by definition I wasn’t interested in it. But I knew I wanted to change something in the world. It just took some time before I knew what that would be.”

Esther Duflo

Esther Duflo is the second woman to receive the prize in Economic Sciences, after Elinor Ostrom in 2009.



Celebrate and understand the year's Nobel Prizes

In October each year the world's attention is directed to Stockholm as the new Nobel Laureates are announced. To celebrate and understand the work which contributed to the greatest benefit of humankind, several events take place where research, science, literature and peace are in focus.

One of the highlights of the 2019 Stockholm programme series was the crash course at Södra Teatern on the year's Nobel Prizes in Physics, Chemistry and Physiology or Medicine together with members of the committees that select the laureates. A few days later, teachers from thirty different countries took part in the international Nobel Prize Teacher Summit with the theme of *Climate Change Changes Everything*. Beatrice Fihn, the Executive Director of ICAN, who was awarded the Nobel Peace Prize in 2017 was one of the laureates who participated.

Physics laureate Hiroshi Amano and Chemistry laureate Mario J. Molina

spoke at the Stock Exchange Building on the topic of *Science for the Greatest Benefit to Humankind*, while over at the public library members of the Swedish Academy took part in an event called *Finally a Nobel Prize in Literature* where representatives from the Swedish Academy discussed the 2018 and 2019 Nobel Prizes in Literature.

There was an extensive programme of events throughout the week at the Nobel Prize Museum, with the live announcements of the Nobel Prizes in focus. Various experts were present throughout the week to explain the prize-awarded work.

During the week, one could also take part in the Stockholm Explorative Talks

at the Royal College of Music, conversations about the year's Economic Sciences Prize at the Riksbank, a live recording of the educational podcast *Bildningspodden* on Marie Curie at Kulturhuset Stadsteatern, and a lab tour at the Royal Institute of Technology.

The events of Nobel Calling Stockholm are arranged by Nobel Prize Museum in collaboration with the City of Stockholm and Karolinska Institutet, the Royal Institute of Technology, Stockholm University, Stockholm Academic Forum, Stockholm Public Library, Kulturhuset Stadsteatern, Forum/Debatt, Stockholm City Hall, Stockholm City Archives, the Swedish Research Council, and the Riksbank.

◀ The audience at Södra Teatern signalling that they understood this year's science prizes.



"Small, light and energy-rich" is how Sara Snogerup Linse summarised the lithium-ion battery, awarded the 2019 Chemistry Prize.



Children at the museum learning to embroider their own chemical element or put together a cute yarn molecule.



"I have heard that education in Scandinavia is so different from the rest of the world, and that really inspires me. I want to try to learn as much as possible during the Nobel Prize Teacher Summit and bring it back home with me to Vietnam. I want to discover new and different ways of learning."

Trang Nguyen, an elementary and secondary school chemistry teacher from Hanoi.



A knowledgeable panel discussed the exciting works of two authors at the Stockholm Public Library.

ALL PHOTOS: ALEXANDER WAHMOUD

Scientists convey knowledge with the aid of theatre

Why is it so hard for us to accept certain truths? Can something be true to me and false to you? Why does fake news spread so easily, and why is it becoming more and more important to be critical about sources? In the fifth Performance Åsa Wikforss, professor of theoretical philosophy at Stockholm University and a member of the Swedish Academy, gave a lecture on these subjects.

The Performance Lecture concept enables scientific researchers to convey their knowledge of different areas in an easily accessible way with the aid of the Royal Dramatic Theatre's directors, set designers, actors and other onstage and backstage creative staff. Behind the appreciated concept are Nobel Prize Museum and Dramaten&. Robotics researcher Danica Kragic Jensfelt presented an earlier Performance Lecture on robots, Professor of Theoretical Physics Ulf Danielsson lectured about the universe, psychology researcher Armita Golkar lectured on fear and economics professor Micael Dahlen on happiness.







The construction of the Nobel Center is being made possible by an agreement between the real estate company Atrium Ljungberg and the City of Stockholm. The Nobel Center will be located in front of Atrium Ljungberg's existing Glashuset property, where there is an approved local plan for the construction of an office building which is marked in the photo. This local plan will determine the size of the Nobel Center.



IMAGE: DBOX/FOSTER AND PARTNERS

A new house for culture and science at Slussen

Early in 2020 came the long-awaited announcement of a fresh start for the Nobel Center project. The Nobel Center will take shape at a new site next to Slussen in central Stockholm.

The need for a house dedicated to ideas, knowledge and reflection is even greater today than when the Nobel Foundation began the process of creating a Nobel Center almost a decade ago. In today's increasingly polarised world – where facts, science and fundamental human values are being questioned – there is an obvious place for a public and independent house for culture and science, where people will meet to exchange ideas and experience.

It will be a few years before the Nobel Center can take shape. This period will be used well in order to develop the range of public activities surrounding the Nobel Prize, to seek private funding for the building and to work together with a renowned architect to create a building that is open and accessible to Stockholm residents, tourists, students and teachers. Future Nobel Laureates will not come to the Nobel Center to receive their prize, but to meet and inspire the younger generation in particular.

At the Nobel Center, Stockholm residents will be able to listen to a conversation between a writer and a scientific researcher about how we can deal with new viruses and pandemics, such as the event organised during the 2019 Nobel Week between Peter C. Doherty (laureate in Physiology or Medicine) and Danish novelist Hanne-Vibeke Holst, author of *Som pesten (Like the Plague)*.

Students visiting the Nobel Center will feel that they themselves can help contribute to a better world. A school programme may deal with Peace Prize Laureate Martin Luther King, Jr., the civil rights movement and the never-

ending struggle for human rights. King's well-known voice and powerful rhetoric can inspire students to give their own speeches about their dreams for the future.

The Nobel Center's exhibitions will bring together the different perspectives of the Nobel Prize – science, literature and peace. An exhibition may be about anything from the tiniest component of the human body to the vastness of space surrounding us. They will include stories about Nobel Prize-awarded achievements that have helped provide the greatest benefit to humankind – such as penicillin, artificial fertiliser, the LED lamp, the transistor, refugee aid and research showing how we can best allocate resources and combat world poverty. They will also deal with literature that explores what it really means to be human.

Slussen and the adjacent Stadsgårdskajen waterfront are a historic site undergoing a transformation, where a house for culture and science with public activities will be an important element in transforming the area from a traffic interchange into a meeting place. Slussen has many advantages: it is easily reached by public transport, bicycle, pedestrian routes and waterways – a perfect place for public activities that should be easy for everyone to reach. Here the Nobel Center has great potential to become one of Stockholm's most accessible destinations, with a fantastic location in the heart of the city.

The KlimaLab exhibition was on display at the Nobel Peace Center in Oslo from April to November 2019.

PHOTO: ØYSTEIN THORVALDSEN



Focus on climate at the Nobel Peace Center

2019 was the year that climate change came into focus all around the world, including at the Nobel Peace Center in Oslo. In the *KlimaLab* exhibition and a series of other events, the focus was on the link between climate and peace.

The *KlimaLab* exhibition, which was on view from April to November 2019, was about climate, nature and people. It was inspired by the Peace Prize's founder, Alfred Nobel, with his idea of acting for the greatest benefit to humankind, and by Peace Prize Laureates Wangari Maathai, Al Gore and the UN Climate Panel (IPCC). The overall intention of the exhibition was to get the general public more involved in the problem of climate change and to show how everyone can contribute to solving it.

“The climate crisis can only be resolved through collaboration,” says Visitor Engagement Coordinator Nicolò Sattin. “So when the Nobel Peace Center was planning for the opening of an exhibition on climate change in the spring of 2019, it was only natural to invite the public to participate in the creative process.”

Climate change was also the theme of the Oslo Pax international peace conference, which was held for the first time in September 2019. The event was officially opened by Norwegian Minister of Foreign Affairs Ine Eriksen Søreide and headed by climate change expert Christiana Figueres. The participants included Peace Prize Laureate Tawakkol Karman, climate activist Penelope Lea and Amnesty International Secretary-General Kumi Naido. About 150 enthusiastic youths and adults attended, and the final declaration from the conference was presented at the UN Climate Action Summit in late September.

The last part of the exhibition, in which eleven people were given an opportunity to realize their own particular ideas, was appropriately entitled *Be Part of the Solution*.

PHOTO: JOHANNES GRANSETH / NOBELS FREDSSENTER



Be Part of the Solution focused on recycling and consumer power.



People living in Oslo were invited to create parts of the exhibition *KlimaLab*.

PHOTO: JULIE HENCIROVA

5M

The Nobel Prize in social media

- In 2019, Nobel Prize digital channels surpassed 5 million followers.
- YouTube followers increased by 119% between 2018 and 2019.
- Twitter followers surpassed 550,000.

100,000

For the third year in a row, the Nobel Prize Lessons were published in English and Swedish as the year's Nobel Prizes were announced. The teacher's guide, slideshow, speaker's manuscript and student worksheet were downloaded around 14,000 times. An estimated 100,000 students worldwide took part in at least one lesson.



PHOTO: CLÉMENT MORIN

Olga Tokarczuk's personal diary is filled with notes about what she did day by day during 2018. The following year, Tokarczuk was awarded the Nobel Prize in Literature, which had been postponed from 2018. When she arrived in Stockholm in December 2019, she explained that she felt like a time traveller. Of course her 2018 diary mentions nothing about the Nobel Prize, since she still did not know that she would become the 2018 laureate. Instead she went to the cinema on 10 December.

Olga Tokarczuk donated her 2018 diary to Nobel Prize Museum.

PHOTO: CLÉMENT MORIN



Per Taube presenting Einstein's 1922 manuscript to Erika Lanner, Director of Nobel Prize Museum.

In a manuscript dating from 1922, Albert Einstein commented on an article by mathematician Erich Trefftz – who said he had solved a problem in Einstein's general theory of relativity – and pointed out errors in Trefftz's solution. Einstein wrote the manuscript shortly after hearing he had received the Nobel Prize.

The manuscript was donated to Nobel Prize Museum by Åsa and Per Taube.

950

Nobel Laureates

Since 1901, the Nobel Prize and the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel have been awarded to 950 individuals and organisations.

- Laureates: 950
- Prize categories: 6
- Prize-awarded women: 53
- Prize-awarded organisations: 24
- Youngest laureate: 17
- Oldest laureate: 97

285,338

people visited Nobel Prize Museum in Stockholm during 2019, which was double the number of visitors during 2010.

209,085

people visited the Nobel Peace Center in Oslo during 2019.



The post about Literature laureate Kenzaburo Oe reached 1.8 million individuals on Facebook and received more than 770,000 views on Twitter.



PHOTO: ALEXANDER MAHMOUD

500,000

chocolate Nobel medals were sold at the Nobel Prize Museum shop during 2019.



PHOTO: LENA KOLLER

The Bubble Chamber at Nobel Prize Museum was re-inaugurated during 2019 after a renovation. Here the museum's smallest visitors can make discoveries and play on their own.



During 2019 Nobel Media initiated editorial collaboration with BBC World. Several interviews with Nobel Laureates were made, for example with Kailash Satyarthi who participated in Nobel Prize Series India.

Nobel Media and BBC World

During 2019 Nobel Media initiated editorial collaboration with BBC World. During the first year, the goal was to generate journalistic content related to the global meetings that Nobel Media produces, centred on their future-oriented themes as well as the Nobel Laureates and other experts featured at these events. The results included articles, video clips for social media, short documentaries, radio productions and interactive Q&A sessions.

During the year, this material was published on 35 of BBC World's platforms and channels and in 19 different languages including Spanish, Chinese, Gujarati, Uzbek and Korean. More than 20 interviews were conducted, including laureates Elizabeth Blackburn, Edvard Moser and Kailash Satyarthi. An interview with Literature laureate Mario Vargas Llosa during Nobel Prize Dialogue Madrid in May was a major digital success on BBC Mundo.



PHOTO: DAN LEFP

Mario Vargas Llosa:
"Old age on one hand terrifies us but it's important to remember when you feel anxious how awful it would be to live forever. If eternity was guaranteed all incentives of life and illusions would disappear. This thought can help us experience old age in a better manner."

International events

- **Nobel Prize Dialogue Santiago**
19 January 2019
The Future of Learning
- **Nobel Prize Dialogue Tokyo**
17 March 2019
The Age to Come
- **Nobel Prize Inspiration Initiative Brazil**
8–10 April 2019
- **Nobel Prize Dialogue Madrid**
22 maj 2019
The Future of Ageing
- **Nobel Prize Series India**
11–13 September 2019
Teaching and Learning
- **Nobel Prize Inspiration Initiative Canada**
24–26 September 2019
- **Nobel Prize Dialogue Berlin**
8 November 2019
Towards Health: Equality, Responsibility and Research
- **Nobel Week Dialogue Gothenburg**
9 December 2019
Into the unknown: Uncertainty, risk and opportunity
- **Nobel Week Dialogue Gothenburg**
Participants represented 52 countries. Of all participants, 52% were women and 98% would like to attend an event again.

2020

The year's Nobel Prizes will be announced between 5 and 12 October 2020. All six announcements will be live-streamed on the official Nobel Prize website, www.nobelprize.org.

Nobelmiddagen

Early in December 2020, the new exhibition *Nobelmiddagen* (The Nobel Banquet) will open at Nobel Prize Museum in Stockholm. The exhibition will focus on the role of this festive meal for the creative conversations and for encounters between people. *Nobelmiddagen* will be a beautiful, thought-provoking exhibition about a dinner that largely follows the pattern of other ceremonial banquets – a tradition with roots

in the Middle Ages – but that has also become a modern tradition because of Swedish Television's broadcasts. The Nobel Day is celebrated with prize award ceremonies and festive meals at schools and retirement homes, and many people have made it a tradition to gather in front of the TV over a meal. The exhibition examines the cultural, social and economic aspects of the meal.

10 December

- The Nobel Day begins with the awarding of the Nobel Peace Prize at a ceremony at Oslo City Hall. Later the other prizes are presented at the traditional Nobel Prize Award Ceremony at Konserthuset (Stockholm Concert Hall), with about 1,560 guests.
- The subsequent Nobel Banquet at the Stockholm City Hall is served to about 1,350 guests.
- The first such banquet, held at the Hall of Mirrors of Stockholm's Grand Hôtel in 1901, had 113 guests.
- About 500 metres of linen tablecloths are used for the 65 tables in the Blue Hall of the Stockholm City Hall.
- The table setting comprises no fewer than some 9,540 porcelain pieces, about 5,400 glasses and 9,450 items of cutlery.
- During the evening, those working with the Nobel Banquet meal include more than 40 chefs and 190 servers.



PHOTO: DAN LEPP

Head chef at the Nobel Banquet, Sebastian Gibrand, puts the finishing touches on the first course before it is served.



For the Greatest Benefit to Humankind

The thematic exhibition *For the Greatest Benefit to Humankind*, which opened in October 2019, presents Nobel Prize-awarded achievements that save lives, feed humanity, protect the planet and bring people together – achievements crucial to our world and our future.

LED

Lighting plays a major role in our quality of life, but also consumes a substantial amount of the world's electricity. Light-emitting diodes (LEDs) are electronic components that provide much more efficient lighting than was previously available. Creating white light that can be used for lighting requires a combination of red, green, and blue light. Blue LEDs were the most difficult to create, but Physics Laureates Isamu Akasaki, Hiroshi Amano, and Shuji Nakamura succeeded in doing so. LEDs provide an increasing share of the lighting we use in everyday life.

The Red Cross

When fellow humans are affected by war and conflict, many people have a desire to help. The International Red Cross and Red Crescent, as the organisation is known in Muslim countries, include thousands of organizations that mobilise millions of people worldwide. Through their volunteer work and fundraising, which the general public can contribute to, those in need can receive help. The International Red Cross Committee, which unites the Red Cross and Red Crescent organisations in different countries, has been awarded the Nobel Peace Prize three times: in 1917, 1944, and 1963.

◀ Night lights over Tokyo. The efficient LED lights provide much more efficient lighting than was previously available.

GMO

(Genetically modified organism)

Since the 1950s our understanding of the chemistry behind genetics has undergone a revolution. When Francis Crick and James Watson successfully mapped the structure of the DNA molecule, they provided a key to how genetic information is stored. Eventually this opened up new opportunities to alter genes. Paul Berg found a way to create DNA molecules with pieces of DNA from different organisms. Methods for changing genetic make-up have evolved enormously since then. Plants and animals developed with genetic technology have presented opportunities for increased food production, but they have also raised questions about biological hazards and ethics.



One of the exhibition's installations shows how cereal production has been able to increase due to the use of GMO and the use of artificial fertilisers.



Hiroshi Amano in LED lighting.



The well-known symbol of the Red Cross.

ALL PHOTOS: ALEXANDER MAHMOUD



Waiting for new laureates. During Nobel Calling Stockholm in October, the 2010 Nobel Prize in Physiology or Medicine awarded to Robert G. Edwards for the development of IVF was recognised on the large LED sign at Stureplan in central Stockholm.

PHOTO: ALEXANDER MAHMOUD

7-14 oktober NOBEL CALLING STOCKHOLM nobelcalling.se

PROVRÖRS-
BEFRUKTNING
2010

VINGE

8

Science meets society

Each year, a number of meetings take place around the world in which the Nobel Prize serves as a starting point for bringing science and society closer together. Students, researchers, opinion leaders, teachers and an interested general public can meet Nobel Laureates and other leading experts.

Learning is a lifelong activity, and there are many ways to inspire people to constantly seek new knowledge. This was the theme of the year's first Nobel Prize Dialogue in Santiago, Chile, entitled *The Future of Learning. Teaching and Learning* was also the theme of the Nobel Prize Series in India. During three days in Punjab and Delhi, university lectures, round-table discussions and a special conference for teachers were organised. In Mohali, Nobel Prize Museum's new travelling exhibition, *For the Greatest Benefit of Humankind*, also had its world premiere. For one month, school classes in Punjab had an opportunity to visit the exhibition and learn more about Nobel Prize-awarded achievements that have saved lives, fed humanity, protected the planet and connected people – achievements that are crucial to improving our world.

During the spring, other meetings discussed the challenges and opportunities that an ageing population poses to a society. This theme was raised in both Tokyo and Madrid. In various panel discussions, invited speakers talked about such issues as: How long will we live in the future? How long can we afford to live? And how long should we actually live? The Nobel Prize Dialogue held in Berlin focused on the theme of health. Among other things, speakers asked how we can achieve a healthier life for everyone, and what we can hope for from future research.

In 2019 the Nobel Prize Inspiration Initiative also took place in several cities in Canada and Brazil. This venture enables Nobel Laureates to meet young scientists. The ambition is that all of these meetings should inspire people to ask questions, to seek out knowledge and to understand and improve our world.



Conversations and encounters between audience members and speakers are an important part of the international meetings.

PHOTO: DAN LEPP



Several Nobel Laureates and other experts met in Santiago to discuss how to inspire people to constantly seek new knowledge throughout life.

PHOTO: ALEXANDER MAHMOUD

THE
FUTURE OF
LEARNING

Nobel Prize Dialogue
Santiago 2019



Florist Per Benjamin and his colleague and sister, Lena Benjamin.

PHOTO: DAN LEPP



The flowers in focus on the stage at the Nobel Prize award ceremony.

PHOTO: ALEXANDER MAHMOUD

Italian floral splendour

Ever since 1905, flowers from Sanremo have adorned the celebration of Nobel Day in Stockholm. Today, the donated flowers are a self-evident element of the traditions that surround the Nobel Prize.

“My home is where I work, and I work everywhere.” Alfred Nobel was always travelling around the world and managed his business empire by himself.

However, Nobel managed to settle down in a few places, in Krümmel near Hamburg, Avenue Malakoff in Paris and at the end of his life he settled down in Sanremo, Italy, in a part of the Italian Riviera known as the Riviera dei Fiori, named for the flowers that are grown there. Alfred bought a sea view villa and had a laboratory built where he could conduct his experiments and make new inventions. He spent his last years

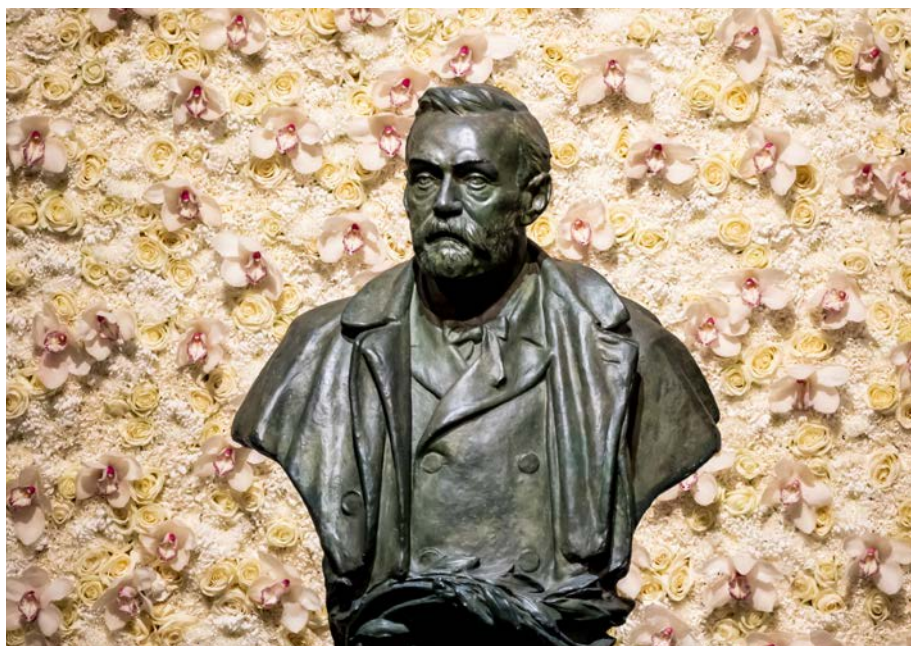
in Villa Nobel and passed away on 10 December 1896.

For more than one hundred years flowers from Sanremo has been decorating the Konserthuset Stockholm and the City Hall thanks to a generous donation from the Italian government, the Liguria Region, the City of San Remo and the Riviera di Liguria Chamber of Commerce. This Italian floral splendour is one of the most appreciated traditions surrounding the Nobel Prize and always attracts much attention due to the beautiful arrangements made by the skilful and artistic florists.

Helén Magnusson, head florist at

Hässelby Flowers, was in charge of the floral decorations for the Nobel Prize award ceremony at Konserthuset Stockholm, and Per Benjamin created the arrangements for the Nobel Banquet in the City Hall.

The 2019 overall theme was the interaction between humans and nature, the cycles in nature and the Swedish seasons. The table of honour depicted a modern interpretation of a flowery summertime meadow with the faded golden beige tones of last year’s grass and seed pods together with this year’s tender, wonderfully bright greens and the somewhat bolder flower colours.



About 300 kilos of green plants were used along with 25,000 flowers such as carnations, chrysanthemums, orchids, roses and mimosa for the Nobel Prize award ceremony.

PHOTO: NANAKA ADACHI



Per Benjamin pushed the boundaries when creating a huge summer meadow in the Blue Hall.

PHOTO: ALEXANDER MAHMOUD

Alfred Nobel

The inventor, entrepreneur and very successful businessman Alfred Nobel continually travelled between his factories. Nobel built up an enormous fortune that he chose in his will to dedicate to those who had contributed to the greatest benefit to mankind. The prize would reward outstanding efforts within the different fields that he was most involved in during his lifetime.

Alfred Nobel was born in Stockholm in 1833. His father, Immanuel, was an inventor and engineer who had varying success. His mother, Andriette, was described as energetic and intelligent, and when Immanuel went to Russia after a bankruptcy, she was forced to support the family. When Immanuel established a company in the war industry in 1842, the family was finally able to reunite. The Nobel brothers were given a first class education by private tutors, and at the age of 17 Alfred spoke five languages: Swedish, Russian, English, French and German. At the time, he was interested in poetry and even wrote his own works. But his father disliked Alfred's interest in literature and sent him abroad for studies that focused more on the natural sciences.

Alfred visited a number of countries and finally ended up in Paris, where he studied chemistry under Professor T. J. Pelouze. It was there that Alfred first came into contact with nitroglycerine, which was invented by the Italian Ascanio Sobrero. Nitroglycerine was a highly explosive liquid considered too dangerous to be useful. Alfred Nobel returned to Sweden and soon began experimenting with nitroglycerine, both in its production and in making the substance reliable enough to use in industry. The work was dangerous and an accident killed several people, including his younger brother Emil.

Alfred Nobel was finally able to solve

the problem of the substance's volatility by mixing nitroglycerine with a type of sand, kiselguhr. The result was a mouldable mass that was easy to package and that could be shipped and handled safely. It was patented in 1867 under the name dynamite. With the patenting of different forms of dynamite together with detonators, which he had invented previously, Alfred Nobel achieved his major technical and industrial breakthroughs.

Alfred Nobel led the rapid exploitation of his inventions and built factories and laboratories around the world – Vinterviken in Sweden, Krümmel in Germany and Ardeer in Scotland were some of the first. He eventually built just over 90 factories in 20 countries. At his death, he had 355 patents and left behind an enormous fortune. Nobel was a man of his time, embodying many of the Enlightenment's central ideas, both in his practical work and in his philosophy.

He combined his religious doubt with a belief in the natural sciences and was a true optimist about technology and an entrepreneur who actively took part in industrialisation. Alfred Nobel died on 10 December 1896 in his home in San Remo, Italy, and his will attracted significant attention when it was published. He had allocated most of his fortune to rewarding outstanding efforts within physics, chemistry, physiology or medicine, literature and peace.

The will was challenged by relatives, authorities in several countries and by Swedish King Oscar II. Thus began a long process on the road to realising Alfred Nobel's vision. After a few years of complicated legal processes led by the executors of the will, Ragnar Sohlman and Rudolf Lilljequist, the Nobel Foundation was established in 1900 and the first Nobel Prizes were awarded the following year.





"Dear Alfred Nobel (...) The book I am writing is not only about you, your dramatic life and your tumultuous clan. It is just as much about the era you lived in, about all the things that fascinated you. I am thinking of the telegraph, electric lighting and the discovery of bacteria, about atoms and magnetism, about dreams of peace and about wars. I am thinking about the whirlwind of scientific progress you were drawn into, which challenged the power of the church in a way you found amusing. And of course I am thinking about all the books, both those you devoured and those you dreamt of writing yourself. How can anyone understand you and your great prize without grasping all of that? Dear Alfred Nobel, I want to say: Give me a chance!"

Ingrid Carlberg addressed a few words to Alfred Nobel about working on her major biography, which was published in 2019 under the Swedish title "Nobel – Den gåtfulle Alfred, hans värld och hans pris" (*Nobel – The Enigmatic Alfred, His World and His Prize*). Hopefully it will be translated to English soon.

The prize-awarding institutions

In his will, Alfred Nobel stipulated which institutions should select Nobel Laureates in each prize category. Presumably, he chose the academic institutions that he considered to be best suited to the task. Nobel was less specific regarding the organisation that was to manage his assets. What would later become the Nobel Foundation was only mentioned in his will as a fund.

The Nobel Prize's internationally unique position is largely due to the century-long independence of the prize-awarding institutions in selecting Nobel Laureates. The fact that these institutions have engaged exceptionally knowledgeable individuals within their own organisations as well as extensive international expertise has played a vital role in achieving this standing.

The Royal Swedish Academy of Sciences selects the Nobel Laureates in Physics and Chemistry. It also selects the recipients of the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel, established in 1968 on the occasion of the Riksbank's (Sweden's central bank) 300th anniversary. The Academy has about 450 Swedish and about 175 foreign members. The Nobel Assembly at Karolinska Institutet selects the Nobel Laureates in Physiology or Medicine. The Assembly has 50 members. The Swedish Academy selects the Nobel Laureates in Literature. The Academy has 18 members. All of these institutions appoint special Nobel Committees of three to five members, a secretary and, in some cases, also deputies.

Members are, in general, elected for a term of three years and may serve for a maximum of three consecutive terms. The Nobel Committees evaluate nomina-

tions for the respective Nobel Prizes and extensively examine a selection of the nominees. They subsequently present their proposals for Nobel Laureates to the respective prize-awarding institution. The actual decision as to who will be awarded Nobel Prizes is made not by the respective Nobel Committees, but by all members of the prize-awarding institution.

For the Peace Prize, Alfred Nobel referred to the Storting (national parliament) in Norway in his will. The Storting appoints the five members of the Norwegian Nobel Committee. The Norwegian Nobel Committee differs from the other prize-awarding institutions in the sense that it is responsible both for evaluating the nominees and selecting the recipient.

In September of each year the respective Nobel Committees send out individual invitations to thousands of members of academies, university professors and other scientists in numerous countries, previous Laureates, members of parliamentary assemblies and others. The invitation recipients are chosen so to ensure that as many countries and universities as possible are represented over time. A much broader group can make nominations for the Nobel Peace Prize without receiving an invitation from the Norwegian Nobel Committee compared to the other prizes. This nomination procedure for the Nobel Prize differs from many other prizes in that it is the responsible committee which appoints both the nominees and the recipients. Those who have been invited are able to nominate candidates for the coming year. Nominations, which are confidential, must be received by the Committees no later than 31 January of the year in which the prize will be awarded. The procedures may vary

somewhat between the Nobel Committees, but the selection process is largely the same across all prize categories. The Committees first confirm that the nominations were submitted by individuals who have the right to nominate. Since a nomination is only valid for the current year, it is common for some candidates to be nominated several times. Some candidates may also be nominated by more than one nominator in the same year. Nominations are recorded and compiled in a list. The list is processed in a series of phases during the spring. Initially, it consists of a large selection of names, which is then narrowed down to a smaller number of candidates. Remaining candidates are then evaluated in depth with the assistance of domestic and foreign experts. During the summer the Nobel Committee members produce a comprehensive report detailing the candidate or candidates proposed as the recipient(s) of the year's Nobel Prize. The proposal is presented to the members of the prize-awarding institution in September. The final selection of Nobel Laureates takes place by a vote. The decisions are announced by the respective prize-awarding institutions immediately after the vote, usually during the first half of October. All documents related to the nomination process and evaluations remain confidential for 50 years.

More information about the prize-awarding institutions is available on their respective websites:
www.kva.se
www.nobelprizemedicine.org
www.svenskaakademien.se
www.nobelpeaceprize.org



Literature laureate Peter Handke delivers his Nobel Prize lecture at the Swedish Academy.

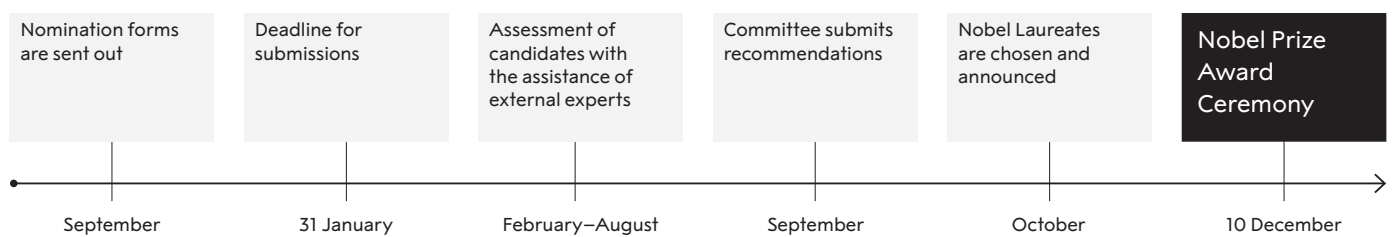
PHOTO: ALEXANDER MAHMOUD



Berit Reiss-Andersen announces the 2019 Nobel Peace Prize Laureate Abiy Ahmed Ali at the Norwegian Nobel Institute.

PHOTO: KEN OPPRANN

Selecting Nobel Laureates





The Nobel Foundation

The Nobel Foundation is a private foundation established in 1900 on the basis of the will of Alfred Nobel and the founding statutes promulgated in connection with the will. Its primary purpose is to ensure that the intentions of the will of Alfred Nobel are fulfilled. The Foundation is responsible for managing Alfred Nobel's fortune in a manner that ensures a secure financial base for the Nobel Prize over the long term and that the prize-awarding institutions are guaranteed independence in their work of selecting recipients. The Foundation is also tasked with strengthening the Nobel Prize's position by administering and developing the brands and intangible assets that have been built up during the Nobel Prize's history, which spans more than 100 years.

The Nobel Foundation also strives to safeguard the prize-awarding institutions' common interests and to represent the Nobel sphere externally in many contexts. In the past two decades a number of public operations have been developed with the aim of inspiring and disseminating knowledge about the Nobel Prize. These include exhibitions, school activities, meetings and programme activities as well as digital productions.

The Nobel Foundation has overall responsibility for the Nobel Week that takes place in Stockholm in December. This week has a busy schedule for the Nobel Laureates, culminating in the Nobel Prize Award Ceremony and the Nobel Banquet held on 10 December. Both of these events are planned and run by the Foundation. The Norwegian Nobel Institute was established in 1904 and acts as the Norwegian Nobel Committee's secretariat and the Nobel Foundation's branch office in Oslo. The Institute administers the activities connected with the awarding of the Nobel Peace Prize, including press conferences, the Award Ceremony and the Banquet.

The operations of the Nobel Founda-

tion are essentially financed by the fortune that Alfred Nobel left behind. The market value of the Foundation's total invested capital amounted to SEK 4,902 m at the end of 2019. Portfolio capital was allocated among 47 per cent equity funds and stock index futures, 9 per cent property funds, 31 per cent alternative assets such as hedge funds and 13 per cent other assets. The year's return on portfolio capital was 16.6 per cent. In addition to this, the Nobel Foundation owns a property in Stockholm and one in Oslo.

During 2019 the overall sum of all Nobel Prizes and operating expenses was SEK 109.2 m. This was divided among four main categories: the Prizes, SEK 54 m; compensation to the Prize Committees, SEK 25.4 m; the Nobel Week in Stockholm and Oslo, SEK 17.4 m; plus administration etc., SEK 12.4 m. The cost level in 2019 was higher than normal because two Literature Prizes were awarded. Additional information about the Nobel Foundation's financial management is available in the Foundation's

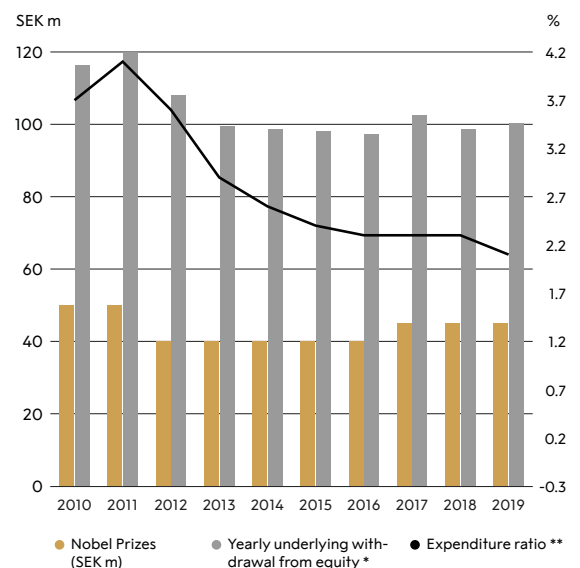
2019 Annual Report, which is available on the website Nobelprize.org.

The Nobel prize-awarding institutions – the Royal Swedish Academy of Sciences, the Nobel Assembly at Karolinska Institutet, the Swedish Academy and the Norwegian Nobel Committee – appoint 15 trustees to the Nobel Foundation, for two calendar years at a time. Six representatives are appointed by the Academy of Sciences and the other prize-awarding institutions appoint three each. The Academy of Sciences also appoints four deputies and the other institutions appoint two deputies each. The most important task of the trustees is to appoint the Nobel Foundation's Board and to audit the Foundation's accounts.

The Nobel Foundation's board, which is based in Stockholm, consists of seven members and two deputy members. Board members and deputies are appointed for a term of two years each. From among its own members, the Board chooses a Chairperson, a Vice-Chairperson and an Executive Director.

Early in the 2010s, overall operating expenses totalled more than SEK 120 m. The withdrawals that are made yearly from the Foundation's equity are of crucial importance to its finances. Unlike returns, this amount is controlled by the Foundation itself. By lowering expenses and, starting in 2018, also receiving larger compensation from Sveriges Riksbank, it has been possible to reduce the annual withdrawal from equity to about SEK 100 m.

The expenditure ratio (calculated as operating expenses including those for the Nobel Prizes as a percentage of the market value of the Foundation's equity at year-end) has decreased over a period of years. During 2019 it was 2.2 per cent. The corresponding figure for the underlying expenditure ratio (when the 2018 Nobel Prize in Literature is subtracted in the 2018 income statement) was 2.1 per cent.



* Yearly operating expenses minus external compensation (Riksbank), smoothed for temporary fluctuations.

** Yearly underlying withdrawal from equity as a percentage of the market value of the Foundation's equity at year-end.

To engage, inspire and spread knowledge

The Nobel Prize rewards science, humanism and peace efforts. This is one of the central concepts in the will of Alfred Nobel, and it also permeates the broad outreach activities that have been developed for the purpose of engaging, inspiring and spreading knowledge to a broad general public based on the Nobel Prize as well as the discoveries and achievements of the laureates.

BOARDS OF DIRECTORS, 2019

THE NOBEL FOUNDATION

The Nobel Foundation is a private foundation established in 1900 on the basis of the will of Alfred Nobel and the founding statutes promulgated in connection with the will. Its primary purpose is to ensure that the intentions of the will of Alfred Nobel are fulfilled.

- Carl-Henrik Heldin, Professor, Chairman
- Göran K. Hansson, Professor, Vice Chairman, Secretary General of the Royal Swedish Academy of Sciences
- Lars Heikensten, Dr, Executive Director of the Nobel Foundation
- Mats Malm, Professor, Permanent Secretary of the Swedish Academy
- Tomas Nicolin, MSc
- Thomas Perlmann, Professor, Secretary General of the Nobel Assembly at Karolinska Institutet and the Nobel Committee for Physiology or Medicine
- Berit Reiss-Andersen, Attorney, Chair of the Norwegian Nobel Committee

Deputy members

- Gunnar Ingelman, Professor, Secretary of the Nobel Committee for Physics
- Gunnar von Heijne, Professor, Secretary of the Nobel Committee for Chemistry

ALFRED NOBEL MEMORIAL FOUNDATION

The purpose of the Alfred Nobel Memorial Foundation is to promote education, culture, peace and scientific research, in part by financially or otherwise contributing to the activities and objectives of the Nobel Foundation.

- Carl-Henrik Heldin, Chairman
- Göran K. Hansson
- Lars Heikensten
- Mats Malm
- Tomas Nicolin
- Thomas Perlmann
- Berit Reiss-Andersen

NOBEL GROUP INTERESTS AB

The aim of the company is to own and actively manage shares and participations within the sphere of interest of the Nobel organisations. Another task of the company is to facilitate financial and administrative coordination between the companies in the Nobel sphere.

- Carl-Henrik Heldin, Chairman
- Göran K. Hansson
- Lars Heikensten
- Gunnar von Heijne
- Gunnar Ingelman
- Mats Malm
- Tomas Nicolin
- Thomas Perlmann
- Berit Reiss-Andersen

NOBEL MEDIA AB

Nobel Media AB spreads knowledge about Nobel Prize-awarded achievements and stimulates interest in science, literature and peace efforts through digital channels and inspiring events. The company is also responsible for the Nobel sphere's international activities and partnerships.

- Lars Heikensten, Dr, Executive Director of the Nobel Foundation, Chairman
- Peje Emilsson, Founder and Chairman of Kream
- Karin Pettersson, Culture Editor, Aftonbladet
- Mia Horn af Rantzien, Dr, CEO of the Center for Business and Policy Studies (SNS)
- Erika Lanner, Lawyer and CEO of Nobel Prize Museum
- Sara Mazur, Chairman of WASP – Wallenberg AI, Autonomous Systems and Software Program
- Marie Nilsson, CEO of Mediavision
- Olav Njølstad, Professor, Director of the Norwegian Nobel Institute
- Juleen Zierath, Professor, member of the Nobel Assembly at Karolinska Institutet and associate member of the Nobel Committee for Physiology or Medicine

NOBELHUSET AB

Nobelhuset AB is the company that has been entrusted with planning, building, owning, administering and developing a future Nobel Center in Stockholm.

- Lars Heikensten, Dr, Executive Director of the Nobel Foundation, Chairman
- Olov Amelin, PhD, Director, Jamtli Foundation and Jämtland County Custodian of Antiquities
- Lars Anell, former Chairman of the Swedish Research Council
- Birgitta Ed, founding partner of Six Year Plan
- Gunnar von Heijne, Professor, Secretary of the Nobel Committee for Chemistry
- Anders Nylander, former CEO of Atrium Ljungberg
- Stefan Ränk, CEO, Einar Mattson AB
- Monica von Schmalensee, Architect
- Erika Lanner, Lawyer and CEO of Nobel Prize Museum

NOBEL CENTER FOUNDATION

The Nobel Center Foundation (Stiftelsen Nobel Center) is responsible for the public activities carried out on the basis of Nobel Prize Museum in Stockholm.

- Lars Heikensten, Dr, Executive Director of the Nobel Foundation, Chairman
- Märten Castenfors, Museum Director, Liljevalchs konsthall
- Dilsa Demirbag-Sten, General Secretary, Berättarministeriet
- Bente Erichsen, film director, author
- Cecilia Gunne, Attorney, Lindskog Malmström Advokatbyrå KB
- Göran K. Hansson, Professor, Secretary General of the Royal Swedish Academy of Sciences
- Gunnar von Heijne, Professor, Secretary of the Nobel Committee for Chemistry
- Lisa Månsson, PhD, Director, Vasa Museum
- Åsa Wikforss, Professor, writer, Member of the Swedish Academy

NOBEL PEACE PRIZE – RESEARCH & INFORMATION AS

Nobel Peace Prize – Research & Information AS (Nobels Fredspris – Forskning og Informasjon AS) is the research arm of the Norwegian Nobel Institute.

- Olav Njølstad, Director of the Norwegian Nobel Institute, Chairman
- Bente Erichsen, film director, author
- Jon Ola Sand, Executive Supervisor, The European Broadcasting Union
- Henrik Syse, Professor, Peace Research Institute Oslo
- Lotta Wristel, CFO of the Nobel Foundation

NOBEL PEACE CENTER FOUNDATION

The Nobel Peace Center in Oslo is a museum that showcases the Peace Prize Laureates and their work, information about Alfred Nobel and exhibitions with a focus on documentary photography.

- Olav Njølstad, Director of the Norwegian Nobel Institute, Chair
- Siri Hatlen, business owner, Deputy Chair
- Olav Aaraas, Director, Norwegian Museum of Cultural History
- Jessica Barlindhaug Angstreich, Board member elected by the employees
- Anne Enger, former Storting member, Minister of Culture and County Governor
- Lotta Wristel, CFO of the Nobel Foundation

COMPANY INFORMATION

THE NOBEL FOUNDATION

- Executive Director: Dr Lars Heikensten
- Swedish registration number: 802002-4462
- Number of employees: 11
- Established: 1900
- Address: Sturegatan 14, Stockholm, Sweden
- Website: nobelprize.org

NOBEL MEDIA AB

- CEO: Laura Sprechmann
- Swedish registration number: 556667-5194
- Sales: SEK 73,324 K
- Employees: 20
- Established: 2004
- Address: Sturegatan 14, Stockholm, Sweden
- Website: nobelprize.org

NOBEL CENTER FOUNDATION

(Nobel Prize Museum)

- CEO: Erika Lanner
- Swedish registration number: 802478-2107
- Sales: SEK 73,324 K
- Employees: 42
- The original Nobel Museum opened in 2001. Effective from 1 January 2019, the Nobel Center Foundation (Stiftelsen Nobel Center) acquired the operations carried out by Nobel Prize Museum, formerly Nobel-museet AB (the Nobel Museum), in Stockholm's Old Town.
- Address: Stortorget 2, Stockholm, Sweden
- Website: nobelprizemuseum.se

NOBEL PEACE CENTER FOUNDATION

(Stiftelsen Nobels Fredssenter)

- CEO: Liv Tørres, since 1 January 2020 Kjersti Fløgstad
- Norwegian registration number: 985226237
- Sales: NOK 61,136 K
- Number of employees: 38
- Established: 2005
- Address: Brynjulf Bulls Plass 1, Rådhusplassen, Oslo, Norway
- Website: nobelpeacecenter.org

NOBEL PEACE PRIZE – RESEARCH & INFORMATION AS

(Nobels Fredspris – Forskning og Informasjon AS)

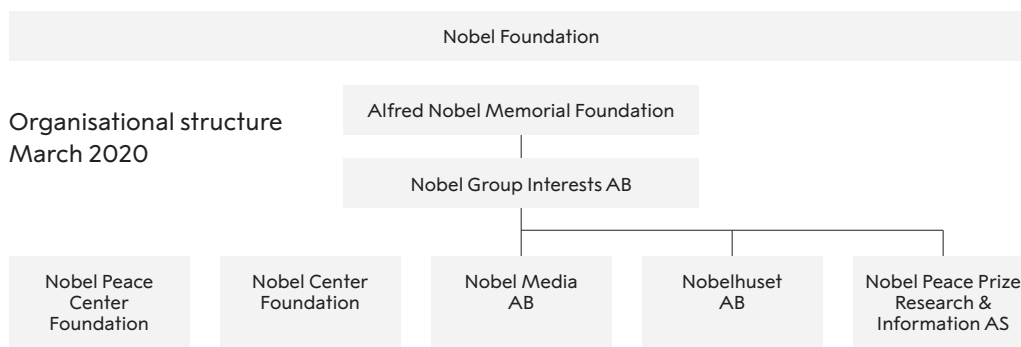
- Norwegian registration number: 996179397
- Sales: NOK 2,395 K
- Number of employees: 2 (1 full-time)
- Established: 2010
- Address: Henrik Ibsens Gate 51, Oslo, Norway
- Website: nobelpeaceprize.org/research



PHOTO: ALEXANDER MAHMOUD

Laura Sprechmann, CEO of Nobel Media AB

“Our meetings around the world provides a global platform for cutting-edge dialogue on issues of great importance for humanity. During 2019 we discussed questions related to themes like health, ageing, learning and how to deal with the unknown. It is always inspiring to gather students, policy makers, laureates and other leading experts.”, says Laura Sprechmann, CEO of Nobel Media.



Highlights in December

"I am one of those who dream of freedom, dignity and democracy", said Nobel Peace Prize Laureate Tawakkol Karman in a speech at the 2019 Nobel Week Dialogue that focused on uncertainty, risk and opportunities. A number of Nobel Laureates, experts, researchers and artists offered their own perspectives on some fundamental issues surrounding how uncertainty and risk affect our society, our culture and our daily lives.



PHOTO: HENRIK JANSSON

Chef Sebastian Gibrand and Pastry Chef Daniel Roos, both celebrated Swedish culinary leaders, composed the menu that was served at the 2019 Nobel Banquet. For dessert Daniel offered raspberry mousse, dehydrated chocolate mousse, raspberry kissel and raspberry sorbet.



PHOTO: DAN LEPP

Nobel Week in Stockholm began with a visit to the Nobel Prize Museum at Stortorget in Gamla Stan on 6 December. There the year's laureates, including Chemistry laureate John B. Goodenough, the oldest Nobel Prize Laureate ever, were welcomed along with their families to an event-filled week in Stockholm.

PHOTO: ALEXANDER MAHMOUD



A number of previous Peace Prize laureates were displayed in the background as Abiy Ahmed Ali visited the Norwegian Nobel Institute.



PHOTO: KEN OPRANN



PHOTO: NIKLAS ELMEHED

At the conclusion of the Nobel Banquet, students hold up banners on the staircase and along the balustrade of the Blue Hall. The banners represent colleges and universities from all over Sweden. This is the time for the laureates to give their acceptance speeches, introduced by the evening's toastmaster, student Sara Tabari. Sir Peter J. Ratcliffe delivered his acceptance speech for the Nobel Prize in Physiology or Medicine.



PHOTO: CLÉMENT MORIN

The Nobel Prize Concert took place on 8 December in the Stockholm Concert Hall, with world-renowned Swedish conductor Herbert Blomstedt leading the Royal Stockholm Philharmonic Orchestra. The soloist was Swedish soprano and Court Singer Miah Persson.

Many laureates visit schools during Nobel Week to meet with and inspire students. Akira Yoshino visited the Hökaräng School, pictured here, as well as the Japanese School of Stockholm.



Nobel Calling Space

The Nobel Week in Stockholm began with a unique live conversation between three of the 2019 Nobel Laureates and two astronauts on the International Space Station (ISS). The conversation, moderated by astronaut Christer Fuglesang, was arranged by Nobel Prize Museum and the European Space Agency.

Astronauts Jessica Meir and Luca Parmitano told about the research being conducted on the space station and the challenges posed by their space walks, in a live conversation with two of the Nobel Laureates in Physics, Didier Queloz and Michel Mayor, who made the first discovery of an exoplanet, and Nobel Laureate in Chemistry Stanley Whittingham, who was awarded for his work in developing the light, rechargeable and powerful lithium-ion battery. Both of these Nobel Prizes were crucial to the work being carried out at the time on the ISS.



Editors: Annika Pontikis,
Director of Communications
and Jonna Petterson,
Public Relations Officer

The text about KlimaLab
by Ingvill Bryn Rambøl.

Design and production:
Catrine Jurgander
Printing: Danagård LITHO AB,
Ödeshög 2020
Paper: Scandia 2000 white

All images in the Annual Review
are © The Nobel Foundation,
© Nobel Media or © Nobel Prize
Museum unless otherwise indicated.

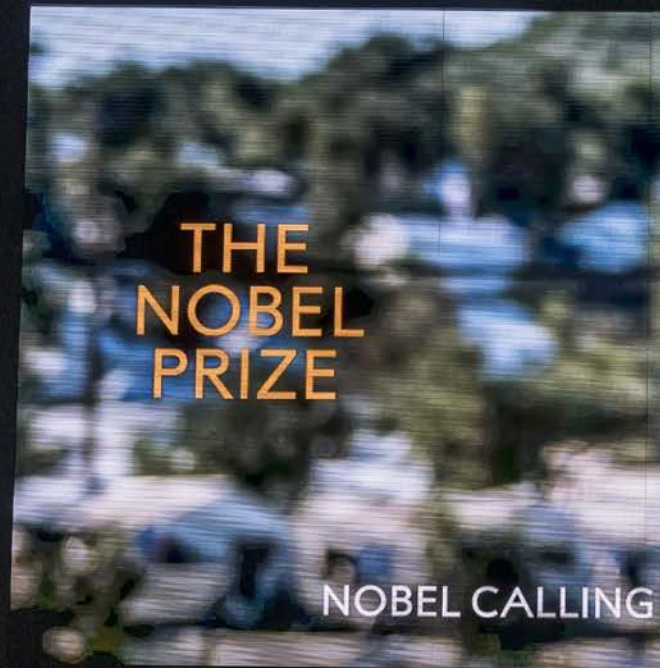
Cover: Billboard outside Stockholm
in October 2019.

For questions regarding the
Annual Review, please contact:
media@nobelprize.org

© The Nobel Foundation 2020.
The Nobel Prize and the Nobel Prize
Medal are registered trademarks
of the Nobel Foundation.

The Nobel Foundation
P.O. Box 5232
SE-102 45 Stockholm
Sweden





www.nobelprize.org