

On the cover: Opening night of the exhibition Fungi – In Art and Science on 29 September.

TikTok star, biologist, and artist Tarun Nayar, also known as Modern Biology, uses electronic impulses from fungi and plants to create music. During the opening evening, he did a unique live performance in the museum's birtes.

PHOTO: NANAKA ADACI

A global prize in nationalist times, a prize for progress in regressive times



Vidar Helgesen, Executive Director of the Nobel Foundation, left his position early in 2024. PHOTO: CLÉMENT MORIN

n Sweden, nationalists portraying minorities as not being true Swedes and labelling some as threats to national culture. In Russia, nationalists holding up their motherland as superior to a decadent West spoilt by liberalism and moral derailment. In France, nationalist and religious sentiments being exploited to aggressively promote antisemitism.

Such were the times of Alfred Nobel in the three countries that mostly shaped him. Nationalism was sweeping across Europe – a nationalism ultimately resulting in two world wars. It was in this societal climate that Alfred Nobel determined that his formidable wealth be destined for 'the greatest benefit to humankind.' He also stated that in selecting laureates 'no consideration be given to nationality, but that the prize be awarded to the worthiest person, whether or not they are Scandinavian.' This was highly controversial in Sweden at the time.

The Nobel Prize is possibly Sweden's and Norway's strongest brand, but much

more importantly a global symbol of what humanity can achieve when we dare to cross mental, physical and national boundaries. Nobel Prize laureates demonstrate this through relentless search for truth and truly bold actions.

Today, our world is again plagued by destructive nationalism and vicious conflict, repression of human rights and freedom, and a populist war on science and those speaking out for the truth. The Nobel Prize is an antidote to these trends:

At a time when disinformation is one of the biggest threats to humanity, the Nobel Peace Prize to Maria Ressa and Dmitry Muratov has given strength to efforts to uphold freedom of speech and truth-seeking.

At a time when climate science is often denied or sidelined, and populists and nationalists are attacking the necessary transition, the Nobel Prize has been awarded to physicists who developed models which enabled us to measure global warming, and to a range of scientists whose breakthroughs enable the necessary transformation of energy, food systems, manufacturing and transport.

At a time of deadly disinformation and anti-vaccination campaigns, the Nobel Prize for Physiology or Medicine in 2023 was awarded to those who enabled the speedy mass vaccination during the COVID pandemic.

At a time with harassment of immigrants and myth-making about migration, the literature prize has been given to Abdulrazak Gurnah's uncompromising penetration of the fate of refugees; and the economic sciences prize to David Card, whose science busted myths and found that immigration can actually contribute to higher income levels in society.

And in a world still marked by oppression and marginalisation of women, the

prize in economic sciences has honoured Claudia Goldin's work on women in the labour market; Annie Ernaux, whose writing often depicts the female experience, was awarded the literature prize — and not to forget the peace prize to Iranian human rights hero Narges Mohammadi.

In other words: the Nobel Prize seizes the moment — even when the trends of the moment need to be confronted. In this, the prize keeps living up to Alfred Nobel's bold intention to support action for the greatest benefit to humankind. As such, the prize is a force for good: for free science, the free word, free societies, and free exchange across borders.

This makes working for the Nobel Prize deeply meaningful, whether you are involved in the meticulous work of selecting excellent laureates, or in the expanding efforts presented in this annual review to disseminate the knowledge, inspiration and hope expressed through the Nobel Prize. As I move on to new adventures in science for humanity, I will cherish and cheer the Nobel Prize, the laureates and the wonderful colleagues from my years at the helm of the Nobel Foundation.

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THE NOBEL PRIZE IN PHYSICS

was awarded to

PIERRE AGOSTINI FERENC KRAUSZ ANNE L'HUILLIER

"for experimental methods that generate attosecond pulses of light for the study of electron dynamics in matter"

The three laureates in physics were recognised for their experiments, which have given humanity new tools for exploring the world of electrons inside atoms and molecules. Pierre Agostini, Ferenc Krausz and Anne L'Huillier have demonstrated a way to create extremely short pulses of light that can be used to measure the rapid processes in which electrons move or change energy.



Ferenc Krausz, Anne L'Huillier and Pierre Agostini after delivering their Nobel Prize lectures at Aula Magna, Stockholm University.

THE NOBEL PRIZE IN CHEMISTRY

was awarded to

MOUNGI G. BAWENDI LOUIS E. BRUS ALEKSEY YEKIMOV

"for the discovery and synthesis of quantum dots"

The Nobel Prize in Chemistry 2023 rewarded the discovery and development of quantum dots, nanoparticles so tiny that their size determines their properties. These smallest components of nanotechnology now spread their light from televisions and LED lamps and can also guide surgeons when they remove tumour tissue, among many other things.



Moungi Bawendi, Louis Brus and Aleksey Yekimov at the Nobel Prize Museum.



Katalin Karikó and Drew Weissman after delivering their Nobel Prize lectures at Aula Medica, Karolinska Institutet.

THE NOBEL PRIZE IN PHYSIOLOGY OR MEDICINE

was awarded to

KATALIN KARIKÓ DREW WEISSMAN

"for their discoveries concerning nucleoside base modifications that enabled the development of effective mRNA vaccines against COVID-19"

The discoveries by the two Nobel Prize laureates were critical for developing effective mRNA vaccines against COVID-19 during the pandemic that began in early 2020. Through their ground-breaking findings, which have fundamentally changed our understanding of how mRNA interacts with our immune system, the laureates contributed to the unprecedented rate of vaccine development during one of the greatest threats to human health in modern times.

THE NOBEL PEACE PRIZE

was awarded to

NARGES MOHAMMADi

"for her fight against the oppression of women in Iran and her fight to promote human rights and freedom for all"

The Norwegian Nobel Committee awarded the Nobel Peace Prize to Narges Mohammadi for her fight against the oppression of women in Iran. Her brave struggle has come with tremendous personal costs. Altogether, the regime has arrested her 13 times, convicted her five times, and sentenced her to a total of 31 years in prison and 154 lashes. Mohammadi was still in prison at the time of the award.



Since Mohammadi was still in prison, her children Kiana and Ali Rahmani accepted the prize on her behalf.



Jon Fosse after the Nobel Prize award ceremony.

THE NOBEL PRIZE IN LITERATURE

was awarded to

JON FOSSE

"for his innovative plays and prose which give voice to the unsayable"

Jon Fosse was born in Haugesund on the Norwegian west coast. His immense œuvre written in Nynorsk and spanning a variety of genres consists of a wealth of plays, novels, poetry collections, essays, children's books and translations. While he is today one of the most widely performed playwrights in the world, he has also become increasingly recognised for his prose. His debut novel *Raudt, svart* as rebellious as it was emotionally raw, broached the theme of suicide and, in many ways, set the tone for his later work.

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

was awarded to

CLAUDIA GOLDIN

"for having advanced our understanding of women's labour market outcomes"

Claudia Goldin provided the first comprehensive account of women's earnings and labour market participation through the centuries. She trawled the archives and collected over 200 years of data from the US, allowing her to demonstrate how and why gender differences in earnings and employment rates have changed over time.



Claudia Goldin during her banquet speech at the Stockholm City Hall.

Big ideas

"The prize certainly means a tremendous amount. It also means a lot because it's an award for big ideas and for long-term change."

Claudia Goldin





Economic sciences laureate Claudia Goldin in Aula Magna at Stockholm University, delivering her lecture.



Celebrate and understand the year's Nobel Prizes

Nobel Calling Stockholm offered a rich programme to celebrate and understand the 2023 Nobel Prizes. Some twenty activities honoured creativity and advances that make the world a better place.

uring the first week of October the year's Nobel Prize laureates receive their magic phone call, and the world's spotlight shines on research, science, literature and peace efforts. The announcements of the new prizes were live-streamed at the Nobel Prize Museum, and representatives of the respective Nobel Committees spoke at the 2023 Crash Course event at Södra Teatern in Stockholm to explain the year's scientific prizes. Later in the evening the same audience participated in a Nobel quiz led by Josefin Johansson and Fritte Fritzson.

Two Nobel Peace Prize laureates visited the museum during the week. Dmitry Muratov conversed with Swedish Academy members Ingrid Carlberg and Åsa Wikforss on the growing threats to democracy and what can turn the tide. Tawakkol Karman held a conversation with the museum's Carin Klaesson on courage, determination and the struggle for justice.

Together with a number of other actors, the museum organised activities all over Stockholm. This included programmes about artificial intelligence (AI), mammoth DNA and the discovery of the human papilloma virus (HPV). It was also possible to visit the zebrafish lab at the Karolinska Institutet and see a fusion reactor the Royal Institute of Technology.

At the museum's Peace Friday event, speakers including Sweden's former Prime Minister Stefan Löfven discussed the peace prize and its role in the world. Other high points during the week were a conversation about the literature prize featuring Swedish Academy member Anders Olsson and a discussion at Sveriges Riksbank (Sweden's central bank) about

the economic science prize, featuring members of the prize committee.

The week also included an international Nobel Prize Teacher Summit on the theme *Teaching Knowledge – Learning Engagement*. The museum held a family weekend featuring science and one event focusing on literature.

Nobel Calling Stockholm is organised by the Nobel Prize Museum in collaboration with Karolinska Institutet, the Royal Institute of Technology, the Swedish Red Cross University College, the City of Stockholm, the Stockholm City Archives, Stockholm University and Sveriges Riksbank.

During the week, the museum also inaugurated the exhibition *Fungi – In Art and Science*, which explored the world of fungi through artworks, design objects, fashion and current scientific research.











Fungi – In Art and Science

During the autumn of 2023, the Nobel Prize Museum explored the world of fungi. In the exhibition *Fungi – In Art and Science*, artworks, design objects, fashion and contemporary scientific research provided exciting insights into fungi and their importance.

hroughout history, humans have been fascinated by fungi. They are neither plants, nor animals but live in symbiosis with both. They are everywhere – all around us and inside us – but they often remain invisible. In recent decades, scientific discoveries have shown how their underground networks unite ecosystems and shape our world. But the world of fungi is still full of mysteries, waiting to be solved.

The transboundary nature of fungi, with their ability to achieve symbiosis and transformation, has always been an inspiration to artists. Some of them, whose works were displayed in the exhibition, were Carsten Höller, Olle Norås, Seana Gavin, Anna Dumitriu and the artist collective Marshmallow Laser Feast.

The fashion world is also inspired by fungi, both when it comes to design and materials. In the exhibition, this was represented by Balenciaga's plant-based leather coat made of mycelium, and the mushroom-themed dress that Daniel del Core created for the musical artist Björk.

In popular culture, literature and art, fungi have often symbolised access to the collective, the unconscious and an alternative view of the surrounding world. Scientific research has also raised the question of how fungi can change our way of understanding the world. How can fungi grow hundreds of meters below us in bedrock, and what does this tell us about the origin of life? Could we build our houses and make our clothes out of fungi? And could psychedelic mushrooms cure depression?

Fungi – In Art and Science received positive reviews, had a large impact in the media and attracted many visitors. The exhibition was reflected in the museum's programme activities in the form of conversations, a concert, lectures and a tasting of innovative mushroom dishes.



Close-up of an artwork by Carsten Höller, Double Mushroom Vitrine (Forty-eightfold).

Illuminating the Nobel Prize

Nobel Week Lights, an artistic lights festival, both illuminated and enlightened the Swedish capital with installations that interpreted Nobel Prize awarded achievements.

→ acclaimed Nobel Week Lights festival took place in December. The history of both Stockholm and its City Hall were highlighted in an installation that included an homage to the Nobel Prizes awarded in 1923 – the same year the City Hall was inaugurated

or the fourth year in a row, the

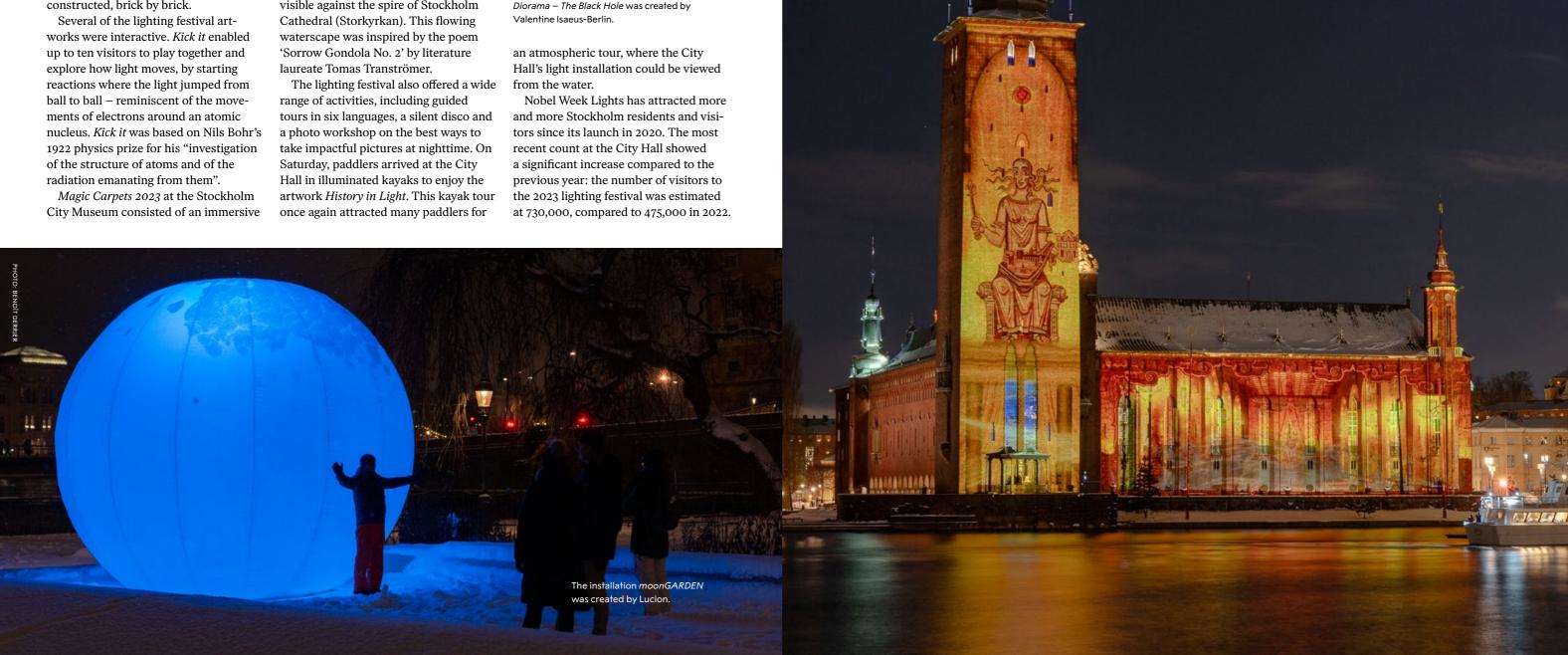
– and showed how the building was constructed, brick by brick.

and interactive light carpet that responded to the audience's movements. The artwork paid tribute to Nobel Prizes and the visitors on a poetic journey through a world of scientific discoveries and peace efforts. The motions of the audience made the projections come

The artwork Green Sea Rising was visible against the spire of Stockholm



Diorama - The Black Hole was created by



History in Light by Les Ateliers BK was projected on the Stockholm City Hall.

1,000

Nobel Prize laureates

Since 1901, the Nobel Prize and the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel have been awarded to 1,000 individuals and organisations.

- Laureates: 1,000
- Prize categories: 6
- Prize-awarded women: 65
- Prize-awarded organisations: 27
- Youngest laureate: age 17
- Oldest laureate: age 97

The Nobel Prize social media channels

- Nobelprize.org had an estimated 20,000,000 sessions* in 2023.
- During 2023, reach and engagement increased on almost all social channels compared to 2022
- At the end of 2023 we had more than 9 million followers across our social channels – an average increase of 16% per channel from 2022
- During the prize announcement period (2–9 Oct) we saw a reach of millions across Twitter (122 million impressions), Facebook (reach of 20 million), Instagram (reach of 6.8 million) and LinkedIn (6.1 million unique impressions)
- Nobel Day 10 December saw
 2.2 million impressions on X and
 1.5 million impressions on LinkedIn.
- Videos published from 2023 Nobel
 Week content have resulted in
 4.3 million+ views by 12 January 2024
- * Due to a change in the statistical model, the number is an estimate. A visit to the website may include multiple page views.



Nobel Peace Center re-inaugurated

Due to renovation work, the Nobel Peace Center was closed during most of 2023. It reopened in December and welcomed visitors to a newly renovated building with the exhibition *PEACE is POWER* by Yoko Ono.



Fungi

The exhibition *Fungi – In Art and Science* was a success and had many local visitors. The campaign was seen all over Stockholm.

Being Human – a unique theater performance

During the autumn, an experimental theatre performance was developed at the Nobel Prize Museum. Actors Katarina Krogh and Fabian Hedlund – together with director Johan Bark and the Nobel Prize Museum curator Carin Klaesson – created an innovative production based on texts by Nobel Prize laureates in literature.





92%

The Nobel Prize Museum conducts three major audience surveys per year. They show that almost half of visitors are 15–29 years old, that museum staff members consistently receive very high marks and that a full 92% would recommend to their friends that they should visit the museum. In 2023 the proportion of visits by Stockholm residents increased, especially during the Fungi exhibition.



Diplomas and medals

Each Nobel Prize laureate receives a diploma and a Nobel Prize medal delivered in a case. Some of the diplomas include original artworks. The artworks on the physics diplomas were created by Elisabeth Biström and on the chemistry diplomas by Lars Eje Larsson. The artist for the economic sciences diploma was Anja Richardt Krabbe.

The calligraphy for the physics diplomas and the economic sciences diploma was created by Marie A. Györi, and the calligraphy for the chemistry diplomas by Marianne Pettersson Soold. The calligrapher for

the physiology or medicine diplomas and the literature diploma was Susan Duvnäs.

The diplomas and the medal cases were produced by Leonard Gustafssons Bokbinderi in Stockholm. The Nobel Prize medals were made by Svenska Medalj in Eskilstuna.

The artwork in the peace prize diploma was created by Håkon Bleken and the calligraphy by Christopher Haanes. Julius & Ørenberg Bokbinderi crafted the peace prize diploma and medal case. The peace prize medal was made by Det Norske Myntverket.





The first course was yellow beetroot baked with seaweed and salt and a cream made from seaweed. This was served with buttermilk, dill-seed and sturgeon caviar.



PHOTO: CLÉMENT MORIN

Banquet with a golden touch

Chef Jacob Holmström created the first and main course at the Nobel Prize banquet, where both dishes drew inspiration from the sea. For the main course, cod loin stuffed with king crab was served with a kohlrabi roll and fried potato dumplings.

Annie Hesselstad returned to take charge of the banquet dessert, which consisted of baked chocolate cream and a lingonberry compôte flavoured with tar syrup and served with a chocolate sablé, lingonberry toffee, meringues and a crème fraiche parfait.

Calling Space

On 11 December the Nobel Prize Museum connected with the International Space Station (ISS) for a unique live conversation between 2023 Nobel Prize laureates Ferenc Krausz and Moungi Bawendi at the museum, and Danish ESA astronaut Andreas Mogensen in space. Swedish ESA astronaut Marcus Wandt, who was preparing for his space mission scheduled for early 2024, sent a greeting from NASA's Houston Mission Control Center in the US. The event was organised in collaboration with the European Space Agency.



Friday nights that inspire

On Friday evenings, the Nobel Prize Museum welcomes the weekend with concerts, food and beverage tastings, quizzes and conversations with experts about Nobel Prize subject areas.

Through a wide range of programmes, the Nights at the Nobel Prize Museum series creates exciting encounters between culture, science, art and current affairs. During 2023, Friday programmes included visits by Nobel Prize laureates, concert experiences, theatre, a quiz night, a champagne tasting,

opportunities to mingle with researchers, DJs, performance art and much more. These events take place in Bistro Nobel, which always composes a festive Friday menu.

The Nobel Prize Museum also offers a membership that includes free admission to the museum, priority admittance to events, discounted ticket prices and free admission to many activities. Membership provides access to a world of learning and memorable experiences.





Nobel Prize Lessons

Nobel Prize Lessons are published just one day after each new Nobel Prize has been announced, making it easy for teachers to explain the prize-awarded achievements to their students. Also available online are a lesson about the Nobel Prize and Alfred Nobel as well as various lessons on other themes.

Each lesson is designed to take about 45 minutes and includes a slide show with a speaker's manuscript, a student assignment including questions, a short video and a simple teacher's guide.

1.2 million

This reel, showing 2023 physics laureate Anne L'Huillier being honoured by her students and colleagues, has been viewed 1.2 million times so far on Instagram, reaching 1.1 million accounts. It has garnered more than 70,000 likes, has been saved more than 2,000 times and has received 1.000 comments.





Nobel Creations

The 2023 Nobel Prizes provided new perspectives and inspired students at Beckmans College of Design in Stockholm to craft unique fashion creations.

In the museum's Nobel Creations exhibition, the students interpreted mRNA vaccines, attoseconds, semiconductor nanoparticles, the writings of Jon Fosse, research on the situation of women in the labour market and the fight against oppression of women in Iran. The result was six remarkable fashion statements.

Medicine laureate Katalin Karikó with the creation based on the medicine prize featured in the Nobel Creations exhibition.



The greatest benefit to humankind

The exhibition From ideas to Nobel Prizes was on display at the Nobel Prize Museum between February and August. It explored and celebrated the work, ideas and dialogues leading to scientific discoveries, new stories and breakthroughs for "the greatest benefit to humankind", as Alfred Nobel wrote in his will. During the autumn, the exhibition was displayed at Malmö Museum.



The Nobel Prize Laureate Network, a network for laureates managed by the Nobel Foundation, was successfully launched in 2023. The network will enhance opportunities for knowledge transfer and exchange of experiences between laureates from all prize categories. In addition, it will also facilitate contacts with the Nobel sphere so that laureates more easily can engage and participate in the various activities that are being organised.

The network will stimulate dialogue between laureates, strengthening opportunities for them to inspire hope, courage and the search for new knowledge and innovation.





Nelly Sachs' suitcase donated to the Nobel Prize Museum

In April 2023, a gift with a powerful story behind it was presented to the Nobel Prize Museum. Literature laureate Nelly Sachs' suitcase reminds us of Europe during World War II and the escape of a mother and daughter from Nazi terror in Berlin to Sweden. The contents of the suitcase were the only things they brought with them.

The suitcase was donated to the museum by Swedish author Aris Fioretos, who had owned it for the previous fifteen years. The photo shows him together with Elin Granberg, Carin Klaesson and Erika Lanner of the Nobel Prize Museum.



This is how many listeners the podcast *Ideas changing the world* has attracted since it was launched in October 2020.

At the beginning of 2023 the podcast – in which Nobel Prize expert Gustav Källstrand meets researchers, writers and experts – had 9,881

Guests during 2023 included author Camilla Läckberg.



The winning photo – Nobel Week Lights

Among more than 400 entries, Lebanese-born photographer Mohamad Assaad was selected as the winner of the 2023 Nobel Week Lights photo contest. "The artwork radiated something deep, dark and unknown while being surrounded by a hopeful light," says Mohamad Assaad, who photographed the work [re|in]verse by Jaime Reyes and the collective re|thread. Mohamad has studied media and has been working as a freelance photographer for various newsrooms since 2014. His interest in photography was sparked at an early age by his father, who also worked as a photographer and journalist.



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International meetings

On several occasions during 2023, Nobel Prize laureates, world-leading scientists and other experts gathered at meetings to promote international discourse on current science-related topics.

he Nobel Prize Summit 2023, a three-day meeting that took place in Washington DC during 24–26 May under the title *Truth, Trust and Hope*, could also be followed digitally. Among the participants were Nobel Prize laureates, business executives, policymakers, teachers and young people from all over the world, who explored ways to combat the spread of disinformation and rebuild trust in science and in society at large. Speakers included laureates Maria Ressa, Saul Perlmutter and Muhammad Yunus.

The Nobel Prize Inspiration Initiative brings Nobel Prize laureates together

with university students around the world to share inspiration and experiences. These meetings usually take place when laureates visit universities and research centres, but they can also be digital. In 2023, medicine laureate Edvard Moser participated in one such event in Italy and medicine laureate Peter Ratcliffe in an event in Poland.

As part of the Nobel Prize Dialogue series, meetings were held in Seoul and Madrid. In Seoul, the focus was on the future of learning. A pre-event also took place in Sydney ahead of *Future Decision Making*, a meeting scheduled for October

The annual Nobel Week Dialogue took place on 9 December at the Swedish Exhibition & Congress Centre in Gothenburg. This event offered discussions both on-site and online, this time with a focus on migration. It included conversations with some of the world's most eminent experts. Three participating Nobel Prize laureates shared their personal experiences: literature laureate Abdulrazak Gurnah, physics laureate Steven Chu and medicine laureate Ardem Patapoutian.







Top, left: Medicine laureate Edvard Moser participated in the Nobel Prize Inspiration Initiative in Italy.

Top, right: A Nobel Prize Inspiration Initiative was also arranged in Poland and attended by many students.

Left: Medicine laureate Ardem Patapoutian spoke at the Nobel Week Dialogue held in Gothenburg.



Learning and inspiration

The Nobel Prize can inspire people to seek knowledge, ask questions and try to understand and improve the world. In this spirit, we organise many meetings between students and Nobel Prize laureates, teachers and the research community.



Nobel Prize Teacher Summit

The annual Nobel Prize Teacher Summit in Stockholm is a gathering of teachers, Nobel Prize laureates, researchers and peace activists who discuss and explore topics related to teaching and learning. Teachers from over thirty countries, such as the United States, Vietnam, Bolivia, Belarus and Zimbabwe have participated.

The theme of the 2023 summit was Teaching Knowledge – Learning Engagement. Participants discussed the vital role of knowledge as a prerequisite for engagement, activism and building sustainable democratic societies. The focus of the conference was on what role teachers can play in promoting engagement.

Speakers included Nobel Peace Prize laureates Tawakkol Karman (pictured) and Dmitry Muratov.

The peace laureate Tawakkol Karman spoke about courage, determination and human rights.

Help a Scientist

In the Help a Scientist (Forskarhjälpen) project, the Nobel Prize Museum brings together teachers, students at lower secondary schools in Sweden and scientific researchers. The 2023 project was about mapping how the Baltic Sea is evolving and may be affected by climate change, by examining a type of seaweed called bladderwrack and its ecosystem.

Participating in Help a Scientist enables students to gain a deeper understanding of the research process by being a part of it themselves – from collecting materials and data to compiling and communicating their research findings in the form of a poster. Students and teachers become part of a highly relevant research project.

Help a Scientist 2023 received the award for best pedagogical project of the year from the Swedish Society for Museum Education.



Students from Värmdö skärgårdsskolor/Runmarö skola who participated in the Help a Scientist project.



Science Today

Science Today is a popular format which is part of the Friday night activities at the museum. It takes the temperature of ongoing science and invites students from Karolinska Institutet, The Royal Institute of Technology, Stockholm University and Chalmers to present their research on stage.

The evenings are concluded in Bistro Nobel with networking, drinks and music.

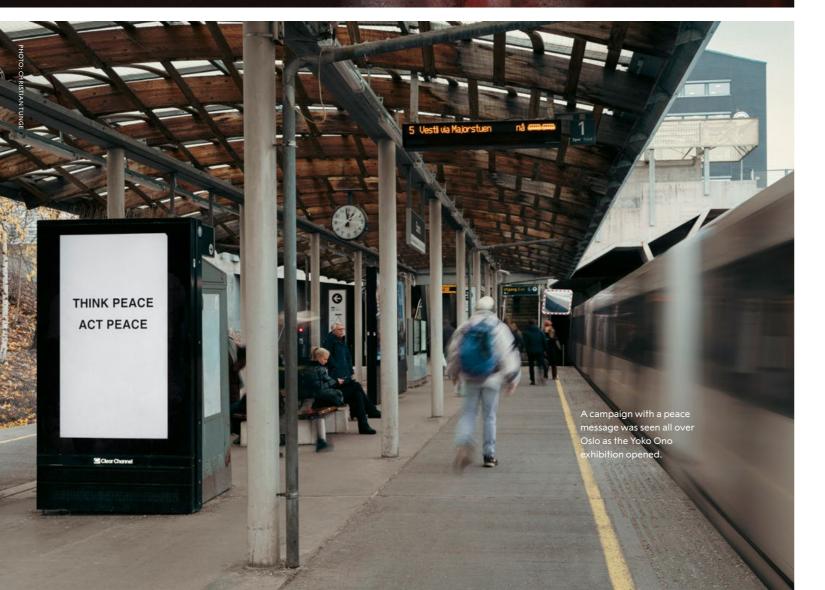
Nobel Prize Inspiration Initiative

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The Nobel Peace Prize Exhibition entitled Woman—Life—Freedom told the story of Narges Mohammadi through her own words and pictures.



Woman - Life - Freedom

The Nobel Peace Center in Oslo uses the Nobel Peace Prize and the ideas and work of the Nobel Peace Prize laureates to engage and inspire changes – large and small – that will help make the world a better and more peaceful place.

ue to renovation work, the Nobel Peace Center was closed during most of 2023. In December it reopened and welcomed visitors to a newly renovated building with the exhibition *PEACE is POWER* by Yoko Ono, a world-renowned artist and peace activist who recently turned 90. The *PEACE is POWER* exhibition contained some of her best-known artworks, inviting visitors to engage in their creation by following Ono's own instructions.

The 2023 Nobel Peace Prize was awarded to Narges Mohammadi "for her fight against the oppression of women in Iran and her fight to promote human rights and freedom for all." The Nobel Peace Prize Exhibition entitled *Woman – Life – Freedom* told the story of Narges Mohammadi through her own words and pictures. From her prison cell in Iran, she wrote texts exclusively for the exhibition. In ten letters, she talks about important events in her life. Pictures from

Narges Mohammadi's life have been borrowed from her family. The exhibition was inaugurated by Mohammadi's husband and two children on 12 December.

The Nobel Peace Conference, on the theme of *Human Rights Heroes*, took place at the National Museum in Oslo on 31 August. The conference celebrated the achievements of human rights defenders, identified the risks they face and called for action to support their work.







A house for science, culture and dialogue

FACTS

- The Nobel Center will offer a wide range of public activities including exhibitions, school programmes, lectures and conversations about the major issues of the future. The outreach activities being conducted around the world, digitally and at the Nobel Prize Museum in Stockholm's Old Town, will be further developed and scaled up for the opening of the Nobel Center.
- The Erling-Persson Foundation and the Knut and Alice Wallenberg Foundation are financing the construction of the building together with the Nobel Foundation.
- David Chipperfield Architects is designing the Nobel Center.
- Construction is scheduled to begin in 2027. Inauguration may take place take place in 2031.

uring 2023, plans for the Nobel Center made important advances. David Chipperfield Architects further developed the design of the building, which will be located along the Stadsgårdskajen waterfront next to Slussen in central Stockholm. Extensive efforts were devoted to a sustainability strategy, including proposals on how the project should work with everything from material selection to energy solu-

tions and technical systems.

Four Nobel Center Talks were held during the year. This is a series of programme activities that investigate the Nobel Center's role in the city, the region and the country in an international context – as an

important networking effort that will add knowledge and experience to the project. This year's talks delved into issues such as how a vibrant urban life can be created around Slussen and with what voice the Nobel Center should communicate. Many insightful contributions were shared by various experts.

During the Nobel Week in December, a Nobel Center Talk featuring four Nobel Prize laureates took place in Stockholm. In their roundtable discussion, the laureates shared their expectations, ideas and what initiatives they would like to see at the future Nobel Center.

"This place will be the new heart of Stockholm.
I'd say that it is a historic moment. For many years
Slussen has been a transport hub, but now this area
will focus on human beings."

Torleif Falk, City Architect of Stockholm



Director at Urgent.Agency
Copenhagen, was one of
the speakers at Nobel Center
Talk #4.

During the Nobel Week, laureate Katalin Karikó donated her favourite pipette to the Nobel Prize Museum. It is the instrument that she has used the most during her scientific research career.

The museum's collection of artefacts reflects the various subject areas of the Nobel Prize and the activities, interests and personalities of the laureates. They are on display at the museum today, and they will be exhibited at the Nobel Center in the future.



Alfred Nobel

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

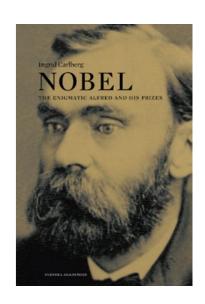
Alfred Nobel was born in Stockholm in 1833. His father, Immanuel, was an inventor and engineer. His mother, Andriette, was described as energetic and intelligent, and when Immanuel went to Russia after a bankruptcy, she was forced to support the family. The Nobel brothers were given a first class education by private tutors and at the age of 17 Alfred spoke five languages: Swedish, Russian, English, French and German.

Alfred 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 Sweden's 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.



The enigmatic Alfred Nobel
The author and journalist
Ingrid Carlberg wrote an
acclaimed book about Alfred
Nobel, which was nominated
for the August Prize in 2019.
The book has now been
published in a number of
languages, including English.

The Nobel Prize awarding institutions

n his will, Alfred Nobel stipulated which institutions should select Nobel Prize 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 Nobel Prize awarding institutions in selecting Nobel Prize 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.

he Royal Swedish Academy of Sciences selects the Nobel Prize 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 Prize laureates in physiology or medicine. The Assembly has 50 members. The Swedish Academy selects the Nobel Prize 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 nominations for the respective Nobel Prizes and extensively examine a selection of the nominees. They subsequently present their proposals for Nobel Prize laureates to the prize awarding institutions. 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 Nobel Prize awarding institutions.

For the Nobel 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 Nobel Prize awarding institutions in the sense that it is responsible both for evaluating the nominees and selecting the recipient.

n 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 Nobel Prize awarding institution in September. The final selection of Nobel Prize laureates takes place by a vote. The decisions are announced by the respective Nobel Prize awarded 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 prizeawarding institutions is available on their respective websites: www.kva.se www.nobelprizemedicine.org www.svenskaakademien.se www.nobelpeaceprize.org

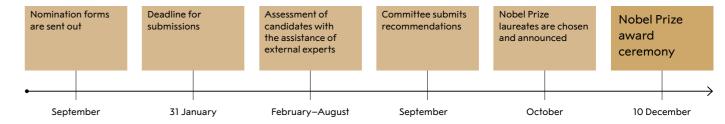


On 6 October, Berit Reiss-Andersen, chair of the Norwegian Nobel Committee, announced that the 2023 Nobel Peace Prize was being awarded to Narges Mohammadi. The announcement was followed by a press conference.



The Nobel Prize award ceremony at Konserthuset Stockholm on the Nobel Day, 10 December. Professor Kerstin Enflo, a member of the economic sciences prize committee, gave a presentation speech for the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2023, which was awarded to Claudia Goldin.

Selecting Nobel Prize laureates





The Nobel Foundation

he Nobel Foundation is a private foundation established in 1900 on the basis of the will of Alfred Nobel and the founding statutes that was established in connection with the will. The primary purpose of the foundation 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 Nobel 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 has overall responsibility for the Nobel Week that takes place in Stockholm in December. This week includes an extensive programme for the Nobel Prize laureates, culminating in the Nobel Prize award ceremony and the Nobel Prize 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. The institute administers the activities connected with the awarding of the Nobel Peace Prize, including press conferences, the award ceremony and a banquet.

The operations of the Nobel Foundation are essentially financed by the fortune that Alfred Nobel left behind. The market value of the Nobel Foundation's total invested capital amounted to SEK 6,233m at the end of 2023. Investment capital exposure was 52 per cent equity funds, 9 per cent property and infrastructure funds, 17 per cent fixed income assets and cash, 20 per cent alternative assets and 2 per cent accrued currency hedging gains.

Late in 2022, the Nobel Foundation decided to sell its property in Oslo to the Norwegian Nobel Institute. The property was sold in early 2023 for SEK 73.0m.

During 2023, the overall sum of all Nobel Prizes and operating expenses was SEK 126.1m. This was divided among four main categories: the prizes,

SEK 55.0m; compensation to the Prize Committees, SEK 28.2m; the Nobel Week in Stockholm and Oslo, SEK 22.9m; plus administration etc., SEK 20.0m.

In 2023 the Nobel Prizes were raised from SEK 10 m to SEK 11 m per prize.

Additional information about the Nobel Foundation's financial management is available in the foundation's 2023 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. Of these, six representatives are appointed by the Academy of Sciences and the other Nobel 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 activities and 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.

THE NOBEL FOUNDATION · ANNUAL REVIEW 2023

To engage, inspire and spread knowledge

ALFRED NOBEL MEMORIAL

The purpose of the Alfred Nobel

Memorial Foundation is to promote

education, culture, peace and scien-

activities and objectives of the Nobel

Astrid Söderbergh Widding, Chair

tific research, in part by financially

or otherwise contributing to the

FOUNDATION

Foundation.

Hans Ellegren

Vidar Helgesen

Mats Malm

Sven Nvman

Thomas Perlmann

NOBEL GROUP

INTERESTS AB

in the Nobel sphere.

Peter Brzezinski

Ulf Danielsson

Hans Ellegren

Vidar Helgesen

Mats Malm

Sven Nvman

Thomas Perlmann

Berit Reiss-Andersen

The aim of the company is to own

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

Astrid Söderbergh Widding, Chair

and actively manage shares and

Berit Reiss-Andersen

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 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 2023

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.

- Astrid Söderbergh Widding, Chair, Professor, President at Stockholm University
- Berit Reiss-Andersen, Vice Chair. Attorney and Chair of the Norwegian Nobel Committee
- Hans Ellegren, Professor, Secretary General of the Royal Swedish Academy of Sciences
- Vidar Helgesen, LLM, Executive Director of the Nobel Foundation
- Mats Malm, Professor, Permanent Secretary of the Swedish Academy
- Sven Nyman, MSc, Hon. Doctor of Business
- Thomas Perlmann, Professor, Secretary General of the Nobel Assembly at Karolinska Institutet and the Nobel Committee for Physiology or Medicine

Deputy members

- Peter Brzezinski, Professor, Secretary of the Nobel Committee for Chemistry
- Ulf Danielsson, Professor, Secretary of the Nobel Committee for Physics

The company 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.

NOBEL PRIZE OUTREACH AB

- Vidar Helgesen, LLM, Executive Director of the Nobel Foundation. Chairman
- Peie Emilsson, Founder and Chairman of Kreab Worldwide
- Mia Horn af Rantzien, Dr. board member of IIES, Misum and STINT
- Anita Krishnamurthi, Senior VP -STEM & Youth Engagement, Afterschool Alliance, Washington D.C.
- Marie Nilsson, CEO of Mediavision Olav Njølstad, Professor, Director
- of the Norwegian Nobel Institute Karin Pettersson, Director of Public
- Policy, Schibsted Sree Sreenivasan, CEO/co-founder,
- Inge Thulin, former Chairman, President and CEO of 3M
- Juleen Zierath, Professor, member of the Nobel Assembly at Karolinska Institutet and associate member of the Nobel Committee for Physiology or Medicine

NOBEL CENTER FOUNDATION

Digimentors

Responsible for public activities carried out on the basis of the Nobel Prize Museum. Nobelhuset AB was previously responsible for building the Nobel Center. That responsibility is now being consolidated in the Nobel Center Foundation.

- Vidar Helgesen, LLM, Executive Director of the Nobel Foundation, Chairman
- Birgitta Ed, Master of Theology, pastor and entrepreneur
- Bente Erichsen, film director, author and former Executive Director, Nobel Peace Center
- Emma Frans, Dr, researcher and author

- Stein Olav Henrichsen, former Director of Munchmuseet
- Thomas Perlmann, Professor. Secretary General of the Nobel Assembly at Karolinska Institutet and of the Nobel Committee for Physiology or Medicine
- Susanna Pettersson, CEO at the Finnish Cultural Foundation, former Director General of Nationalmuseum
- Stefan Ränk, CEO of Einar Mattsson AB
- Fredrik Wirdenius, Senior Advisor real estate investments

Adjunct members

- Per Krusell, Professor, Secretary of the Committee for the Prize in Economic Sciences in Memory of Alfred Nobel
- Monica von Schmalensee, Architect
- Åsa Wikforss, Professor, Member of the Swedish Academy

NOBEL PEACE CENTER **FOUNDATION**

The Nobel Peace Center in Oslo showcases the Nobel 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
- Kristine Fallet, Board member elected by the employees
- Anne Enger, former Storting member, Minister of Culture and County Governor
- Siri Hatlen, business owner, Deputy Chair
- Nina Refseth, Director, Norwegian Museum of Cultural History
- Lotta Wristel, Project Director Nobel Center

COMPANY INFORMATION

THE NOBEL FOUNDATION

- Executive Director: Vidar Helgesen Established: 1900
- Address: Sturegatan 14. Stockholm, Sweden
- Website: nobelprize.org

NOBEL PRIZE OUTREACH AB

- CEO: Laura Sprechmann Established: 2004
- Adress: Sturegatan 14,
- Stockholm, Sverige Website: nobelprize.org

NOBEL CENTER FOUNDATION

(Nobel Prize Museum)

- CEO: Erika Lanner
- 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 the Nobel Prize Museum, formerly the Nobel Museum
- · Address: Stortorget 2, Stockholm, Sweden
- Website: nobelprizemuseum se

NOBEL PEACE CENTER **FOUNDATION**

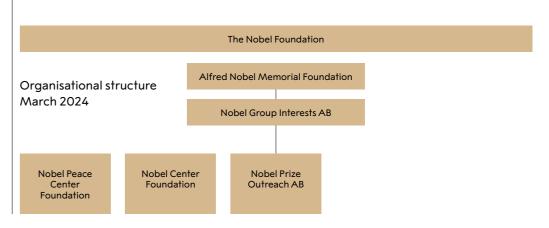
(Stiftelsen Nobels Fredssenter) CEO: Kjersti Fløgstad

- Established: 2005
- Adress: Bryniulf Bulls Plass 1. Rådhusplassen, Oslo, Norway Website: nobelpeacecenter.org



Astrid Söderbergh Widding, Chair of the board of the Nobel

"I am convinced that at this moment in history – with increasingly polarised views which tend to tear our societies apart, with democracies being undermined, and with wars and conflicts throughout the world which continue to cause so many victims - we need, more than ever, to keep Nobel's vision in mind. He believed in knowledge, enlightenment and the pursuit of truth."



PARTNERS AND DONORS

The aim of the activities conducted by the Nobel sphere is to spread knowledge about the Nobel Prize and the importance of science, literature and peace. Through our programmes, initiatives and commitments, we want to draw attention to the major issues of our time, while inspiring and encouraging people to learn and to make a difference. To carry out these activities, we work together with selected partners that share our values and goals. We would like to thank all of our partners for making this important work possible.

The main donors to the Nobel Prize Museum are the Erling-Persson Foundation, the Knut and Alice Wallenberg Foundation and the

Catarina and Sven Hagströmer Foundation.

The main partners are EF Education First, NIBE Group and Mannheimer Swartling. Project partner is the Swedish Foundation for Strategic Research. The Nobel Prize Museum also receives support from the City of Stockholm, Ministry of Education and Research, and the Ministry of Culture. The Principal Partners of Nobel Week Lights are the City of Stockholm, FAM and Grand Hôtel, Fagerhult, Einar Mattsson AB and Stockholm Chamber of Commerce. Supporting Partners are Fastighetsägarna, and Barbro Osher Pro Suecia Foundation.

The main corporate partners of the Nobel Peace Center in Oslo are Hydro

and Reitan Retail. Additional partners are Strawberry, Microsoft and Samler-Huset/Myntverket. Supporting foundations include Grieg Foundation Fritt Ord, Sparebankstiftelsen DNB, Flux Stiftelsen, Luminate, Klaveness Stiftelsen, Japan Institute, Bergesenstiftelsen. The Nobel Peace Center also receives support from the Ministry of Culture and Oslo munici-

Nobel Prize Outreach's global public activities are conducted in collaboration with the following Nobel International Partners: 3M, ABB, Capgemini, EOT, H2 Green Steel and Scania. The Nobel Prize Inspiration Initiative is organised in partnership with AstraZeneca. The Nobel Week

Dialogue is organised by Nobel Prize Outreach in collaboration with Carl Bennet AB, the City of Gothenburg. the Volvo Group and Region Västra Götaland. The supporting foundation for the Nobel Week Dialogue is the Sten A. Olsson Foundation for Research and Culture. Volvo is the Official Car of the Nobel Week. The Nobel Prize Concert is presented in cooperation with Konserthuset Stockholm and supported by BNP Paribas, Novo Nordisk Foundation is supporting a series of documentaries inspired by the Nobel Prize in Physiology or Medicine, Fundación Ramón Areces is supporting the Nobel Prize Conversations podcast series.

Highlights in December

The Nobel Peace Prize Forum, which took place on 11 December at the University of Oslo, focused on the fight for human rights and democracy in Iran, with emphasis on women's situation.

The aim of the event was to give the participants a possibility to learn more about the situation Iranians face in their daily lives, and how the rest of the world can understand their problems.

Speakers included Shima Babaei and Elahe Tavakolian. The Nobel Peace Prize Forum is an annual conference organised by the Norwegian Nobel Institute.

The 2023 Nobel Prize laureates in Stockholm gathered in the Bernadotte Library at the Royal Palace to record the television programme *Nobel Minds*– a conversation on learning and research in a global world.

Their conversation took place in the presence of Sweden's Crown Princess Victoria and Prince Daniel, who talked with economic sciences laureate Claudia Goldin and other participants before videotaping began.

The annual programme is a co-production of Nobel Prize Outreach, Swedish Television (SVT) and BBC World. The moderator was Zeinab Badawi of the BBC.











The Nobel Prize banquet coincided with the centenary of the Stockholm City Hall. This inspired the evening's divertissement, under the artistic direction of Linus Fellbom and Magnus Lindgren. Performers included 14 musicians from Västerås Sinfonietta, 35 singers from the girls' choir of Västerås Music Classes at Fryxellska skolan, three musicians from Blacknuss as well as opera singer Elisabeth Meyer and Magnus Lindgren, who played the flute and saxophone.

Chemistry laureate Louis Brus received his diploma and medal on the stage of Konserthuset Stockholm on the Nobel Day, 10 December. The Royal Stockholm Philharmonic Orchestra, led by conductor Alexander Hanson, provided the music at the Nobel Prize award ceremony. Soprano Julia Sporsén was the vocal soloist.

The Nobel Prize Concert was traditionally held at Konserthuset Stockholm during the Nobel Week. The audience saw praised violinist Julia Fischer and world-renowned conductor Esa-Pekka Salonen, together with the Royal Stockholm Philharmonic Orchestra.







