



Solvay awards €300k science prize to Professor Katalin Karikó

The 2022 prize, which marks the 100-year anniversary of the first Solvay Conference on Chemistry, was awarded for her pioneering research in mRNA technology used in vaccines, which is radically shaping the future of medicine.

Brussels, January 18, 2022

The [2022 Science for the Future Solvay Prize](#) has been awarded to Katalin Karikó, adjunct professor at the University of Pennsylvania (U.S.A.) and professor at the University of Szeged (Hungary), for her work on the biochemical modification of synthetically produced messenger RNA (mRNA), which has enabled the rapid development of vaccines. Her research was most notably used by Pfizer/BioNTech and Moderna to build COVID-19 mRNA vaccines, which have saved many lives. It could also help fight other diseases like cancer, infection from influenza, malaria or HIV in the future. Professor Karikó has dedicated her 40-year career to using RNA as a therapeutic, with chemistry as a key element to modify the mRNA to avoid the risk of rejection by the immune system.

"I am thrilled and honored by this recognition," said Professor Karikó. "I look back on my long journey with gratitude to all those who helped me to get there: my supportive family, my inspirational teachers, mentors and colleagues."

mRNA is the genetic script that carries DNA instructions to each cell's protein-making machinery, directing them to make their own medicines. In 2005, professor Karikó, co-discovered that when a modified uridine such as pseudo uridine, which is present in the tRNA (transfer RNA), was incorporated into the in-vitro synthesized mRNA made it non immunogenic. This was the start of subsequent studies leading to generating the optimal mRNA for therapies, and the potential for many applications in human health care.

"Professor Karikó is truly reinventing scientific progress," said Ilham Kadri, CEO of Solvay. "As the second woman to win the award, she is such an inspiration and I am so proud to grant her this prize on behalf of Solvay, whose founder actively promoted science for the good of humanity and future generations. Through her incredible determination, she has achieved a major advancement for humankind that will revolutionize the treatment of many diseases. Congratulations, Professor Karikó!"

Created in 2013, the Solvay Prize recognizes a scientist for major discoveries that highlight the essential role of science and chemistry in helping to solve some of the world's most pressing challenges. The 2022 award continues the legacy of Ernest Solvay and marks the [100-year](#)



[anniversary](#) of the first Solvay Conference on Chemistry. Solvay has convened the brightest scientific minds for over a century and this year's winner was selected by an independent jury of renowned scientists, including two Nobel Prize laureates. Science-based innovation drives Solvay's strategy and is an integral part of the company's DNA.

The award ceremony will be held at the Palais des Académies in Brussels on March 29, including [a livestream option](#). Furthermore, a dedicated press event will also be hosted on the same date, with details to be shared in the coming weeks.

Related media



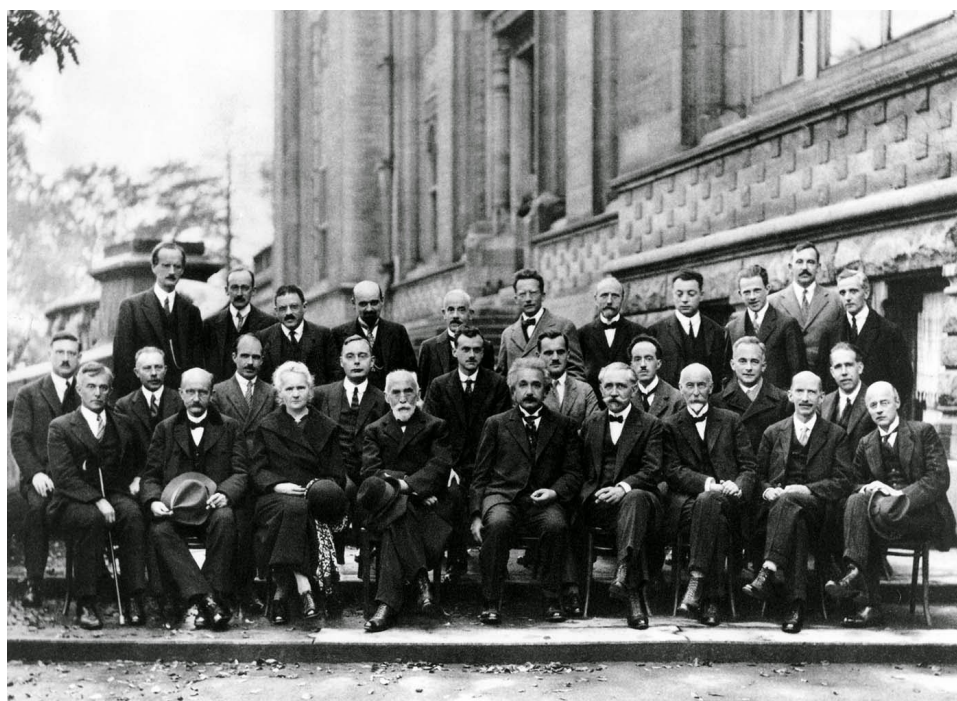
Download [Professor Karikó's picture](#)

Access Professor Karikó's [biography](#)

About the Science for the Future Solvay Prize

Created in 2013, the Solvay Prize perpetuates Ernest Solvay's lifelong passion and [support for scientific research](#). It rewards a single recipient for fundamental contributions to chemistry with potential industrial impact. The broad field of the prize covers chemistry in all its aspects, such as synthesis, materials science, soft matter, biophysics or biochemistry, chemical engineering, environmental sciences, or certain aspects of molecular biology.

Nominations are made by members of the scientific committee for chemistry and the advisory committee (past and present) of the International Solvay Institutes for Physics and Chemistry, participants to the Solvay Conferences on Chemistry, members of prestigious international scientific organizations and renowned chemists.



The 1927 Solvay Conference, probably the most intelligent picture ever taken, where 17 of the 29 attendees were or became Nobel Prize winners.

It is awarded every two years to honor outstanding achievements in fundamental science (not necessarily related to Solvay's business activities): first to Professor Peter G. Schultz in 2013; Professor Ben Feringa in 2015 (laureate of the Nobel Prize for Chemistry in 2016); Professor Susumu Kitagawa in 2017; and Professor Carolyn Bertozzi in 2020.



Contacts

Media relations

Brian Carroll
+32 471 70 54 72

Peter Boelaert
+32 479 309 159

media.relations@solvay.com

Investor relations

Jodi Allen
+1 (609) 860-4608

Geoffroy d'Oultremont
+32 2 264 2997

Bisser Alexandrov
+32 2 264 3687

Valérie-Anne Barriat
+32 2 264 1622

investor.relations@solvay.com

About Solvay

Solvay is a science company whose technologies bring benefits to many aspects of daily life. With more than 23,000 employees in 64 countries, Solvay bonds people, ideas and elements to reinvent progress. The Group seeks to create sustainable shared value for all, notably through its Solvay One Planet roadmap crafted around three pillars: protecting the climate, preserving resources and fostering a better life. The Group's innovative solutions contribute to safer, cleaner, and more sustainable products found in homes, food and consumer goods, planes, cars, batteries, smart devices, health care applications, water and air purification systems. Founded in 1863, Solvay today ranks among the world's top three companies for the vast majority of its activities and delivered net sales of €9 billion in 2020. Solvay is listed on Euronext Brussels and Paris (SOLB). Learn more at www.solvay.com.



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Ce communiqué de presse est également disponible en français.
Dit persbericht is ook in het Nederlands beschikbaar.



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Expert available to answer detailed or technical questions

patrick.maestro@solvay.com
laureate

Proposed news/PR url

<https://www.solvay.com/en/press-release/solvay-awards-eu300k-science-prize-professor-katalin-kariko>

Url to web/business page to promote as call to action on the PR webpage

<https://www.solvay.com/en/press-release/solvay-awards-eu300k-science-prize-professor-katalin-kariko>

<https://www.solvay.com/en/innovation/encourage-science/chemistry-future-solvay-prize/2022-laureate>

Social media posts

Group channels

Main links to promote:

- PR: <https://www.solvay.com/en/press-release/solvay-awards-eu300k-science-prize-professor-katalin-kariko>
- Webcast subscription: <https://www.solvay.com/en/innovation/encourage-science/chemistry-future-solvay-prize/2022-laureate>

Main hashtags to promote: #Solvayprize, chemistry, science, vaccines, medicine

[TWITTER](#)

Tweet 1

On #EducationDay we celebrate 🧑🔬 Professor Katalin Karikó winner of the #SolvayPrize 2022. The 2022 #SolvayPrize marks the 100th anniversary of the first #SolvayConference on Chemistry. Solvay CEO @Kadriilham called @kkariko to break the news.

+ Media: video call short version

[LINKEDIN](#)



You know by now that mRNA enables your body to make their own medicines or #vaccines, right? Professor Katalin Karikó showed to the world her incredible determination and pioneering research in mRNA technology and we are thrilled to award her the 2022 #SolvayPrize. Professor Karikó's major advancement for humankind could revolutionize the treatment of many diseases like cancer, infection from influenza, malaria or HIV in the future. Kudos!

#EducationDay

PR link

Media: video call short version or banner image



[FACEBOOK](#)

On #EducationDay we celebrate 🧑🏫 Professor Katalin Karikó. She is the 2022 #SolvayPrize winner awarded for her pioneering research in #mRNAvaccines.

Her research is radically shaping the future of medicine and could help fight other diseases like cancer, infection from influenza, malaria or HIV in the future.

PR link

Media: video call short version

[INSTAGRAM](#) (currently archived. We'll unarchive to make it publicly visible again)

Media: video call (short version if validated)

Solvay awards its €300k #scienceprize to 🥁🥁🥁🥁🥁 Professor @katalin_kariko 🧑🏫



The 2022 Solvay Prize marks the 100-year anniversary of the first #SolvayConference on Chemistry and recognizes Professor Karikó's 40-year pioneering research in mRNA technology used in vaccines. And #chemistry was a key element that made it all possible!

mRNA is the genetic script that carries DNA instructions to each cell's protein-making machinery, directing them to make their own medicines, including COVID-19 vaccines. which have saved many lives.

And more importantly, it could also help fight other diseases like cancer, infection from influenza, malaria or HIV in the future - a game changer for the future of medicine.

[INSTAGRAM STORY](#) (republish it adding Kataline's Tweet and mention to the international day of Education)

ELT channels - social media posts on International day of education (Mon 24)

CEO Ilham Kadri - LinkedIn

We need more female role models like @Kati Kariko in #STEM. She is an INSPIRATION. Congratulations!

+ Link to PR and embed the Call

#EducationDay

Nicolas Cudré-Mauroux (Solvay CTO) - LinkedIn

We have a truly amazing winner for the 2022 Solvay Prize! The award goes to Professor Katalin Karikó, whose research was used to build the mRNA Covid-19 vaccines that have saved many lives.

She was able to achieve this breakthrough by using chemistry (by incorporating a modified uridine present in the transfer RNA into the in-vitro synthesized mRNA) to avoid rejection by the immune system. Her research will change the way we treat diseases such as cancer, influenza, malaria, and tuberculosis.

Professor Karikó is reinventing progress and we are so proud that she is this year's winner.

Congratulations! #EducationDay

+ Link to PR