



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 in the presence of His Majesty King Philippe of Belgium, 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](#)

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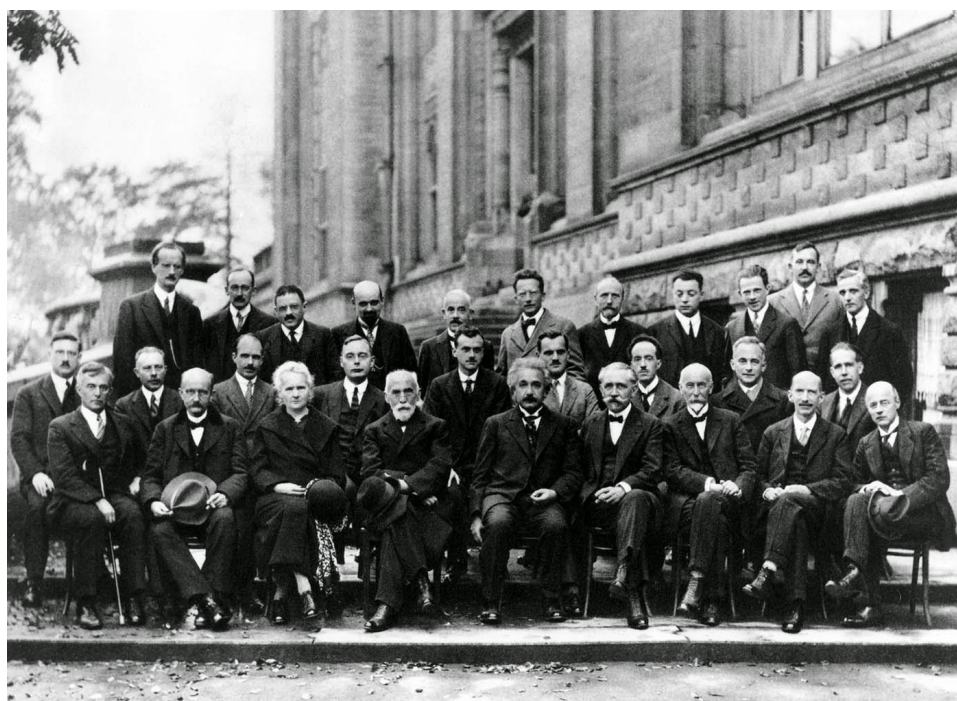
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About the Science for the Future Solvay Prize

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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