

## **NMIN's Founding Scientific Director wins 2022 Canada Gairdner International Award**

*Vancouver, BC (5 April 2022)*

Canadian nanomedicine scientist and [NMIN](#) founder Dr. Pieter Cullis, together with his Germany and US-based peers Drs Katalin Kariko and Drew Weissman, have been honoured with a 2022 Canada Gairdner International Award for their contributions to the development of COVID-19 messenger RNA (mRNA) vaccines.

Dr. Cullis and colleagues at the University of British Columbia (UBC) and Acuitas Therapeutics, a company he co-founded, developed the indispensable "made in Canada" lipid nanoparticle technology used by these vaccines to deliver mRNA into target cells. Drs Kariko and Weissman made fundamental contributions that enabled mRNA to be used as vaccines through their ground-breaking joint research.

The Gairdner Foundation announced the 2022 award laureates in a [press release](#) on 5 April 2022, noting that the work of Drs Cullis, Kariko and Weissman "enabled the rapid availability of highly effective and safe COVID-19 mRNA vaccines, which has become an important tool for the control of COVID-19 pandemic."

"Importantly," the announcement continues, "their pivotal discoveries also have the potential to revolutionize the future delivery of effective and safe vaccines, therapeutics and gene therapies. The success of the mRNA vaccines for COVID-19 suggests paths forward for similar vaccines for viral threats like influenza or HIV. Clinical trials are already underway to test mRNA vaccines to prevent diseases, caused by Zika virus, chikungunya and rabies infections."

"I am grateful for this recognition of the research conducted over five decades in my UBC laboratory, and I'm honoured to share this prize with Drs Kariko and Weissmann," observes Dr. Cullis. "This award highlights the enormously important role Canadian science and innovation can play on the global stage, saving lives and alleviating the burden of disease, when adequately supported. I am proud to have contributed to Canada's status as a leader in the development of nanomedicines, which are revolutionizing the treatment of disease."

The [Canada Gairdner Awards](#) recognize the world's most creative and accomplished biomedical scientists who are advancing humanity and the world. Annually, nine awards are given across five categories. The Canada Gairdner International Award is awarded to "outstanding biomedical scientists who have made original contributions to medicine resulting in an increased understanding of human biology and disease." Laureates each receive \$100,000 CDN. Since the awards were inaugurated in 1959, 96 of the 402 award recipients to date (24%) have gone on to receive the Nobel Prize.

The day before the Gairdner announcement, Drs Cullis and Karikó were also awarded the 2021 and 2020 [Lipid Science Prize](#) by the independent research foundation Camurus Lipid Research Foundation at a ceremony in Lund, Sweden. The prize recognizes "their significant contributions and breakthrough innovations in areas of m-RNA stabilization, development, and lipid nanoparticle delivery, which has resulted in m-RNA based covid-19 vaccines used by hundreds of millions of people around the world."

Dr. Cullis, a Professor in the Department of Biochemistry and Molecular Biology at UBC, is also the Founding Scientific Director of Canada's [NanoMedicines Innovation Network](#) (NMIN), in which he continues to play a leadership role.

Dr. Cullis has founded and continues to found new companies to commercialize technologies developed in his laboratory, including the Vancouver, BC-based biotech company Acuitas Pharmaceuticals. Acuitas was granted a [2021 Global Impact Award](#) by Life Sciences British Columbia in recognition of its work with Pfizer and BioNTech in developing their highly effective mRNA-based COVID-19 vaccine.

In November 2021, Drs Cullis, Kariko and Weissman were jointly honoured for their mRNA vaccine roles with the [2021 Prince Mahidol Award](#), an international award created by the Thai Royal Family to recognize outstanding achievements in medicine and public health. The prestigious medical journal *The Lancet* [profiled the trio](#) in acknowledgement of the honour, and *The New York Times* featured their contributions in its 16 January 2022 article "[Halting Progress and Happy Accidents: How mRNA Vaccines Were Made](#)." On 20 January 2022, the three were jointly awarded the \$3M [VinFuture Grand Prize](#), the first global sci-tech award from Vietnam, in a ceremony broadcast live in that country and featured the appearance of Vietnam's Prime Minister Mr. Pham Minh Chinh.

### **About NMIN**

The [NanoMedicines Innovation Network \(NMIN\)](#) is a national research network dedicated to advancing research, innovation & training in nanomedicines to maintain Canada as the world leader in this revolutionary approach to treat & cure disease. Funded by the Government of Canada through the federal Networks of Centres of Excellence (NCE) Program, the Network is hosted at the University of British Columbia in Vancouver, British Columbia.

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