

Prof. Karikó Katalin - Biography

Katalin Karikó has been Senior Vice President at BioNTech RNA Pharmaceuticals since 2019 where she leads the mRNA-based protein replacement program. She is also Adjunct Associate Professor at the Perelman School of Medicine, University of Pennsylvania (USA), where she worked for 24 years. She received her Ph.D. in biochemistry from University of Szeged, Hungary, in 1982.



For four decades, her research has been focusing on RNA-mediated mechanisms with the ultimate goal of developing in vitro-transcribed mRNA for protein therapy. She investigated RNA-mediated immune activation and co-discovered that nucleoside modifications suppress immunogenicity of RNA, which widened the therapeutic potentials of mRNA. She is co-inventor on mRNA-related patents for application of non-immunogenic, nucleoside-modified RNA. She co-founded and from 2006-2013 served as CEO of RNARx, a company dedicated to develop nucleoside-modified mRNA for therapy.

She is a founding member of the scientific planning committee for the International mRNA Health Conference, an annual non-profit event started in 2013. In 2019 she served as guest editor of the Molecular Therapy special issue on mRNA Therapy.

Her patent on nucleoside-modified uridines is used to create the anti-SARS-CoV-2 mRNA vaccines, BNT162b2 and mRNA-1273 by BioNTech/Pfizer and Moderna/NIH. She has 10 patents granted by US and 3 published patents.

Present and Previous Positions

2019 - present Senior Vice President, BioNTech RNA Pharmaceuticals

2013 - 2019 Vice President, BioNTech RNA Pharmaceuticals

2009 - present Adjunct Associate Professor, Department of Neurosurgery, Perelman School of Medicine, University of Pennsylvania

1995 - 2009 Senior Research Investigator, Department of Neurosurgery, Perelman School of Medicine, University of Pennsylvania

1989 - 1995 Research Assistant Professor, Department of Medicine, Perelman School of Medicine, University of Pennsylvania

1988 - 1989 Postdoctoral Fellow, Department of Pathology, USUHS Bethesda, MD

1985 - 1988 Postdoctoral Fellow, Department of Biochemistry, Temple University, Philadelphia, PA

1982 - 1985 Postdoctoral Fellow, Biological Research Center, Hungarian Academy of Sciences, Szeged, Hungary

1978 - 1982 Graduate Student, University of Szeged, Szeged, Hungary

1973 - 1978 Undergraduate Student, University of Szeged, Szeged, Hungary

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