PMAC PRINCE MAHIDOL AWARD CONFERENCE 2022

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UNDERSTANDING THE MEGATRENDS OF THE 21ST CENTURY – A CRITICAL STEP TOWARDS GETTING THE WORLD WE WANT

| BACKGROUND

Over twenty-five hundred years ago the Chinese general Sun Tzu noted that success in any undertaking is intrinsically linked to knowledge when he wrote “to know your enemy and to know yourself, in a hundred battles you will never be defeated”. The theme of PMAC 2022 is “The World We Want: Actions Towards a Sustainable, Fairer and Healthier Society”. If knowledge is power, then to be successful in achieving the world we want we need to be well informed about the challenges ahead. As has been noted elsewhere, PMAC 2022 aims to take a long view by focusing on the ‘mega trends” that are shaping the 21st century and the complex interplay between them, and how they are already reshaping our global health landscape. By understanding these “mega trends” and how they are likely to impact on the world around us is a critical step towards “knowing your enemy” and being victorious in achieving the world we want.

Session 1 will provide an overview of those trends that are mostly likely to define the future world we will live in, as well as identify actions that the world can take to minimize the impact of those trends that could be most destructive and maximize those that could be most beneficial.

| OBJECTIVES

Understand how ongoing and emerging mega-trends spanning evolving demographic changes, expanding environmental degradation, social and economic inequities, the recalibration of geo-political alliances and power, and looming technological revolutions are likely to impact the health of the world’s population and identify actions to make the world’s social, political and economic systems better able to cope with these changing dynamics.

Following PMAC2022 expand the outreach of Session 1 by publishing an article based on the substance of the Session 1 keynote and debate in a science journal that targets the general public.

Panelist / Keynote

Katalin Karikó

Senior Vice President (Pioneer of mRNA Vaccine Technology)

BioNTech RNA Pharmaceuticals
Germany

Katalin Karikó graduated from University of Szeged, Hungary in 1978, and received a doctoral degree in biochemistry from the same university in 1982. She continued her research at the Biological Research Centre in Szeged, at the Temple University in Philadelphia and at the Medical School of the University of Pennsylvania where she worked for 24 years. From 2013, Karikó is a senior vice president at BioNTech located in Mainz, Germany, where she is leading the mRNA-based protein replacement programs.
For four decades, her research has been focusing on RNA-mediated mechanisms with the ultimate goal of developing in vitro-transcribed mRNA to treat acquired and genetic diseases. She was perfecting the therapeutic mRNA for years, and in 1997, joined forces with Drew Weissman and together they made mRNA suitable for medical use by replacing the uridine with pseudouridine, thus making the mRNA non-inflammatory. They - together with their team - further demonstrated that such modified mRNA
formulated with LNP can be a potent vaccine. This technology ultimately became the basis for the FDA approved COVID-19 mRNA vaccine that is used to combat the current global pandemic. Their pioneering work fueled a number of advances and has opened the door for future therapeutics.
Karikó has received prestigious awards, including the Széchenyi Prize, Rosenstiel Award, Reichstein Medal and Horwitz Prize.