

Speech of Professor
Dan Barouch
Co-Winner of King Faisal Prize
for Medicine 2023

Your Majesty, distinguished guests, and respected colleagues, it is a great privilege and honor to receive this year's King Faisal Prize in Medicine along with my co-laureate Dr. Sarah Gilbert.

COVID-19 emerged over 3 years ago, and the world shut down. Over 15 million lives have been lost to COVID-19. Starting in January 2020, we committed to do everything we could to help preserve life and bring an end to this pandemic. We utilized a vaccine platform technology based on recombinant adenovirus vectors that we had developed previously for other pathogens. The Ad26 vaccine for COVID-19 demonstrated robust efficacy in humans, even after a single shot, and showed continued protection against virus variants that emerged. This vaccine has been rolled out across the world by the pharmaceutical company Johnson & Johnson, and over 200 million people have received this vaccine, particularly in the developing world.

Unlike the mRNA vaccines, adenovirus vaccines do not require subzero freezing and provide greater CD8⁺ T cell responses and more durable long-term efficacy, and thus are particularly well suited for global use. It has been estimated that adenovirus COVID-19 vaccines have saved over 8 million lives worldwide.

I would like to thank everyone in my laboratory for their hard work during the pandemic, all my collaborators in academia, industry, and government, and the King Faisal Foundation for this amazing honor and recognition. Most of all, I would like to thank my family, my wife Fina who is here with us today and my daughters Susanna and Natalie, for their continuous love and support, without which this work would not have been possible.

Thank you.