

Your Majesty; Your Royal Highness; The King Faisal Prize ;
Fellow Laureates; and Esteemed Audience:

It is an honor and pleasure to receive a share of the King Faisal Prize in Chemistry. Over the COVID pandemic, we have lived through one of the most challenging times in modern history. We have seen friends, colleagues, and loved ones suffer and have lost far too many to this disease. The pandemic has underscored how fragile life is but also how important science can be in addressing such challenges head-on and improving our lives. I find it troubling that throughout this era, science has been politicized, which has led to some marginalizing certain aspects of it. That is why I believe it is so important to highlight major advances through prizes and honors like this one. Let me be clear, while scientists are not always right --- in fact, at any moment in history, even the most accomplished can be wrong, science always eventually gets it right.

Through these experiences, we now know how critical it is to understand the chemistry underlying life and to use that knowledge to rapidly develop technologies for tracking and treating disease. One vital component of our work aims to use nanotechnology to restructure DNA and RNA into forms that make them more potent medicines for treating debilitating types of cancer and neurological disease. Through this work, we hope to usher in a new era of powerful and precision genetic medicines where we can attack and treat disease at its genetic routes.

Recognizing the researchers who make these contributions is important as it both validates and inspires many in the field. Therefore, on behalf of Northwestern University and the talented students and postdoctoral researchers, who make up my research team, I am thrilled to be recognized with this great honor. We will do our best to deliver on the promise. In closing, we thank the prize foundation and the Kingdom of Saudi Arabia for their extraordinary generosity and hospitality.