

**ADDRESS BY THE PRESIDENT OF INDIA,  
SHRI RAM NATH KOVIND  
AT THE COMMEMORATION OF THE 10<sup>TH</sup> ANNIVERSARY OF  
THE PARTNERSHIP BETWEEN  
THE DEPARTMENT OF BIOTECHNOLOGY AND THE  
WELLCOME TRUST**

**New Delhi, November 12, 2018**

1. I am happy to be here for the commemoration of the 10<sup>th</sup> anniversary of the partnership between the Department of Biotechnology, Ministry of Science and Technology, and the Wellcome Trust. This partnership, the India Alliance as it is known, was set up in 2008 as the first co-funded association of a government science organisation and an international charity. Phase I of the Alliance has focused on biomedical research that covers basic, clinical and public health science.
2. As we have just been told, the Alliance has lived up to the vision of those who gave it shape. In the past 10 years, it has awarded 320 fellowships to researchers in 93 institutions across 34 Indian cities. It has laid special emphasis on younger researchers, at the start of their careers, when support is most crucial. The Alliance, I am glad to learn, has designed flexible support programmes for women researchers who are coming back to the lab after a break for family or maternity reasons.
3. This attempt to widen the social, regional and gender diversity of science in our country is deserving of praise. Much of our scientific talent is lost because enough opportunities are not available in smaller centres, outside big cities – or because our system cannot sufficiently accommodate deserving women candidates who are striving to balance a rewarding career with domestic demands. As I have said on earlier occasions, this is a situation that urgently needs to be

addressed – whether in academic institutions, R&D facilities, industry or government.

4. Life sciences today offer a frontier that is still largely unexplored. It is worth noting that while textbooks of the foundations of physics change little from year to year, textbooks of biology and medicine are a work in progress even at fundamental levels. The sciences of genetics, of evolution and of human development have yielded enormous knowledge in recent years, but we are only at the beginnings of a new age of exploration.
5. It is sobering to remember that the human genome was sequenced only about 15 years ago. In relative terms, the collaboration of Information Technology and Big Data with the biological sciences is still in its infancy. There is so much that lies ahead. If I could use a historical analogy, we have built the steam engine but the bio-scientific equivalent of the Industrial Revolution lies before us. Partnerships such as the one between DBT and the Wellcome Trust will power this new revolution. And I am confident you will have the full support of the Indian scientific community, ably led by the Principal Scientific Adviser, Dr K. VijayRaghavan.
6. As it completes its first decade, this is an opportune moment for the India Alliance to draft its priorities for the next phase – to look ahead with even greater courage and go forth even more boldly. Just as the Alliance was started by not doing simply more of the same, you must now open a new path. What could that new path be? Today, through science and technology, humans wield unimaginable power over the future of our planet. We therefore have a responsibility like never before. And scientists, particularly bio-scientists, are our soldiers and generals in the battle to safeguard our planet, our species and our future.
7. To my mind, there are four frontlines in this battle. The first is the environment. Our air, water and soil must be cleaned.

While we do so, we must mitigate the consequences on human and livestock health. An enhanced thrust on studying human and animal health in real environments and finding solutions to problems such as asthma, respiratory disorders and cancers is needed.

8. The second frontline is that of lifestyle diseases. Diabetes, hypertension and cardiac diseases are on the rise. In the quarter-century since 1990, the number of Indians living with diabetes grew from 26 million to 65 million. In the same period, the incidence of all cancers increased by almost 30 per cent. Diet and lifestyle are key factors, as also maternal, foetal and neonatal health. Both prevention and treatment are vital.
9. The third frontline is infectious disease. While we take on known infectious diseases, lesser-known ones threaten to expand. Here too we must study the disease in the context of its environment and all its hosts. For example, how does Nipah virus reside in bats? How may its infection spread? How do we test candidate vaccines for humans? These are global challenges. Your Alliance must address these issues and partner globally. Disease, like science, knows no boundaries. Pandemic influenza viruses don't need passports and visas to spread. On the other hand, the shrinking of animal habitats is creating room for zoonotic diseases and diseases that jump species.
10. The final frontline is diseases of the brain. Factors that include urban stress and a significant elderly population have left India facing a mental health epidemic. Preventive measures, relevant to our genetics and our lifestyle, are in the realm of theory, waiting to be discovered. We must discover these if our people are to age well, with full mental capacities. If this is not researched by us in our population, ailments such as dementia will be a major problem – and solutions from elsewhere will not fit here.

11. Let these four frontlines define the future of the India Alliance. To win this battle, it is critical to democratise the adventure of biotechnology in India, and to research and find answers to pressing and neglected diseases that have long troubled our people and our country. I am certain that our extremely capable Minister, Dr Harsh Vardhan, a medical doctor himself, will help take forward this process.

Ladies and Gentlemen

12. We are at the edge of an era of great hope as well as of great uncertainty. Personalised and precision medicine; genomic medicine; lab-generated organs; rationalising data privacy with data use for clinical research and the larger public good – issues such as these offer scope for our well-being but could also pose bioethical dilemmas as well as legal questions.

13. Separately, but perhaps relatedly, there is the subject of regulation and policy framing. In India, in various fields, we have sometimes found a gap between those who are practitioners and those who are regulators. As the biosciences grow and evolve, I would like more practitioners to come into regulatory roles as well. This too is an objective for all of us to consider and to work towards. Of course this objective would only be a subpart of the greater objective of ensuring a healthy life for every Indian and indeed every citizen of our shared planet.

14. With those words, I once again congratulate DBT and the Wellcome Trust for completing 10 years of the India Alliance. May the Alliance continue to thrive and prosper in the years ahead!

Thank you  
Jai Hind!