

**SPEECH BY
YAB DATO' SERI ABDULLAH BIN HAJI AHMAD BADAWI
PRIME MINISTER OF MALAYSIA
AT THE LAUNCH OF BIOMALAYSIA 2005
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PUTRAJAYA INTERNATIONAL CONVENTION CENTRE**

Assalamualaikum warahmatullahi wabarakatuh dan salam sejahtera.

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Menteri Sains, Teknologi Dan Inovasi

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YBhg. Dato' Suriah Abdul Rahman
Ketua Setiausaha
Kementerian Sains, Teknologi Dan Inovasi

Excellencies

Distinguished guests and speakers

Ladies and gentlemen

1. Let me say that it is a special privilege for me to be here with you this morning to take part in this important event – an event important for the sciences in general and for Malaysia in particular. I am heartened to see the participation of such diverse speakers and delegates, both local and foreign, in this convention. I had the opportunity to walk through the many exhibitions here just now, and I am delighted to see firsthand the variety of biotechnology initiatives currently underway. My sincere thanks and appreciation go to the Ministry Of Science, Technology and Innovation and to the Malaysian Industry-Government Group for High Technology (MIGHT) for their hard work in organising this event. I am sure the activities lined up over the next three days – comprising panel discussions, networking opportunities and biotech exhibitions – will reveal the enormous possibilities Malaysia has to offer in biotechnology, both for research and for industry.

Ladies and Gentlemen

2. If the 20th century was the age of chemistry and physics, the 21st century will be known in history as the era of life sciences. Man has, of course, explored and utilised

biological processes for centuries. But with the explosion of knowledge at the molecular level, the significance of life sciences truly took a revolutionary turn. Biological processes have advanced to become 'biotechnology'.

3. The emergence of this technology coincides with the growing gravity of some of humanity's greatest challenges. One such challenge is the issue of food sufficiency. Today, the world is feeding more than twice the number of people than in 1950. Yet, available arable land is declining all around the world, competing with other uses. The limitation of land requires us to produce greater yields than ever before, especially in the face of growing populations.

4. Another challenge relates to the issue of environmental protection and conservation, particularly how we can reduce the environmental impact of our daily activities. Consumption of fossil fuels and use of non-biodegradable materials are some of the biggest contributors to environmental degradation. It has become clear that if this trend is not reversed, the earth will lose its life-supporting functions. Our livelihoods, and our lives, will be affected and will eventually become unsustainable.

5. Yet another challenge, especially to developing countries, is the fight against the scourge of disease. Every year, millions of children and adults die from diseases that could easily be prevented by vaccination. Many millions more die of 20th century diseases like AIDS, heart disease and other modern living ailments. A new approach to wellness, disease prevention and treatment needs to be developed to counter the effects of poor health and illness, especially in the world's less developed countries.

6. Biotechnology has a vital role to play in answering some of our most difficult challenges. For example, researchers have been able to add genes to rice and maize which enable the plants to withstand toxic and infertile soil, a problem which affects many areas in the tropics. The yields and quality of such agriculture produce have improved tremendously in many parts of the world. Meanwhile, many companies have begun to utilise bio-processes to produce biodegradable materials such as bio-plastics. Still many discoveries are being identified to protect or even reverse some of the environmental damage we have seen. In the field of medicine, biotechnology is utilised to produce better diagnosis methods as well as better curative treatments. People all

over the world are living better and fuller lives. Such is the force of this field of knowledge. Such is the force, ladies and gentlemen, that the possibilities of biotechnology appear to be boundless and infinite – limited only by the power of human drive and the ingenuity of the human mind.

7. The Malaysian Government has recognised the importance of biotechnology for some time now. We see it as one of the key drivers of the country's development, now and for the future. Biotechnology will not only drive improvements in the quality of life of Malaysians; it will also propel the creation of knowledge and innovation in the country, crucial elements in our quest to climb up to a higher value-added stage of development. With the application of biotechnology we can unlock additional value in traditionally strong sectors such as plant commodities and manufacturing. We can create substantial value in new and upcoming sectors such as healthcare, nutraceuticals and industrial bio-processing.

8. Malaysia has been blessed with a wealth of resources that lend themselves to the development of biotechnology. We are renowned for our biodiversity and for our strength in resource-based industries. We are acknowledged for our excellent infrastructure, our political stability, our strong economic fundamentals, and our cost-competitive skilled labour. However, in order to utilise these strengths and resources fully, we have to undertake a serious and concerted effort in providing the right environment for biotechnology to flourish. We have to assist those with the expertise to carry out biotech-driven R&D or to develop biotech-driven businesses, or as is often the case today, to do both.

Ladies and gentlemen

9. The potential of biotechnology has been well acknowledged. However, unlike other sectors, the characteristics of biotechnology do not make it a natural candidate for organic free-market growth. Biotechnology is very research-driven and is still very much based on the discoveries of public institutions. The journey between discovery to cashflow is a long one, sometimes longer than the patience of conventional private sector investors. The development of biotechnology, therefore, has long depended on government support and has, more often than not, been catalysed by government

initiatives. We can see this in many countries with strong and advanced biotechnology sectors. It is with this in mind that the Malaysian Government commits itself today to undertake the role of developer and catalyst of the country's biotechnology sector, by unveiling the National Biotechnology Policy.

10. This landmark policy encompasses nine thrusts which underline the direction and measures offered by my Government towards developing biotechnology for wealth creation and national well-being.

11. Thrust One of the National Biotechnology Policy is to transform and enhance the value creation of the agricultural sector through biotechnology. Thrust Two is to capitalise on the strengths of biodiversity to commercialise discoveries in health-related natural products and bio-generic drugs. Thrust Three is to leverage our strong manufacturing sector by increasing opportunities in bio-processing and bio-manufacturing. These three thrusts reflect one of the main principles behind the National Biotechnology Policy – which is to leverage the country's existing capabilities and to move them up the value chain. In this initial phase of biotechnology development, we are targeting biotech sub-sectors which will shift the country's agriculture, healthcare and manufacturing sectors to the high-tech stage.

12. Thrust Four, meanwhile, is to establish biotechnology centres of excellence in the country, where we bring together multi-disciplinary research teams in coordinated initiatives. Thrust Five is to build the nation's human capital in biotechnology via education and training. There is no doubt biotechnology is built from the power of research and human intellect. My Government therefore aims to enhance Malaysia's knowledge generation capabilities by nurturing research activities and by building a strong human capital base.

13. At the same time, my Government firmly believes in giving balanced attention to the entire biotechnology value chain, from R&D to commercialisation to the market. This means that resources must be provided to support biotech ventures at all stages of development. Thus, Thrust Six of the National Biotechnology Policy is to apply

competitive 'lab to market' funding and incentives to encourage committed participation from academia and the private sector, including Government-linked Companies.

14. As an initial step, my Government will be structuring dedicated matching grants for biotech R&D and commercialisation, including financial support in patent application. To assist R&D ventures even further, a fund will be established to assist in the training costs of skilled workers and the hiring of researchers in promoted areas. The details of these grants are currently being worked out under the 9th Malaysia Plan process, but those interested to apply for funding now may do so under existing Government grant schemes such as the I.R.P.A. grant scheme and M.T.D.C.'S R&D commercialisation scheme.

15. To encourage biotechnology investment from private sector corporations, the Government is offering 100 percent group tax relief or deduction on qualifying investments in biotechnology. Meanwhile, biotech businesses can benefit from pre-packaged tax incentives currently provided by the Government, including 10 year tax-exempt pioneer status, exemption of import duties on approved equipment and materials, double tax deductions on qualifying expenses and R&D investments, among many others.

16. To increase access to funds for biotech companies, venture capital participation will be strengthened and entry to the capital markets will be enhanced. Entry criteria into MESDAQ, for example, must allow for the special characteristics of biotech companies with its long gestation periods and higher risk profiles.

17. Of course, as industry participants will attest, assistance is not all about financial help. Mindful of this, the Government is committed towards improving the operating environment on several fronts. Thus, Thrust Seven of the policy is to improve the country's innovation system by reviewing the country's legal and regulatory framework. Part of this effort involves making regulatory changes to give researchers a share in the ownership of intellectual property and in the monetary rewards derived from their work, together with their institutions and investors. Regulations and procedures pertaining to

employment of knowledge workers will also be reviewed to increase the biotechnology 'brain-gain' into the country.

18. Taking all these strands together, Thrust Eight of the National Biotechnology Policy sets out to build international recognition for Malaysian biotechnology. Biotechnology has become a globalised activity. Countries from all over the globe are trying to find a niche within the global biotechnology value chain. Similarly, Malaysia needs to find its own position, based on the country's unique offering of strengths and capabilities.

Ladies and gentlemen

19. The Malaysian Government, particularly the Ministry of Science, Technology and Innovation, has worked hard at putting together a comprehensive biotechnology policy that is relevant and competitive. However, while we appreciate that policy direction is important, we also recognise that the merit of any policy can only be seen in its execution. Therefore, the Ninth and final thrust of the National Biotechnology Policy is to establish a dedicated and professional agency to spearhead the development of Malaysia's biotechnology sector.

20. The "Malaysian Biotechnology Corporation" is thus set up under the oversight of an Implementation Council headed by myself. This agency is entrusted with identifying good value propositions in both R&D and commerce, and to assist these ventures via financial support and developmental services. The Malaysian Biotechnology Corporation will work closely with all relevant agencies and ministries, such as the Ministry of Health, the Ministry of Agriculture & Agro-Based Industries and the Ministry of Commodities & Plantation Industries. Malaysian Biotechnology Corporation will also be working under the purview of the Ministry of Science, Technology and Innovation to enhance biotech R&D and to help improve the regulatory environment.

21. After much consideration, the Government has also decided to employ an approach that moves away from an infrastructure focus to one that builds on the capabilities of existing institutions. In line with this, the Government will be developing a network or nexus of centres of excellence from existing institutions around the country,

to be known as BioNexus Malaysia. This BioNexus will represent the best institutions that Malaysia has to offer in specific biotechnology sub-sectors.

22. As a start, resources will be put into developing three Centres of Excellence. The Centre of Excellence for Agricultural Biotechnology will be focused around MARDI and Universiti Putra Malaysia. The Centre of Excellence for Genomics and Molecular Biology will be focused in Universiti Kebangsaan Malaysia. The Centre of Excellence for Pharmaceuticals and Nutraceuticals will be built in the original BioValley site in Dengkil. These Centres of Excellence will become anchors and attract the set-up of other institutions and companies in related areas of expertise. In future, these Centres of Excellence will link up with other BioNexus centres all around the country in a network of collaboration and exchange of ideas.

Ladies and gentlemen

23. After much planning and effort, we come together today to inaugurate BioMalaysia 2005, an event which marks a significant juncture in the development of Malaysia's biotechnology sector. Today we embark upon a new policy for biotechnology and we renew our commitment towards realising our ambitions. I hope that you will share in my determination to make Malaysia a key player on the world's biotech and life sciences stage. We must make it our vision and shared objective to be a key contributor to the world's store of knowledge. We must endeavour to cultivate dynamic biotech enterprises and world-class biotech minds. We must take this opportunity to disprove naysayers and detractors by focusing our efforts and putting in the work required to achieve results.

24. I invite all stakeholders to work together to realise Malaysia's biotechnology potential. My Government will do all it can to provide the right environment, but success requires all parties to play their part. In this, I hope that I can count on all of you to give your very best, to pool your expertise and ideas in the spirit of collaboration, for the good of our people, the nation and the world at large.

25. I am hopeful, yet I am also realistic. Malaysia is a new and small entrant to the biotech stage, facing many challenges. Nevertheless, I am confident that we have

formulated a sound set of strategies and a competitive package of support. Judging by this and by our strengths and potential, I can say that I look forward to exciting and rewarding times ahead for Malaysian biotechnology.

26. On that note, ladies and gentlemen, it is my pleasure to declare BioMalaysia 2005 officially open. Thank you.