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**SPEECH BY RADM (NS) LUI TUCK YEW, SENIOR MINISTER OF STATE,
MINISTRY OF EDUCATION AND MINISTRY OF INFORMATION,
COMMUNICATIONS AND THE ARTS, AT THE OPENING CEREMONY OF
THE INTERNATIONAL SCIENCE YOUTH FORUM@SINGAPORE (ISYF) ON
MONDAY, 19 JANUARY 2009, AT 8.15AM, AT THE HWA CHONG
INSTITUTION AUDITORIUM**

Sir Anthony James Leggett,
Nobel Laureate

Mdm Low Khah Gek,
Director, Curriculum Planning and Development, Ministry of Education

Professor K. K. Phua,
Director of Institute of Advanced Studies, Nanyang Technological University

Mr Choong Buat Ken,
Chairman, Board of Directors, Hwa Chong Institution

Mr Peter Yeo,
Chairman, Board of Governors, Hwa Chong Institution

Mr Ang Wee Hiong,
CEO/Principal, Hwa Chong Institution

Distinguished Guests, Teachers, Students,

Ladies and Gentlemen
Good morning.

National Archives of Singapore

1. It gives me great pleasure to welcome all of you to the inaugural International Science Youth Forum@Singapore or ISYF.

2. To our guests and participants from abroad, I extend a warm welcome to you. I am sure all participants are looking forward to a week of stimulating discussions and learning and I trust it would prove to be highly enriching and memorable for each of you.

Singapore as a Strong Supporter of Science Education and Research

3. Science education has always been a key focus in Singapore's education system. In our early years after independence, it contributed significantly to the rapid industrialisation of Singapore and its transformation into a competitive economy. In recent years and looking ahead to the future, Research, Development and Innovation would continue to be the key drivers in Singapore's knowledge economy. Hence, we will continue to invest in science education in the schools and at the tertiary level as this is the bedrock to our comparative advantage as we move into an increasingly technologically-driven future.

4. Singapore has already gained worldwide recognition for high standards in science. In the recent release of the Trends in International Mathematics and Science Study (TIMSS) 2007, Singapore once again performed well, emerging first in Science at both Primary Four and Secondary Two levels. We need to continue to invest and build on this core expertise in science in our schools.

5. Beyond our performance in such international assessments and competitions like the Olympiads, what we seek to do is to nurture among our students a healthy curiosity about things and the ability to think independently and creatively. For those who are capable and passionate about science, we will provide further opportunities for them to deepen their interests and develop their talents in a nurturing environment. Such an environment for scientists include

knowing that the work they do can be deeply meaningful and truly significant, impacting the lives and livelihoods of many in a praiseworthy manner. I am, therefore, pleased that our students have another forum in the International Science Youth Forum to examine science in the context of its contributions to society and impact on mankind.

Science and the Ever-changing Environment

6. The theme for ISYF 2009 is “Science and the Ever-Changing Environment”. Today, the world faces an environment fraught with many challenges such as global warming, limited water resources, the need for alternative energy, natural disasters, and, terrorism. Science may yield new knowledge and provide new understanding and solutions. However, some of these problems are very complex and science alone may not have the answers. In responding to the ever-changing environment and the pursuit of new solutions, we continue to rely on traits such as creativity, resilience, perseverance, passion, determination and the ability to integrate different knowledge from different disciplines. These are the very traits that we discern in those who have made an impact on the world. And, that is why, as part of the International Science Youth Forum, you will have the opportunity to interact with eminent scientists and Nobel Laureates specially invited to share their experiences with you.

7. During your interaction with the Nobel Laureates and other eminent scientists, focus not only on the content of their research, but also on their life experiences, motivation and reasons for research. You might just be rewarded with a lot more interesting information than you would expect. For example, you can ask Professor Kurt Wüthrich why he chose to major in sports, in addition to Chemistry, and what he learnt from doing so. Learn from Professor Douglas Osheroff how he coped with the pressure he faced when he was a student at Caltech. And find out why Professor Anthony Leggett during his year of fellowship at Kyoto University, avoided using English and mingled with local

Japanese instead of with his fellow western visitors. I am certain that you will be inspired and enriched by what they have to share with you.

Inspiring a Passion in Science

8. I understand that as part of your preparation for the forum, you were given a set of books to read. These books are meant as prior reading, to whet your appetite for the discussions during the forum. In the book, “Uncle Tungsten – Memories of a Chemical Boyhood”, you would have read about a boy’s passionate curiosity and his bizarre experiments with ‘stinks and bangs’ such as tossing sodium off a bridge to see how it bursts into fire in the water below or producing billowing clouds of noxious-smelling chemicals in his home lab. As the boy’s interests spread to investigations of light, electricity and photography, he discovered his first great scientific heroes, men and women whose genius lay in understanding the hidden order of things and disclosing the forces that sustain and support the tangible world.

9. Of course, we all know the book was written by Dr Oliver Wolf Sacks, a well-known British neurologist. I hope his book and the other books have inspired in you a similar curiosity and the spirit of wanting to find out why things happen and what makes the world tick. I hope too that the books have spurred you to share your thoughts on various issues related to science during the forum and to a deeper discourse among the participants and with the Nobel Laureates. I look forward to reading your thoughts and deliberations on the ISYF website.

10. I am pleased to also learn that forum participants will be presenting their own research to fellow students from different countries and engaging in hands-on activities at the Hwa Chong Science Research Centre. Many researchers find new inspiration from the dynamic flow of good ideas from like-minded researchers. I, therefore, strongly encourage all participants to interact with your

peers to find out more about the research work they are undertaking and to spark off further learning in the process.

11. I am pleased to learn that there will be a concurrent educators' programme with dialogue and interactions with the Nobel Laureates and professional sharing. As teachers play a critical role in inspiring students to want to pursue the learning of science and shaping a lifelong interest in science, I encourage the teacher-participants to acquire further knowledge so that you can continue to inspire and guide students through their research work. The teacher-participants would be given the opportunity to discuss ethical and social issues in environmental conservation, science education and scientific breakthroughs. I hope you would bring these discussions back to your own classrooms to fuel a greater interest in the pursuit of science among your students.

Conclusion

12. I would like to commend the organisers, Hwa Chong Institution and Nanyang Technological University's Institute of Advanced Studies, for their effort in organising this meaningful event. For both student and teacher-participants, I am sure that the International Science Youth Forum will be an excellent opportunity to learn and to share. I wish you also stimulating conversations and fast friendships over the next five days.

13. Thank you.