BY AMRESH GUNASINGHAM

THREE of the world’s best scientific minds have descended on Singapore with a mission: to inspire some of Asia’s best young students in their pursuit of scientific knowledge and excellence.

Over the next four days, Sir Anthony Leggett and Professors Douglas Osheroff and Kurt Wuthrich – all Nobel laureates – will engage students in a series of dialogues and discussions to share their experiences.

Sir Anthony won the Nobel Prize for physics in 2003, an award clinched seven years earlier by Prof Osheroff. Prof Wuthrich won the Nobel Prize for chemistry in 2002.

Eighty-two students – representing 25 secondary schools and junior colleges from countries that include China, Indonesia, Malaysia and Singapore – are here for the inaugural International Science Youth Forum at Hwa Chong Institution (HCI).

One of the keynote speakers is Sir Anthony, widely recognised as a leader in the study of low-temperature physics. He believes many fascinating challenges lie ahead for budding, young scientists.

"In the next 20 to 30 years, there are likely to be major revolutions in science, particularly in physics," he said.

At the same time, he stressed the importance of a varied approach to learning. Sir Anthony himself read Latin, Greek and philosophy as a first degree in Oxford before later studying physics.

Philosophy proved particularly useful later in his career as a physicist. "It taught me never to take anything for granted and constantly question many of the scientific ideas which, at the time, were well-established ideals," he said.

BEYOND TEXTBOOKS

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Professor Phua Kok Khoo, the director of the Institute of Advanced Studies at Nanyang Technological University (NTU), co-organiser of the event, said the Singapore academic curriculum could occasionally be too rigid to cultivate “out of the box” thinking.

"Students have so many subjects to learn and hardly any time to think about ideas outside the textbook," he said.

At the forum, students can learn from the eminent scientists not just about their research, but also how they think and go about their research, he added.

The forum, which began on Sunday, is the first of its kind for high school and pre-university students in Asia.

It is being held in conjunction with HCI’s 90th anniversary celebrations.

Half of the 82 selected students are from Singapore, representing eight secondary schools and junior colleges.

The forum also includes 28 teachers who will exchange teaching methods for physics and chemistry.

One participant, Christopher Poh, 17, from HCI, is excited by the prospect of meeting the Nobel laureates.

"The interaction will give me a unique insight into how they work and think," he said.

Speaking at the opening ceremony yesterday at HCI, Senior Minister of State (Education and Information, Communications and the Arts) Lim Tuck Yew said meeting the challenges of a rapidly changing world requires scientists to have skills like creativity, passion and the ability to synthesise knowledge.

"These are the traits that those who have made an impact on the world possess," he said.