



Excursion

On the fourth day of the camp, students traveled to the southern tip of the island city of Mumbai, where the Tata Institute of Fundamental Research (TIFR), one of the premiere science research institutes of the country is located. TIFR Director Prof. Mustansir Barma gave an overview of the history of the institution and the cutting edge research that happens in various departments at TIFR. The students then split up into small groups and visited different laboratories, where they interacted with scientists. The scientists were quite impressed by the questions that some of the students asked. After lunch, the students visited the Nehru Planetarium, where they watched the show - 'The Awesome Universe'.



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The host institution of 2010 ASC was Tata Institute of Fundamental Research (TIFR), Mumbai, India. The event was organised by Homi Bhabha Centre for Science Education, a National Centre of TIFR.

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2010 Asian Science Camp

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Asian Science Camp 2010

The primary aim of the Asian Science Camp, from its inception in August 2007, has been to inspire talented youth of Asia to pursue careers in science. The idea of the Asian Science Camp was conceptualized by the Nobel laureates Prof. Yuan-Tseh Lee (Chinese Taipei) and Prof. Masatoshi Koshiha (Japan) at the the 55th annual meeting of Nobel Laureates and Students in Lindau, Germany in September 2005 where they noticed that there was a poor representation of Asian students.

The fourth Asian Science Camp was held in Mumbai, India. The previous camps were successfully held at Taipei (2007), Bali (2008) and Japan (2009). The cosmopolitan city of Mumbai (formerly Bombay) is the commercial and entertainment capital of India, vibrant with energy and life.

Students from seventeen countries across Asia and ten distinguished scientists including two Nobel laureates participated in the camp. At the 2010 Asian Science Camp, 198 students interacted with their peers from other Asian countries and engaged in discussion with eleven leading scientists, largely of Asian origin. The program included plenary lectures, camps of small group interactive sessions, and poster making sessions of 3 to 5 member teams. Each team had students from different countries, who collaboratively made a poster. The teams competed for awards to the best five posters. The closing function included a program on dances of India enjoyed by all.



Posters

Mid-day, 21st August... The Unison Halls at Hotel Four Points by Sheraton was a site of intense intellectual and colorful activity... the poster preparation session was under way. A wide range of themes was selected by students. Predominant among the themes were those pertaining to applied research areas like energy, climate change, nanotechnology and biotechnology. A few groups also focused on theoretical areas like symmetry and particle physics. Students used interesting ways of representation which involved creative interplay of text and images.

Were there conflicts while making the posters? Some groups thought so. A Malaysian participant believes that the reason was cultural differences -the different styles of thinking and communication. An Indian wanted to elaborate more on certain concepts while his team members wanted the text to be more precise.

What inspired the posters? Some of the participants were inspired by plenary lectures by particular speakers, while others derived their inspiration from the camp sessions. Seven judges shortlisted 9 posters for oral presentations, of which five won medals. The Gold medal went to 'The Transformers - Trap to Kill AIDS'; Silver medals were awarded to two posters - 'Water Greenification' and 'Don't be fools, Use Biofuel'; while Bronze medals were given to 'Cancer Saves' and Photo-chemiosmotic Cell- Green Energy Redefined'.



how Seymour Benzer pioneered the area of neurogenetics, talked about how every researcher is confronted with the dilemma of whether to be 'safe' or 'daring' when choosing problems to work on. On the issue of life skills, Prof. Ernst talked about how besides science one also needs to have hobbies and passions. In his talk on Central Asian painting art, he had a slide which read, 'Never forget your passion; Do not become a one-sided nerd'!

Paul Mastudaira's advice to young researchers is to never view mistakes as failures, but to view them as significant stepping stones to making great discoveries. Many speakers like Prof. R. Chidambaram, also emphasized the interdisciplinary nature of research and how as a researcher, one should also be well-read and open to ideas from other disciplines. In fact, some of the speakers described how they drew insights from other disciplines to solve problems in their research areas in innovative ways.



Prof. Yi Rao



Prof. Martyn Poliakov



Prof. R. Chidambaram



Prof. Richard Ernst



Prof. M. Kobayashi



Prof. T. V. Ramakrishnan



Prof. Satyajit Mayor

Some interesting questions

Madhusudan Raman (India)
How reliable are statistics on global warming? Are the effects on glaciers anthropogenic?

Bessima Jamal (Malaysia)
Do you agree that "science is running ahead of ethics"? How can we define ethics in a way acceptable by all?

JenWei Hsueh (Chinese Taipei)
We do not fully understand the rules of this field (Quantum Hall effect). How can we be confident about the results and predictions?

Yuko Arai (Japan)
How do cells sense how many cells they must make and what kind of cells they must make to make a perfect body through developmental stages?

Samarth Hegde (India)
Is there any way to create particles with anti-particles? If not, does it mean that the universe was created with more matter than anti-matter? Or is there other process in the universe that decreases the amount of anti-matter since the creation of universe?

Zhao Ma (China)
During cellular motion, is the receptor machinery dynamic and based on external environment or predefined?

Chanawee Hirunpattaraslip (Thailand)
Is it possible to change cancer cells into stem cells because both cancer and stem cells divide indefinitely?