

**Shukri Ab. WAHAB & Nasaruddin RAHMAN**

Academy of Sciences Malaysia

***Fostering a Culture of Excellence in STI for the Youth:  
Role of the Academy of Sciences Malaysia\****

**Abstract**

This presentation outlines the roles and functions of the Academy of Sciences Malaysia and some of the Academy programmes focusing on programmes targeted for the youth from both primary and secondary schools towards inculcating a culture of excellence. The programme includes Nobel Laureate Outreach Programme, which is a Training Camp for Students & Teachers on Scientific Research Skills, National Science Quiz, and Science Motivation Session with Nobel Laureate. Other programmes are Science Excellence Workshops, Public Lectures by Nobel Laureates, Back to School Lectures and Innovation Award. Most of the programmes are currently funded by the Government of Malaysia including the Nobel Laureate Programme with an allocation of RM 4.5 million under the Ninth Malaysia Plan (2006-2010).

---

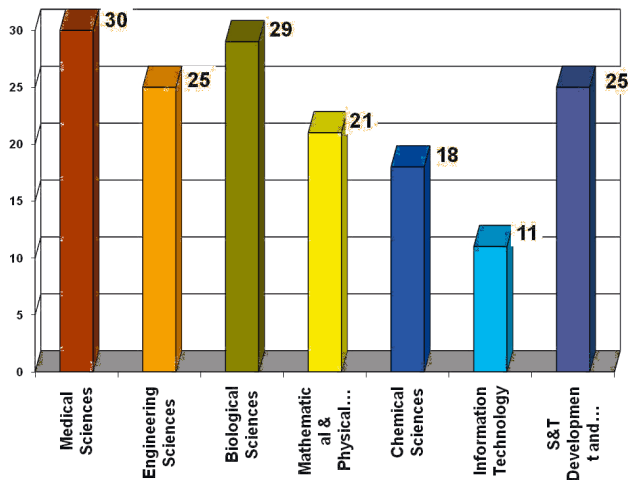
\* The paper is a Power point presentation delivered at the Conference.

## Academy of Sciences Malaysia

- Established in February 1995 under the Academy of Sciences Malaysia (ASM) Act 1994
- Statutory body under Ministry of Science, Technology and Innovation (MOSTI)
- Inaugurated by YABhg. Tun Dr. Mahathir Mohamad (former Prime Minister of Malaysia) on 8 September 1995
- Launching Grant of RM 12.4 million (1995-2004)
- From 2005 (Operational expenditure & Development budget) from Government of Malaysia

## Distribution of ASM Fellows

Total no. of Fellows: 159



Last update 13<sup>th</sup> AGM, 26 April 2008

## Vision

“To be the Scientific Thought Leader in Advancing Science for Malaysia to Become a Contributor to Science”

## Mission

.....” to pursue, encourage and enhance excellence in the fields of science, engineering and technology for the development of the nation and benefit of mankind....”

## Thrusts

### 1. Development for Science

(accelerating STI for knowledge generation, new discoveries & creating new value-added opportunities for future development)

### 2. Science for Development

(utilization of science for development, wealth creation and societal well-being)

## Activities

- i. Provide Advice to Government on STI
- ii. Fostering Culture of Excellence in STI
- iii. Upgrading Technological Capability in Malaysian Industry
- iv. Promoting Public Awareness and Understanding of STI
- v. Enhancing International Collaboration
- vi. Scientific Publications

## At international level

- Member to AASA, ICSU, IAP, IAMP, SCA, FASAS
- Hosting ICSU Regional Office for Asia and the Pacific ([www.icsu-asia-pacific.org](http://www.icsu-asia-pacific.org)) &
- International Science, Technology and Innovation Centre for South-South Cooperation under the Auspices of UNESCO ([www.istic-unesco.org](http://www.istic-unesco.org))

## Programme for the Youth

- Nobel Laureate Outreach Programme
  - Training Camp for Students & Teachers on Scientific Research Skills
  - Science Motivation Session with Nobel Laureate
- Public Lectures by Nobel Laureates
- National Science Challenge
- Back to School Lectures
- Innovation Awards (School category)

### Training Camp for Students & Teachers on Scientific Research Skills

- Jointly organised by ASM, MOSTI, MOE, and University
- To introduce students to the process of scientific research & to inspire them to explore & understand the exciting world of STI
- An intensive 7-day residential programme to train students to conduct research through a step by step hands-on learning module with facilitation by a group of young scientists as their mentors
- Creative modules, instruction modules, research modules, other modules (group dynamic, report writing & presentation of research project)
- Separate programmes for teachers
- Four best teams will progress to the final round of National Science Challenge



*Students discussing their research findings*

*Students being briefed by their Mentors.*



*Students presenting their research findings in front of the judge.*

*During the Closing Ceremony*



## Science Motivation Session with Nobel Laureate

- Special session just for school children
- Science motivation talk by Nobel Laureate in which the importance of science, exploring the unknown and there is nothing impossible in science normally inculcated in the young



*Nobel Laureate Dr Richard Roberts' with students*

## Public Lectures by Nobel Laureates

- Students attended public lectures by Nobel Laureates
- In 2007 – ASM organised 4 public lectures by Nobel Prize Winners (Dr. Richard Roberts, Dr. El-Baradei, Prof. Zewail & Prof. Sherwood Roland)
- 3 Nobel Prize Winners confirmed to come to Malaysia in 2008 (Prof. Gerardus't Hooft, Prof. Roger D. Komberg & Prof. Ryoji Noyori)



*Public Lecture by Nobel Laureate  
Prof Sherwood Rowland*

*Audience including school children at  
Nobel Laureate Prof Sherwood  
Rowland Public Lecture.*







*Audience including school children at Noble Laureate Prof Ahmed Zewail Public Lecture.*

*Public Lecture by Noble Laureate Prof Ahmed Zewail.*



## National Science Challenge

- Started in 1983 and now in its 21<sup>st</sup> Year
- Involving about 1000-1500 secondary schools
- Supported by Ministry of Education, Ministry of Science, Technology and Innovation, Novozymes Malaysia Sdn. Bhd. ASTRO Discovery Channel and Animal Planet
- Grand Prize include the “Prime Minister’s Challenge Trophy”, RM 2000 for the school, certificate and a study visit to Stockholm, Sweden and Copenhagen, Denmark
- Special arrangement with Royal Swedish Academy of Sciences
- The champions witness the prestigious Nobel Prize Ceremony on 10 Dec. and attending the events and lectures organised in conjunction with the ceremony and get to meet the Nobel Prize winners in person and talk to them



*The Champions of the 2007 National Science Challenge receiving their awards*

*Winners being briefed at the Royal Swedish Academy of Sciences*



*Winners with 2007 Nobel Laureate Prof. Gerhard Ertl*

2007 Nobel Prize Ceremony



## Back to School Lectures

- ASM Fellows and scientists gives lectures and motivate secondary schools students
- To harness the vast experience of ASM Fellows to motivate students to embark on science based careers
- In 2007 – 9 lectures were organised with participation of 7 ASM Fellows
- In 2008 – 9 lectures were organised with participation of 8 ASM Fellows



*Lectures by ASM Fellow & Scientist*

## National Innovation Award (School Category)

- ASM manages and coordinate National Innovation Award
- The Award is given to recognize innovative and creative efforts towards generating simple new ideas, simple new innovations and products by harnessing S&T towards impacting wealth creation and societal well being
- Open to all Government schools
- Innovation must consist element of originality, creativity, applicability & functionality
- Prize include National Innovation Award Trophy, RM 20,000 and certificate
- In 2007- 53 schools participated in the competition



*The Right Hon. Prime Minister is being briefed by one of the Award winners.*

*Winners gather together during Award Ceremony*



## Conclusion

- ASM will continue to foster a culture of excellence in STI for the youth
- Existing programmes will be undertaken and new programmes will be developed including possible collaboration with other Academies worldwide



# *Academy and Integrity*

