

FOREWORD

AN ACCOMPLISHMENT REPORT ON THE 30TH ANNUAL SCIENTIFIC MEETING

The 30th Annual Scientific Meeting (ASM) of the National Academy of Science and Technology (NAST) had for its theme “*Energy Security and Sustainability: Assessing the Present and Foreseeing the Future.*” The meeting was organized by the Engineering Sciences and Technology Division led by Acd. Ceferino L. Folloso as Chair. This was parallel and sequel to the 27th ASM in 2005 which dealt with food security because, after all, energy and food security are two sides of the same coin – the national imperative to secure for our people the blessings of a modern self-reliant and prosperous nation.

The ASM sought to bring the scientific community with various stakeholders together to inquire into the problems and opportunities in energy generation, utilization and conservation. In preparation for ASM, the Academy conducted roundtable discussions on relevant and high profile energy concerns. At the end of the meeting, the objective was to draft resolutions or action plans for achieving energy security including dedicated R&D programs, addressed to the Executive Branch, to Congress, the private sector, the general public and to the scientific community itself.

There were four plenary sessions, each topic dealing with issues and concerns affecting energy security and sustainability in the country. The topics identified were: “*Challenges in the Energy Sector;*” “*Energy and Health*”, “*Energy and Food*,” and “*Energy Conservation and Competitiveness.*” Aside from the plenary sessions, there were parallel technical sessions on energy sources in the afternoon of the first day where biofuels and other energy sources and technology were the foci of discussion.

Department of Energy Secretary Angelo T. Reyes, keynoted the affair while energy experts Francisco L. Viray, Vincent Perez, Virgilio T. Villancio, Algerico Mariscal and Meneleo J. Carlos, shared their expertise as plenary speakers. The participants were stakeholders belonging to the private sector, energy users, the oil products producers and distributors, the government agencies concerned with energy primarily the Department of Energy, the academe and other interested citizens. The two-day affair included scientific posters session that also featured the electronic poster version, investiture of new members of the Academy, and awarding ceremonies.

The 30th ASM was organized with the assistance from the Department of Science and Technology (DOST) and Monsanto Philippines, Inc. as patrons; Centro Escolar University, De La Salle University and UNESCO as sponsors; Ateneo De Manila University, Department of Agriculture through its Biotech Program, ISAAA, PCASTRD, PCHRD, Resins, Inc., SEARCA, UPLB Foundation, Inc., Institute of Plant Breeding, UPLB, Aspen Multisystem Corporation, Biotechnology Coalition of the Philippines, Crop Life Philippines, Emilio Aguinaldo College, Mapua Institute of Technology, Omnibus Bio-Medical Systems, PCAMRD, PhilRice, Program for Biosafety Systems, RFG Photography and Souvenir, Syngenta Philippines, Inc., as donors, exhibitors and advertisers. A total of PhP 2,215,214 was solicited from the abovementioned patrons, donors, sponsors, exhibitors and advertisers.

The 30th ASM Steering Committee was composed of Acd. Ceferino L. Folloso, Acd. Eliezer A. Albacea, Acd. Angel L. Lazaro III, Acd. Leonardo Q. Liongson, Acd. William T. Torres, Acd. Filemon A. Uriarte Jr., Acd. Reynaldo B. Vea and Acd.-Elect Alvin B. Culaba.

There were 218 evaluated entries for the scientific posters session: ASD - 60; BSD - 59; CMPSD - 58; ESTD - 8; HSD - 25; and SSD - 8. The winners of the 2008 NAST Best Poster Competition were as follows:

Agricultural Sciences

Introduced Bananas: New Cultivars, More Options for Banana Growers. Felipe S. de la Cruz jr., Lavernee S. Gueco, Olivia P. Damasco, Visitacion C. Huelgas, Fe M. de la Cueva, Teodora O. Dizon, Vida Grace O. Sinihin and Agustin B. Molina Jr.

Biological Sciences

A Rapid in Vitro Calorimetric Method of Determining Bactericidal Potency of Antimicrobials.
Ronald R. Matias, Leilani Baltazar, Wilfredo Verar Jr. Mark Ritumalta, Frederick de la Cruz, Madeline Fabros, Leila Florendo, Mario Panaligan and Alexander Tuazon

Chemical, Mathematical and Physical Sciences

Detection of Wilson's Disease by Atomic Absorption Spectrophotometric Analysis of Serum ad Urinary Copper and Ceruloplasmin Analysis.

Ma. Cristina B. Portilla, Jason Paul C. Manlinong, Cherrie B. Pascual and Abdias Aquino

Engineering Sciences and Technology

Enzyme Assisted Extraction and Carica papaya Latex-catalyzed Transesterification of Jatropha curcas L. Oil for Biodiesel Production. Andy B. Aquino Veronica P. Migo, Maxima E. Flavier and Evelyn B. Rodriguez

Health Sciences

Molecular Design of Sunflower (Helianthus annuus) Trypsin Inhibitor-1 (SFTI-1) Peptide Analogues of Dengue Virus NSB-NS3 Serine Protease Inhibitor.
Jerome Panibe

Social Sciences

Tindupi, P'ras, Samaluma, Ganus: Seasonal Calendar, Climate Change and Adaptive Strategies Among the Subanun in Mt. Malindang.
Luchi C. Servidal Castro, Liwayway S. Vilorina, Johanna E. Hanasan, and Reymuind T. Bago.

A special prize was also awarded to the poster related to the theme.

Supercapacitor Electrodes from Natural Materials.
Benedict C. Laguesma, Carole M. Loable, Verna Aiza S. Posada, Tristan Calasanz and Erwin P. Enriquez

Six resolutions were presented and adopted in the plenary session and later endorsed to DOST Undersecretary Graciano P. Yumul and DOE Undersecretary Ramon G. Santos. These were:

1. *Support for the Use of Sugarcane and Cellulosic Feedstocks for Bioethanol Production;*
2. *Optimization of Crop Yields and Process Conversion of Jatropha for Biodiesel Production;*
3. *Review of Pertinent Provisions of the Philippine Clean Air Act;*
4. *Review of Government Policy on the Use of Nuclear Energy;*

5. *Strengthen Demand Side Management Programs; and*
6. *Resolution for Energy and Health.*

A total of 718 and 700 guests and participants attended the Annual Scientific Meeting on the first and second day, respectively. The number of participants was deliberately reduced to 600 as compared with the previous years. All invitees were prescreened and identified as stakeholders from the private sector different agencies and organizations in the energy sector.