

NAST

Annual

Report

1997

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The National Academy of Science and Technology (NAST), the recognition and advisory body on science and technology, presents this annual report for Calendar Year 1997.

A handwritten signature in black ink, which appears to read "Conrado S. Dayrit". The signature is fluid and cursive.

CONRADO S. DAYRIT, M.D.
President

NATIONAL ACADEMY OF SCIENCE AND TECHNOLOGY 1997 ANNUAL REPORT

The Academy has the honor to report its accomplishments for the calendar year 1997 in pursuit of its mandated functions of recognition, advisory, and establishment of scientific linkages, national and international.

NAST MANDATES

1. RECOGNITION FUNCTION

1.1 NATIONAL SCIENTIST RANK AND TITLE

The Academy recommended to the President, Fidel V. Ramos, two top scientists for the rank and file of NATIONAL SCIENTIST: Dolores A. Ramirez, Ph.D. and Jose R. Velasco, Ph.D. The confirmation will be on March 24, 1998 at the Food and Nutrition Research Institute Quadrangle, DOST Compound, Bicutan, Taguig, Metro Manila.

Dr. Dolores A. Ramirez, geneticist, is noted for her comprehensive researches on the cytogenetics of various Philippine crops; for her pioneering works on biological genetics, foremost of which are the genetics of the *macapuno* mutant coconut, the biological basis of resistance, gene introgression, and molecular markers; and for significantly promoting the development of generics in the Philippines and guiding its progress from the traditional to the molecular.

Dr. Jose R. Velasco, plant physiologist, is noted for his researches on the nutrition and photoperiodism of the rice plant as early as the 1950s, mineral nutrition of areas planted to coconut—its relation to the growth and performance of the coconut plant and to the *cadang-cadang* phenomenon—and the development and utilization of coconut products.

There are at present eight living National Scientists, namely: Dr. Encarnación Alzona (Philippine History), Dr. Luz Oliveros-Belardo (Phytochemistry), Dr. José Encarnación, Jr. (Economics), Dr. Fe del Mundo (Pediatrics), Dr. Paulo C. Campos (Medicine), Dr. Aldredo V. Lagmay (Psychology), Dr. Pedro B. Escuro (Plant Breeding and Genetics), and Dr. Clara Y. Lim-Sylianco (Biochemistry). Fourteen National Scientists have passed away.

1.2. BENEFITS OF ACADEMICIANS

1.2.1. Research Fellowships

The Academy supported twenty-one Academicians in their researches by means of research fellowships (Table 1).



Table 1
RESEARCH FELLOWS AND THEIR PROJECTS

| Academician | Title of the Research | Duration |
|------------------------------|--|--|
| 1. RAMON F. ABARQUEZ, JR. | Hypertension Practice Guidelines | Aug. 1, 1997 - July 31, 1998 |
| 2. CLARE R. BALTAZAR | Annotated Bibliography on Philippine Biodiversity: Philippine Insects (Butterflies) | June 1, 1996 - May 31, 1997 |
| 3. BENJAMIN D. CABRERA | (1) Environmental Health (Past, Present, and Future) (2) Overview on Public Health (Past, Present, and Future) | Mar. 15, 1997 - July 15, 1997 |
| 4. SOLITA F. CAMARA-BESA | Bioethical and Environmental Concerns of Animal Testing | Oct. 1, 1997 - June 30, 1998 |
| 5. MAGDALENA C. CANTORIA | Preparation of Monographs of Natural Drugs for a Proposed Philippine Pharmacopeia | Nov. 1, 1996 - Oct. 31, 1997 (Deferred) |
| 6. LEDIVINA V. CARIÑO | Interrelation of Social Science as Another Branch of Knowledge | Oct. 15, 1997 - July 15, 1998 |
| 7. LEOPOLDO S. CASTILLO | Annotated Bibliography on Philippine Biodiversity: Philippine Livestock and Poultry (Agrobiodiversity) | Oct. 1, 1997 - Sept. 30, 1998 (Extension) |
| 8. MERCEDES B. CONCEPCION | Alternative Population Scenarios: Review and Appraisal | Nov. 15, 1997 - July 15, 1998 |
| 9. SALCEDO L. EDUARDO | Annotated Bibliography on Philippine Biodiversity: Philippine Parasitic Invertebrates | Apr. 1, 1997 - Mar. 31, 1998 |
| 10. JOSÉ I. ENCARNACIÓN, JR. | Papers in Economic Theory IV: On the Labor Supply Function | June 1, 1997 - May 31, 1998 |
| 11. RAUL V. FABELLA | The Great Dragon Effect: Mainland China and the ASEAN Slowdown | Nov. 1, 1997 - May 31, 1998 |
| 12. RAFAEL D. GUERRERO III | An Annotated Bibliography of Philippine Freshwater Fishes | Apr. 1, 1997 - Mar. 31, 1998 |
| 13. MELECIO S. MAGNO | Assessment of the State of the Physical Sciences in the Philippines | Jan. 1, 1997 - Oct. 31, 1997 (Extension) |
| 14. EVELYN MAE T. MENDOZA | Assessment of the State of the Chemical Sciences in the Philippines | Jan. 1, 1997 - June 30, 1997 (Extension) |
| 15. BIENVENIDO O. JULIANO | Assessment of the State of the Mathematical Sciences in the Philippines and its Application in Industry | Jan. 1, 1997 - June 30, 1997 (Extension) |
| 16. BIENVENIDO F. NEBRES, SJ | | |
| 17. TITO A. MIJARES | | |
| 18. FAUSTINO T. ORILLO | Phase II - Bookwriting-Philippine Science Heritage Center | Apr. 1, 1997 - Mar. 31, 1998 |
| 19. TEODULO M. TOPACIO, JR. | Annotated Bibliography on Philippine Biodiversity: Animal Diseases, Prevention, and Control (Agrobiodiversity) | Oct. 1, 1997 - Sept. 30, 1998 (Extension) |
| 20. BENITO S. VERGARA | Phase I-C Literature Research [Part of the important contributions of the Philippines to the world of science and technology (PSHC)] | May 1, 1997 - Apr. 30, 1998 |
| 21. PRESCILLANO M. ZAMORA | Annotated Bibliography on Philippine Biodiversity: Philippine Lycopods | Jan. 1, 1997 - Dec. 31, 1997 |

1.2.2. Travel Assistance

1.2.2.1. Acd. Dolores A. Ramirez received travel assistance to visit Victoria, Australia from April 19-30, 1997. Acd. Ramirez studied the operation of the Australian Genetic Manipulation Advisory Committee.

1.2.2.2. Acd. Evelyn Mae T. Mendoza was given travel assistance to participate in the Federation of Chemistry Societies of the Philippine Congress on May 28-31, 1997 in Puerto Princesa, Palawan.

1.2.2.3. Acd. Rafael D. Guerrero III received travel assistance to present a paper entitled "Integrated Coastal Zone Management: The Philippine Experience," at the Pacific Congress on Marine Science and Technology Meeting (PACON International) in Hong Kong on Aug. 6-8, 1997.

1.2.2.4. Acd. Teodulo M. Topacio, Jr. was given travel assistance to preside over the 20th Federation of Veterinary Associations (FAVA) Council of Representatives Meeting and the 10th FAVA Congress on Aug. 23-29, 1997 at Cairns, Queensland, Australia.

1.2.3. Publication Assistance

1.2.3.1. Publication assistance was awarded to Acd. Edito G. Garcia for his research entitled "Immunodiagnosis of Parasitic Infections in the Philippines."

1.2.3.2. Publication of the 1993 and 1994 NAST Transactions; the 1996 Annual Report; *Gamot, Tabak, at Sandata: Isang Talakayan*; and Guide to the Collections of Philippine Type-Specimens of Parasitic Protozoa, Helminths, and Arthropods was completed. These are now available at the Secretariat.

1.3 AWARDS

1.3.1. The Outstanding Young Scientist Awards

The National Academy of Science and Technology gave Outstanding Young Scientist Awards to: (1) Leonorina G. Cada, Ph.D. (Chemistry); (2) Blessilda P. Raposa, Ph.D. (Mathematics); (3) Cesar L. Villanoy, Ph.D. (Physical Oceanography); (4) Rhodora R. Aldemita, Ph.D. (Botany); (5) Damasa M. Macandog, Ph.D. (Botany); (6) Ricardo T. Jose, Ph.D. (History/Area Study); (7) Orville L. Bondoc, Ph.D. (Animal Breeding/Genetics); (8) Rodel D. Lasco, Ph.D. (Forestry); (9) Edward H.M. Wang, Ph.D. (Orthopedics); and (10) Antonio Miguel L. Dans, M.D. (M.S., Clinical Epidemiology).



The 10 Outstanding Young Scientists for 1997 (standing) during the NAST 19th Annual Scientific Meeting.

NAST Mandates: 1. Recognition Function

1.3.2. The Philippine Talent Search for Young Scientists Awards

The Philippine Talent Search for Young Scientists Awards were given to the following: Gabriel O. Romero, Ph.D. (First Prize); Ricolindo L. Carino, Ph.D. (Second Prize); Orville L. Bondoc, Ph.D. and Maricor N. Soriano, M.S. (Third Prize); Rizaldo E. Aldas, M.S. and Noel G. Sabino, M.S. (Special Citations).

1.3.3. The 1997 NAST-TWAS Science Prize Award in Physics

Caesar A. Saloma, Ph.D., professor at the National Institute of Physics, UP Diliman, was the 1997 NAST-TWAS Science Prize awardee. He was recognized for his pioneering work in the field of applied experimental physics, paving the way for the development of signal processing techniques and in the design and construction of the sinusoid-crossing (SC) detector and SC-based spectrum analyzer.

1.3.4. The Outstanding Published Scientific Paper Award (OPPA) and the Outstanding Publication Award (OPA)

To encourage scientists to publish their research outputs in the Philippine scientific journals and to give local journals a chance to flourish and improve in quality, the Outstanding Published Scientific Paper Award and the Outstanding Publication Award have been instituted (Tables 2 and 3).

**Table 2
OUTSTANDING PUBLISHED SCIENTIFIC PAPERS**

| Title of Paper | Author/s | Journal | Significance |
|---|--|--|---|
| The Fluid Dynamics of Shuttle Streaming in <i>Physarum polycephalum</i> | Rafael D. Saldaña David Smith | <i>AGHAM (DLSU Journal of Science)</i> 20(1):51-60 (1995) | The paper makes a pioneering effort to integrate a calcium oscillator model in modelling a fundamental biophysical phenomenon -- shuttle streaming in <i>Physarum polycephalum</i> . Using mathematical and computational methods, it provides new insights into the determination of the biophysics of cell motility, particularly that of amoeboid motion. This type of motility may have some relevance to the surface motions of mobile cells in vertebrates (e.g., T-cells, macrophages, and fibroblasts). |
| Amplification and Molecular Cloning of Tenebrosin Genes from the Sean Anemone <i>Actinia tenebrosa</i> | Ivan-Marcelo Duka Anthony Mackinlay | <i>The Philippine Journal of Biotechnology</i> 5(2):127-142 (1994) | The paper represents a detailed study of a coelenterate gene coding for a toxin. Many of the toxin genes from several animals have been reported, but this is a pioneering work as far as cloning and DNA sequencing of <i>Actinia tenebrosa</i> toxin genes are concerned. |
| Biology of a Local Population of the Striped Stem Borer, <i>Chilo suppressalis</i> (Walker) (Lepidoptera: Pyralidae) and Evaluation of its Responses to Different Rice Types and <i>Bacillus thuringiensis</i> Formulations | Jesus M. Magbanua Cesar G. Demayo Amelita T. Angeles | <i>Philippine Entomologist</i> 9(5):479-522 (1995) | This paper gives us an insight on coevolution of host/pest relationships. The present trends of insect control make use of viable alternatives to insecticide control such as host plant resistance through conventional breeding and genetic engineering of novel genes coming from nonrelated species. The response of rice stem borer <i>Chilo suppressalis</i> to rice types and endotoxins of <i>Bacillus thuringiensis</i> (Bt) showed genetic variability |



Table 2...continuation

| Title of Paper | Author/s | Journal | Significance |
|---|-------------------|--|--|
| Production and Partial Characterization of Monoclonal Antibodies Against Hemorrhagic Septicemia Strain <i>Pasteurella multocida</i> Group B | Florita S. Maslog | <i>The Philippine Journal of Biotechnology</i> 2(2):59-73 (1991) | <p>within the species. Engineering pest resistance genes from various rice types and <i>Bt</i> genes to cultivated rice varieties to control this pest may not become successful. The possibility of the pest to overcome the toxicological effect of the resistance factors/endotoxins could ruin the program of host plant resistance. However, the studies done by Magbanua et al. provide important information on the development of strategies to crop protection workers. Proper deployment of genetically engineered rice to delay or prevent adaptation of selected genotypes of the insect pests is one very important implication of this study.</p> <p>This paper has three breakthroughs in science: (1) Development of a field diagnostic kit against hemorrhagic septicemia (HS) in cattle and carabao using the produced monoclonal antibodies, (2) Development of a therapeutant when the produced monoclonal antibodies are used in passive immunization of the target animals exhibiting symptoms of HS, and (3) Development of a subunit vaccine against HS which gives more specific and solid protection to vaccinated animals. This subunit vaccine has been given a license by the Bureau of Animal Industry to be manufactured and produced in a large scale.</p> |
| The MNLF and the Emergence of the Bangsamoro Identity Among the Muslims in the Philippines: A Historical Perspective | Jamail A. Kamlian | <i>The Mindanao Forum</i> 10(1):1-28 (1995) | Explains the emergence and historical development of the MNLF and the emergence of the Bangsamoro identity among the Muslims in the Philippines. |
| Pesticide Residues in Foods and the Environment as a Consequence of Crop Protection | Amelia W. Tejada | <i>The Philippine Agriculturist</i> 780(1):63-79 (1995) | <p>This research will contribute significantly to the awareness by various sectors of the society of the levels of pesticide residues in foods as well as in the environment and how this could be reduced to lessen the risks or hazards that the general public are exposed to. The farmers, if they will follow the recommended pre harvest interval (PHI), would contribute significantly to the reduction of pesticides in our foods. These PHI needs some data to be the basis for such recommendations. Furthermore, data generation for basing our Maximum Residues Limit (MRL) will protect us from the imported goods containing residues beyond the tolerable levels which could pose hazards to the health of consumers. Rapid, cheap, and simple techniques to detect pesticide residues were developed to know immediately whether our foods are safe for consumption. This will significantly simplify pesticide residue analysis.</p> |



Table 2...continuation

| Title of Paper | Author/s | Journal | Significance |
|--|---------------------|--|---|
| Pesticidal Efficacy of the Formulated Physic Nut, <i>Jatropha curcas</i> L., Oil on Pests of Selected Field Crops | Aida D. Solsoloy | <i>Philippine Journal of Science</i> 124(1):59-74 (1995) | The paper deals with the pesticidal efficacy of the formulated product derived from <i>Jatropha curcas</i> L. seed kernel. It indicates the product's potential as an alternative to chemicals against store grain insect pests and golden snail of rice, or as a complement to synthetic chemicals during the early pest infestation on field cotton. The development of the product suggests future reduction in the use of expensive and hazardous chemical pesticides while ushering in the investigation of botanical pesticides towards a practical agricultural application, i.e. suitable formulated products such as emulsifiable concentrate (EC), granules etc., for farmers' direct use. Moreover, as the product is made up of natural fatty acids based on chromatographic identification, this knowledge opens another avenue for exploration of nonconventional sources of safe and biodegradable pesticides. |
| Drug Interaction Consciousness in the Department of Medicine, Philippine General Hospital, with Emphasis on the Use of a Computer-Assisted System for Reporting and Monitoring Adverse Drug Interactions | Kenneth Hartigan-Go | <i>Acta Medica Philippina</i> 28(3):170-177 (1992) | The paper has three general objectives: (1) to describe the knowledge and attitudes regarding drug usage and related phenomena among medical and paramedical personnel, (2) to elucidate the patterns of drug prescribing and extent of adverse drug interactions in the Department of Internal Medicine, and (3) to determine the extent to which the use of available information in drug interactions affects patient management. |

Table 3
OUTSTANDING PUBLICATIONS

| Title of Monograph/Journal | Author/s Editor/s | Publisher | Significance |
|---------------------------------------|---|---|--|
| POVERTY, GROWTH and the FISCAL CRISIS | Emmanuel S. de Dios Felipe M. Medalla Socorro Gochoco Edita A. Tan Gonzalo M. Jurado Cristina C. David Eliseo R. Ponce Ponciano Intal, Jr. Aurora Sanchez Beta P. Balagot Florian A. Alfuro | Philippine Institute of Development Studies and the International Development Research Center | The monograph establishes in a scholarly and persuasive manner the relationship between the long-term problems of development, as embodied in the problem of poverty, and the exigencies of attaining macroeconomic balance and sustaining growth, demonstrating that the latter is in fact essential in attaining the former. This was in contrast with other opinions at the time, which argued that to work for fiscal stabilization in the short-term was necessarily inimical to poverty alleviation. Other influential opinions, on the other hand, accepted the necessity of closing the fiscal gap, but advocated radical spending |



Table 3...continuation

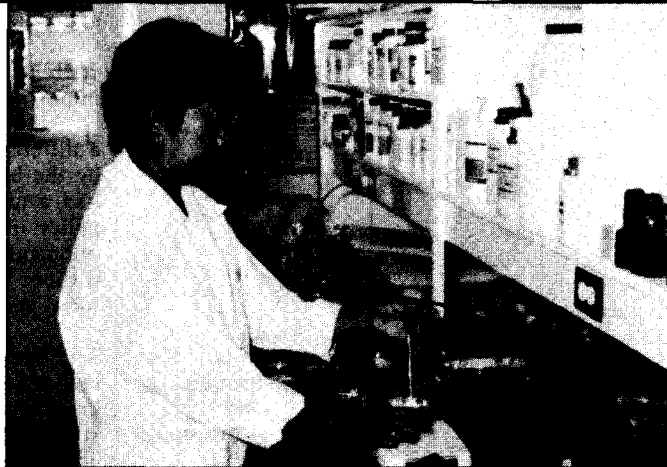
| Title of Monograph/Journal | Author/s Editor/s | Publisher | Significance |
|--|------------------------------------|--|--|
| Pesticides, Rice Productivity, and Farmers' Health | Agnes C. Rola Prabhu L. Pingali | International Rice Research Institute and World Resources Institute (WRI) | <p>cuts to achieve this. The work argues, on the other hand, that resolving the immediate fiscal crisis was an essential condition for the harder task of poverty-alleviation. But at the same time, it took a prudent course by resisting the large expenditure cuts and tight money policies to close the fiscal gap, especially since these were likely to affect social spending adversely. It argued instead for raising revenue, especially through real property taxation, to close the fiscal gap while still continuing to underwrite important social policies.</p> <p>In practice, although policy took a different course from that advocated by the book in other matters, the book had a measure of influence on public policy in that it drew attention to the importance of solving the fiscal crisis without sacrificing essential elements of social spending.</p> <p>The impact of pesticides on the environment and human health has been much talked about but rigorous studies on the subject are very rare. This particular monograph which reports pioneering research in the Philippines is a very significant eye-opener in terms of integrated pest management, pesticide policy, and new research agenda on reducing pesticide use without reducing productivity and preventing damage to health. It is also path-breaking research of an interdisciplinary character ranging from entomology, economics, policy, institutional factors, and health effects. The monograph has been in great demand as evidenced by two printings of 2000 copies each.</p> |
| <i>Philippine Journal of Internal Medicine</i> | Esperanza Icasas-Cabral (Editor) | Philippine College of Physicians, bimonthly, Vol. 36 (1996) | <p>This journal keeps all internists abreast with new developments in the practice of internal medicine and its related subspecialties in the country. Its six issues per year allow international subscribers to be regularly updated on internal medicine -- the Philippine experience. New studies being undertaken locally that are of significance to all medical practitioners are reported</p> |
| <i>The Mindoro Forum</i> | Jaime A. Lim (Editor) | MSU-Iligan Institute of Technology, Iligan City Vol. X, No. 2 (1995) (Science Issue) | <p>This journal publishes outstanding researches and breakthroughs in the sciences in MSU-IIT.</p> |





Rodel D. Lasco, Ph.D., (Forestry) documenting the Nalaad indigenous agroforestry system.

Edward H.M. Wang, M.D., (Orthopaedics) evaluating patients before admission for limb-saving surgery.



Rhodora R. Aldemita, Ph.D., (Botany) taking the pH of the liquid medium.

1.3.5. Special Award to Dr. Frank Co Tui

The Academy gave a special award to Dr. Frank Go Tui in recognition of his promotive role in the establishment of the National Science Development Board (NSDB) and of his outstanding contribution to Philippine science and technology.

A Presidential Award was likewise given to Dr. Frank Co Tui, as endorsed by NAST and DOST.

1.3.6. Research Awards to Outstanding Young Scientists

The Academy, in cooperation with the Department of Science and Technology, continued and strengthened the project "OYS-on-the-Go" where OYS awardees are given financial assistance to continue their research pursuits (Table 4)

To disseminate information regarding their researches and help promote a science culture, Academicians and NAST awardees are featured in radio or television interviews and press conferences (Table 5).

Table 4
DOST-NAST "OYS ON THE GO" UPDATES
(As of December 18, 1997)

| Project Title | Proponent | Status | Amount and Funding Agency |
|---|--------------------------------|---|---------------------------|
| 1993 Outstanding Young Scientists | | | |
| Production of Export Quality Organic Fertilizer and/or Soil Conditioner by a Super "Tipid" Livestock Waste Briquetting System | DR. SEVERINO S. CAPITAN | Ongoing under PCARRD. Duration: April 1, 1996 - Mar. 31, 1997 | PHP 200,000.00 PCARRD |
| 1994 Outstanding Young Scientists | | | |
| Destructiveness and Potential to Transmit Microbial Diseases by <i>Scirtothrips dorsalis</i> Hood | DR. CECILIA P. REYES | Approved for funding by PCARRD. MOA between PCARRD and YLFI-EAC being processed | PHP 200,000.00 PCARRD |
| A General Theory of Banach-Valued Henstock Integration | DR. SERGIO S. CAO | Ongoing under NRCP. Duration: April 1, 1995 - May 3, 1997 | NRCP |
| 1995 Outstanding Young Scientists | | | |
| A Comparison of the Clinical Scoring System and the Rapid Shallow Breathing Index in Predicting Success in Weaning Patients on Mechanical Ventilation | DR. ABUNDIO A. BALGOS | Ongoing under PCHRD. Duration: Started May 15, 1996 | PHP 200,000.00 PCHRD |
| Language Factors in Cognitive Arithmetic | DR. ALLAN BENEDICT I. BERNARDO | Ongoing under NRCP. Duration: Aug. 1, 1996 - Nov. 30, 1997 Annual progress report was submitted to DOST. | PHP 200,000.00 NRCP |
| Problems in the Invariant Theory of Finite Groups (with applications to coding theory and the theory of spin model) | DR. JOSE MARIA P. BALMACEDA | Ongoing under NRCP. Duration: Oct. 1, 1996 - Sept. 30, 1997 Third quarter report submitted | PHP 200,000.00 NRCP |
| Morpho-physiological Effects of Elevated CO ₂ Concentration on Mungbean and Corn | DR. MARIBEL L. DIONISIO-SESE | Endorsed by the Executive Council for DOST funding. The proposal is with PCARRD for evaluation | PHP 200,000.00 PCARRD |
| Recurrent Selection for Horizontal Resistance to Late Blight (<i>Phytophthora infestans</i>) in Potato | DR. ZENAIDA N. GANGA | Ongoing under PCARRD. Duration: May 1, 1997 - Oct. 31, 1998 | PHP 200,000.00 PCARRD |
| Development and Molecular Analysis of Transgenic Tomato Plants Resistant to Bacterial Wilt | DR. ANTONIO C. LAURENA | Evaluations by Academicians were given to Dr. Laurena on Nov. 10, 1995 with a follow up letter to submit a revised proposal incorporating suggestions by NAST and PCARRD. No reply as of December 18, 1997. | |
| Tagging Bacterial Wilt Resistant Genes in Tomato Using Random Amplified Polymorphic DNA | DR. MERLYN S. MENDIORO | Dr. Mendioro submitted to DOST the recommendation of the UPLB Institutional | PCARRD |

NAST Mandates: 1. Recognition Function

Table 4...continuation

| Project Title | Proponent | Status | Amount and Funding Agency |
|--|--------------------------------|---|---------------------------|
| On a Sluggish Output and Exchange Rate Dynamics Once Again | DR. FIDELINA NATIVIDAD-CARLOS | Biosafety Committee that her proposal does not require biosafety clearance. Comments received from Acad. Fabella were sent to her by fax on Oct. 6, 1997 with a request for her to prepare the budgetary requirements for the project. | |
| 1996 Outstanding Young Scientists | | | |
| Optimization of Physical Treatments to Improve Quality and Shelf-Life of Banana and Mango Fruits | DR. ANTONIO L. ACEDO, JR. | Ongoing under PCARRD. Duration: May 1, 1997 - Oct. 31, 1998 | PHP 200,000.00 PCARRD |
| Application of Acupuncture Analgesia and Therapy in Water Buffaloes | DR. JEZIE A. ACORDA | Ongoing under PCARRD. Duration: Feb. 1, 1997 - Jan. 31, 1998 | PHP 200,000.00 PCARRD |
| Break Junction Tunneling Measurement Facility | DR. ROLAND V. SARMAGO | Approved for funding by NAST. For implementation. | PHP 200,000.00 NAST |
| On Parallel Algorithms for m-Processor Scheduling | DR. ELIEZER A. ALBACEA | NAST endorsed this project to the DOST for funding. Forwarded to PCASTRD and Dr. Albacea was requested to revise his proposal according to their comments. | PHP 200,000.00 PCASTRD |
| Comprehensive Search for Bioactive Compounds from Marine Sponges and Their Associated Microorganisms in the Southern Philippines | DR. JOSE M. OCLARIT | Approved for funding by PCAMRD. | PHP 200,000.00 PCAMRD |
| 1997 Outstanding Young Scientists | | | |
| A Study of Lyotropic Liquid Crystals in Biological Systems | DR. LEONORINA G. CADA | NAST endorsed this project to DOST for funding. Referred by DOST to PCASTRD for review. Action pending. | |
| Analysis of Sea Surface Temperature Variability in Philippine Seas | DR. CESAR L. VILLANOY | Approved for funding by PCAMRD. MOA awaiting signature of concerned parties. | |
| CO ₂ Sequestration Potential of a Secondary Forest Ecosystem in the Makiling Forest Reserve | DR. RODEL D. LASCO | NAST endorsed this project to DOST for funding on November 6, 1997. Action pending. | |
| Performance Standards and Economic Weights of Traits Contributing to Breeding Efficiency in Livestock Crossbreeding Systems | DR. ORVILLE L. BONDOC | Dr. Bondoc submitted his revised proposal on November 2, 1997. The revised proposal was given to the evaluator for approval. Action pending. | |
| Evaluation of Transgenic IR72 Containing the Xa21 Gene for Bacterial Blight Resistance | DR. RHODORA R. ALDEMITA | Evaluations received from Academicians were transmitted to Dr. Aldemita for her action on Dec. 10, 1997. No reply as of Dec. 18, 1997. | |
| Response of <i>Gliricidia</i> -maize Hedgerow: An Ecophysiological Modelling Approach | DR. DAMASA B. MAGCALE-MACANDOG | Evaluations received from Academicians were transmitted to Dr. Macandog for her action on Dec. 10, 1997. No reply as of Dec. 18, 1997. | |



Table 5
 NAST RADIO INTERVIEWS REPORT

| Date | Interviewee | Host/Station |
|-------------------|---|--|
| February 11, 1997 | Dr. Allan Benedict I. Bernardo Psychology Department De La Salle University Taft Avenue, Manila | Ms. Venus Baldemor DZCA, 10:00 - 11:00 A.M. |
| February 14, 1997 | Dr. Ernesto S. Luis Deputy Director, ITDI-DOST with Ms. Rowena V. Briones, NAST | Ms. Susan Layos DZRM, 11:00 - 12:00 Noon |
| April 4, 1997 | Dr. Ernesto P. Lozada Dean, College of Engineering and Agro-Industrial Technology UP Los Baños, College, Laguna with Ms. Rowena V. Briones, NAST | Ms. Susan Layos DZRM, 12:30 - 1:00 P.M. |
| April 15, 1997 | Dr. Eliezer A. Albacea Institute of Computer Science College of Arts and Sciences UP Los Baños, College, Laguna | Ms. Venus Baldemor DZACA, 10:00 - 11:00 A.M. |
| May 6, 1997 | Dr. Candida B. Adalla Department of Entomology College of Agriculture UP Los Baños, College, Laguna with Ms. Rowena V. Briones, NAST | Ms. Susan Layos DZRM, 12:30 - 1:00 P.M. |
| May 6, 1997 | Dr. Roland V. Sarmago National Institute of Physics UP Diliman, Quezon City | Ms. Venus Baldemor DZCA, 10:00 - 11:00 A.M. |
| May 27, 1997 | Ms. Luningning E. Samarita Executive Director, NAST | Ms. Laila Tumanan DZEM, 11:00 - 12:00 Noon (telephone interview) |
| June 4, 1997 | Ms. Luningning E. Samarita Executive Director, NAST | Ms. Mely Tenorio DZRB, 10:00 - 10:30 A.M. |
| June 10, 1997 | Ms. Luningning E. Samarita Executive Director, NAST | Ms. Susan Layos DZRM, 12:30 - 1:00 P.M. |
| June 26, 1997 | Ms. Luningning E. Samarita Executive Director, NAST | Ms. Arlene del Mundo DZEM, 3:00 - 4:00 P.M. |



NAST Mandates: 1. Recognition Function

1.4. NAST EXHIBITS

The major programs and activities of NAST under the recognition and advisory functions, including the activities under the Academy's international and local scientific linkages, were featured during the 19th Annual Scientific Meeting held at the Westin Philippine Plaza Hotel, Manila, in July 1997.

The Academy also exhibited the achievements and researches of National Scientist Dr. Julian A. Banzon, as well as the other programs and activities of NAST during the 8th DOST Annual Science and Technology Fair in Davao City; the 1st Visayas Cluster S & T Fair in Bacolod City; the Science Day Celebration of the National Teachers College-Elementary Department.

1.5. THE PHILIPPINE SCIENCE HERITAGE CENTER

1.5.1. Status

The building for the Center is being constructed within the DOST Complex in Bicutan, Taguig, Metro Manila. It is targeted to be completed in May 1998 and to be inaugurated in June 1998, in time for the Philippine Centennial celebration. In the meantime, formal launching of the Center was held on Dec. 16, 1997 during the Science Information Forum on the Philippine Science Heritage Center at the Casino Español, Manila.

Additionally, the Center's prototype home page is now ready and accessible from the Internet. The temporary PSHC home page address is <http://www.stii.dost.gov.ph/pshc/intro.html>.



The groundbreaking ceremonies of the PSHC and the offices of NAST, NRCP, and SEI.

1.5.2. House Bill 9878

House Bill 9878: An Act Establishing the Philippine Science Heritage Center and Appropriating Funds for the Purpose. The bill was introduced by Hon. Congressman Ramon S. Bagatsing, Jr., Margarito B. Teves, and Leandro B. Verceles, Jr. The bill was approved accordingly in December 1997 and is now ready for reporting. The bill is now with the Committee on Appropriations, to which the bill was jointly referred, for comments.

1.5.3. Publications for the PSHC

1.5.3.1. NAST is currently publishing two books for the PSHC. The Department of Science and Technology had approved funding for "Monograph on the Algae of Taal Lake," by Dr. Macrina T. Zafaralla and Dr. Rolando P. Orozco; and "Systematics of Philippine Flora," by Prof. Juan V. Pancho.

1.5.3.2. Another project is the documentation of the "History of the National Science Development Board/National Science and Technology Authority/Department of Science and Technology," prepared by Acd. Jose R. Velasco, newly conferred National Scientist.

1.5.3.3. Finally, the Academy's project, Book Writing and Video Footage Production on the Lives, Research Works, and Contributions of Outstanding Philippine Scientists," for the PSHC is now on its second-year phase. NAST sources out funds to support printing of the book "Philippine Heroes of Science" with two versions: one for gradeschool and another one for the general public.

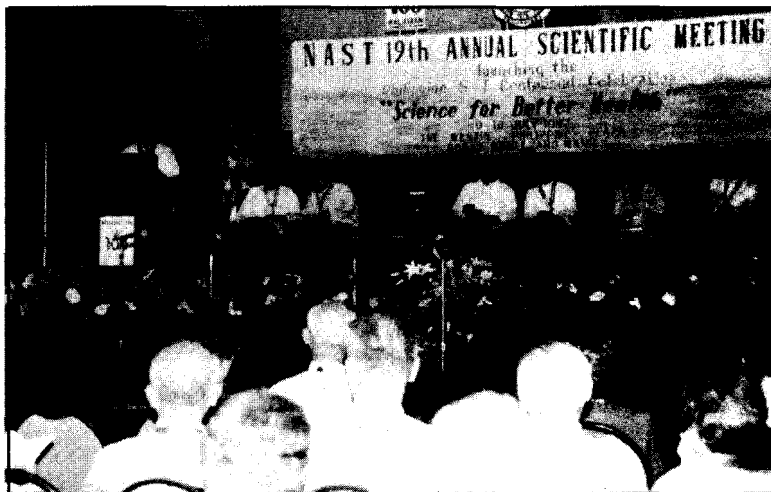
2. ADVISORY FUNCTION

2.1. The 19th Annual Scientific Meeting

The 19th Annual Scientific Meeting was held on July 9 and 10, 1997 at the Westin Philippine Plaza, CCP Complex, Pasay City. The theme was "Science for Better Health." Hon. Salvador H. Laurel, former Vice President and Chairman of the Philippine Centennial Commission, was guest speaker.

The members of the ASM Program Committee were Acds. Jose O. Juliano (Chairperson), Ramon F. Abarquez, Jr. (Co-Chair), Benjamin D. Cabrera, Solita Camara-Besa, Conrado S. Dayrit, Ernesto O. Domingo, Edito G. Garcia, Carmen Ll. Intengan, Quintin L. Kintanar, Perla D. Santos Ocampo, and National Scientists Paulo C. Campos and Fe del Mundo.

Four plenary sessions were held: (a) Overview on Public Health; (b) Overview on Environmental Health; (c)



NAST President Conrado S. Dayrit speaks at the 19th Annual Scientific Meeting.

NAST Mandates: 2. Advisory Function

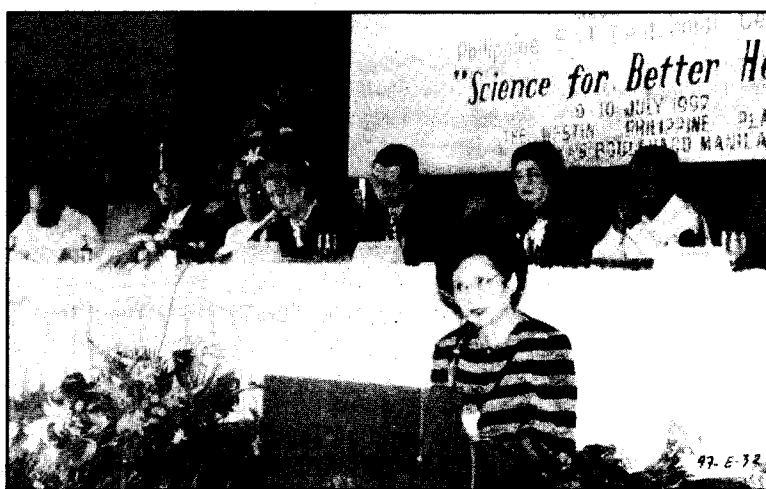
Overview on Clinical Medicine; and (d) Overview on Medical Education.

Nineteen papers were presented in the simultaneous divisional sessions (Table 6).

One hundred fifty-seven papers were accepted for poster presentation but twenty-three poster papers were not presented (Table 7).

The Board of Judges for the Best Poster Award selected and honored paper posters according to Division: Antitubercular

Constituents of *Lunasia amara* Blanco (Health Sciences Division); Complete Life Cycle of Philippine King Crab (*Scylla oceanica* Dana) Under Controlled Conditions (Biological Sciences Division); Successful Farming Systems in the Philippines: A Documentation (Social Sciences Division); A Strategy to Clone a cDNA Fragment Coding for a Novel Methionine-Rich Protein in Soy Bean (Mathematical, Physical, and Engineering Sciences Division); and Transfer of Tungro Virus Resistance from the Wild Rice *Oryza rufipogon* Griff. to the Cultivated Rice *O. sativa* L. (Agricultural Sciences Division).



Acad. Perla Santos Ocampo during one of the plenary sessions. Insert is Hon. Salvador H. Laurel, chairman of the Philippine Centennial Commission.

**Table 6
PLENARY SESSIONS DURING THE
NAST 19th ANNUAL SCIENTIFIC MEETING**

| Plenary Session | Speakers and Panelists | Designation and Institution |
|--|-----------------------------|--|
| A. Plenary Session I: Overview on Public Health | Teodora V. Tiglao, Ph.D. | Professor Emeritus Institute of Public Health University of the Philippines Manila |
| | Manuel M. Dayrit, M.D. | Former Assistant Secretary Department of Health |
| | Elizabeth R. Ventura, Ph.D. | Director, Office of Admissions University of the Philippines Diliman |
| | Alejandro N. Herrin, Ph.D. | Professor of Economics University of the Philippines Diliman |
| B. Plenary Session II: Overview on Environmental Health | Elma B. Torres, Ph.D. | Professor of Environmental Health University of the Philippines Manila |



Table 6...continuation

| Plenary Session | Speakers and Panelists | Designation and Institution |
|--|--|--|
| <p>C. Plenary Session III: Overview on Clinical Medicine</p> | <p>Corazon PB. Claudio, Ph.D.</p> | <p>President Technology, Environment, and Public Risk Management Foundation and Green Technologies, Inc.</p> |
| | <p>Rodrigo U. Fuentes, M.D.</p> | <p>Former Director Environmental Management Bureau Department of Environment and Natural Resources</p> |
| | <p>Simona C. Alikpala, M.D.</p> | <p>Professor of Pediatrics University of the East</p> |
| | <p>Cecil Z. Tady, M.D.</p> | <p>Regent Philippine College of Physicians</p> |
| | <p>Fernando L. Lopez, M.D.</p> | <p>Regent Philippine College of Surgeons</p> |
| | <p>Eustacio M. Rigor, M.D.</p> | <p>Former Dean Faculty of Medicine and Surgery University of Santo Tomas</p> |
| | <p>Rodolfo M. Carungin, M.D.</p> | <p>President Philippine College of Physicians</p> |
| <p>D. Plenary Session IV: Overview on Medical Education</p> | <p>Kim Chi C. Tan, M.D.</p> | <p>Regent Philippine College of Surgeons</p> |
| | <p>Paulo C. Campos, M.D. Acad. and National Scientist</p> | <p>President Medical Center Manila</p> |
| | <p>Elena I. Cuyegkeng, M.D.</p> | <p>Executive Director Association of Philippine Medical Colleges</p> |
| | <p>Ramon L. Sin, M.D.</p> | <p>Dean Faculty of Medicine and Surgery University of Sto. Tomas</p> |
| | <p>Eduardo G. Gonzales, M.D.</p> | <p>Vice President De La Salle University</p> |
| | <p>Jose S. Ramirez, M.D.</p> | <p>Former Dean College of Medicine University of the East Ramon Magsaysay Memorial Medical Center</p> |
| | <p>Felicidad C. Lim, M.D.</p> | <p>President Philippine College of Physicians</p> |
| <p>Jose Y. Cueto, M.D.</p> | <p>Vice Chairman Board of Convenors Philippine College of Surgeons</p> | |



Table 7
 POSTER PAPERS PRESENTED DURING THE
 NAST 19th ANNUAL SCIENTIFIC MEETING

| AUTHOR(S) | TITLE OF POSTER PAPER |
|--|--|
| A. Agricultural Sciences | |
| A- 1. Teodoro U. Abalos Institute of Fisheries Policy and Development Studies College of Fisheries University of the Philippines Visayas | Aquaculture Engineering design of Tilapia Hatchery in a Freshwater Recirculating System |
| A. 2. Angelita F. Abrazado, et al. Central Mindanao Integrated Agricultural Research Center, Cotabato | Biological Control of Ginger Rhizome Rot Using <i>Trichoderma</i> sp. |
| A- 3. Romeo S. Abrina, et al. Mariano Marcos State University Batac, Ilocos Norte | System Approach in the Extrapolation of Rice Production Environments |
| A- 4. Yolanda L. Abrina, et al. Cotton Research and Development Institute Batac, Ilocos Norte | Effects of Vesicular-Arbuscular Mycorrhiza Inoculation on Cotton Growth in Nutrient Deficient Soil |
| A- 5. A.M.P. Alberto, et al. Department of Biological Sciences College of Arts and Sciences University of the Philippines Los Baños | Competitive Interaction of Rice (<i>Oryza sativa</i>) and <i>Echinochloa glabrescens</i> as a Function of Planting Density Under Elevated CO ₂ and High Temperature |
| A- 6. Rhodora R. Aldemita, et al. Philippine Rice Research Institute Muñoz, Nueva Ecija | Factors Influencing Gene Expression and T-DNA Transfer in <i>A. tumefaciens</i> -Mediated Transformation of Rice |
| A- 7. Rhodora R. Aldemita, et al. Philippine Rice Research Institute Muñoz, Nueva Ecija | Transient Activity of the CaMV35S Promoter Lacking the Methylation Targets in Rice and Efficient Selection of Transformed Rice Cells Using the <i>Bar</i> Gene |
| A- 8. Antonio A. Alfonso, et al. Philippine Rice Research Institute Muñoz, Nueva Ecija | Transfer of Tungro Virus Resistance for the Wild Rice <i>Oryza rufipogon</i> Griff. to the Cultivated Rice <i>O. sativa</i> L. |
| A- 9. Nancy O. Bituin, et al. Institute of Plant Breeding College of Agriculture University of the Philippines Los Baños | Molecular Mapping of Resistance to <i>Thrips palmei</i> Potato: II. Evaluation of Grandular Trichome Traits and <i>Thrips</i> Resistance Reaction in Two Backcross Populations |
| A-10. Philbert S. Bonilla Philippine Rice Research Institute Muñoz, Nueva Ecija | Varietal Differences in the Cellulose, Lignin, and Silica contents of the Different Plants Parts of Rice (<i>Oryza sativa</i> L.) |
| A-11. Nenita D. Cacayurin, et al. Cotton Research and Development Institute Batac, Ilocos Norte | Utilization of <i>Trichoderma chilonis</i> in Cotton Production |
| A-12. Alfredo G. Carbonel Rizal Technological College Mandaluyong City | Conservation of Native Philippine Orchids |
| A-13. Rico A. Carbonel Philippine Rice Research Institute Muñoz, Nueva Ecija | Diversity Within Philippine Improved Rice Varieties and Their Progenitors: A Multivariate Analysis of Phenotypic Traits |



Table 7. A. Agricultural Sciences...continuation

| AUTHOR(S) | TITLE OF POSTER PAPER |
|--|---|
| A-14. B.F. Cayabyab, et al. National Crop Protection Center College of Agriculture University of the Philippines Los Baños | <i>Chalomyza ipomoeaphaga</i> Martinez: A New Leafminer Pest of Sweet Potato (<i>Ipomoea batatas</i> , Lamarck) |
| A-15. Roberto E. Coronel, et al. National Plant Genetic Resources Laboratory Institute of Plant Breeding - College of Agriculture University of the Philippines Los Baños | Biodiversity Conservation in Philippine Mangiferas |
| A-16. Clara L. Davide, et al. Dairy Training and Research Institute/BIOTECH University of the Philippines Los Baños | Low-Fat, Low-Salt Probiotic Cheese for Health-Conscious Consumers |
| A-17. Romulo Del Castillo College of Agriculture University of the Philippines Los Baños | Planning for Agroforestry Farm Development Through ALCAM |
| A-18. Nenita V. Desamero, et al. Philippine Rice Research Institute Muñoz, Nueva Ecija | Phenylacetic Acid-Enhanced Anther Culture Response in Indica Rice (<i>Oryza sativa</i> L.) |
| A-19. Hayde F. Galvez, et al. Institute of Plant Breeding College of Agriculture University of the Philippines Los Baños | Molecular Mapping of Resistance to <i>Thrips palmei</i> in Potato: I. Polymorphism Survey and Inheritance Study of RSPD Markers |
| A-20. Roberta N. Garcia, et al. Institute of Plant Breeding College of Agriculture University of the Philippines Los Baños | Kinetic Properties and Activities of Corn Leaf Nitrate Reductase and Root Phosphoenolpyruvate Carboxylase at Different Levels of Salinity |
| A-21. Y.A. Ilagan Don Severino College Indang, Cavite | Restriction Fragment Length Polymorphism Analysis of Genetic Variation in Strains <i>Pseudomonas (Ralstonia) solanacearum</i> Infecting Musa and Heliconia Families |
| A-22. Romeo V. Labios, et al. Farming Systems and Soil Resources Institute College of Agriculture University of the Philippines Los Baños | Development of Location-Specific Technologies in Major Corn Growing Areas of Luzon |
| A-23. Pablito M. Magdalita, et al. Institute of Plant Breeding College of Agriculture University of the Philippines Los Baños | Random Amplified Polymorphic DNA Analysis of Papaya Ringspot Virus-Resistant Interspecific Hybrids |
| A-24. Stanley C. Malab, et al. Mariano Marcos State University Batac, Ilocos Norte | <i>Desmanthus</i> as Hedgerows in Agroforestry Cropping Systems |
| A-25. Job M. Matias, et al. Dairy Training and Research Institute/ UPLB Agroforestry Program University of the Philippines Los Baños | Livestock-Agroforestry Production System |
| A-26. Evelyn Mae T. Mendoza, et al. Institute of Plant Breeding College of Agriculture University of the Philippines Los Baños | Esterase Isozyme Analysis of Asiatic Corn Borer (<i>Ostrinia furnacalis</i> Guenee) Populations from the Philippines and Japan |



NAST Mandates: 2. Advisory Function

Table 7. A. Agricultural Sciences...continuation

| AUTHOR(S) | TITLE OF POSTER PAPER |
|--|---|
| A-27. B. Morallo-Rejesus, et al. Department of Entomology College of Agriculture University of the Philippines Los Baños | Insecticidal Action of Plant Volatile Oils on Several Insect Pests |
| A-28. B. Morallo-Rejesus, et al. Department of Entomology College of Agriculture University of the Philippines Los Baños | Field Performance of Thermally Selected Populations of <i>Diadegma semiclausum</i> , a Larval Parasitoid of Diamondback Moth |
| A-29. B. Morallo-Rejesus, et al. Department of Entomology College of Agriculture University of the Philippines Los Baños | Laboratory Selection of <i>Diadegma semiclausum</i> , a Larval Parasitoid of Diamondback Moth, for Resistance to High Temperature |
| A-30. M.V. Navasero, et al. National Crop Protection Center College of Agriculture University of the Philippines Los Baños | The Natural Enemies of Paddy Climbing Worm, <i>Pseudaletia separata</i> (Walker) (Lepidoptera: Noctuidae) |
| A-31. Carlos M. Pascual, et al. Mariano Marcos State University Batac, Ilocos Norte | Yield and Quality Components of Corn Hybrids for Silage |
| A-32. Eden A. Perez, et al. Institute of Plant Breeding College of Agriculture University of the Philippines Los Baños | Somatic Embryogenesis in Banana (<i>Musa</i> spp.) cv. Lakatan and Latundan |
| A-33. Reynaldo B. Pimentel, et al. Institute of Plant Breeding College of Agriculture University of the Philippines Los Baños | Preliminary Studies on Somatic Hybridization Between <i>Carica papaya</i> and other <i>Carica</i> Species |
| A-34. E.D. Redona, et al. Philippine Rice Research Institute Muñoz, Nueva Ecija | Genetic Mapping with Amplified Fragment Length Polymorphism in Rice |
| A-35. Gabriel O. Romero, et al. Philippine Rice Research Institute Muñoz, Nueva Ecija | Structure and Expression of a β -Glucanase Multigene Cluster in Rice |
| A-36. Gabriel O. Romero, et al. Philippine Rice Research Institute Muñoz, Nueva Ecija | Structure and Expression of a Novel Defense-Related Gene in <i>Oryza sativa</i> L. |
| A-37. Aida D. Solsoloy, et al. Cotton Research and Development Institute Batac, Ilocos Norte | Occurrence, Mortality Factors, and Within-Plant Distribution of Bollworm, <i>Helicoverpa armigera</i> (Hubn.) on Cotton |
| A-38. Teodoro S. Solsoloy, et al. Cotton Research and Development Institute Batac, Ilocos Norte | Relay-Cropping of Garlic with Tomato for Garlic Fungal Disease Control |
| A-39. Dindo A. Tabanao, et al. Philippine Rice Research Institute Muñoz, Nueva Ecija | Application of DNA Fingerprinting in Resolving of a Popular Farmers' Variety |
| A-40. Rodante E. Tabien, et al. Philippine Rice Research Institute Muñoz, Nueva Ecija | Combinatorial Effect of Rice Blast Resistance Genes Tagged Using Restriction Fragment Length Polymorphism |



Table 7. B. Biological Sciences...continuation

| AUTHOR(S) | TITLE OF POSTER PAPER |
|---|--|
| A-41. Rodante E. Tabien, et al. Philippine Rice Research Institute Muñoz, Nueva Ecija | Temporal Expression of Quantitative Trait Loci for Blast Resistance in Rice |
| A-42. A.W. Tejada, et al. National Crop Protection Center College of Agriculture University of the Philippines Los Baños | Pollution Potential of Agricultural Pesticides in Water |
| A-43. Jessica A. Torrion, et al. Institute of Plant Breeding College of Agriculture University of the Philippines Los Baños | Assessment of Genetic Diversity in the Philippine Abaca <i>Musa textilis</i> Nees Germplasm Collection Using DNA Markers |
| A-44. Estrella T. Tribiana, et al. Catanduanes State Colleges Virac, Catanduanes | Processing of a Trifoliolate Yam, Gamat (<i>Diocorea</i> sp.) from Catanduanes |
| A-45. Lolita D.C. Valencia, et al. Institute of Plant Breeding College of Agriculture University of the Philippines Los Baños | Purification and Antiserum Production of Papaya Ringspot Polyvirus |
| A-46. C.M. Vera Cruz, et al. Kansas State University Manhattan, USA | Influence of Host Selection on the Population Structure of <i>Xanthomonas oryzae</i> pv. <i>oryzae</i> |
| A-47. Jeanette M. Villareal, et al. Institute of Plant Breeding College of Agriculture University of the Philippines Los Baños | Identification of RAPD Markers Linked to a Major Bruchid Resistance Gene in Mungbean (<i>Vigna radiata</i> L.) |
| A-48. Rolando C. Villaver, et al. Department of Science and Technology - VIII Leyte Provincial Science and Technology Center Tacloban City | |
| A-49. Violeta N. Villegas, et al. Institute of Plant Breeding College of Agriculture University of the Philippines Los Baños | Development of Ringspot Virus Resistant Papaya |
| B. Biological Sciences | |
| B-1. Maria Theresa H. Alvarez, et al. Institute of Plant Breeding, College of Agriculture University of the Philippines Los Banos | Molecular Markers for Clonal Fingerprinting in Banana and Mango |
| B-2. Edna A. Amparado, et al. Institute of Biology College of Science University of the Philippines Diliman | Teratisms in Milkfish <i>Chanos chanos</i> Reared in Navotas-Malabon-Tenejeros River, Malabon, Philippines |
| B-3. Edna A. Amparado, et al. Institute of Biology College of Science University of the Philippines Diliman | Embryotoxicology in <i>Tilapia nilotica</i> Exposed to Sublethal Doses of Organotin Molluscicide |
| B-4. Aileen Baradas, et al. Institute of Plant Breeding, College of Agriculture University of the Philippines Los Baños | Transformation of <i>Zea mays</i> Linnaeus Inbred Lines in the Philippines Via Particle Bombardment: A Status Report |

NAST Mandates: 2. Advisory Function

Table 7. B. Biological Sciences...continuation

| AUTHOR(S) | TITLE OF POSTER PAPER |
|---|---|
| B- 5. Gloria C. Bernas, et al. Research Center for the Natural Sciences University of Santo Tomas España, Manila Graduate School, University of Santo Tomas España, Manila | Purification and Characterization of Human Chorionic Gonadotropin Alpha Subunit: A Potential Lung Cancer Marker • |
| B- 6. Maria Katrina C. Canlas, et al. Molecular Biology and Biotechnology Program College of Science University of the Philippines Diliman | Mitochondrial DNA Restriction Fragment Length Polymorphism as Genetic Markers in Yellowfin Tuna (<i>Thunnus albacares</i>) |
| B- 7. Ernelea P. Cao Institute of Biology College of Science University of the Philippines Diliman | Variations in the Phycobiliprotein Profiles of Some Strains of Cyanobacteria Isolated from Philippine Waters |
| B- 8. Rogelio S. Cruz, et al. Graduate School, University of Santo Tomas España, Manila Research Center for the Natural Sciences University of Santos Tomas - España, Manila | Bacterial Cardioliipin for Serodiagnosis of Syphilis |
| B- 9. Victoria M. Dalangin, et al. Research Center for the Natural Sciences University of Santo Tomas Manila Faculty of Pharmacy, Fukuoka University Fukuoka Japan Department of Chemistry University of Western Australia Australia GW1, Hansen's Disease Center Louisiana State University USA | Antitubercular Constituents of <i>Lunasia amara</i> Blanco |
| B-10. Ma. Cecilia V. De Guzman, et al. Institute of Biology College of Science University of the Philippines Diliman | Selenium as Aquatic Pollutant: Toxicities Induced in the Mouth Linings and Pharynx of <i>Arius manilensis</i> |
| B-11. Miriam De Vera, et al. Institute of Biology College of Science University of the Philippines Diliman | The Protection of Fish by a Liming Agent Against Copper-Induced Toxicity |
| B-12. Custer C. Deocaris, et. al Biomedical Research Unit/ Atomic Research Division Philippine Nuclear Research Institute Diliman, Quezon City Molecular Biology and Biotechnology Program University of the Philippines Diliman Department of Biological Sciences Pamantasan ng Lungsod ng Maynila Intramuros, Manila | Correlations of Cytotoxic and Apoptotic Responses During Gamma-Irradiation of Mouse Thymocytes Treated with a Candidate Herbal Radioprotector GC-2112 |
| B-13. Doris Joy C. Detomal, et al. National Institute of Molecular Biology and Biotechnology College of Agriculture | Phylogeny of Cone Snails by Non-Radioactive DNA Sequencing |



Table 7. B. Biological Sciences...continuation

| AUTHOR(S) | TITLE OF POSTER PAPER |
|--|---|
| B-14. Ivan Marcello B. Duka Institute of Biological Sciences College of Arts and Sciences University of the Philippines Los Baños | Amplification and Molecular Cloning of Tenebrosin Genes from the Sea Anemone, <i>Actinia tenebrosa</i> |
| B-15. Erlinda I. Espeso, et al. Research Center for the Natural Sciences University of Santo Tomas España, Manila Department of Pharmaceutical Sciences University of Strathclyde Glasgow, Scotland | Studies on <i>Prosopis vidaliana</i> Naves as a Potential Source of Drug Material |
| B-16. Emilyn Q. Espiritu Environmental Science Program Ateneo De Manila University | Ecotoxicological Assessment of Selected Sites in the Manila Bay Area |
| B-17. AllanChris M. Ferreon, et al. National Institute of Molecular Biology and Biotechnology College of Science University of the Philippines Diliman Natural Sciences Research Institute University of the Philippines Diliman | Optimization of PCR Conditions for the RAPD Analysis of Seven Tree Species |
| B-18. Prima R. Franco, et al. Department of Biology College of Arts and Sciences Mariano Marcos State University | The Use of Recombinant DNA Technology in Recovering Natural Product from a Luminous Bacterium |
| B-19. Christopher Gauguin P. Gamboa, et al. Institute of Biology College of Science University of the Philippines Diliman | Gill Lamellar-Responses in <i>Oreochromis nilotica</i> Larvae and Fry Acclimatized in Artificial Seawater |
| B-20. Amelia P. Guevara, et al. Institute of Chemistry College of Science University of the Philippines Diliman | Insect Antifeedant Activities of Some Philippine Plants |
| B-21. Amelia P. Guevara, et al. Institute of Chemistry, College of Science University of the Philippines Diliman Department of Bio-inorganic and Analytical Chemistry Kyoto Pharmaceutical University, Japan Research Institute for Production Development Kyoto, Japan Institute of Pharmaceutical Sciences Hiroshima University School of Medicine - Japan | An Investigation on the Medicinal Qualities of <i>Moringa oleifera</i> |
| B-22. Saturnina C. Halos National Institute of Molecular Biology and Biotechnology College of Science University of the Philippines Diliman | DNA Variation and Genetic Relationship Among Filipino Tribes and Major/Minor Groups |
| B-23. Annabelle A. Herrera, et al. Institute of Biology College of Science University of the Philippines Diliman | Biochemical and Pathological Changes in Vertebrate Organs Exposed to Synthetic and Natural Toxicants |

Table 7. B. Biological Sciences...continuation

| AUTHOR(S) | TITLE OF POSTER PAPER |
|--|---|
| B-24. Annabelle A. Herrera, et al. Institute of Biology College of Science University of the Philippines Diliman | Biomarkers of Exposure to Neem Seed Extract in the Testis of <i>Mus musculus</i> |
| B-25. Marie-Sol P. Hidalgo, et al. Institute of Plant Breeding University of the Philippines Los Baños | Delta-Endotoxins of Local <i>Bacillus thuringiensis</i> Strains: Biochemical and Toxicity Studies Against the Asiatic Corn Borer <i>Ostrinia furnacalis</i> |
| B-26. Sonia D. Jacinto Institute of Biology College of Science University of the Philippines Diliman | Preliminary Studies on Lectins from <i>Dolichos lablab</i> (Batao) |
| B-27. Nellie C. Lopez, et al. Institute of Biology College of Science University of the Philippines Diliman | Food Composition of Some Fishes from Lake Taal, Batangas Province |
| B-28. Nellie C. Lopez Institute of Biology College of Science University of the Philippines Diliman | Effects of Sublethal Levels of Cadmium Chloride on the Blood Values of Nile Tilapia |
| B-29. Armenia B. Mendoza, et al. Institute of Biology, College of Science University of the Philippines, Diliman | Novel Somaclonal Variants Regenerated from Callus of Rice, <i>Oryza sativa</i> L. |
| B-30. Perry S. Ong, et al. Institute of Biology College of Science University of the Philippines Diliman | Birds of Central Sierra Madre, Aurora, and Northern Quezon: A Preliminary Report |
| B-31. L.E. Padua, et al. National Institute of Biotechnology and Applied Microbiology University of the Philippines Los Baños | Molecular Characterization of Local <i>Bacillus thuringiensis</i> Isolates Effective Against Asiatic Cornborer <i>Ostrinia furnacalis</i> Guenee and Diamondback Moth, <i>Plutella xylostella</i> Linn. |
| B-32. Laura J. Pham, et al. National Institute of Molecular Biology and Biotechnology University of the Philippines Los Baños | Biomodification of Coconut (<i>Cocos nucifera</i> Linn.) Oil and Non-Lauric Oils for the Production of Specialty Fats and Oils |
| B-33. Sheila Marie Pimentel, et al. Marine Natural Products Research Group Marine Biochemistry & Toxinology Lab Marine Science Institute University of the Philippines Diliman | Potential Anti-Platelet Aggregating Agents from Marine Sponges and Tunicates |
| B-34. Rachel G. Ravago, et al. Institute of Chemistry Marine Science Institute Molecular Biology and Biotechnology Program University of the Philippines Diliman | PCR-RFLPs of the mtDNA D-LOOP and 16s rRNA Gene Segments in Milkfish, <i>Chanos chanos</i> |
| B-35. Gilda C. Rivero, et al. Institute of Biology College of Science University of the Philippines Diliman | Salt-Influenced Growth, Protein, Profiles, and Nitrogenase Activity of a Microalga Isolated from Philippine Waters |



Table 7. C. Health Sciences...continuation

| AUTHOR(S) | TITLE OF POSTER PAPER |
|---|---|
| B-36. Jesse D. Ronquillo, et al. College of Fisheries University of the Philippines Visayas | Complete Life Cycle of Philippine King Crab (<i>Scylla oceanica</i> Dana) Under Controlled Conditions |
| B-37. Myrna A. Samtelices College of Agriculture and Fisheries Catanduanes State College Catanduanes | Utilization of a Marine Alga for Handmade Paper Making |
| B-38. Emerita C. Simeon, et al. Research Center for the Natural Sciences University of Santo Tomas España, Manila | Cultivation of Mammalian Cells for Laboratory Assay Systems |
| B-39. Estrella Tapel-Tribiana, et al. Catanduanes State College Catanduanes | Some Ecological Exploitation and Managerial Aspects of Bato River |
| B-40. Marlon C. Torrente, et al. Department of Medical Technology University of San Agustin Iloilo City | Use of Certain Bacteria in the Control of <i>Vibrio harveyi</i> Infection in Prawn |
| B-41. James Torres, et al. Division of Biological Sciences University of the Philippines Visayas | <i>In Vitro</i> Studies on the Activity of Commercial Probiotics Against <i>Vibrio harveyi</i> and <i>Vibrio anguillarum</i> |
| B-42. Angelica Vargas-Mendoza, et al. Natural Science Department College of Arts and Sciences Catanduanes State Colleges | Brackishwater Shells Along the Eastern Part of Catanduanes: An Inventory |
| B-43. Mafel C. Ysrael, et al. Research Center for the Natural Sciences University of Santo Tomas España, Manila | The Analgesic Activity of the Alkaloids from the Seeds of <i>Ipomoea muricata</i> Jacq. (Convolvulaceae) |
| C. Health Sciences | |
| C-1. Vicente Belizario, et al. Rural Health Units, College of Public Health University of the Philippines Manila Irosin Provincial Health Office Sorsogon, Sorsogon | Pulmonary Paragonimiasis in Non-Responding Tuberculosis Patients in Irosin, Sorsogon |
| C-2. Vicente Belizario, et al. College of Public Health University of the Philippines Manila | The Clinical Epidemiology of Bancroftian Filariasis in An Endemic Village in Sorsogon, Philippines |
| C-3. Virginia Crisostomo, et al. Department of Pediatrics College of Medicine Philippine General Hospital University of the Philippines Manila | C-Peptide in Filipino Children with Insulin-Dependent Diabetes Mellitus: A Measure of Residual B-Cell Function |
| C-4. Leo D.P. Cubillan, et al. Department of Ophthalmology Institute of Ophthalmology Philippine General Hospital University of the Philippines Manila | The Philippine General Hospital Eye Injury Registry (Preliminary Report): Demographics of Eye Injury Cases Seen from January to June 1996 |



NAST Mandates: 2. Advisory Function

Table 7. D. Mathematical, Physical, and Engineering Sciences...continuation

| AUTHOR(S) | TITLE OF POSTER PAPER |
|---|--|
| C- 5. Nina Gloriani-Barzaga, et al. College of Public Health University of the Philippines Manila | Hepatitis C Virus Infection and Risk Factors Among Inmates at Muntinlupa, Metro Manila: An Emerging Concern in the Community |
| C- 6. Yuko Katayama, et al. Department of Microbiology Kobe University School of Medicine Kobe, Hyogo 650, Japan Department of Medical Microbiology College of Public Health University of the Philippines Manila Tropical Disease Research Center Airlangga University Surabaya, Indonesia | Genotype Analysis of Hepatitis C Virus Among Blood Donors and Inmates in Metro Manila, The Philippines |
| C- 7. Jo-Anne J. Lobo, et al. Pediatric Infectious Disease Section College of Medicine and Philippine General Hospital University of the Philippines Manila | Clinical and Laboratory Profile of Pediatric Patients with Nontyphoidal Salmonella Bacteremia in PGH and RITM from 1991 - 1995 |
| C- 8. Joseph Pua, et al. Department of Pediatrics, College of Medicine Philippine General Hospital University of the Philippines Manila | Determination of Microalbuminuria (MA) Using Semiquantitative Method (Mical-Test) in Filipino Pediatric Patients with Insulin Dependent Diabetes Mellitus (IDDM) |
| C- 9. Joseph Pua, et al. Department of Pediatrics, College of Medicine Philippine General Hospital University of the Philippines Manila | Albumin Excretion Rates in Filipino Patients with Insulin-Dependent Diabetes Mellitus: A Case Cohort |
| C-10. Alex L. Tan Department of Surgery, College of Medicine University of the Philippines Manila Philippine General Hospital | Immediate Breast Reconstruction After Modified Radical Mastectomy for Breast Cancer |
| C-11. Ma. Teresa Yulo-Nazarea, et al. Philippine Nuclear Research Institute Commonwealth Avenue, Diliman Quezon City | A Chromogenic Diagnostic Kit for the Radiosensitive Tyrosinase Enzyme in Oriental Fruit Fly <i>Bactrocera philippinensis</i> |
| D. Mathematical, Physical, and Engineering Sciences | |
| D-1. Casiano S. Abrigo, et al. Department of Chemical Engineering and Agro-Industrial Technology University of the Philippines Los Baños | Design, Fabrication, and Testing of a Computer Interfaced Process Controller for a Solution Heater |
| D-2. Reynaldo I. Acda, et al. Department of Chemical Engineering College of Engineering and Agro-Industrial Technology University of the Philippines Los Baños Letran College Calamba, Laguna | Solvent Extraction of Essential Oils from Ylang-Ylang <i>Cananga odorata</i> |
| D-3. Reynaldo I. Acda, et al. Department of Chemical Engineering College of Engineering and Agro-Industrial Technology University of the Philippines Los Baños | Extraction of Aluminum Oxide Al ₂ O ₃ From The Pyroclastic Materials of Mt. Pinatubo |



Table 7. D. Mathematical, Physical, and Engineering Sciences...continuation

| AUTHOR(S) | TITLE OF POSTER PAPER |
|--|--|
| D- 4. Glenn D. Aguilar Institute of Marine Fisheries and Oceanology College of Fisheries University of the Philippines Visayas | A Knowledge-Based System for Ship Hull Form Definition |
| D- 5. Roberto T. Andres, et al. Research Center for the Natural Sciences University of Santo Tomas España, Manila Department of Instrumentation and Analytical Science Institute of Science and Technology University of Manchester | An Optical Biosensor for Toxic Metal Ions Based on the Inhibition of Immobilized Urease |
| D- 6. Christina Aquino-Binag, et al. Research Center for the Natural Sciences University of Santo Tomas School of Dentistry University of New South Wales Sydney, Australia School of Physics, La Trobe University Bundoora, Victoria 3083 Australia | Physical and Chemical Immobilizations of Quinhydrone in Polymer Matrices |
| D- 7. Amelita J. Bartolome, et al. University of Santo Tomas España, Manila | Solid-State pH Sensor Based on Conducting Polypyrrole |
| D- 8. Ernesto C. Bumatay, et al. Department of Forestry Visayas State College of Agriculture Baybay, Leyte | Participative Construction of Upland Farmers Concepts and Expectations of Farming System in Eastern Visayas Region: A Case Study |
| D- 9. L.G. Cada, et al. Institute of Chemistry University of the Philippines Diliman National Institute of Physics University of the Philippines Diliman Research and Biotechnology Division St. Luke's Medical Center | Lyotropic Liquid-Crystallinity of Erythrocyte Ghosts |
| D-10. L.G. Cada, et al. Institute of Chemistry College of Science University of the Philippines Diliman National Institute of Physics College of Science University of the Philippines Diliman | Cholesteric Liquid Crystal-Polymer Composite Materials for Display Devices |
| D-11. Raoul E. Cawagas SciTech R&D Center Polytechnic University of the Philippines Sta. Mesa, Manila | Development of the Theory of Finite Pseudogroups |
| D-12. C.C. Deocarís, et al. Atomic Research Division Philippine Nuclear Research Institute Commonwealth Ave., Diliman Molecular Biology and Biotechnology Program University of the Philippines Diliman Philippine Animal Health Center Bureau of Animal Industry, North Triangle Diliman, Quezon City | Epitomorphic Combipeptides Targeting the Antigenic Diversity of the VPI Polyprotein (135-146) of the Foot-and-Mouth Disease Virus Serotype A |

Table 7. D. Mathematical, Physical, and Engineering Sciences...continuation

| AUTHOR(S) | TITLE OF POSTER PAPER |
|---|--|
| D-13. Benilda Ebarvia, et al. Industrial Technology Development Institute Gen. Santos Ave., Bicutan University of Santo Tomas España, Manila | A Field Effect Transistor (FET) Sensor for Dissolved Sulfur Dioxide |
| D-14. Samuel S. Franco, et al. National Tobacco Administration Batac, Ilocos Norte Department of Agriculture and Environmental Science The University of Newcastle upon Tyne United Kingdom | Performance Evaluation of a Dual Mode Biomass Gasifier-Combustor for Process Heat |
| D-15. Alvin D. Glova, et al. National Tobacco Administration Batac, Ilocos Norte Institute of Agricultural and Forest Engineering University of Tsukura Ibaraki, Japan | Fuel and Combustion Modelling of a Natural Convection Flue-Curing Barn |
| D-16. Charita S. Kwan, et al. Natural Sciences Research Institute University of the Philippines Diliman Marine Science Institute College of Science University of the Philippines Diliman Institute of Chemistry College of Science University of the Philippines Diliman | Levels of Inorganic Arsenic Species in Manila Bay Using Selective Hydride Generation-Atomic Absorption Spectrophotometry |
| D-17. Joselito Labis, et al. National Institute of Physics College of Science University of the Philippines Diliman | Formation of TiN On Metal Substrates Using A Magnetized Sheet Plasma |
| D-18. Erlinda Landarito Visayas State College of Agriculture Baybay, Leyte | Bioactive Principles From Libas (<i>Spondias pinnata</i>) and Elepanting Puti (<i>Heliotropium indicum</i>) Against <i>Haemophilus gallinarium</i> |
| D-19. Enrico Lazaro Marine Science Institute University of the Philippines Diliman | A Canonical Correspondence Analysis of Some <i>In Vitro</i> Biological Activities of Extracts from Sponges and Tunicates from Baler, Quezon |
| D-20. L.Q. Liongson, et al. National Hydraulic Research Center University of the Philippines Diliman | Simulation of Lahar/Flood Flows of Pasig-Potrero River |
| D-21. Jorge A. Lubguban, Jr., et al. National Institute of Physics College of Science University of the Philippines Diliman | Growth of Amorphous Carbon, Diamond-Like Carbon and Diamond Films Via Plasma-Enhanced and Hot Filament Chemical Vapor Deposition |
| D-22. Florentino C. Monsalud, et al. Farming Systems and Soil Resources Institute College of Agriculture University of the Philippines Los Baños College, Laguna | Successful Farming Systems in the Philippines: A Documentation |
| D-23. Jovita L. Movillon, et al. Chemical Engineering Department College of Engineering and Agri-Industrial Technology University of the Philippines Los Baños Tokyo Institute of Technology Tokyo, Japan | Decolorization of Raw Sugar Solution Using Steam-Activated Carbon from Cane Bagasse |



Table 7. D. Mathematical, Physical, and Engineering Sciences...continuation

| AUTHOR(S) | TITLE OF POSTER PAPER |
|--|--|
| D-24. Girlie Naomi A. Nallas, et al. University of the Philippines Diliman Virginia Polytechnic Institute and State University Blackburg, VA 24061, USA | Design of an Electrode-Immobilized Catalyst Incorporating Inorganic Complexes as Polymeric Backbones |
| D-25. Edward A. Quinto, et al. Research Center for the Natural Sciences University of Santo Tomas España, Manila | The Use of A Locally Isolated Luminous Bacterium: <i>Photobacterium leiognathi</i> USTCC 26 As A Biosensor for the Rapid Detection of Toxicants in Water Samples |
| D-26. Emmanuel S. Ramos, et al. Institute of Chemistry College of Science University of the Philippines Diliman New Jersey Institute of Technology University Heights, Newark, New Jersey | Microporous SiO ₂ /VYCOR Membranes For Gas Separation |
| D-27. Ma. Jamela R. Revilleza, et al. Institute of Chemistry University of the Philippines Los Baños Department of Nutritional Sciences University of California Berkeley, California Institute of Plant Breeding University of the Philippines Los Baños | A Strategy to Clone A cDNA Fragment Coding For a Novel Methionine-Rich Protein in Soybean (<i>Glycine max</i>) |
| D-28. Aurea Z. Rosal SciTech R&D Center Polytechnic University of the Philippines Sta. Mesa, Manila | Characterization of Abelian Pseudogroups of Order Six |
| D-29. Jose S. Solis, et al. Institute of Chemistry College of Science University of the Philippines Diliman | Trace Metal Speciation of Manila Bay Water Samples Using Linear Sweep Anodic Stripping Voltammetry |
| D-30. Mary Anne T. Tavanlar, et al. National Institute of Molecular Biology and Biotechnology University of the Philippines Los Baños Department of Molecular Biology and Biotechnology University of Sheffield, Western Bank Sheffield S10 2UH United Kingdom German Aerospace Research Establishment Sudstrasse 125 D-53175 Bonn, Germany Institute of Biochemistry and Molecular Biology Technical University of Berlin, Franklinstrasse 29 D-10587 Berlin, Germany | Expression of the Third Adenylate-Forming Region of the ____-(L- α -Amino adipyl)-L-Cysteiny-D-Valine (ACV) Synthetase from <i>Penicillium chrysogenum</i> in the <i>Aspergillus nidulans</i> Expression System |
| D-31. Xenia T. Tigno, et al. Department of Physiology College of Medicine University of the Philippines Manila National Institute of Physics University of the Philippines Diliman | A New Look at Vasomotion Using Chaos Analysis |
| D-32. J. Raquel S. Unson, et al. Environmental Science Program Ateneo De Manila University | Water Quality Assessment of Various Selected Sites in Manila Bay Using Physicochemical Parameters |
| D-33. Graciano P. Yumul, Jr., et al. National Institute of Geological Science College of Science University of the Philippines Diliman | Mount Pinatubo - Mount Arayat Transect: Along-And Across-Arc Variations |



NAST Mandates: 2. Advisory Function

The Board of Judges for the Best Poster Award was composed of Acads. Quintin L. Kintanar (Chair), Lourdes J. Cruz, Magdalena C. Cantoria, Ricardo M. Lantican, Faustino T. Orillo, Salcedo L. Eduardo, Alfredo V. Lagmay, Benjamin D. Cabrera, and Melecio S. Magno.

2.2. THE 20TH ANNUAL SCIENTIFIC MEETING

Preparations for the 20th Annual Scientific Meeting in July 1998 are underway. The theme will be "The Philippine Social Sciences in the Life of the Nation." The ASM Program Committee will be chaired by Acad. Jose O. Juliano, whereas the ASM Resolution Committee will be chaired by Undersecretary Amelia C. Ancog.

2.3. SCIENCE INFORMATION FORA (SIF)

The Academy organized nine science information fora on various issues (Table 8). The fora involved concerned sectors of the society, as well as the Academicians, National Scientists, and OYS awardees.

2.4. THE THIRD DIOSCORO L. UMALI MEMORIAL LECTURE

Professor Minoru Kanehisa, D.Sc., of the Tokyo University was the distinguished speaker for the Third Dioscoro L. Umali Memorial Lecture entitled "From Sequence to Function: Grand Challenges in Bioinformatics" and delivered on Dec. 3, 1997 at the SEARCA Auditorium, UP Los Baños Campus. Prof. Kanehisa is also the director of the Supercomputer Laboratory, Institute for Chemical Research of Kyoto University.



2.5. R O U N D T A B L E DISCUSSIONS

The Academy, through the OYS, Inc., organizes roundtable discussions (RTDs) on science and technology assessment. Three reports have been submitted so far and these have already been referred to concerned OYS awardees for coordination of roundtable discussions (Table 9).

Prof. Minoru Kanehisa speaks on bioinformatics during the Third D.L. Umali Memorial Lecture.

2.6. SPEAKERS' BUREAU

Two OYSI members, Dr. Jose Maria P. Balmaceda of the Mathematics Department, UP Diliman, and Dr. Irene M. Villaseñor of the Institute of Chemistry, UP Diliman, served as guest speakers at the Las Piñas High School during the Science Club Month. Another OYS, Dr. Virginia C. Cuevas of the Institute of Biological Sciences, UP Los

Table 8
SCIENCE INFORMATION FORA CONDUCTED IN 1997

| Date | Topics/Speakers | Discussants/Moderators | Rapporteurs |
|----------|---|--|--|
| May 9 | <p>Research Breakthrough in Rice R & D Dr. Santiago R. Obien <i>Director</i> Philippine Rice Research Institute</p> | <p>Acad. Pedro B. Escuro <i>National Scientist</i></p> <p>Ms. Jovita M. Corpuz <i>Assistant Director</i> Bureau of Agricultural Extension Department of Agriculture</p> | <p>Acad. Bienvenido O. Juliano</p> <p>Acad. Jose R. Velasco</p> |
| June 18 | <p>Tariff Dr. Emmanuel T. Velasco <i>Commissioner</i> Tariff Commission</p> | <p>Mrs. Sergio Ortiz-Luiz, Jr. <i>President</i> Philippine Exporters Confederation, Inc.</p> <p>Mr. Benedicto V. Dacanay Economic Development Council on Trade Policy</p> | <p>Dr. Joseph Anthony Y. Lim <i>Professor</i> School of Economics UP Diliman</p> <p>Mr. Redocindo L. Santillan <i>Information Officer V</i> NAST Secretariat</p> |
| July 17 | <p>Executive Order No. 259 - An Act to Rationalize the Philippine Coconut Industry Engr. Rafaelito H. Taruc <i>Chief</i> Environmental Unit Board of Investments Departments of Trade and Industry</p> | <p>Ms. Lilibeth Hermosura <i>Senior Science Research Specialist</i> Industrial Technology and Development Institute (ITDI)</p> <p>Mr. Nemese T. Cañete <i>Asst. Marketing Manager</i> United Coconut Chemicals, Inc.</p> <p>Ms. Ma. Luisa A. Zuñiga <i>Executive Director</i> Sagip Pasig Movement, Inc.</p> <p>Acad. Faustino T. Orillo</p> | <p>Acad. Jose R. Velasco</p> |
| Sept. 17 | <p>How to Save the Prawn Industry Ms. Simona M. Aypa <i>Chief</i> Aquaculture Division, BFAR</p> | <p>Mr. Alfredo Yap <i>Fishery Resources Specialist</i> Aqua Farming Development Foundation</p> <p>Mr. Felix R. Gonzales <i>Secretary General</i> Chamber of Fisheries and Aquatic Resources</p> <p>Mr. Rolando B. Edra <i>Director</i> Inland Aquatic Resources Division, PCAMRD</p> | <p>Mr. Florencio Ramos <i>OIC, STII Media Center</i></p> |
| Oct. 8 | <p>El Niño: Mitigating Its Effects Dr. Aida A. Flor <i>Chief</i> Climatology and Agrometeorology Branch PAGASA</p> | <p>Mr. Wilfredo Cabezon <i>Chief</i> Agricultural Land Management Division <i>OIC</i> National Rain Simulation Office, Bureau of Soils and Water Management, DA</p> | <p>Dr. Ann Inez N. Gironella <i>Dean</i> Graduate School UP Los Baños</p> <p>Acad. Rafael D. Guerrero III</p> |



NAST Mandates: 2. Advisory Function

Table 8...continuation

| Date | Topics/Speakers | Discussants/Moderators | Rapporteurs |
|---------|--|--|--|
| | <p>Atty. Mai A. Flor <i>Executive Director</i> Presidential Task Force on Water Resources Development and Management, DENR</p> | <p>Mr. Edilberto B. Payawal <i>Manager</i> Systems Management Department, NIA</p> <p>Dr. Wilfredo David <i>Professor and Project Director</i> STWRP, UP Los Baños</p> | |
| Oct. 22 | <p>Hospital Waste Management Engr. Gerardo Mogol Environmental Health Services DOH</p> | <p>Acad. Clare R. Baltazar</p> | <p>Mr. Florencio Ramos <i>OIC, STII Media Center</i></p> |
| Nov. 17 | <p>Science and Technology Issues Affecting Women Dr. Amelia C. Ancog <i>Undersecretary, DOST</i></p> <p>Prof. Myrna S. Feliciano <i>Director</i> Institute of Judicial Administration UP Law Center</p> <p>Ms. Veronica Villavicencio Consultation for Gender Development, Women Action Network</p> | <p>Acad. Carmen Ll. Intengan</p> | <p>Ms. Ma. Cecilia Endaya ITCU, DOST</p> <p>Mr. Redocindo L. Santillan <i>Information Officer V</i> NAST Secretariat</p> |
| Nov. 18 | <p>Public Consultation on "Guidelines for Field Release of Genetically Modified Organisms and Potentially Harmful Exotic Species" Dr. Emerenciana B. Duran <i>Member</i> National Committee on Biosafety of the Philippines</p> | <p>Acad. Eduardo D. Gomez</p> <p>Acad. Dolores A. Ramirez</p> | <p>Acad. Lourdes J. Cruz</p> <p>Mr. Redocindo L. Santillan <i>Information Officer V</i> NAST Secretariat</p> |
| Nov. 19 | <p>Medicare: Its Actual Cost Atty. Jose A. Fabia <i>President</i> Philippine Health Insurance Corp.</p> | <p>Dr. Benito Reverente <i>President, PhilAm Life Health Care Systems, Inc.</i></p> <p>Ms. Athena S. Tanchoco Consumer Federation Groups of the Philippines</p> <p>Dr. Lazaro Pabiona Aetna Health Care, Inc.</p> <p>Dr. Edwin A. Benigno <i>Director, OYS, Inc.</i></p> | <p>Mr. Florencio Ramos <i>OIC, STII Media Center</i></p> <p>Mr. Redocindo L. Santillan <i>Information Officer V</i> NAST Secretariat</p> |
| Dec. 16 | <p>SIF on the Launching of the Philippine Science Heritage Center Acad. Benito S. Vergara <i>Project Director, PSHC</i></p> | <p>Acad. Faustino T. Orillo</p> <p>Acad. Magdalena C. Cantoria</p> | <p>Mr. Florencio Ramos <i>OIC, STII Media Center</i></p> |

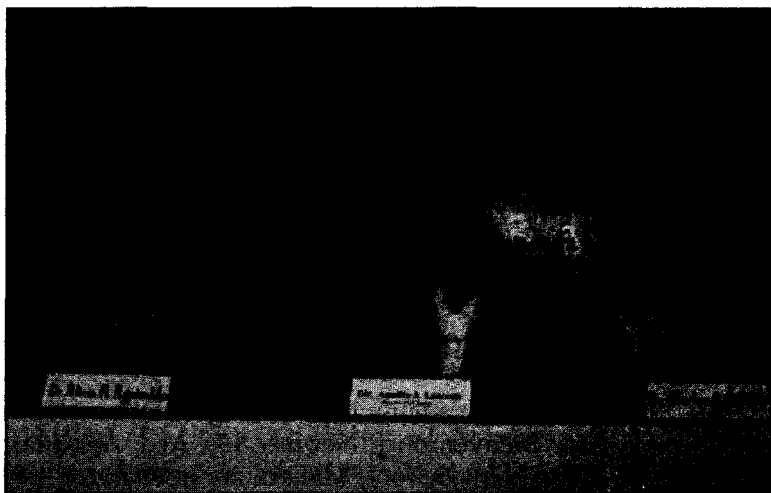


Table 9
S&T ASSESSMENT PROJECTS FOR RTDs
BEING REVIEWED BY OYSI

| Fellows | Title |
|--|--|
| 1. Lourdes J. Cruz and Jose O. Juliano | Assessment of the State of the Molecular Biosciences and Biotechnology in the Philippines |
| 2. Melecio S. Magno | Assessment of the State of the Physical Sciences in the Philippines |
| 3. Evelyn Mae T. Mendoza and Bienvenido O. Juliano | Assessment of the State of the Chemical Sciences in the Philippines |
| 4. Bienvenido F. Nebres and Tito A. Mijares | Assessment of the State of Mathematical Sciences in the Philippines and Its Application in Industry |
| 5. Joventino D. Soriano | Assessment of the State of the Environmental Degradation - Prevention and Conservation of Endangered Species Through the Establishment of Botanical Gardens in the Philippines |
| 6. Ruben L. Villarcal and Dolores A. Ramirez | Assessment of the State of Ornamental Horticulture Science in the Philippines |

Baños, and director of the UPLB Learning Resource Center, also spoke in Lipa City on Sept. 24, 1997. The activity was sponsored by DOST Region IV. Acd. Conrado S. Dayrit was also invited as speaker at separate activities in UP Los Baños and UP Diliman.

The Academy co-sponsors a seminar series on the "Role of Heroes of Science," a project of DOST and the Polytechnic University of the Philippines (PUP), Taguig. This project is being carried out as part of the Science and Technology Centennial Movement activities. The first seminar was conducted at PUP, Taguig, Metro Manila, on November 28, 1997. Two OYS awardees served as guest speakers: Dr. Glorina N. Pocsidio and Dr. Alicia M. Aguinaldo.



Two Outstanding Young Scientists served as guest speakers at the seminar: "The Role of Heroes of Science."

2.7. MEGA-ISSUES PROJECT

Under the Mega-Issues Project, NAST continually brings together experts in various fields to formulate policy alternatives and viable strategies to address major issues and problems. For 1997, a report entitled "Mega-Issues in Forestry: Key Policies and Programs," was submitted to the Academy by the group of Dr. Rex Victor O. Cruz, Director of the Forest Development Center, UP Los Baños.

NAST Mandates: 2. Advisory Function

Results of Mega-Issues Project (and other documents that can be used as basis for policy advice) are referred to the Resolutions Committee, chaired by Acd. Ruben L. Villareal. The Resolutions Committee meets regularly every quarter, or as often as necessary. Expected end results are recommendations or resolutions that can be used by concerned sectors of the society, the legislative branch, and the Cabinet members. Results are taken up during NAST Science Legislative Fora.

The present mega-issues study cover eight areas: (1) Transportation, (2) Water Supply, (3) Housing, (4) Flood Control, (5) Venture Capital Financing for Technology-Oriented Enterprises, (6) Solid Waste Management, (7) Science Education and Telecommunication, and (8) Science Information Management.

As a sequel to the Mega-Issues Project, the "Philippine Perspective in 2003" is being worked out by the Academy in collaboration with UP Center for Integrative and Development Studies (UP-CIDS).

2.8. S & T CENTENNIAL ACTIVITIES

The S & T Centennial activities are being coordinated by DOST Undersecretary Amelia C. Ancog (Chair), Acd. Conrado S. Dayrit (Vice Chair), and Ms. Luningning E. Samarita (Secretary).

2.9. PROJECTS ON ANIMAL TESTING AND HUMAN GENOME AND CLONING

2.9.1. Animal Testing

2.9.1.1. The proposed roundtable discussion on "Bioethical and Environmental Concerns of Animal Testing," which NAST assigned to UP Manila Chancellor Dr. Perla D. Santos Ocampo, will be incorporated with the centennial activity.

2.9.2. Human Genome and Cloning

2.9.2.1. A workshop on cloning was conducted by the Academy and PCHRD in April 1997. Activities on cloning of humans were declared unethical and unsupportable by any government funds.

2.10. CHILD PROSTITUTION THROUGH THE INTERNET

The Academy is preparing a statement of concern on child prostitution in the Internet. Acd. Bienvenido F. Nebres, S.J., Acd. Apolinario D. Nazarea, and Atty. Zedry Candelaria of Ateneo Law School, Makati, are in charge.

2.11. RIZAL THE SCIENTIST

On June 20, NAST and De La Salle University President Acd. Andrew A. Gonzalez, F.S.C., hosted the activity: "Rizal the Scientist: A Symposium," at De La Salle University, Manila.

2.12. BILLS REFERRED TO NAST

House Bill 3290 - *Providing Incentives and Assistance to Private Sector Scientific and Technological Efforts Vital to National Development.* This bill was introduced by Hon. Congressmen Ramon S. Bagatsing, Jr., Mario S. Ty, Jesnan R. Falcon, Angelito M. Sarmiento, and Vicente A. Sandoval.

House Bill 9878 - *An Act Establishing the Philippine Science Heritage Center and Appropriating Funds for the Purpose.* The bill was introduced by Hon. Congressmen Ramon S. Bagatsing, Jr., Margarito B. Teves, and Leandro B. Verceles, Jr.

House Bill 7667 - *Establishing the National Commission for Research and Development, Defining Its Powers and Functions.* This bill was introduced by Hon. Congressman Oscar R. Rodriguez.

House Bill 296 - *Requesting the Multinational Companies to Allocate Part of their Net Annual Corporate Income for the Establishment of a Schooling Foundation.* Hon. Congressman Narciso D. Monfort introduced the bill.

House Bill 9001 - *An Act Providing Developmental Activities for Filipino Children Gifted in Science and Technology, Establishing a National Program for Such Purpose and for Other Purposes.* The bill was introduced by Hon. Congressmen Ramon S. Bagatsing, Jr., Jose Carlos V. Lacson, Gilberto M. Duavit, Leandro B. Verceles, Jr., and Margarito B. Teves.

Senate Bill 2172 - *An Act Providing Incentives for Government S & T Personnel Engaged in Scientific and Technological Activities and for Other Purposes.* This bill was introduced by Hon. Senators Juan Flavio Velasco, Gloria Macapagal-Arroyo, and Orlando Mercado.

Senate Bill 1658 - *An Act Providing for the Promotion of Health Research and Development Establishing for the Purpose the National Institutes of Health.* This bill was introduced by Hon. Senators Edgardo J. Angara, Freddie N. Webb, Franklin M. Drilon, Blas F. Ople, Francisco S. Tatad, Juan M. Flavio Velasco, Raul S. Roco, Orlando S. Mercado, and Marcelo B. Fernan.

Senate Bill 2032 - *An Act Establishing the Philippine Science Heritage Center.* Hon. Senator Edgardo J. Angara introduced the bill.

3. SCIENTIFIC LINKAGES

3.1. INTERNATIONAL LINKAGES

The Academy continues collaboration with the Third World Academy of Sciences (TWAS), Third World Network of Scientific Organizations (TWNSO), Federation of Asian Scientific Academies and Societies (FASAS), Indian National Science Academy (INSA), Chinese Academy of Sciences (CAS), Royal Society of London (RSL), German Research Society (DFG), Academy of Sciences Malaysia (ASM), and the American Association for the Advancement of Science (AAAS).

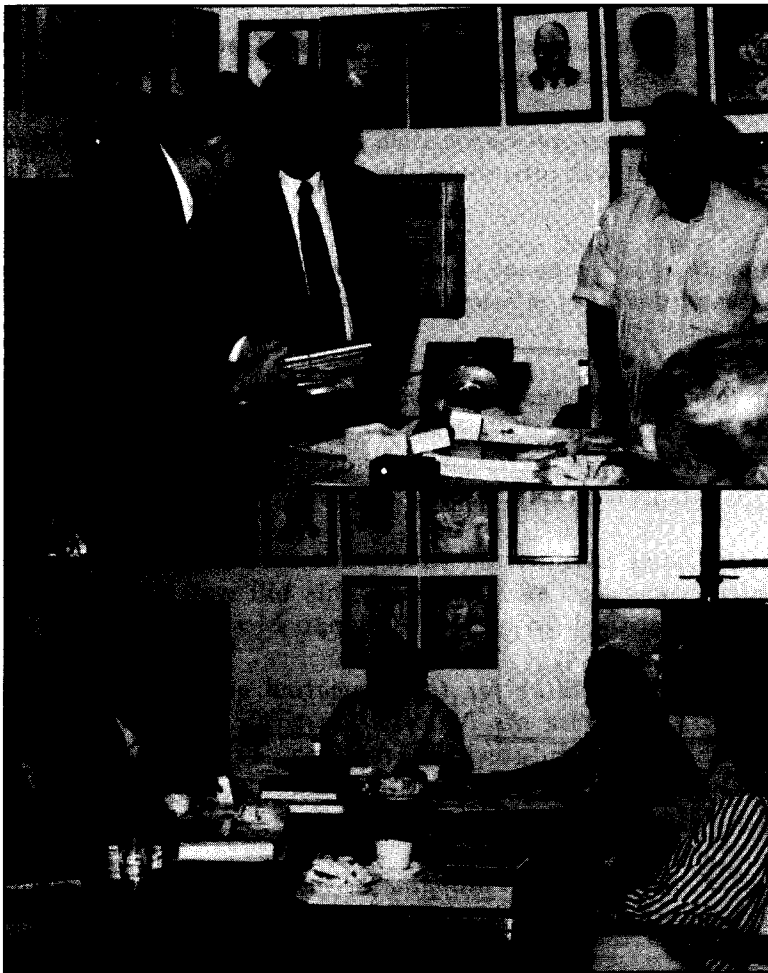
The Academy also seeks to expand its international scientific linkages. Thus, it continually explores possible linkages with the Australian Academy of Sciences (AAS), Israel Academy of Sciences (IAS), and Singapore National Academy of Sciences (SNAS).



NAST Mandates: 3. Scientific Linkages

3.1.1. New Linkages

The National Academy of Science and Technology recently signed two memoranda of agreement: firstly, with the Malaysian Scientific Association (MSA) on March 25, 1997; and secondly, with the Academy of Sciences Malaysia (ASM) on Aug. 26, 1997.



The Academy of Sciences Malaysia signs memorandum of agreement with NAST.

3.1.2. International Symposia

3.1.2.1. The 25th FAOBMB Anniversary Symposium. Under the NAST-FASAS collaborative agreement, the Academy co-sponsored and co-hosted the 25th Federation of Asian and Oceanian Biochemists and Molecular Biologists (FAOBMB) Anniversary Symposium held Dec. 2-5, 1997, at the Marine Science Institute, University of the Philippines Diliman, Quezon City. Other sponsors of the symposium included the Department of Science and Technology, the University of the Philippines, and the International Union of Biochemistry and Molecular Biology. Other hosts were the Philippine Society for Biochemistry and Molecular Biology and the Center for Biomolecular Science Foundation.

3.1.2.2. The 16th International Seaweed Symposium. The Academy will likewise co-sponsor the 16th

International Seaweed Symposium to be held on April 12-17, 1998 in Cebu. This will also be considered under the NAST-FASAS collaborative undertakings.

3.1.3. Foreign Travels

3.1.3.1. *NAST in Paris.* Dr. Elvira SN. Dayrit, Director of the Bureau of Maternal and Child Care Services, Department of Health, represented NAST and FASAS in the discussion meeting on "Maternal and Child Health in Developing Countries," May 21-24, 1997. The Inter-Academy Panel for International Issues (IAP) which sponsored the meeting is a loose association of academies interested in population and development habitats, global water resources, and similar international issues.

3.1.3.2. *NAST in Brazil.* Acd. Conrado S. Dayrit, NAST and FASAS President, participated in the 6th Third World Academy of Sciences (TWAS) Conference and the IAP meeting on Sept. 5-16, 1997 in Rio de Janeiro, Brazil. Dr. Dayrit was able to talk with the officials of the Office of the International Affairs, US National Academy of Sciences (USNAS) and shared with them NAST's activities on the Mega-Issue Project. NAST was invited to participate in the National Knowledge Assessment.

3.1.3.3. *NAST in Thailand.* On Oct. 17-18, 1997, President Acd. Conrado S. Dayrit and Executive Director Ms. Luningning E. Samarita, NAST, participated in the 3rd Asian Science and Technology Congress in Chiang Mai, Thailand. The theme of the Congress was: "Science and Technology Policies of Asian Countries: Towards the 21st Century." The Science Society of Thailand organized the Congress, under the auspices of FASAS and in collaboration with the Thai Ministry of Science, Technology, and Environment; the National Science and Technology Development Agency of Thailand; the Councils of Scientific and Technological Associations of Thailand; and the Committee on Science and Technology in Developing Countries (COSTED).

3.1.3.4. *NAST in Malaysia.* NAST President, Acd. Conrado S. Dayrit, attended the seminar "ASEAN Science and Technology Vision: Towards Technologically Competent ASEAN," held in Kuala Lumpur, Malaysia on Dec. 8-10, 1997.

3.1.3.5. *Academy of Sciences Malaysia:* The Academy of Sciences Malaysia Vice President, Dr. M.K. Rajakumar, F.A. Sc. and General Secretary, Dato' Ir. Lee Yee Cheong, F.A. Sc., visited NAST on Aug. 25-27, 1997. The ASM officials discussed with Acd. Conrado S. Dayrit (NAST President) Dr. William G. Padolina (DOST Secretary) Dr. Lydia G. Tansinsin (DOST Assistant Secretary) and Ms. Luningning E. Samarita (NAST Executive Director) the need to strengthen ASEAN science academies and their collaborative efforts. The ASM officials likewise met with other NAST Academicians to exchange information about each academy's activities and programs. It was in this meeting that the memorandum of agreement between NAST and the ASM was signed, Aug. 26, 1997.

3.1.3.6. On December 22 and 23, 1997, Dr. Samsudin Tugiman, Executive Director of the Academy of Sciences Malaysia, also visited NAST for possible collaboration. He had invited Dr. Gisela P. Concepcion of the Marine Science Institute, University of the Philippines Diliman, to give a lecture on marine toxins (or related to it) in Malaysia by April 1998. The invitation was an offshoot of the recently concluded 25th FAOBMB Anniversary Symposium where Dr. G.P. Concepcion was also one of the lecturers. Dr. Samsudin Tugiman similarly met with Architect Rebecca Vizcara-Tobia who designed the Philippine Science Heritage Center Building and the NAST-SEI-NRCP Building. Dr. Tugiman wants to pattern the new office complex for the Academy of Sciences Malaysia after that of NAST.

3.1.4. Collaborative Researches

3.1.4.1. *Local Water Utilities Administration (LWUA)-DFG Collaboration.* As an offshoot of the concluded International Conference and Exhibition on Water Resources Management (ICWRM)-a NAST-DFG collaborative effort-last

NAST Mandates: 3. Scientific Linkages

Oct. 13-16, 1996, a scientific collaboration between the Philippine Water Works Association (PWWA) and the Institute of Hydraulic Engineering, University of Karlsruhe, Germany, is now being forged under the NAST-DFG scientist exchange programme. Under the study entitled "Water Supply Systems Analysis and Upgrading (WASSALUP)", leading participants include Mr. Antonio R. de Vera, Administrator, Local Water Utilities Administration (LWUA), Philippines, and Dr. Rolf G. Cembrowicz, Head Systems Analysis, Institut für Wasserbau and Kulturtechnik, Universität Fridericiana zu Karlsruhe, Germany.

3.1.4.2. *NAST-DFG Collaboration.* Another offshoot of the ICWRM, a DFG-UPLB joint project entitled "Metabolism of Important Polar Substances Under Tropical Conditions Combined with a Systematic and Comprehensive Assessment of Organic and Inorganic Pollutants in Laguna de Bay, Philippines", has been undertaken through NAST-DFG collaboration. Dr. Thomas P. Knepper of the Institute for Water Research and Water Technology visited UP Los Baños from February 21 to March 9, 1997 to coordinate with Prof. Lilia S.P. Madamba on the project on Laguna Bay. Dr. Madamba made a reciprocal visit to Germany under the same project.

3.1.4.3. The Academy endorsed to the DFG a study visit in Germany of Dr. Belen M. Rejesus and Dr. Aida D. Solsoloy, both from the Department of Entomology, College of Agriculture, UP Los Baños. On April 28-May 9, 1997, Dr. Rejesus and Dr. Solsoloy visited Germany for a collaborative research project on botanical pesticides with Dr. Wolfgang Kraus of the Institute of Chemistry, University of Hohenheim, Stuttgart.

3.1.4.4. The NAST endorsed the visit of Dr. Ayolani V. De Lara of UP Los Baños to Kuala Lumpur from May 19-23, 1997.

3.1.4.5. *PHIVOLCS-DFG Collaboration.* Under the same NAST-DFG scientist exchange programme, Dr. Martin Wiesner of the Institute of Biogeochemistry and Marine Chemistry, University of Hamburg, Germany, will visit the Philippines for two weeks to organize a collaborative study with the Philippine Institute of Volcanology and Seismology (PHIVOLCS). The trilateral cooperative study entitled "Quaternary Tephrochronology in the South China Sea", will also be carried out with Taiwanese scientists. The PHIVOLCS collaborating scientists are Dr. Eddie L. Listanco and Dr. Sandra G. Catane. The study will be conducted in February 1998.

3.2. LOCAL LINKAGES

3.2.1. Linkages with Scientific Institutions

The Center for BioMolecular Science Foundation, Incorporated signed a memorandum of agreement with the Academy on May 29, 1997. NAST does not commit itself financially under this collaboration; the Academy, nevertheless, commits its scientific manpower resources of Academicians and OYS awardees in the conduct of programs mutually beneficial to both institutions.

The Academy continually supported the activities, plans, and programs of the Center for Fluid Dynamics, which is based in the University of the Philippines Los Baños.





Dr. Lourdes J. Cruz, head of the Center for BioMolecular Science Foundation, Inc., and NAST President Dr. Conrado S. Dayrit signing a memorandum of agreement for scientific collaboration.

3.2.2. Outstanding Young Scientists, Incorporated (OYSI)

The OYS, Inc. has been organized to address better the needs and activities of its members. The organization was registered with the Securities and Exchange Commission on May 7, 1997.

The 34th Annual Convention of PSAS. The OYS, Inc. co-sponsored the Philippine Society of Animal Science (PSAS) 34th Annual Convention on Oct. 23-24, 1997, with the theme "Sustainable Animal Production Towards the Third Millenium." This is the first of a series of Outstanding Young Scientists Forum, a major activity of OYS, Inc. The NAST-OYSI-PSAS Young Scientist Forum was participated in by four young scientists who presented papers in the field of animal science. More than 400 participants attended the convention.

The 21st Annual Convention and Symposium of the PSBMB. The second series of the OYS Forum was the 21st Annual Convention and Symposium of the Philippine Society for Biochemistry and Molecular Biology (PSBMB), held on Dec. 7, 1997 at the University of Sto. Tomas, Manila. The activity was spearheaded by Acd. Evelyn Mae T. Mendoza, President of the PSBMB.

Review and Consultancy Services in S & T. The OYS, Inc. similarly provides review and consultancy services for various researches and study proposals in science and technology. Table 9 shows the research fellowships on S & T Assessment being reviewed by the OYS, Inc. Results of all research fellowships will be submitted for roundtable discussions, which will also be undertaken by the OYS, Inc.

3.2.3. Linkage with a Scientific Association

First Quarter PSA Forum. This activity, the third of a series, will be sponsored by the Philippine Statistical Association, Inc. It is tentatively scheduled in April 1998.

3.3. SCIENTIFIC INFORMATION MANAGEMENT SYSTEMS/MANAGEMENT INFORMATION SYSTEM (SIMS/MIS)

Serving as a reservoir of competent scientific and technological manpower in the country, among others, NAST is dedicated to the vital function of improving productivity and efficiency in managing information. NAST clientele must be furnished ready access to information like a comprehensive directory of the National Scientists, awardees, council resolutions, related laws and regulations, publications, linkages with local and international scientific organizations/institutions and others. Thus, a management information system (MIS) is deemed necessary to process, document, and circulate systematically and efficiently all information pertaining to NAST activities. The MIS will also be a repository of records of Filipino scientists and their achievements. At present, the NAST-MIS is still at the infancy stage.

Information Systems for Development

1. Manpower profile (holders of graduate degrees, field of specialization, gender, age, etc.)
2. Scientific profile: achievements and original contributions to S & T
3. Advisory services
4. International and local linkages
5. Finance and administration

3.4. INFORMATION EXCHANGE PROGRAM AND SPECIALIZED LIBRARY

NAST continues to exchange information materials with its 300 scientific and academic correspondents.

3.4.1 Recent Acquisitions

3.4.1.1 Books / Monographs

As suggested by Acd. Magdalena C. Cantoria, NAST purchased the Webster's Third International Dictionary, 1995 edition, in three volumes published by Encyclopedia Britannica. It is now being used by the NAST Secretariat.

Acd. Benito S. Vergara requested to have the following books available for the Philippines Science Heritage Center (PSHC): Cracks in the Parchment Curtain; The Cone Shells of Tayabas Bay; Breakthroughs; Flora de Filipinas; Ornamental Plants; Orchidiana Philippiniana; Philippine Folk Literature - Legends; Philippine Folk Literature - Riddles; Philippine Folk Literature - Myths; Barangay; Guide to Philippine Flora and Fauna; Birds of Catanduanes; Philippine Coral Reefs; A Field Guide to Whales and Dolphins in the Philippines; Roots of the Filipino People (2 Vols.); Birds of the Philippines; Filipino Heritage; Shells of the Philippines; Philippine Orchids (2 Vols.). These books are now available and ready to be displayed at the PSHC.

3.4.1.2 Others

As requested by Acd. Bienvenido F. Nebres, S.J. the video tape "The Proof of Fermat's Last Theorem" was acquired on July 17 for the NAST Specialists' Library collection.

The following equipment were acquired by NAST: two units IBM Aptiva Mini Tower Casing; one unit of HP Deskjet; one unit APC Smart Series UPS; and one unit Digital Copy Printer with 10 bin collator. These equipment are now being used at the NAST Office.

ACTIVITIES OF ACADEMICIANS IN 1997: AN ANALYSIS

Aside from involvement in the collective functions of the Academy as a collegial body, academicians, as individual scientists, administrators, and educators, are engaged in activities that continue to influence science and society, both nationally and internationally. Besides participating in projects and programs of the Executive Council, they are devoted to research, education, and service in their respective specific areas of specialization. An analysis of their various activities in 1997 reveals that these fall under the following areas:

- A. Promotion of Science and Technology
- B. Contributions to the Search for Knowledge, and
- C. Pursuit of Excellence

A. Promotion of Science and Technology

Members of the Academy continue to influence the scientific community individually by assuming leadership and active roles in various governing boards, committees, councils, societies, etc., concerned with planning and evaluating R & D projects and defining directions and priorities for research. For the year under review, academicians were involved in 70 different groups that dealt with topics such as science and technology, science and strategy, basic research, medical sciences, health and medicine, cardiology, heart diseases, hypertension and blood pressure, agricultural research and development, plant genetic resources, rice research, ornamental plants, tropical diseases, infectious disease prevention, schistosomiasis, pharmaceuticals, natural products and medicinal plants, biologics and vaccines development, foot and mouth disease, biodiversity, ecoregional fund to support methodological initiatives, UPWARD research program on users perspectives, social sciences, decentralization, governance, population and housing statistics, etc.

Academicians were also actively immersed in numerous science and technology policy and program implementation activities including conferences, seminars, planning workshops, meetings of learned societies, experts group consultations, etc. In the national, regional, and international scenes, they served in such capacities as organizers, consultants, speakers, conveners, moderators, rapporteurs, etc.

Recognition of the leadership of the Philippines in science and technology in Asia is the position of NAST President, Academician Conrado S. Dayrit, as President of the Federation of Asian Scientific Academies and Societies (FASAS). Academician William G. Padolina, as Secretary of the Department of Science and Technology, is in the best position to promote science and technology in the country and this he has done to the best of his ability. Science and Technology have achieved great strides in 1997 through his initiative. The Governing Board of the National Research Council of the Philippines (NRCP), the oldest (created in 1933) scientific collegial body in the country, of which Academicians Faustino T. Orillo and Magdalena C. Cantoria are members, provides leadership in the formulation and implementation of policies for the direction, growth, and development of basic research.

B. Contributions to the Search for Knowledge

Academicians are constantly searching for knowledge and have made lasting contributions by conducting research and publishing their works. A total of 72 publications, including those still in press as of the end of 1997, were authored or co-authored. These include 60 papers and 12 books and monographs. The papers deal with topics such as hypertension, medicinal plants, sustainable development, conservation and use of genetic resources, population and reproductive health, hepatitis



B, measles, nutrition in Filipino children, goat and dugong helminth parasites, volunteerism, symmetry and efficiency, exchange rate policy, education, etc. Of particular mention are the books and monographs on varied subjects such as pharmacognosy (drugs of biological origin), pediatrics and child health, immunodiagnosis, Philippine type-specimens of parasitic organisms, language, continuing and higher education, etc.

By the end of 1997, 46 researches were completed or in progress. These were concerned with problems such as biodiversity, swamp buffalo nomenclature, revision of a trematode genus, giant clam culture, vermicomposting, influenza surveillance, dengue virus, rice purification and characterization of δ -endotoxins, cloning and sequencing of molecules, hypertension, public policy issues, decentralization, population studies, national health manpower development, inventory and assessment of Philippine lakes, rice, non-profit sector, moral hazards in competing teams, wage adjustment, economic choices, etc. Funds for these researches were provided by various agencies, both local and foreign. The Academy also supported some research fellowships.

Academicians have lent their expertise in numerous S & T activities held not only in NCR but also outside the region, such as in Naga City, Baguio City, Cebu City, Puerto Princesa, and Davao City. Some have traveled to other countries in Asia (Bangladesh, Thailand, Malaysia, Hong Kong, Taiwan), the Americas (Brazil, Canada, USA), Europe (Italy, Netherlands, Norway, Switzerland, United Kingdom), and Australia for conferences, meetings, consultations, symposia, etc. These travels have led to the establishment of new linkages and the strengthening of existing ones, opening opportunities for collaboration and closer cooperation with other workers in science and technology.

It is admirable to note that academicians in their advanced years are still active in scientific research. National Scientist Luz Oliveros-Belardo, now in her nineties, is still working on distilling and characterizing essential oils, this time from indigenous plants belonging to the family Zingiberaceae. The interest of Soon-to-be National Scientist Jose R. Velasco, who recently celebrated his eightieth birthday, in his life-long studies on the cadang-cadang disease of coconut, remains undiminished as may be gathered from his recent publications.

C. Pursuit of Excellence

It is not surprising that academicians, in their pursuit of excellence, are recognized and honored for their outstanding achievements as scientists, educators, professionals, administrators, and leaders in service-oriented civic organizations. Within the last year, 17 academicians were recipients of a total of 26 awards and honors which include Doctorate of Letters (*honoris causa*), Officier de l'Order des Palmes Academiques (Government of France), NRCP Achievement Award (Social Sciences and Humanities), PHILAAS Outstanding Scientist, Outstanding Filipino, Philippine Pediatric Society Golden Award, Philippine Pharmaceutical Association Golden Jubilee Award, Distinguished Researcher Award, UP Gawad Chancelor Outstanding Administrator, Outstanding Manilan, NRCP Distinguished Science Service Award, Outstanding Professional for Medicine, Meritorious Service to Veterinary Medicine, Dagupan City National High School Achievement Award, Gawad Gantimpalang Quezon sa Panitikan, St. Vincent de Paul Medal of Academic Excellence, Gawad Panitik, 40th Anniversary Fulbright Achievement in Education Award, Outstanding Kapampangan in Education, Saint Brother Miguel Febres Cordero Medal, Philippine Pediatric Society Golden Honoree, Professorial Chair Holder, Fellow of the TWAS, UP Ugnayan ng Pahinungod Pin, Best Poster, and miscellaneous Plaques or Certificates of Recognition.

An exemplary lady academician, National Scientist Fe del Mundo, a renowned and highly respected pediatrician, continues to reap honors, not only for herself but also for our country, through her dedicated and untiring efforts in the field of pediatrics. As a member of the Academy, Dr. del Mundo may be held up to our youth as a model to emulate.

ACCOMPLISHMENTS AND ACTIVITIES OF ACADEMICIANS

A. SIGNIFICANT SCIENCE AND TECHNOLOGY - RELEVANT POSITIONS HELD

1. RAMON F. ABARQUEZ, JR

- a. **President**, Second Pacific-Rim Conference on Blood Pressure Control, May 1997
- b. **President**, Philippine Society of Hypertension
- c. **Professor Emeritus**, College of Medicine, University of the Philippines Manila
- d. **Member**, International Advisory Board, First World Conference on the Control of Hypertension
- e. **Chairman**, Long Range Planning Committee, Philippine Heart Association
- f. **Member**, Scientific Editorial Board, *International Highlights and Discussions in Ischemic Heart Disease Journal*
- g. **Member**, Editorial Board, *Medicine Digest Issues*
- h. **Member**, Editorial Board, *Cardiology Practice*
- i. **Member**, Editorial Board, PIMS - Philippine Index of Medical Specialties
- j. **Member**, Editorial Board of *Philippine Journal of Cardiology*

2. SOLITA F. CAMARA-BESA

- a. **Member**, Ethics Group of CRID, College of Medicine, University of the Philippines Manila
- b. **Member**, Technical Committee on Medical Sciences, Scientific Career Council, DOST
- c. **Member**, Board of Judges Contest for Outstanding Research and Development Award, Eduardo Quisumbing Medal for Basic Research, and Julian A. Banzon Medal for Applied Research, DOST
- d. **Member**, Board of Judges, Philippine Talent Search for Young Scientists, NAST

3. PAULO C. CAMPOS

Member, UNESCO Science and Technology Committee

4. MAGDALENA C. CANTORIA

- a. **Appointed Member**, Sectoral Committee on Health and Medicine for the S&T Centennial Celebration, DOST, 03 March 1997
- b. **Reappointed Member**, Special Technical Committee on Medical Sciences, Scientific Career Council, DOST, 25 June 1997
- c. **Member**, The Natural Products Society of the Philippines (NPSP)
- d. **Appointed Member**, Best Poster Award Board of Judges, NAST
- e. **Appointed Member**, Standing Committee on S&T Fora, NAST
- f. **Elected Chairman**, Division (IV) of Pharmaceutical Sciences, NRCP, 15 March 1997
- g. **Elected Corporate Secretary**, NRCP (October 1997 - March 1998)
- h. **Appointed Assistant Corporate Secretary**, NRCP (April - September 1997)
- i. **Appointed Member**, Executive Committee, Planning Committee, Personnel Committee, and Regional Outreach Program (Cluster II); **Chair**, Publications Committee; and **Secretary**, Policy Advice and Current Issues Committee, NRCP, 25 April 1997
- j. **Elected Corporate Secretary**, NRCP Research Foundation, Inc. (1997-1998)
- k. **Appointed Executive Editor**, *NRCP-SCOPE Newsletter*, starting October 1997
- l. **Member**, Working Committee on Selection of Outstanding Alumni and Most Distinguished Phi Kappa Phi Family, The Honor Society of Phi Kappa Phi, UP Chapter



Accomplishments and Activities of Academicians

5. LEDIVINA V. CARIÑO

- a. **University Professor**, University of the Philippines, Public Administration
- b. **Consultant on Decentralization**, Asian Development Bank
- c. **Consultant on Governance**, United Nations Development Programme

6. GELIA T. CASTILLO

- a. **Vice-Chair**, Board of Trustees International Plant Genetic Resources Institute, Rome Italy
- b. **Member**, International Scientific Advisory Committee, Ecoregional Fund to Support Methodological Initiatives, the Hague, The Netherlands
- c. **Member**, External Program Review Panel, Tropical Disease Research Program, WHO, Geneva
- d. **Member**, CGIAR System Review Panel on Science and Strategy, Washington, D.C.
- e. **Member**, Board of Trustees, Philippine Rice Research Institute
- f. **Senior Adviser**, UPWARD Research Program on Users Perspectives with Agricultural Research and Developward, An Asian Network sponsored by the International Potato Center and funded by the Dutch government

7. VERONICA F. CHAN

- a. **Chair**, Task Force for Vaccine Development, DOH
- b. **Chair**, Technical Evaluation Committee, Tetanus Toxoid Vaccine Turnkey Facility, DOH
- c. **Member**, Task Force on Vaccines and Biologicals, Bureau of Food and Drugs, DOH
- d. **Member**, Steering Committee for the Prevention of Infectious Diseases in Asia, SmithKline Beecham International
- e. **Chair**, Technical Evaluation Committee, University Research Committee, University of the Philippines Manila
- f. **Convener**, Vaccine Development, University of the Philippines Manila

8. MERCEDES B. CONCEPCION

- a. **Member**, Steering Committee, Comprehensive Research Program, Demographic Research and Development Foundation, since 1996
- b. **Chairperson**, Inter-agency Committee on Population and Housing Statistics, NSCB
- c. **Chairperson**, Technical Advisory Group, UNFPA/NSO Project: Strengthening the NSO in providing data for local planning and development

9. CONRADO S. DAYRIT

- a. **President**, NAST
- b. **President**, Federation of Asian Scientific Academies and Societies (FASAS)
- c. **Member**, Steering Committee, Inter-Academy Panel on International Issues, 13 September 1997, Rio de Janeiro, Brazil

10. EDITO G. GARCIA

- a. **Convener**, Schistosomiasis Study Grant, University of the Philippines Manila
- b. **Head**, WHO University of the Philippines Manila Collaborating Center for Research on *Schistosoma japonicum*
- c. **Member**, Technical Committee, PCHRD Research Fellowship Program
- d. **Emeritus Professor** with teaching assignment, College of Public Health, University of the Philippines Manila
- e. **Member**, WHO Expert Committee on Schistosomiasis

11. ANDREW A. GONZALEZ

- a. **Technical Consultant**, Social Sciences, DOST
- b. **Vice-Chairman**, Social Sciences Division, NRCP
- c. **Member**, Presidential Task Force on Science and Technology, DOST

12. RAFAEL D. GUERRERO III

- a. **Executive Director**, Philippine Council for Aquatic and Marine Research and Development (PCAMRD), DOST
- b. **Chairman**, ASEAN-COST Sub-Committee on Marine Science
- c. **Member**, Presidential Commission on Sulu and Celebes Seas Development and Conservation

13. JOSE O. JULIANO

Undersecretary, Department of Trade and Industry (DTI)

14. EVELYN MAE T. MENDOZA

- a. **Program Leader**, Institute of Plant Breeding Plant Biotechnology Program
- b. **Chair**, Adhoc Committee to Establish a Molecular Biology and Biotechnology Program, Graduate School, University of the Philippines Los Baños
- c. **Member**, Special Biotechnology Committee, PCARRD
- d. **President**, Philippine Society for Biochemistry and Molecular Biology
- e. **Editor-in-chief**, *Philippine Journal of Crop Science*

15. TITO A. MIJARES

- a. **Chairman**, Board of Judges, Philippine Talent Search for Young Scientists Award, NAST (1989 to date)
- b. **Chairperson**, Board of Judges, Philippine Statistics Quiz, National Finals (1992 to date)
- c. **Member**, Technical Committee on Engineering, Scientific Career Council, DOST

16. FAUSTINO T. ORILLO

- a. **Member**, (representing the community), National Committee on Biosafety of the Philippines (NCBP).
- b. **Member and Co-Secretary**, NAST Executive Council and concurrently Chairman, NAST Agricultural Sciences Division.
- c. **Member-at-Large**, Governing Board of the National Research Council of the Philippines (NRCP).

17. TEODULO M. TOPACIO, JR.

- a. **President**, Philippine Society of Veterinary Public Health
- b. **President**, Federation of Asian Veterinary Associations (FAVA), 10th FAVA Congress, 24-28 August 1997, Cairns, Australia
- c. **Chairman**, Sub-Committee on Veterinary Drugs (SCVD), DOH
- d. **Chairman**, Board of Veterinary Medicine Examiners
- e. **Chairman**, Continuing Professional Education Council, Veterinary Medicine
- f. **Chairman**, Technical Advisory Committee for the Control and Eradication of Foot and Mouth Disease (FMD) in the Philippines
- g. **Consultant**, Presidential Commission for Tagaytay and Taal (PCTT), Office of the President of the Philippines

18. BENITO S. VERGARA

- a. **Team Member**, Representing Production and Marketing Discipline of the National Ornamental Horticulture and Medicinal Plants Research and Development Team
- b. **Member**, Program Management Committee (PMC) of the Integrated Ornamental Horticulture Research and Development Program (IOHRDP), (Sept. 1997 to June 1998)
- c. **Member**, IRRI Biosafety Committee
- d. **Technical Editor**, PLUNDASYON (Padua)

19. PRESCILLANO M. ZAMORA

- a. **Program Director**, UP Center for Integrative and Development Studies - NAST Biodiversity Conservation Program
- b. **Senior Ecologist**, Environmental Studies of Baguan Island Marine Turtle Sanctuary (WWF-KKP)
- c. **Senior Ecologist**, Protecting Biodiversity of Mount Guiting-guiting through the Development of Sustainable Community Livelihood Enterprises: Biodiversity Profile Component (WWF-KKP)
- d. **Biodiversity Specialist**, Comparative Study of Biodiversity Losses in Three Philippine Island Ecosystems (WWF-KKP)
- e. **Senior Biologist**, Ecotourism Feasibility Plan for Bucas Grande Island, Siargao Island Landscape and Seascape Protected Area, Surigao del Norte, Mindanao (October 1997)
- f. **Consulting Biologist**, ASCOT (Aurora State College of Technology) Biodiversity Assessment and Conservation Program (October to December 1997)

B. PUBLICATIONS

1. RAMON F. ABARQUEZ, JR.

- a. The Philippine Clinical Practice on the Detection and Management of Hypertension. Report of the Multi-Sectoral Task Force on the Detection Management of Hypertension Convened by the Philippine Society of Hypertension. *Philippine Journal of Internal Medicine* 35(2):67-83.
- b. Co-author, Consensus Conference on Hypertension Control Setting on Agenda for Multi-Sectoral Collaboration. *Philippine Journal of Internal Medicine* 35(2):61-66.
- c. The Calcium Antagonists Controversy Implications for the Treatment of Hypertension. *Medical Progress* 24(7): 5-7.

2. MAGDALENA C. CANTORIA

- a. Senior-author, Studies on the Outer Root Bark of *Kokoona oleracea* (Elm.) Merr. (Family Celastraceae). *NRCP Research Journal* 3(2): 67-100.
- b. Co-author, Effect of the Aqueous Extract of *Zingiber purpureum* Rosc. (Family Zingiberaceae) on the mitotic chromosomes of *Allium cepa* L. In: *Proceedings of the Second Symposium on the Family Zingiberaceae* pp. 166-173.
- c. Author, Medicinal plant biotechnology. In: *Biotechnology in Pharmacy* pp. 15-34.
- d. Editor, *Biotechnology in Pharmacy*, NRCP. ISSN 0115-5210.
- e. Author, *Workbook in Pharmacognosy*, Fourth Edition. NRCP. ISBN 971-91932-3-9. (In press)

3. LEDIVINA V. CARIÑO

- a. Co-author, Volunteer Management for Disaster Rehabilitation: A Case Study of a University Program in Lahar Country, Philippines. *Papers and Proceedings, International Symposium on Disasters and Health* pp. 385-401.
- b. But Is It Public Administration? The Place of Voluntary Sector Management in the Discipline. *Pahinungod Annual* pp. 1-18.
- c. Preparing for a Developed Future Through a Comparative Study of Five Current and Emerging Metropolitan Areas. *UP-CIDS Chronicles*.

4. GELIA T. CASTILLO

- a. Research Partnerships Issues, Lessons, Results, and Dreams for Sustainable Development. *AGREN Network Paper No. 71* published by the Overseas Development Institute Agricultural Research and Extension Network, .
- b. Quality of Life Research: Exploring Opportunities Beyond Health. *Issues and Letters* 6(1&2) Jan.-Feb. 1997, Philippine Center for Policy Studies.
- c. Whose Ethics and Which Equity? Issues in the Conservation and Use of Genetic Resources for Sustainable Food Security. *International Plant Genetic Resources Institute*, pp. 19-31, Rome, Italy.
- d. Evaluation: Purpose, Process, Product, and Probity in Self-Assessment.

5. VERONICA F. CHAN

- a. Co-author, Immune Response to Three Doses of 1.5 µg/dose of Hepatitis B Vaccine Among Infants in Bay, Laguna, and Allen, Northern Samar. *Philippine Journal of Pediatrics* 46:35-38, 1997.

6. MERCEDES B. CONCEPCION

- a. Philippine Population Policy: Continuities and Change. To be published by the Asian Population and Development Association, Tokyo, Japan.
- b. Population and Reproductive Health. *JICA Bulletin*, July 1997.

7. FE DEL MUNDO

- a. Textbook of Pediatrics and Child Health for the Medical Schools for the Philippines, 4th Edition.
- b. Successful Health Interventions in the Philippines
- c. Nutrition of Filipino Children at the End of the 20th Century (1990-2000), Revised.

8. SALCEDO L. EDUARDO

- a. Co-author, Effects of Stomach Worm (*Haemonchus contortus*) Infection on the Kids of Infected Mother Goats. *Asian-Australasian Journal of Animal Sciences* 10(4):435-438.
- b. Co-author, Performance of Growing Goats Experimentally Infected with Stomach Worm (*Haemonchus contortus*). *Asian-Australasian Journal of Animal Sciences* 10(5):534-539.
- c. Co-author, Some Helminth Parasites of the Sea Cow, *Dugong dugon* (Muller, 1776) (Mammalia: Sirenia), in the Philippines. *Philippine Journal of Veterinary Medicine*. (In Press).
- d. A Guide to the Collections of Philippine Type-Specimens of Parasitic Protozoa, Helminths, and Arthropods. 322 pp. ISBN 971-8538-42-9.

Accomplishments and Activities of Academicians

9. RAUL V. FABELLA

- a. Symmetry and Efficiency. *Philippine Review of Economics and Business (PREB)* 34(1):99-109.
- b. Co-author, Exchange Rate Policy: Recent Failures and Future Tasks. *Public Policy* 1 (1):15-41.
- c. Bleeding Juan dela Cruz to Fatten Banks and Portfolio Managers: The Interest Rate Cure. *Issues and Letters* 6, August 1997.

10. EDITO G. GARCIA

Immunodiagnosis of Some Philippine Parasitic Infections (In press).

11. EDGARDO D. GOMEZ

- a. Reef Management in Developing Countries: A Case Study in the Philippines. *Coral Reefs* 16, Suppl.: S3-S8.
- b. To Save a Reef. *Marine Pollution Bulletin* 34: 142-143.
- c. Reef Management in Developing Countries: The Philippines as a Case Study. *Proceedings of the 8th International Coral Reef Symposium* pp. 123-128 (modified version of above)

12. ANDREW A. GONZALEZ

a. In Journals

- (1) The Proposed New School Calendar: A Twice-told Tale. Readings. *The Philippine Journal of Education* 74(9):144.
- (2) We Should Learn not only Malay but Other Foreign Languages. Readings. *The Philippine Journal of Education* 74(8):366.
- (3) Our Best Teachers Should be in Our Primary Grades. Readings. *The Philippine Journal of Education* 74(10):462.
- (4) Discerning the Signs of the Times in the Twenty-First Century. *Handurao, The University of St. La Salle Journal of Arts, Ideas, and Culture* 4:48-56.
- (5) The Rizal Course Redivivus (revived). Readings. *The Philippine Journal of Education* 75(1):30.
- (6) Accounting Education for the Future: The Case of De La Salle University. *PCJOURNAL* (PICPA's Convention Journal), December 5-7, 30-1.
- (7) Mga Aspektong Istruktural ng Intelektwalisasyon ng Wika: Ang Kaso ng Filipino. *Journal ng KWF* 1:25-30.
- (8) Incongruity Between the Language of Law and the Language of Court Proceedings: The Philippine Experience. *Language and Communication* 16(3):229-234.
- (9) Teaching Filipino Creatively in Our Schools. Educational Cross-Currents. *The Philippine Journal of Education* 75(7):318, 332.
- (10) The Resurrection of English. Educational Cross-Currents. *The Philippine Journal of Education* 75(6): 270,283.
- (11) Of Clean Toilets and the State of Culture in a Country. Educational Cross-Currents. *The Philippine Journal of Education* 75(8):366.
- (12) Selling Science to Our High School Seniors. Educational Cross-Currents. *The Philippine Journal of Education* 75(9):462, 472.
- (13) Towards Ecumenical Education in Religiously Oriented Institutions of Higher Education in Asia in the Twenty-first Century. *Tanglaw Journal of the College of Education (DLSUP)* 5(1):1-6.
- (14) Pre-schooling as a Means to Accelerate Regular Schooling Achievement. Educational Cross-Currents. *The Philippine Journal of Education* 76(1):30.
- (15) Language and Spirituality. *Religious Studies Journal* 20(1):1-6.

b. In Newsletters/Newspapers/Bulletins

- (1) Remarks of Circumstance (Establishment of the Remedios Bosch-Jimenez Distinguished Professorial Chair in the Humanities) In Professorial Chair Honors a Great Diva. Sundry Strokes, by Rosalinda L. Orosa. *The Philippine Star* 10(202): 9,15.
- (2) RP District: Discerning the Signs of the Times in the 21st Century. *Lasallian FaMiLi* 1(2): 2.6.
- (3) Keeping Human Treasures at La Salle. *The DLSU Newsletter* 28(8):5-6.
- (4) The Last Ends: Death, Judgment, Heaven, and Hell Towards an Adult Faith. *Parish of St. James the Great Bulletin* page 5.
- (5) Renewing the Goals of Catholic Higher Education in Asia. *International Higher Education* 1(5):5-6.
- (6) Literal and Figurative Language Towards an Adult Faith. *Parish of St. James the Great Bulletin* 2.
- (7) Philippine Higher Education: Some Unorthodox Solutions to Some Perennial Problems. *CEAP Perspective* 16:1-2, 12-7.
- (8) Low Scores in NEAT and NSAT Tests Should Stimulate Our Legislators to Provide More Funds for Focused Assessment and Improvement. Uncommon Opinion. *CEAP Perspective* 16(1-2):59.
- (9) Re-engineering Catholic Education Finances in the Philippines. Uncommon Opinion. *CEAP Perspective* 16(1-2): 69-70.
- (10) Re-engineering Catholic Education Finances in the Philippines: The Changing Sociological Picture. Uncommon Opinion. *Perspective* 16(3): 34-35.
- (11) Our Jewish Heritage Part II Towards An Adult Faith. *Parish of St. James the Great Bulletin* page 4.
- (12) Re-engineering Catholic Education Finances in the Philippines: Searching for New Strategies. Uncommon Opinion. *Perspective* 16(4): 35, 37.
- (13) The Special Role of the University-belt Institutes of Higher Learning in Philippine Tertiary Education. *Insights* (50th Anniversary Issue) 1:129-145.
- (14) ESP: Yesterday, Today, and Tomorrow. *Teaching English for Specific Purposes* 10:1-6.
- (15) The Lasallian Administrators' Commitment. *DLSU-Dasmarinas Newsette* 6(30): 6-7.
- (16) The Education of Statisticians for the Philippines Meeting the Need. *PSA Newsletter* 6(30): 3-4.
- (17) Continuing Education in a Learning Society. Educators Speak. *Manila Bulletin* 291(2):11, G-26.
- (18) Reading the New Testament of the Bible. Towards an Adult Faith. *Parish of St. James the Great Bulletin* (February 16 & 23) page 4.
- (19) Re-engineering Catholic Education Financing in the Philippines: Some Proposed New Strategies. Uncommon Opinion. *Perspective* 17(1): 34-35.
- (20) Gearing Up for the 21st Century: The Role of La Salle-Manila. *The DLSU Newsletter* 29(2):7-8.
- (21) The Magi Towards an Adult Faith. *Parish of St. James the Great Bulletin* (July 20), 5-6.
- (22) Gearing Towards the Asia-Pacific Century. *Abut-Tanaw* 25(1): 4-6.
- (23) The Stories of Jesus' Life Before His Public Life. Towards an Adult Faith. *Parish of St. James the Great Bulletin* (August 17), 4.
- (24) Jesus and John The Baptist. Towards an Adult Faith. *Parish of St. James the Great Bulletin* (September 21), 4, 3.
- (25) Aspektong Istruktural ng Intelektwalisasyon ng Wika: Ang Kaso ng Filipino. *Malay* 14(1): 67-73.
- (26) Towards the Improvement of Philippine Education. The Pupil Factor and the Teacher Factor. Uncommon Opinion. *Perspective* 17(3): 34-35.
- (27) The Public Life of Jesus. Towards an Adult Faith. *Parish of St. James the Great Bulletin* (October 19), 19: 3-4.

Accomplishments and Activities of Academicians

c. In Proceedings

- (1) Towards Ecumenical Education in Religiously Oriented Institutions of Higher Education in Asia in the Twenty-first Century. *Proceedings of the International Conference on Religion and Higher Education In Asia*, Fokuang University, Taiwan.
- (2) Discerning the Signs of the Times in the Twenty-first Century. In: De La Salle Brothers Philippines 1970-1995 Silver Jubilee Lectures, edited by the Provincialate, 1-10. Mandaluyong, Metro Manila: De La Salle Brother Provincialate.

d. Monographs

- (1) Foreword. A Bibliography of Philippine Linguistics, compiled by Rex E. Johnson. (Monography No. 39). Manila: Linguistics Society of the Philippines.
- (2) The Andrew Gonzalez, FSC, Reader, edited by Bernardo S. Oca, FSC. Manila: De La Salle University Press.
- (3) The History of English in the Philippines. In: English is an Asian Language, The Philippine Context, edited by Maria Lourdes S. Bautista, 25-40. Manila: The Macquarie Library Pty. Ltd.
- (4) Language Classrooms of Tomorrow in the Philippines: Dreams and Realities: In Language Classrooms of Tomorrow: Issues and Responses, edited by George M. Jacobs, 55-66. Anthology Series 38. Singapore: SEAMEO Regional Language Centre.
- (5) Philippine English: A variety in search of legitimation. In Englishes Around the World. Vol. 2: Caribbean, Africa, Asia, Australasia. Studies in Honour of Manfred Gorfach, 205-212. Amsterdam, Philadelphia, John Benjamins Publishing Co.
- (6) From Pilipino to Filipino1 to Filipino2: Unmaking and Remaking a National Language. In: Undoing and Redoing Corpus Planning, edited by Michael Clyne, 313-325. Berlin, New York: Mouton de Gruyter.
- (7) Continuing Education in a Learning Society: Formal System. In Alternative Futures Towards a Learning Society. 17-19. Manila: Foundation for Continuing Education (Force).
- (8) Philippines. In: Asian Higher Education. An International Handbook and Reference Guide edited by Gerard A. Postiglione and Grace C.L. Mak, 265-284. Westport, Connecticut and London: Greenwood Press.

13. RAFAEL D. GUERRERO III

- a. Human Impacts on Laguna de Bay, Philippines and Management Strategies for Their Mitigation. *GeoJournal* 40(1-2):69-72.
- b. Philippine Tilapia Farming Technologies and Their Relevance to Africa. *Proceedings of the Third International Symposium on Tilapia Aquaculture*. ICLARM Conf. Proc. 41, 575 pp.

14. EVELYN MAE T. MENDOZA

- a. Co-author, Physiological and Biochemical Basis of Salt Tolerance in Corn, *Zea mays* L. *Bulletin of the Philippine Society for Biochemistry and Molecular Biology* 16:PR 88 (Abstract).
- b. Co-author, Phenolic Compounds in Coconut (*Cocos nucifera* L.) and Mango (*Mangifera indica* L.). *Bulletin of the Philippine Society for Biochemistry and Molecular Biology* 16:PR 92 (Abstract).
- c. Co-author, Screening of the Triacylglyceride Composition of Coconut (*Cocos nucifera* L.) Cultivars and Hybrids. *Bulletin of the Philippine Society for Biochemistry and Molecular Biology* 16:PR 93 (Abstract).

15. PERLA D. SANTOS OCAMPO

- a. Where are the Girls? The Female Child and the Right to Life, Survival, and Development. *International Child Health: A Digest of Current Information* (an International Pediatric Association Publication in collaboration with UNICEF and WHO), October 1996 7(4):77-83; January 1997, 8(1):71-76.
- b. The Girl is Mother of the Woman. *International Child Health: A Digest of Current Information*, January 1997, 8(1):77-82.

16. JOSE R. VELASCO

- a. Review of Studies on the Cadang-cadang Disease of Coconut. *Botanical Review* 63(2):182-196.

17. PRESCILLANO M. ZAMORA

- a. Contributor. Celebrating Mount Apo: The Living Mountain. *PNOC-EDC Book* (launched 24 January).
- b. Contributor. Philippine Biodiversity: An Assessment and Action Plan. *UNDP-UNEP Book* (launched 29 December).
- c. Co-author. Development of the female gametophyte of *Pittosporum resiniferum* Hemsl. (Pittosporaceae). *The Philippine Journal of Science* 125(3): 161-173.
- d. Co-author. Spore Diversity in Philippine Ferns. UP-CIDS NAST Conservation Publication.
- e. Annotated Bibliography on Philippine Biodiversity: *Philippine Lycopodium. Final Report NAST Research Fellow* (December).

C. PAPERS PRESENTED/AWAITING PUBLICATION

1. PAULO C. CAMPOS

- a. Overview on Medical Education: Past, Present, and Future
- b. Quality Education for the Philippines

2. LEDIVINA V. CARIÑO

- a. Beyond the Crossroads: Policy Issues for the Philippine Nonprofit Sector. Paper prepared for the 1997 *VOLUTAS Symposium "The Nonprofit Sector at the Cross-Roads?"* October 17-18, 1997, London.
- b. Managing the Ugnayan ng Pahinungod. Paper prepared for the *Forum of the Management Education Council*, University of the Philippines. September 8, 1997.
- c. Concept Paper: Proposed Regional Framework for UNDP Assistance for Asia and Pacific. Paper prepared for the UNDP, New York, August 1997.
- d. Voluntary Sector Management as a Field of Specialization for the Master of Public Administration Degree. Paper Prepared for the College of Public Administration and the LTP Diliman Curriculum Committee, August 1997.
- e. Decentralization and the Asian Development Bank: Final Report of an ADB-Ford Foundation Project, June 1997.
- f. Bank Perspectives on Decentralization. Paper prepared for the Asian Development Bank, April 1997.
- g. Key Issues of Decentralization in the Philippines. Paper prepared for the Asian Development Bank, March 1997.
- h. Re-engineering the Bureaucracy: A Concept Paper on Performance Indicators. Paper prepared for the Development Academy of the Philippines, June 1997.

Accomplishments and Activities of Academicians

3. LEOPOLDO S. CASTILLO

- a. Co-author, How Many Species are There in Philippine Livestock and Poultry? Presented at the UP-CIDS-NAST Biodiversity Conservation Program (BCP), August 20 and 27.

4. VERONICA F. CHAN

- a. Co-author, Measles Antibody Profile of Children Vaccinated with Measles Vaccine in Urban and Rural Areas.
- b. Co-author, Serum Level of Penicillin Among Filipino Children and Adolescents with Rheumatic Fever and Rheumatic Heart Disease Given Benzathine Penicillin G.

5. CONRADO S. DAYRIT

- a. Coconut Oil: Where Do we Stand? Paper Presented at the Philippine Heart Association Annual Convention, May 28, 1997, EDSA Plaza Hotel, Mandaluyong City.
- b. Medicinal Aspects of Coconut Products. Presented at "A Century of the Coconut Industry - Centennial Symposium and Exhibits", Bureau of Soils and Management, August 28-30, 1997, Quezon City.
- c. Ethics and Morality in Science and Technology. Presented at the Symposium on Ethics and Morality at the UP Los Baños College of Arts and Sciences Silver Jubilee, November 19, 1997.
- d. The UP Medical Professionals During the Japanese Occupation. "Gamot, Tabak, at Sandata: Isang Talakayan pp. 33-53.

6. RAUL V. FABELLA

- a. Globalization, Poverty, and Inequality. (forthcoming in IDE-UPSE volume to be edited by Balisacan and Fujisaki).
- b. Attracting Versus Picking Winners. (to appear in a UP-CIDS volume).

7. RAFAEL D. GUERRERO III

- a. Effects of Androstenedione and Methyltestosterone on *Oreochromis niloticus* Fry Treated for Sex Reversal in Outdoor Net Enclosures. *International Symposium on Tilapia in Aquaculture*, Orlando, Florida, USA, November 9-12, 1997.
- b. Sustainable Development of Philippine Lake Resources: An Agenda for Research and Development. *National Seminar-Workshop on the Conservation and Management of Philippine Lakes in Relation to Fisheries and Aquaculture*, Diliman, Quezon City, October 21-23, 1997.

8. CLARA Y. LIM-SYLIANCO

- a. Geroprotectine Activity of Philippine Medicinal Plants.

9. EVELYN MAE T. MENDOZA

a. Paper Presented

- (1) How to make Collaborative Research Work. *R&D Productivity Symposium and Rice Varietal Improvement Program Workshop*, July 30-31, PhilRice, Nueva Ecija.

b. Poster Papers Presented

- (1) Co-author, δ -Endotoxins of Local *Bacillus thuringiensis* Strain: Biochemical Toxicity Studies Against Asiatic Corn Borer (*Ostrinia furnacalis*). Presented during the (a) Annual Convention of the Crop Science Society of the Philippines, May, Baguio City;

- (b) NAST Annual Scientific Meeting, July, Manila; (c) Annual Convention Kapisanan ng Kimika sa Pilipinas, Los Baños, October; (d) 25th Anniversary Symposium of the Federation of Asian and Oceanian Biochemists and Molecular Biologists, December 2-5, UP Diliman, Quezon City.
- (2) Co-author, Esterase Isozyme Analysis of Asiatic Corn Borer (*Ostrinia furnacalis* Guenee) Populations from the Philippines and Japan. Presented during the NAST Annual Scientific Meeting, July, Manila.
- (3) Kinetic Properties and Activities of Corn Leaf Nitrate Reductase and Root Phosphoenol Pyruvate Carboxylase at Different Levels of Salinity. Presented during the (a) Annual Convention of the Crop Science Society of the Philippines, May, Baguio City and (b) NAST Annual Scientific Meeting, July, Manila.

10. TEODULO M. TOPACIO, JR.

- a. The Veterinary Profession in the Philippines: Through Decades of Protecting and Promoting Public Health. *64th Annual Convention of the Philippine Veterinary Medicine Association (PVMA)*.
- b. The Role of Government in Veterinary Drug Quality Assurance. *1st Animal Feeds and Veterinary Drugs Congress*, July 1-4, PICC, Manila
- c. The Production of FMD Vaccine in the Philippines. *Regular Meeting of the National Agricultural and Fishery Council (Livestock and Poultry Committee)*, Department of Agriculture, March.
- d. Sustaining FAVA Through the Year 2000 and Beyond.
- e. Strengthening the Relationship of FAVA and the Office of International Epizootics (OIE) of Animals.

11. BENITO S. VERGARA

- a. The Development of a Pure Makapuno Tree: An Adventure in Research.
- b. Endemic Ornamental Plants.

12. PRESCILLANO M. ZAMORA

- a. Contributor. Biodiversity of Baguan Island Marine Turtle Sanctuary
- b. Contributor. Monograph on Philippine *Pittosporum resiniferum* (Petroleum Nut Plant).
- c. Contributor. Biodiversity Losses in Three Philippine Island Ecosystems.

D. RESEARCHES (COMPLETED/IN PROGRESS)

1. RAMON F. ABARQUEZ, JR.

Practicality and Applicability of the Hypertension Guidelines.

2. LEDIVINA V. CARIÑO

a. Completed Researches

- (1) Public Policy Issues in the Nonprofit Sector
- (2) Decentralization and the Asian Development Bank

b. In Progress

- (1) The Interrelationship of the Social Sciences and Other Branches of Knowledge. (NAST-supported)
- (2) The Nonprofit Sector in the Philippines.

Accomplishments and Activities of Academicians

3. GELIA T. CASTILLO

Renaissance Scientists and Avant-Garde Farmers' "Rice is Life" in the Next Century.

4. LEOPOLDO S. CASTILLO

- a. Annotated Bibliography on Philippine Biodiversity: Livestock and Poultry (Agrobiodiversity).
- b. Proposal for a New Scientific Name of Swamp Buffalo - The Carabao.

5. VERONICA F. CHAN

- a. Influenza Surveillance.
- b. Isolation of Dengue Viruses from DHF Outbreaks.
- c. Responding to National Health Manpower Development Needs Through Distance Education.

6. MERCEDES B. CONCEPCION

- a. Probing Our Futures: Review and Appraisal.
- b. Forty Years of Philippine Population Studies.

7. SALCEDO L. EDUARDO

Revision of the Trematode Genus *Nilocotyle* Nasmark 1937.

8. RAUL V. FABELLA

- a. Public Order and Social Norms.
- b. Egalitarian Distribution and Pareto Optimum in Competitive Environments.
- c. Moral Hazard in Competing Teams.
- d. The Net Index of Protection and the Flight from Tradeable Sector.
- e. Reasonable and Affordable Wage Adjustment to the Current Crisis.
- f. The Economic Choices We Face.
- g. Rethinking the Speed of TRP III.

9. EDITO G. GARCIA

Cloning and Sequencing of Molecules in a cDNA Expression Library Recognized by Mature and Anti-Embryonation Hyper Immune Sera.

10. EDGARDO D. GOMEZ

Giant Clam Culture and Dispersal.

11. ANDREW A. GONZALEZ

- a. Language and the Constitution: Philippine English Across Generations.
- b. Araling Panlipunan (High School) 1-4.
- c. Sangwikaan 1-4.
- d. Values Education, New Series 1-7.
- e. Revisions of Values Education, High School Series
- f. Let's Communicate in English 1-7.
- g. High School Series 1-4 (English).

12. RAFAEL D. GUERRERO III

- a. Inventory and Assessment of Philippine Lakes.
- b. Effects of Different Substrates and Stocking Densities of the Earthworm, *Eudrilus euginae*, On the Production of Vermicompost.

13. CLARA Y. LIM-SYLIANCO

Geroprotective Activity of Philippine Medicinal Plants.

14. EVELYN MAE T. MENDOZA

- a. Physicochemical Analysis of IPB Crops (Phase V).
- b. Purification and Characterization of δ -endotoxins from Local *Bacillus thuringiensis*.
- c. Avocado Rootstock Resistant to Phytophthora Root Rot Disease in Cell Cultures.
- d. Control of Ripening in Papaya and Mango by Genetic Engineering.
- e. Enhancement of Crop Salt Tolerance.
- f. Development of Objective Indices (Biochemical, Physiological, and Physical) for Cultivar Identification of Mango.
- g. Determination of Fatty Acid, Protein, and Triacylglyceride Composition of Different Coconut (*Cocos nucifera* L.) Cultivars and Hybrids.
- h. Varietal Identification of Rambutan (*Nephaliium laperacum* L.) Using Peroxidase Isozyme Patterns.
- i. Biochemical and Molecular Mechanisms of Tomato (*Lycopersicon esculentum*) Resistance Against Bacterial Wilt Caused by *Pseudomonas solanacearum*, (Phase II).

15. LUZ OLIVEROS-BELARDO

Gas Chromatography Patterns of Essential Oils from Selected Philippine Plants, Part I: Family Zingiberaceae.

16. JOSE R. VELASCO

The Soil Aspect of the Cadang-cadang Disease of Coconut.

17. BENITO S. VERGARA

Contributions of Filipino Scientists to the World of Science.

18. PRESCILLANO M. ZAMORA

Ecological Studies of *Turnera subulata* (Turneraceae).

E. SCIENCE AND TECHNOLOGY POLICY AND PROGRAM IMPLEMENTATION ACTIVITIES, INCLUDING CONFERENCES, SEMINARS, ETC.

I. RAMON F. ABARQUEZ, JR.

- a. Attendance at Local Scientific Meetings, Seminars, Lectures, Conventions, Workshops, and Symposia (other than those sponsored by NAST)
 - (1) Guest Speaker, Guidelines on Hypertension, Department of Health, 9 & 29 January.
 - (2) Guest Speaker, Left Ventricular Remodelling, Naga City Medical Society, 25 & 26 January, Naga City, Bicol.

Accomplishments and Activities of Academicians

- (3) Guest Speaker, Cardiovascular Disease-Prevention and Control Program, Ugnayan sa Hotel Rembrandt-Department of Health, 31 January, Hotel Rembrandt, Quezon City.
- (4) Guest Speaker, Press Conference and Open Forum - Department of Health Heart Month, 1 February, Shangri-La EDSA Plaza, Mandaluyong City.
- (5) Guest Speaker, Beyond the Current Paradigm of Interpreting Myocardial Ischemia, Nueva Ecija Medical Society, 8 February, Cabanatuan City.
- (6) Guest Speaker, Press Conference, Department of Health, 10 February, Manila.
- (7) Guest Speaker, Preventive Cardiology, Philippine College of Occupational Medicine, 11 February, Quezon City.
- (8) Guest Speaker, Updates on the Management of Hypertension, Scientific Meeting, Laguna Medical Society, 8 March, Sta. Rosa, Laguna.
- (9) Guest Speaker, Calcium Antagonists Controversies, Staff Conference of the Section of Cardiology, 11 March, East Avenue Medical Center, Quezon City.
- (10) Guest Speaker, Anti-Hypertensive Agents Clinical Use, Philippine College of Physicians, 27th Annual Scientific Meeting, 8 May, PICC, Manila.
- (11) Guest Speaker, Cardiology in Dental Practice, Philippine Dental Medical Society Annual Meeting, 28 May, PICC, Manila.
- (12) Guest Speaker, Lecture on Hypertension, Angeles College of Medicine-Foundation Annual Meeting, 7 June, Clark Field, Pampanga.
- (13) Guest Speaker, Workshop on Cardiology Meeting - Corporate Heart Service San Miguel Corporation, 13, 14, 20, & 21 June.
- (14) Guest Speaker, Beyond the Current Paradigm in Treating Heart Failure, Symposium - Iloilo Medical Society, 26 July, Iloilo City.
- (15) Guest Speaker, Updates in Hypertension Management, Misamis Oriental Medical Society, 18 October, Cagayan de Oro City.
- (16) Guest Speaker, Strategies in Hypertension Control, Philippine Federation of Family Physicians, 23 October, Baguio City.
- (17) Guest Speaker, Bedside Assessment of Chest Pains, 1st Postgraduate Course, Department of Medicine, Medical Center Manila, 13 November.
- (18) Guest Speaker, Trial of Digitalis, Philippine Heart Center-Medical Alumni Society 9th Annual Meeting, 28 November, Quezon City.
- (19) Plenary Speaker, Beyond the Current Paradigm of Managing the Complicated Hypertensive Patient, and Panelist, Commonalities and Differences in Country Guidelines, 2nd Pacific Rim-Conference on Hypertension Control, 5 May.
- (20) Reactor, Hypertensive and Congestive Heart Failure, Philippine Heart Association, 21 May, Shangri-La EDSA Plaza, Mandaluyong City.
- (21) Panelist, ACE Inhibitor and Anti-Lipid Agents, Advisory Workshop, Bristol Meyer Squibb, 9 & 10 August, Cavite City.
- (22) Panelist, Safety and Tolerability Study, Diovan Trialists Meeting-Novartis Health Care Phils., Inc., 25 November, New World Hotel, Makati City.
- (23) Panelist, Three Year Training in Cardiology Workshop, Philippine Heart Association, 29 & 30 November, Clark Field, Pampanga.
- (24) Panelist, Scientific Meeting, Astra Phils., 6 December, Shangri-La Mactan, Cebu City.
- (25) Lecturer, Hypertension Control, Corporate Health Services-San Miguel Corporation, 5 December, Mandaluyong City and at the PCCOM - Preventive Cardiology, 13 December, Lung Center, Quezon City.

b. Other Activities

- (1) Chairperson, Sanofi-Bristol Meyer Squibb, Workshop on a II Receptor Blocker Control, Phoenix Arizona, USA, 20 February and in Hongkong on 3 April.

- (2) Speaker, Philippine Experience on Hypertension, 17th World Hypertension League Conference, 26 June and 4 July, Montreal, Canada.
- (3) Reactor, Diovan Safety and Efficacy Study, 29 October, New World Hotel, Hongkong.
- (4) Attended the 1st International Symposium on a II Receptor Blocker Control, Kensington Townhall, London, UK, 28 September - 1 October.
- (5) Temporary Adviser, Working Group on Integrated Prevention and Control of Cardiovascular Disease and Diabetes, World Health Organization, 17-21 November, Kuala Lumpur, Malaysia.

2. **FILOMENA F. CAMPOS**

- a. Participant, TWAS 6th General Conference, 7-11 September, Rio de Janeiro, Brazil.
- b. Participant, Diversitas Western Pacific and Asia Region on Monitoring and Inventory of Biodiversity and presented a paper on "Philippine Biodiversity Its Status, Issues, and Research Agenda", 14-16 November, Academia Sinica, Taipei.
- c. Philippine Voting Representative, 26th General Assembly of International Union of Biological Sciences, 17-22 November, Academia Sinica, Taipei.

3. **MAGDALENA C. CANTORIA**

a. **Attendance at Scientific Meetings, Seminars, Lectures, Conventions, Workshops, and Symposia (other than those sponsored by NAST)**

- (1) Lecture, "New Trends in Pharmacognosy and Plant Chemistry", during a Continuing Pharmacy Education Seminar entitled Pharmacy Towards the Next Millennium, sponsored by the Philippine Association of Colleges of Pharmacy (PACOP), 23 October, Emilio Aguinaldo College, Manila.
- (2) Participant, International Mint Symposium and Study Tour, sponsored by the *Perfumer & Flavorist*, Allured Publishing, 3-7 August in Seattle, Washington.
- (3) Attended the International Symposium on "Rehabilitation and Improvement of Productivity in Pinatubo Lahar and Ashfall Areas", sponsored by NRCP, 17-18 October, Maharajah Hotel, Angeles City.
- (4) Attended the 25th FAOBMB Anniversary Symposium, "Biological Macromolecules and Ligands: Structure, Interactions, and Applications", sponsored by the Federation of Asian and Oceanian Biochemists and Molecular Biologists; hosted by the Philippine Society for Biochemistry and Molecular Biology, DOST, NAST, and UP, 2-5 December, UP Diliman, and acted as Chair of the Session on Trends in Natural Products Research I.

b. **Participation in NAST Activities**

- (1) **Appointed Member**, Best Poster Award Board of Judges and **Member**, Standing Committee on S&T Fora, by Dr. Conrado S. Dayrit, President.
- (2) Attended, Presentation of Papers of Finalists for the 1997 Philippine Talent Search for Young Scientists, 14 March, MSI Auditorium, UP Diliman, Quezon City.
- (3) Participant, 19th Annual Scientific Meeting on the theme "Science for Better Health" and Launching of the S&T Centennial Celebration, 9 & 10, July, The Westin Philippine Plaza, Pasay City.
- (4) Attended, Science Information Forum on "How to Save the Prawn Industry", 17 September, Manila Manor Hotel, Ermita, Manila.
- (5) Attended, Forum on S&T Issues Affecting Women, 17 November, Casino Español, Ermita, Manila.

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- (6) Attended, Public Hearing on "The Guidelines for Field Release of Genetically Modified Organisms and Potentially Harmful Exotic Species", 18 November, Bahay Kalinaw, UP Diliman, Quezon City.
- (7) Participant, Science Information Forum on Launching of the Philippine Science Heritage Center (PSHC), 16 December, Casino Español, Ermita, Manila. (*Moderator*).

c. Participation in NRCP Activities

- (1) Participant, 64th Annual Meeting, 15 March, Ang Bahay ng Alumni, University of the Philippines Diliman, Quezon City.
- (2) Participant, Symposium on "Fundamental Research for Cutting Edge Knowledge and Sustained Development", 17 July, DOST Executive Lounge, Bicutan. (*Introduced Dr. William Sm. Gruezo, Speaker*).
- (3) Attended, Symposium on "Accurate Statistics in the Advancement of Science and Technology - Foundation of a Strong Nation", 8 October, National Institute of Geological Sciences Auditorium, University of the Philippines Diliman, Quezon City.
- (4) Organized a Lecture "Extraction and Isolation of Some Bioactive Metabolites from Philippine Sponges" by Prof. Ru Angelie M. Edrada, sponsored by the College of Pharmacy University of the Philippines Manila and Division IV Pharmaceutical Sciences, NRCP, 15 October, UP Manila.
- (5) Attended, International Symposium on "Rehabilitation and Improvement of Productivity in Pinatubo Lahar and Ashfall Areas", 17-18 October, Maharajah Hotel, Angeles City.
- (6) Attended, Symposium on "Air, Water, and Land: Pollution and Control" sponsored by the Scientific Committee on Problems of the Environment (SCOPE) and the NRCP, 6 November, Bulwagang Claro M. Recto, Faculty Center, University of the Philippines Diliman, Quezon City.

d. Participation in Activities of International Honor Societies

- (1) Member, Working Committee on Selection of Outstanding Alumni and Most Distinguished Phi Kappa Phi Family.
- (2) Participant, The Honor Society of Phi Kappa Phi, UP Chapter Induction Ceremony, 17 March, Film Center, UP Diliman, Quezon City.
- (3) Participant, Phi Sigma Biological Honor Society, Alpha Chi Chapter, UP Annual Initiation of New Members, 24 April, National Institute of Geological Sciences, UP Diliman, Quezon City.
- (4) Participant, Second Lecture, "Vaccine Against Schistosomiasis: Prospects and Constraints" by Dr. Wilfred U. Tiu, College of Public Health, UP Manila, The Dr. Carmen C. Velasquez Lecture Series, 1996-1998, sponsored by The Phi Sigma Biological Honor Society, Alpha Chi Chapter, 15 July, Institute of Biology, UP Diliman, Quezon City. (*Closing Remarks*).
- (5) Participant, Third Lecture, "The Theory of Sex Differentiation in Fishes and Its Relevance to Aquaculture" by Dr. Rafael D. Guerrero III, Philippine Council for Aquatic and Marine Research and Development (PCAMRD), The Dr. Carmen C. Velasquez Lecture Series, 10 December, Institute of Biology, UP Diliman, Quezon City. (*Closing Remarks*).

e. Attendance in Scientific Lectures/Conventions sponsored by Other Scientific Organizations

- (1) "The Physics of Turbulence" by Dr. Amador Muriel, Frontiers in Science Lecture Series, sponsored by DOST-JSPS, UPISMED, PHILAAS, and World Laboratory Research Center for Fluid Dynamics (CFD), 24 April, STTC Auditorium, UP Diliman, Quezon City.

E. S&T Policy and Program Implementation Activities

- (2) "Latest Trends in Laboratory Animal Management and Experimentation", 9th Annual Convention, Philippine Association for Laboratory Animal Science, 27 May, Amorsolo Hall, Manila Galleria Suites, Mandaluyong City.
- (3) "Oxidants and Antioxidants in Biological Systems - New Research Horizons", lecture by Dr. Lester Packer, sponsored by The Center for Biomolecular Science and The Osato Research Institute, 12 November, Marine Science Institute, UP Diliman, Quezon City.
- (4) 2nd Annual Convention, Natural Products Society of the Philippines, 01 December, Social Sciences Building, Ateneo de Manila University, Quezon City.

4. LEDIVINA V. CARIÑO

- a. Paper Presenter, "Round Table Discussion on A Comparative Study of Five Current and Emerging Metropolitan Areas", 11 March in General Santos City; 19 June in Cebu City; 29 August in Davao City; and 12 September at the Calamba Hub of CALABARZON.
- b. Paper Presenter, "ADB-Ford Conference on Participation of LGUs in Bank Operations: Opportunities and Challenges", 24-25 April.
- c. Participant, UNDP National Consultation on Governance for Sustainable Human Development, 15 May and 28-31 July in New York City.
- d. Participant, UP Faculty Conference, 19-21 May.
- e. Paper Presenter, National Conference of Public Administration, 26-27 June.
- f. Chair, Program Committee, First National Conference of Volunteer Managers, 22 August.

5. GELIA T. CASTILLO

a. Attendance in International Meetings

Attended a total of ten (10) International Meetings held in Rome, Geneva, Bangkok, Kuala Lumpur, The Hague (The Netherlands), Cairo, Baarlo, and Wageningen (The Netherlands), Washington, D.C., Bangladesh, including a meeting with Prince Claus of The Netherlands.

b. Papers Presented in Conferences

- (1) "Beyond Manila: Reclaiming the Voice from the Countryside", Symposium in Honor of Drs. Sicat and Encarnación.
- (2) "Moving Toward a New Mainstream", International Workshop on Participatory Monitoring and Evaluation.
- (3) "The Two Faces of Culture and Development", Prince Claus Fund for Culture and Development.
- (4) "Changes in the Concept and Practice of Rootcrops R&D in Asia: Some Experiences of UPWARD Network Members", UPWARD Annual Meeting in Hanoi, Vietnam.

6. LEOPOLDO S. CASTILLO

- a. Participated in Carabao R&D Project Development Fora on "Feeding and Management Systems for Optimum Milk/Meat Production of Dairy Buffaloes in the Villages", 6 March, Philippine Carabao Center, UP Los Baños, Laguna.
- b. Attended the Public Hearing on "Guidelines for Field Release of Genetically Modified Organisms and Potentially Harmful Exotic Species" sponsored by the NAST, 18 November, Balay Kalinaw, UP Diliman, Quezon City.
- c. Attended the "Third Dioscoro L. Umali Memorial Lecture", 3 December, the D.L. Umali Auditorium, SEARCA, UP Los Baños, Laguna.
- d. Attended the Media Launching of the "Philippine Science Heritage Center (PSHC)", 16 December, Casino Español, Ermita, Manila.



Accomplishments and Activities of Academicians

7. VERONICA F. CHAN

- a. Attended the transfer of the Biological Production Laboratories from Alabang, Muntinlupa to UP Los Baños.
- b. Attended the establishment of a National Biological Control Center in collaboration with the Bureau of Food and Drugs, Department of Health.
- c. Attended the Pre-4th International HIV/AIDS Prevention and Control in Asia and the Pacific sponsored by the UP Manila-College of Public Health, SEAMEO TROPMED, and GTZ.

8. MERCEDES B. CONCEPCION

Attended the Science Information Forum on "Role of Women in S&T", 16 November, Casino Español, Ermita, Manila.

9. SALCEDO L. EDUARDO

- a. Presented a paper during the 25th Annual Scientific Conference of the Veterinary Practitioners' Association of the Philippines (VPAP), 19-20 June, Hotel Intercontinental Manila, Makati City.
- b. Member, Organizing Committee and Co-Chaired a Session, 2nd International Seminar on Development of Agribusiness and Its Impact on Agricultural Production in Southeast Asia (DABIA II), 16-20 October, Hotel Sofitel Raja Orchid, Khou Khaen, Thailand.

10. PEDRO B. ESCURO

- a. Attended the Public Consultation on "The Guidelines for Field Release of Genetically Modified Organisms and Potentially Harmful Exotic Species", 18 November at the Balay Kalinaw, UP Diliman, Quezon City.
- b. Attended the "Third D. L. Umali Memorial Lecture" on the topic "From Sequence to Function: Grand Challenges in Bioinformatics" delivered by Prof. Minoru Kanehisa, 3 December, D.L. Umali Auditorium, SEARCA, Los Baños, Laguna.
- c. Attended the Science Information Forum on the "Launching of the Philippine Science Heritage Center (PSHC)", 16 December, Casino Español, Ermita, Manila.

11. RAUL V. FABELLA

- a. Presented a paper on the "Workshop on Growth, Income Inequality, and Poverty: Whatever Happened to Mang Pandoy?" sponsored by the Institute of Developing Economies, 10 December, EDSA Plaza Hotel.
- b. Presented a paper on "China: The Awakening Giant" for the Philippine APEC Study Center Network Second Annual Symposium Meeting, 4-5 December, Innotech; UP Diliman, Quezon City.
- c. Presented a paper, co-author, on the "Exchange Rate Policy: Recent Failures and Future Tasks", 13 November, Hotel Intercontinental Manila.
- d. Presented a paper on "Attracting versus Picking Winners: Promises and Tripwires" for Phase 2 of EWE Research Program, 27 October, PCED Hostel, UP Diliman, Quezon City.
- e. Presented a paper on "Poverty: Concepts, Issues, and Policies" sponsored by the Bureau of Rural Workers, 9 October, BRW Conference Hall. Participant, Roundtable Discussion of Philexport, 3 September, New World Hotel, Makati City.
- g. Guest Speaker, Current Issues for the Rotaract Club of Binondo, 26 July, Binondo, Manila.
- h. Wrote comments on "An Assessment of the Current Philippine Economic Situation in View of the Recent Devaluation of the Philippine Peso" for the Public Hearing of the Senate Committee on Economic Affairs, 24 July, Senate Financial Center, Pasay City.



12. RAFAEL D. GUERRERO III

- a. Presented a paper on "Aquaculture Production in Lahar-Affected Provinces of Central Luzon", Symposium on Rehabilitation and Improvement of Productivity in Pinatubo Lahar and Ashfall Areas, 17-18 October, Angeles, Pampanga.
- b. Presented a paper on "The National Marine Research and Development Program of the Philippines", Australian and Regional Marine Policy Workshop, 14-15 October, Canberra, Australia.
- c. Presented a paper on "Sustainable Aquaculture for Marginal Coastal Fisherfolk in the Tropics", Second International Symposium on Sustainable Aquaculture, 2-5 November, Oslo, Norway.
- d. Presented a paper on the "Philippine Freshwater Resources: Strategies for Sustainable Development", NAST 19th Annual Scientific Meeting, 10 July, The Westin Philippine Plaza, Pasay City.
- e. Presented a paper on "The Theory of Artificial Sex Reversal in Tilapias and Its Significance to Aquaculture", The Dr. Carmen C. Velasquez Memorial Lecture Series, sponsored by the Phi Sigma Biological Honor Society, Alpha Chi Chapter, 10 December, Institute of Biology, UP Diliman, Quezon City.

13. EVELYN MAE T. MENDOZA

- a. Attended the Plant and Animal Genome (PAG V) Conference, "The International Consortium on Sugarcane Biotechnology Workshop" and visited the Texas A&M University (TAMU), 12-16 January, Texas.
- b. Attended the Chemistry Congress, 27-30 May at Palawan.
- c. Attended the NAST 19th Annual Scientific Meeting, 9-10 July, The Westin Philippine Plaza, Pasay City.
- d. Attended the "International Symposium on Biotechnology of Tropical and Subtropical Species", 29 September to 3 October, Brisbane Parkroyal, Queensland, Australia.
- e. Participant, 25th Anniversary Symposium, of the Federation of Asian and Oceanian Biochemists and Molecular Biologists, 2-5 December, UP Diliman, Quezon City.

14. FAUSTINO T. ORILLO

- a. **Attendance at Scientific Meetings, Seminars, Lectures, Conventions, Workshops, and Symposia (other than those sponsored by NAST)**
 - (1) Symposium, jointly sponsored by the D.L. Umali Foundation, SEARCA, and UP Los Baños, on "UPs Environmental Heritage for the 21st Century: The Laguna-Quezon and Laguna Land Grant Master Plan", 1 July, D.L. Umali Auditorium, SEARCA, UP Los Baños, Laguna.
 - (2) Closing Ceremonies of the National Science and Technology Week, 18 July, Food and Nutrition Research Institute Auditorium, DOST Compound, Bicutan, Taguig, Metro Manila.
 - (3) Symposium on "Globalization: Issues and Areas for Research", sponsored by Division I of NRCP, 1 August, ISMED-STTC Auditorium, UP Diliman, Quezon City.
 - (4) Seminar presenting the results of the DOST-PCARRD funded UPLB Research Program on "Analysis of the Role of Policies in the State and Prospects of Biotechnology, Biosafety, and Intellectual Property Rights in the Philippines", 22 September, PCARRD Headquarters, Los Baños, Laguna.
 - (5) Symposium on "Accurate Statistics in the Advancement of Science and Technology - Foundation of a Strong Nation", jointly sponsored by NRCP, National Statistical Coordination Board, and DOST, 8 October, National Institute of Geological Sciences, UP Diliman, Quezon City.



Accomplishments and Activities of Academicians

- (6) 80th Anniversary Celebration of the Department of Plant Pathology, College of Agriculture and Symposium on "Recent Advances in Phytopathological Research in the Philippines", 10 October, UP Los Baños, Laguna.
 - (7) 40th (Ruby) Anniversary Celebration of Gamma Sigma Delta (The Honor Society of Agriculture) UPLB Chapter, Symposium on: (a) "Enhancing Excellence in Agricultural Development Through Institution Building", (b) "Promoting Values and Excellence in Human Resource Development", (c) "Appropriate Technology for Agricultural Development", and (d) "Strengthening Institutional Partnership in Agricultural Development", 24 October, SEARCA, UP Los Baños, Laguna.
 - (8) Symposium on "Biological Control of Pests and Plant Diseases", sponsored by NRCP, 20 November, Hyatt Regency Hotel, Manila.
- b. Attendance at Scientific Meetings, Seminars, Lectures, Conventions, Workshops, and Symposia (sponsored by NAST)**
- (1) NAST General Meeting, 27 February and 29 May, DOST Conference Room, Bicutan, Taguig, Metro Manila.
 - (2) Presentation of Papers of the Finalists for the Philippine Talent Search for Young Scientists Award, 14 March, Marine Science Institute Auditorium, UP Diliman, Quezon City.
 - (3) Science Information Fora on: (a) "Achievements in Rice R&D", 9 May (*gave the welcome remarks*), (b) "Tariff", 18 July (*gave the welcome remarks*), (c) "Implementation of Executive Order No. 259, s. 1987: An Act to Rationalize the Philippine Coconut Industry", 17 July, (*served as moderator*), (d) "Hospital Waste Management", 22 October, (e) "S&T Issues Affecting Women", 17 November (*gave the welcome remarks*), and (f) "Launching of the Philippine Science Heritage Center (PSHC)", 16 December, held at the Casino Español, Ermita, Manila.
 - (4) Symposium on "Rizal The Scientist", 20 June, Ariston Estrada Seminar Room, De La Salle University, Manila.
 - (5) 19th Annual Scientific Meeting with the theme "Science for Better Health", 9-10 July, The Westin Philippine Plaza, Pasay City.
 - (6) Forum on "A Mega Issue: Alleviating Traffic Congestion in Metro Manila", jointly sponsored by NAST and UP, 17 July, UP Executive House, UP Diliman, Quezon City.
 - (7) Public Consultation on "The Guidelines for Field Release of Genetically Modified Organisms and Potentially Harmful Exotic Species", 18 November, Balay Kalinaw, UP Diliman, Quezon City.
 - (8) The "Third D.L. Umali Memorial Lecture" on the topic "From Sequence to Function: Grand Challenges in Bioinformatics" delivered by Prof. Minoru Kanehisa, 3 December, D.L. Umali Auditorium, SEARCA, Los Baños, Laguna.

15. TEODULO M. TOPACIO, JR

Presided over the 10th Conference of the Federation of Asian Veterinary Associations (FAVA); 19th Meeting of the Council of Representatives of FAVA; and Joint Meeting of FAVA and the Office of International Epizootics for Animals (OIE) as President of FAVA, 24-28 August, Cairns, Australia.

16. JOSE R. VELASCO

Attended the Science Information Fora on "Implementation of Executive Order No. 259, s.1987: An Act to Rationalize the Philippine Coconut Industry", 17 July and the "Hospital Waste Management", 22 October, held at the Casino Español, Ermita, Manila.



17. BENITO S. VERGARA

- a. Attended the "Floriculture Congress" and "Review of the Benguet State University Chrysanthemum Project", 8 February, Baguio City.
- b. Resource person, "Marketing of Ornamental Plants", Davao Ornamental Plant Growers, 19-20 August, UP Mindanao, Davao City.
- c. Attended the "NCCA Convention", 11-13 November.
- d. Speaker, "Launching of the Philippine Science Heritage Center (PSHC)", 16 December, Casino Español, Ermita, Manila.
- e. Attended the "Review of Don Severino Agricultural College Ornamental Plants Program, 21 November, Imus, Cavite.
- f. Attended the "Review of the BPI-UPLB Research on Ornamental Plants", 5 December.
- g. Attended the "International Council of Museums (ICOM) - Asia Pacific General Assembly", 11-13 November, Cultural Center of the Philippines, Pasay City.

18. PRESCILLANO M. ZAMORA

- a. Participant, WWF-KKP Workshop on "Protecting Biodiversity of Mount Guiting-guiting Through the Development of Sustainable Community Livelihood Enterprises", 30-31 January, PCED Hostel, UP Diliman, Quezon City.
- b. Participant, WWF-KKP Workshop on "Comparative Study of Biodiversity Loss in Three Philippine Island Ecosystems", 3 May, Quezon City.
- c. Speaker, "Ecological Studies of Baguan Island Marine Turtle Sanctuary", First Meeting of the Joint Technical Working Group (Philippines, Malaysia, Indonesia), 5-7 August, Subic International Hotel, Olongapo, Zambales.
- d. Participant, Symposium on "How Many Species are There?", 20 August, Balay Kalinaw, UP Diliman, Quezon City.
- e. Speaker, WWF-KKP Seminar on "The Biodiversity of the Philippines" 25-27 August, Quezon City. Speaker, Jose K. Santos Professorial Chair Lecture on "The Role of Vegetation on Marine Turtle Nesting", 12 November, Institute of Biology, UP Diliman, Quezon City.

F. INDIVIDUAL HONORS/RECOGNITION RECEIVED

1. FILOMENA F. CAMPOS

Fellow, Third World Academy of Sciences (TWAS)

2. MAGDALENA C. CANTORIA

- a. PHILAAS Outstanding Scientist Award given by the Philippine Association for the Advancement of Science, 3 December 1996, Quezon City Sports Club, Quezon City
- b. Golden Jubilee Award presented by the Philippine Pharmaceutical Association in commemoration of her 50th year as Registered Pharmacist, 13 December, Casino Español, Ermita, Manila

3. LEOPOLDO S. CASTILLO

- a. Received the UP Ugnayan ng Pahinungod Pin for the Lecture on "Diotay mga Kasayuran (Informasyon) sa Kalusugan (Nutrisyon) Gikinahanglan para sa Maayo ug Mabungaon pag Galam sa mga Gatasan", in the Farmer-Scientist Training Program in Backyard Milk Production and Processing held at the Colawin Technical School, Colawin, Argao, Cebu

Accomplishments and Activities of Academicians

- b. Certificate of Appreciation from the UP-CIDS Biodiversity Conservation Program, 27 August for paper presented.

4. VERONICA F. CHAN

- a. Nominated for the "King Faisal International Award for the Control of Communicable Diseases"
- b. Chair, 34th Governing Board Meeting of the SEAMEO TROPMED Network, 12-16 August, Nanoi, Vietnam

5. MERCEDES B. CONCEPCION

Plaque of Recognition given by the National Statistical Coordination Board for Productive Leadership as Chairperson of the Special Committee to Review the Philippine Statistical System, 3 July.

6. FE DEL MUNDO

- a. Golden Awardee given by the Philippine Pediatric Society, 6 April
- b. Keynote Speaker on the 50th Anniversary of the Philippine Pediatric Society and 34th Annual Convention
- c. TOFFIL Award (The Outstanding Filipino Award) by the Jaycee Senate and Insular Life Association, Co., 18 December
- d. Guest Speaker, Department Health, on Mother and Baby Friendly Hospital, 17 December
- e. Award as First President and Founder of the Maternal and Child Health Association of the Philippines (MCHAP) and Keynote Speaker, Maternal and Child Health, 23 November

7. SALCEDO L. EDUARDO

Distinguished Researcher Award, Gamma Sigma Delta, The Honor Society of Agriculture (UPLB Chapter)

8. PEDRO B. ESCURO

- a. Received a Plaque of Appreciation and Thanks from Secretary of Education, Culture and Sports Ricardo T. Gloria for being one of his mentors in graduate education in Agriculture at UP Los Baños, 2 May, SEARCA, LTP Los Baños, Laguna
- b. Honored by UP Los Baños as National Scientist with a program and display of memorabilia for achievements in rice varietal improvement, 8 October

9. EDITO G. GARCIA

Received a Plaque of Appreciation for Advancing the Graduate Program of the College of Public Health, UP Manila, 18 July

10. EDGARDO D. GOMEZ

UP Gawad Chanselor Outstanding Administrator of an Institute, July

11. ANDREW A. GONZALEZ

- a. Outstanding Manilan Award
- b. Gawad Gantimpalang Quezon sa Panitikan



F. Individual Honors / Recognition Received

- c. Chairholder, Brother Egbert Xavier Chair in Educational Philosophy
- d. St. Vincent de Paul Medal of Academic Excellence Award given by Adamson University, Manila
- e. Gawad Panitik awarded by the Panitik ng Kababaihan in cooperation with the Municipality of Manila and the National Press Club
- f. University Fellow Award given by the Society of Fellows, De La Salle University
- g. Doctorate in Letters, *Honoris Causa*, conferred by Waseda University, Tokyo, Japan
- h. Fortieth Anniversary Fulbright Achievement Award (in Education) given by the Philippine Fulbright Scholars Association, Inc.
- i. Outstanding Kapampangan Award (in Education)
- j. Officier de l'Ordre des Palmes Academiques, Government of France
- k. NRCP Achievement Award for Outstanding Achievement in the Field of Social Sciences and Humanities

12. RAFAEL D. GUERRERO III

- a. Plaque of Recognition for Outstanding Contribution in Aquaculture, 30 September, Province of Laguna
- b. Plaque of Recognition, 11 January, Benguet State University

13. EVELYN MAE T. MENDOZA

Best Poster Paper, Co-author of the " δ -Endotoxins of Local *Bacillus thuringiensis* Strain: Biochemical and Toxicity Studies Against the Asiatic Corn Borer (*Ostrinia furnacalis*)", awarded during the 1997 Annual Convention of the Kapisanang Kimika ng Pilipinas

14. LUZ OLIVEROS-BELARDO

Distinguished Science Service Award, given by the National Research Council of the Philippines (NRCP), 15 March during the NRCP Annual Meeting

15. PERLA D. SANTOS OCAMPO

- a. Achievement Award, given by the Dagupan City National High School
- b. Philippine Pediatric Society Golden Honoree Award
- c. Saint Brother Miguel Febres Cordero Medal (Board of Trustees, De La Salle University College of Medicine)
- d. Outstanding Professional for Medicine, Professional Regulations Board

16. TEODULO M. TOPACIO, JR.

Meritorious Service Award for the Uplift of the Veterinary Associations, given by the Federation of Veterinary Association of Pakistan, by Dr. A.A. Ramzee, President, during the 10th FAVA Congress

17. PRESCILLANO M. ZAMORA

- a. Jose Kabigting Santos Professorial Chair Holder, 1 January - 31 December, UP Diliman, Quezon City
- b. Team Leader (Level 3) Certified EIS Preparer, conferred by EMB-DENR, 5 December



G. INVOLVEMENT IN NAST ACTIVITIES

1. RAMON F. ABARQUEZ, JR.

Co-Chair, 1997 Annual Scientific Meeting Program Committee

2. SOLITA F. CAMARA-BESA

Member, Board of Judges, Philippine Talent Search for Young Scientists

3. PAULO C. CAMPOS

Plenary Speaker, 19th Annual Scientific Meeting, "Overview on Medical Education: Past, Present, and Future", 9-10 July, The Westin Philippine Plaza, Pasay City

4. MAGDALENA C. CANTORIA

- a. Appointed Member, Best Poster Award Board of Judges and Member, Standing Committee on S&T Fora, by Dr. Conrado S. Dayrit, President.
- b. Attended/Participated in three (3) Science Information Fora, the Presentation of Papers of Finalists for the PTSYS, the Public Consultation on "The Guidelines for Field Release of Genetically Modified Organisms and Potentially Harmful Exotic Species", and the 19th Annual Scientific Meeting
- c. Attended/Participated in NAST General Meetings and Biological Sciences Division Meetings

5. LEDIVINA V. CARIÑO

- a. Moderator, Social Sciences Session, 19th Annual Scientific Meeting, 10 July
- b. Member, 20th Annual Scientific Meeting Program Committee

6. GELIA T. CASTILLO

- a. Member, Executive Council
- b. Co-Chair, 20th Annual Scientific Meeting Program Committee

7. LEOPOLDO S. CASTILLO

- a. Attendance in NAST meetings
- b. Critic of research proposal of the Agricultural Sciences Division for funding as well as attending meetings of the Division

8. VERONICA F. CHAN

- a. Attendance in NAST meetings
- b. Evaluation of scientific papers in the Biological Sciences Division as well as attending meetings of the Division

9. MERCEDES B. CONCEPCION

Member, 20th Annual Scientific Meeting Program Committee

10. CONRADO S. DAYRIT

- a. Chairman, NAST Executive Council

- b. NAST Representative to: (1) Scientific Career Council, (2) Balik Scientist Program, and (3) Vice-Chairman, Steering Committee Centennial Movement Chapter in the DOST
11. **SALCEDO L. EDUARDO**
- a. Member, NAST Executive Council
 - b. Chair, Biological Sciences Division
12. **PEDRO B. ESCURO**
- a. Reactor to Dr. Santiago R. Obien's paper "Achievements in Rice Research in the Philippines" presented during the Science Information Forum on 9 May
 - b. Attendance in NAST meetings
 - c. Member, National Scientist Committee
13. **EDITO G. GARCIA**
- a. Member, 19th Annual Scientific Meeting Program Committee and the Resolution Committee
14. **EDGARDO D. GOMEZ**
- a. Member, Board of Judges for the Philippine Talent Search for Young Scientists
15. **RAFAEL D. GUERRERO III**
- a. Moderator, Science Information Forum on "El Niño: Mitigating Its Effects", 8 October, Casino Español, Manila
 - b. Attendance in NAST meetings
16. **JOSE O. JULIANO**
- a. Secretary, NAST Executive Council
 - b. Chair, Annual Scientific Meeting Program Committee
 - c. Chair, Standing Committee on S&T Fora
17. **EVELYN MAE T. MENDOZA**
- a. Member, Program Committee and Subcommittee on Technical and Poster Sessions, 19th Annual Scientific Meeting
 - b. Member, Philippine Science Heritage Center Committee
 - c. Coordinator, Project on Bookwriting and Video Production of National Scientists and Academicians, funded by DOST
 - d. Study Leader/Research Fellow, Assessment of Chemical Sciences in the Philippines
 - e. Attendance in NAST meetings/seminars
18. **LUZ OLIVEROS-BELARDO**
- a. Attendance in NAST meetings (19th ASM and meetings of the Mathematical, Physical, and Engineering Sciences Division)
19. **FAUSTINO T. ORILLO**
- a. Member and Co-Secretary, NAST Executive Council
 - b. Chair, Committee on Elections

Accomplishments and Activities of Academicians

- c. Member, Board of Judges for Best Poster Award
- d. Chair, Agricultural Sciences Division
- e. Member, Board of Trustees of the NAST Foundation, Inc.
- f. Attendance in NAST meetings/seminars/fora

20. TEODULO M. TOPACIO, JR.

- a. Member, Program Committee and Subcommittee on Technical and Poster Sessions, 19th Annual Scientific Meeting
- b. Attendance at NAST meetings/seminars/fora

21. JOSE R. VELASCO

- a. Project Leader, Project on the "History of NSDB/NSTA/DOST", funded by DOST
- b. Attendance in NAST meetings/seminars/fora

22. BENITO S. VERGARA

- a. Project Leader, Philippine Science Heritage Center (PSHC)
- b. Attendance in NAST meetings/seminars/fora

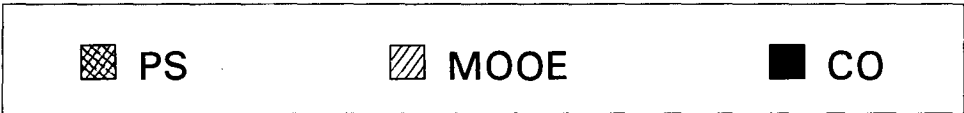
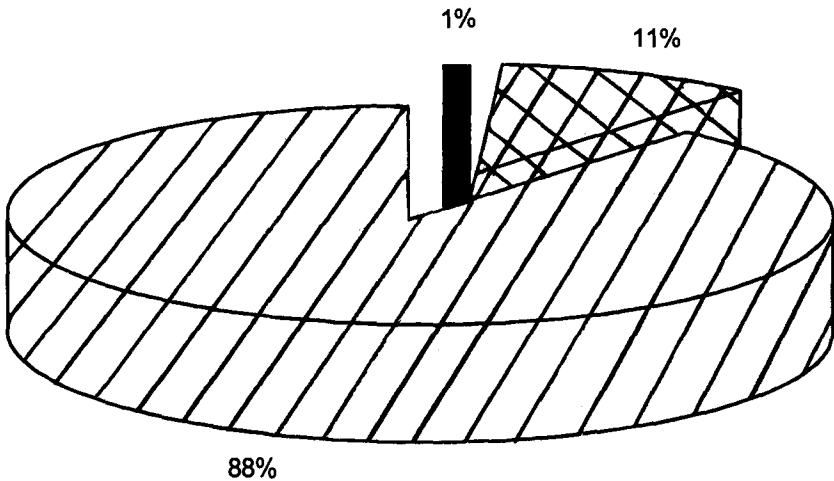
23. PRESCILLANO M. ZAMORA

- a. Director, UP Center for Integrative and Development Studies - NAST Biodiversity Conservation Program
- b. Research Fellow, Annotated Bibliography on Philippine Biodiversity: Philippine Lycopods

FINANCIAL MATTERS

NAST Expenditures

FY 1997



ADMINISTRATIVE MATTERS

A. MEMBERS OF THE EXECUTIVE COUNCIL

| | | |
|----------------|---|--|
| President | - | Acad. Conrado S. Dayrit |
| Vice President | - | Acad. Dolores A. Ramirez |
| Secretary | - | Acad. Jose O. Juliano |
| Members | - | Acad. Gelia T. Castillo Acad. Salcedo L. Eduardo Acad. José Encarnación, Jr. Acad. Faustino T. Orillo |

B. NAST SECRETARIAT

| | | |
|--------------------|---|-----------------------------|
| Executive Director | - | Miss Luningning E. Samarita |
|--------------------|---|-----------------------------|

Administrative Services Division

Miss Rosemarie S. Espino
Administrative Officer V

Mrs. Zenaida T. Mapua
Accountant III

Mrs. Chona S. Santos
Cashier III

Mr. Eliseo D. Raganit
Utilityman/Messenger

Mr. Roberto N. Medina
Driver

Technical Services Division

Mr. Redocindo L. Santillan
Information Officer V
Advisory Function

Mrs. Rowena V. Briones
Information Officer III
Recognition Function

Mr. Carlo B. Castillo
Information Officer II
Scientific Linkages Function

Mr. Richard G. Apuyan
Stenographer II

Mr. Ferdinand C. Gutlay
Clerk II

Ms. Charyl S. Castilleja
S & T Assessment Staff

C. TRAINING COURSES / SEMINARS ATTENDED BY THE STAFF

All NAST Staff Members (except the Information Officer V) participated in the "Moral Recovery Program and Values Orientation Workshop" held at the TAPI Audio Visual Room on Dec. 12, 1997.

Miss Luningning E. Samarita (Executive Director) attended the "Salamin ng Paglilingkod," Career Executive Service Board, in Balayan, Batangas, on April 5-13, 1997.

Miss Rosemarie S. Espino (Administrative Officer V) attended the "20th Annual Convention of the Government Association of Certified Public Accountants (CPA)" at the Westin Philippine Plaza on Oct. 6-9, 1997.

Mrs. Zenaida T. Mapua (Accountant III) attended the "Training Course on Microsoft Excel" at the National Computer Center on May 19-31, 1997.

Mr. Carlo B. Castillo (Information Officer II) attended the training course on "Introduction to Management Information System and the Internet" at the Management Information System, Department of Science and Technology, November 10, 1997.