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**NATIONAL ACADEMY
OF SCIENCE AND TECHNOLOGY**

**Annual Report
2003**

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National Academy of Science and Technology Annual Report 2003

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2/F Philippine Science Heritage Center

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MESSAGE



Greetings from the National Academy of Science and Technology! It gives me great honor to present to you the NAST 2003 Annual Report.

The year 2003 has been a very productive one for the Academy. Despite the economic crisis and budget cut that we experienced, the Academy has upheld its mandates to recognize exemplary science and technology achievements, provide independent and science-based advice on problems facing the nation, link with like-minded institutions and individuals in promoting scientific achievements, and promote a strong science culture in Philippine society.

The Academy persevered to fulfill its advisory function through relevant activities. Highlighting these accomplishments, the Annual Scientific Meeting (ASM) which has always been the major event since it started in 1978. For this year, leading Scientists all over the country gathered together to discuss various aspects of the ASM theme, "**Addressing the Demographic Crisis in the Philippines.**"

The year 2003 was also a witness to more than 18 information and legislative fora, round table discussions and conferences concerning issues such as biotechnology, nutrition, human genome, population, solid and toxic waste management, global competitiveness, education, water and statistical science.

The Monograph Series, which started in 2001, resulted in the documentation of invaluable information obtained from the above activities and led to the provision of strong scientific evidence, which tremendously supported and resulted in informed decision-making and policy recommendations. In addition to these committees, core group and task force were created to improve capability. These were encouraged to quickly buildup their networking and partnerships, forming linkages whenever possible with both public and private sectors.

Expanding its function as the highest recognition body on science and technology in the country, the Academy, for the first time, elected as Corresponding Members, three Filipino scientists residing abroad but who have continued to contribute their expertise to the country.

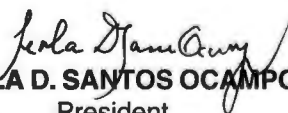
Sadly, the Academy lost two great minds belonging to the Chemical, Mathematical and Physical Sciences Division, Academicians Tito A. Mijares and Melecio S. Magno.

In addition to the existing NAST awards, the NAST-LELEDFI Award for Outstanding Research in Tropical Medicine and Outstanding Science Communicator Award were launched.

In the international and regional areas, the Academy maintained its linkages with national science academies and global aggrupations. This year, the Academy ties up with the Korean Academy of Science and Technology (KAST) as its most recent partner in the promotion of science.

Academicians attended a number of world and regional conferences and workshops, adding a global perspective that has inspired us to grow and flourish as an Academy.

The Academy, through our treasured National Scientists and esteemed Academicians, pledges itself ceaselessly to the pursuit of our vision: A progressive Philippines anchored on science.


ACD. PERLA D. SANTOS OCAMPO M.D.
President

National Academy of Science and Technology

HISTORY

The National Academy of Science and Technology is the symbol of the nation's commitment to science. The proposal for its creation originated from the University of the Philippines and was heartily endorsed by the National Science Development Board (the predecessor-agency of the Department of Science and Technology) to the President of the Philippines. On October 6, 1976, a National Academy of Science was created by Presidential Decree 1003. A subsequent amendment established instead the National Academy of Science and Technology and expanded the base of the NAST membership. Thus, P.D. 1003-A signed on December 17, 1976, is regarded as the enabling legislation for the present National Academy.

The science community then submitted nominations of the most eminent among their number to be members of the Academy. The President of the Philippines named ten scientists from a wide range of disciplines to be the first Academicians in 1978. Henceforth, nominations have continued to come from the scientific community but their election as Academicians is the prerogative of the members of the Academy alone, following their strict rules of review and selection. Every Member is distinguished, known nationally and internationally in his or her own right. Collectively, the Academy represents the best of what this country has produced in science and technology.

The Annual Scientific Meetings started in 1978 and has since earned the distinction of being the most prestigious Philippine scientific conference. Transactions, presenting the papers of the ASM, is the annual journal of the Academy. NAST also publishes books and monographs based on studies of its members and other renowned scientists.

MANDATES

- “ To recognize outstanding achievements in science and technology as well as provide meaningful incentives to those engaged in scientific and technological researches (P.D.1003-A)
- “ To advise the President and the Cabinet on matters related to science and technology (E.O. 818)
- “ To engage in projects and programs designed to recognize outstanding achievements in science and promote scientific productivity (E.O. 818)
- “ To embark on programs traditionally and internationally expected of an academy of science (E.O. 818)

VISION

A progressive Philippines anchored on science.

RECOGNITION FUNCTION

As the government's highest recognition body on science and technology, the Academy continues to recognize outstanding contributions of Filipino scientists to the advancement of science in the country.

Likewise, NAST promotes the development of science and technology in the country by recognizing young scientists and providing meaningful incentives to encourage the younger generation to pursue careers in advanced scientific studies and researches.

NATIONAL SCIENTIST RANK AND TITLE

The rank and title of National Scientist is the highest honor that can be bestowed on a Filipino scientist for exemplary achievements and contributions to science and technology. Nominees come from the rank of the Academicians and need 60% of the votes of the full membership of the Academy to be recommended to the President of the Republic of the Philippines to receive such rank and title.

Since 1978, twenty-eight Academicians have been conferred the rank and title of National Scientists. Of these, ten are living. They are: (a) Fe del Mundo, M.D. (Pediatrics), (b) Alfredo V. Lagmay, Ph.D. (Experimental Psychology), (c) Paulo C. Campos, M.D. (Nuclear Medicine), Clara Y. Lim-Sylianco, Ph.D. (Biochemistry and Organic Chemistry), Dolores A. Ramirez, Ph.D. (Biochemical Genetics and Cytogenetics), Jose R. Velasco, Ph.D. (Plant Physiology), Gelia T. Castillo, Ph.D. (Rural Sociology), Bienvenido O. Juliano, Ph.D. (Cereal Chemistry), Clare R. Baltazar, Ph.D. (Systematic Entomology), and Benito S. Vergara, Ph.D. (Plant Physiology).



**NATIONAL SCIENTISTS OF THE PHILIPPINES
(1978-2003)**

| <i>Year Conferred</i> | <i>Name</i> | <i>Field of Specialization</i> | <i>Remarks</i> |
|-----------------------|----------------------------------|--|------------------------|
| 1978 | Juan B. Salcedo Jr., M.D. | Nutrition and Public Health | Died 25 October 1988 |
| 1978 | Alfredo C. Santos, Dr. phil. | Physical Chemistry | Died 11 April 1990 |
| 1978 | Gregorio Y. Zara, D.Sc. | Engineering and Inventions | Died 15 October 1978 |
| 1978 | Fe del Mundo, M.D. | Pediatrics | |
| 1980 | Eduardo A. Quisumbing, Ph.D. | Plant Taxonomy, Systematics | Died 23 August 1986 |
| 1982 | Geminiano T. de Ocampo, Ph.D. | Ophthalmology | Died 2 September 1987 |
| 1982 | Casimiro del Rosario, Ph.D. | Physics, Astronomy and Meteorology | Died 15 September 1982 |
| 1982 | Gregorio T. Velasquez, Ph.D. | Phycology | Died 29 July 1989 |
| 1983 | Francisco M. Fronda, Ph.D. | Animal Husbandry | Died 17 February 1986 |
| 1983 | Francisco O. Santos, Ph.D. | Human Nutrition and Agricultural Chemistry | Died 19 February 1986 |
| 1983 | Carmen C. Velasquez, Ph.D. | Parasitology | Died 16 October 1994 |
| 1985 | Teodoro A. Agoncillo, Litt.D. | Philippine History | Died 14 January 1985 |
| 1985 | Encarnacion A. Alzona, Ph.D. | Philippine History | Died 13 March 2001 |
| 1985 | Hilario D.G. Lara, M.D., Dr.P.H. | Public Health | Died 18 December 1987 |
| 1986 | Julian A. Banzon, Ph. D. | Chemistry | Died 14 September 1988 |
| 1986 | Dioscoro L. Umali, Ph.D. | Genetics and Plant Breeding | Died 1 July 1992 |
| 1987 | Luz Oliveros-Belardo, Ph.D. | Phytochemistry | Died 12 December 1999 |
| 1987 | Jose Encarnacion Jr., Ph.D. | Economics | Died 5 July 1998 |
| 1988 | Alfredo V. Lagmay, Ph.D. | Experimental Psychology | |
| 1989 | Paulo C. Campos, M.D. | Nuclear Medicine | |
| 1994 | Pedro B. Escuro, Ph.D. | Genetics and Plant Breeding | Died 8 September 2000 |
| 1994 | Clara Y. Lim-Syllanco, Ph.D. | Biochemistry and Organic Chemistry | |
| 1998 | Dolores A. Ramirez, Ph.D. | Biochemical Genetics and Cytogenetics | |
| 1998 | Jose R. Velasco, Ph.D. | Plant Physiology | |
| 1999 | Gella T. Castillo, Ph.D. | Rural Sociology | |
| 2000 | Bienvenido O. Juliano, Ph.D. | Organic Chemistry | |
| 2001 | Clare R. Baltazar, Ph.D. | Systematic Entomology | |
| 2001 | Benito S. Vergara, Ph. D. | Plant Physiology | |

ACADEMICIAN

*“To belong to the Academy is to be recognized by peers.
One does not apply. One is not hired.
One is chosen among equally accomplished colleagues.”*

*National Scientist Gelia T. Castillo,
on being an Academician*

To be elected to the Academy, a scientist duly nominated by at least three Academicians should receive at least 50% plus one of the votes of the full membership of NAST at the time of the election.

Since 1978, 77 have been elected to the Academy. At present, the Academy has fifty members, ten of whom are National Scientists. No one was elected to the Academy membership in 2003.

HONORARY MEMBER



In 2000, 1970 Nobel Laureate Norman Borlaug was conferred the Honorary Membership for his sterling scientific achievements and advocacy for more than five decades towards the acceleration of agricultural productivity in developing countries and eradication of world hunger. Dr. Borlaug is known as the “Father of Green Revolution.”

CORRESPONDING MEMBERS

In 2002, the Academy established the Corresponding Member category to recognize non-resident Filipino scientists who have made significant contributions to the advancement of science in the Philippines. Just like the regular members, the corresponding members should have the same scientific qualifications. In addition, they must have continuing connections and contributions to Philippine science through serious and continuous activities like working and collaborating with Filipino scientists on Philippine problems, training Filipino students, and building institutions of science in the Philippines. Further, they should regularly come to the Philippines to practice their fields of expertise. Filipino citizenship and residency are waived as long as the first three qualifications are met.

The Corresponding Membership is an honorific membership with no monetary benefits and voting rights. The total corresponding membership is limited to not more than one-fourth of regular Academy membership. This year, four new Corresponding members were elected to the Academy. Of these, Amador C. Muriel, Ph.D. (Physics), Eduardo A. Padlan, Ph.D. (Biophysics), and Jose B. Cruz, Ph.D. (Electrical Engineering) were invested in a ceremony during the 25th Annual Scientific Meeting. Baldomero M. Olivera, PhD (Biochemistry) still has to be sworn in as a corresponding member.

AMADOR C. MURIEL, Ph.D. (Physics)
State University of New York at Stony Brook, 1967

NAST elected Dr. Muriel as corresponding member of the Academy in recognition of his significant works and outstanding contributions to the field of theoretical physics, in particular, his development of theoretical tools to explain turbulence. His new kinetic equation is useful in exploring fundamental problems of non-equilibrium statistical mechanics.

In his researches on stellar dynamics, he has proven analytically that self-gravitation alone is sufficient to produce a hierarchy of structures in one dimension. Dr. Muriel discovered the exact and approximate solutions for the behavior of a two-level system, which were considered by his peers as a pioneering contribution to a quantum Turing machine, now a growing field of quantum computing.

Dr. Muriel has also significantly contributed to the development of theoretical physics in the country. He has selflessly spent his own time and resources in training many undergraduate and graduate students and researchers at several universities in the Philippines.



EDUARDO A. PADLAN, Ph.D. (Biophysics)
John Hopkins University, 1968



Dr. Padlan is a well-known biophysicist and X-ray crystallographer who has made significant contributions in the elucidation of the 3-D structure of hemoglobin and antibodies. His most recent works include "humanized antibodies" and their potential applications in the treatment of various diseases including cancer. He has 14 granted and pending patents on various aspects and uses of antibodies.

His other research interests include optics, optical microscopy and interferometry, spectroscopic techniques, signal and image processing, neural networks and complex systems.

Dr. Padlan spends several months a year in the Philippines working with various researchers in different institutions and giving lectures to students. Among the universities where he teaches are UP Diliman, UP Los Banos, Ateneo University and University of Santo Tomas. He has significantly contributed to the development of researchers in the country through teaching courses and giving seminars during his regular visits and by obtaining fellowships and placements for PhD students and graduates at the US National Institutes of Health and other laboratories.

JOSE B. CRUZ, JR. Ph.D. (Electrical Engineering)
University of Illinois, 1959

Dr. Jose B. Cruz Jr. developed several methods for the sensitivity analysis of dynamic systems with respect to parameter variations. These methods are useful for parameter tuning and optimization of systems, as well as for the analysis of system degradation due to parameter drift and aging.

He established the concept of comparison sensitivity matrix relating system output errors without feedback to system output errors with feedback. This comparison sensitivity matrix captures the effect of feedback on altering the influence of parameter variations on system output errors in multivariable feedback systems.

The third category of scientific and technological contributions of Dr. Cruz concerns the maintenance of system optimality for a range of parameter values even when the feedback control structure is fixed.

Dr. Cruz has contributed significantly to the improvement of the quality of engineering education in the Philippines through the Master of Engineering programs in several consortia of engineering schools he helped develop, the placement of many ESEP scholars in PhD sandwich programs in the US and the arrangement for short study visits and observations to the US by officials and scholars from the engineering faculty of various universities in the country.



THE OUTSTANDING YOUNG SCIENTIST (OYS) AWARDS



The Academy grants the Outstanding Young Scientist Awards every year to young Filipino scientists, who are not more than 40 years old within the year of the award, and have made significant contributions to science and technology.



Ten OYS awards are available annually to outstanding nominees in the following fields: Agricultural Sciences; Biological Sciences; Chemical, Mathematical and Physical Sciences; Engineering Sciences and Technology; Health Sciences; and Social Sciences



In 2003, the OYS awardees were:

Nathaniel C. Bantayan, Ph.D. (Forestry Engineering); William L. de los Santos, Ph.D. (Agronomy and Soils); Ma. Corazon A. de Ungria, Ph.D. (Molecular Biology); Evelyn Grace T. de Jesus-Ayson, Ph.D. (Zoology); Agnes T. Paras, Ph.D. (Mathematics); Carla B. Dimalanta, Ph.D. (Geology); Mary Ann A. Endoma, Ph.D. (Chemistry); Jesus N. Sarol, Jr., M.D. (Epidemiology); and Jose Alberto S. Reyes, Ph.D. (Psychology).



TWAS PRIZE FOR YOUNG SCIENTIST IN THE PHILIPPINES

The TWAS Prize is a joint annual award by the NAST and the Third World Academy of Sciences (TWAS) to an outstanding young Filipino scientist. One award is given in the selected discipline for the year - Chemistry, Mathematics, Physics, or Biology.

For 2003, the TWAS Prize for Chemistry was awarded to Mary Ann A. Endoma of the Institute of Chemistry, UP Diliman in recognition of her pioneering research in synthetic organic chemistry. Dr. Endoma was cited for the development of biochemical processes and the use of microorganisms for the synthesis of fine organic chemicals. Her pioneering work in the use of microorganisms to synthesize specialty chemicals has enhanced the University of the Philippines Diliman - Institute of Chemistry's program in green chemistry and clean technology development.

Dr. Endoma received a cash prize of US\$2,000 and a plaque from NAST.

HUGH GREENWOOD ENVIRONMENTAL SCIENCE AWARD

Cognizant of the rapid degradation of our environment and the depletion of our natural resources due to progress and modernization, the Academy together with Dr Hugh Greenwood established the Hugh Greenwood Environmental Science Award. For the past three years, the award has been bestowed on individuals whose outstanding scientific and technological research has contributed to environmental protection and conservation.



Dr. Porfirio Alexander M. Aliño, a marine biologist from UP Marine Science Institute won the award for this year. His expertise in coastal resources management led to the development of methods to assess and monitor coral reefs community resulting in the preservation of this fragile ecosystem. His leadership in establishing and implementing a strategic and pioneering marine science program in the Kalayaan Islands Group is a tribute to the capacity of the Filipino to properly manage our marine resources.

Recipients of Special Citations were Victor B. Maglambayan (UP NIGS) and Neil Aldrin D. Mallari (Haribon Foundation).

NAST-DUPONT TALENT SEARCH FOR YOUNG SCIENTISTS

NAST and DuPont Far East, Inc., a private company, conceived this award to encourage young Filipinos to pursue a career in science and to recognize outstanding scientific contributions. Trophies and cash prizes are awarded to the best three scientific papers; topics may be on basic or applied science. Qualifying researchers should not be older than 35 years old.

Winners for 2003 were:



Luis Francisco G. Sarmenta, Ph.D.
(Electrical Engineering and Computer Science)
Research Entry: "Bayanihan Computing Net: A Simple Framework for Grid Computing with Web Services"



Windell L. Rivera, Ph.D.
(Medical Science)
Research Entry: "Genetic Diversity of *Entamoeba histolytica* in an Institution for the Mentally Retarded in the Philippines"



James A. Villanueva, Ph.D.
(Chemistry)
Research Entry: "Increase in Conformational Flexibility of B2-Microglobulin upon Copper Binding: A Molecular Role for Copper in Dialysis-Related Amyloidosis"

Special Citations were given to the following:

Amelita J. Bartolome, Ph.D.
(Technical Chemistry)
Research Entry: "The Development of an Optical Fiber Sensing System for Genotoxicity Monitoring Green Fluorescent Protein (GFP) Expressing *E. coli* ES2U"

Alvin Y. Chua, Ph.D.
(Mechanical Engineering)
Research Entry: "Random Execution of a Set of Contacts to Solve the Grasping and Contact Uncertainties in Robotic Tasks"



PRO SCIENTIA TRANSFORMATRIX AWARD

The Pro Scientia Transformatrix Award is an achievement award bestowed by the Academy to corporate institutions/foundations operating within the Philippines to recognize and encourage extraordinary enterprise through the application of science and technology in the furtherance and support of our country's continuing bid to gain global competitiveness in all areas of practical endeavor.

The first recipient of this award is the **Pascual Laboratories, Inc.**, for its forward-looking commercial program in the formulation and manufacture of herbal medicines, through its subsidiary Altermed Corporation, and for its research and development of chemical markers for use in the standardization of dosage forms of *lagundi*, *sambong*, *ampalaya*, and *akapulko*. Pascual Laboratories, Inc. has contributed, and continues to contribute, to the global competitiveness of the Philippines in the natural/alternative medicines sector.



THE OUTSTANDING PUBLICATION AWARDS

This award recognizes outstanding scientific papers published in Philippine journals, and books or monographs published in the Philippines. With this award, NAST aims to promote the enhancement of the quality of Philippine journals and publication of substantial, relevant and high quality science-related books in the country.

SCIENTIFIC PAPERS

Papers are judged for quality of content, contribution to science and technology, clarity of presentation, and thoroughness of documentation. These awards are given annually for papers published in Philippine scientific or technical journals within five years preceding the award.

AWARDEES FOR 2003

AGRICULTURAL SCIENCES DIVISION

“Development of Molecular Markers for Marker-Assisted Breeding for Bacterial Wilt Resistance in Tomato,” by Conrado H. Balatero, Desiree M. Hautea, Peter M. Hanson, and Josefina O. Narciso ISSN 0031-7454 *The Philippine Agricultural Scientist* 85(2): 170-181 (2002).

“Mapping the Spread of Abaca Bunchy-Top and Mosaic Diseases in the Bicol and Eastern Visayas Regions, Philippines,” by Avelino D. Raymundo, Narceo B. Bajet, Augusto C. Sumalde, Bonifacio P. Cipriano, Ramon Borrromeo, Samuel B. Garcia, Porfirio T. Tapalla, and Nestor Fabellar ISSN 0031-7454 *The Philippine Agricultural Scientist* 84(4): 352-361 (2001).

BIOLOGICAL SCIENCES DIVISION

“The Philippine Genetic Database of Short Tandem Repeats (STR) in DNA-based Paternity Testing,” by Maria Corazon A. de Ungria, Alma Frani-Ferrer, Kristina A. Tabbada, Michelle M. Tan, Frederick C. Delfin, Gayvelline C. Calacal, and Saturnina C. Halos ISSN 0031-7683 *Philippine Journal of Science* 131(1): 1-8 (2002).

CHEMICAL, MATHEMATICAL AND PHYSICAL SCIENCES DIVISION

“Deformation Quantization and Representations of the Real Rotation Group,” by Job A. Nable ISSN 0115-7809 *Science Diliman, A Journal of Pure and Applied Science* 13(1): 41-53 (2001).

“On the r -Differentiability of the Primitives of Henstock Integrable Functions with Values in a Hilbertian CN-space with Nuclearity,” by Sergio R. Canoy Jr. ISSN 0115-6926 *Matimyas Matematika* 23(2): 1-8 (2000).

“The Bandwidth of the Cartesian Product of a Double Star and a Path,” by Yvette Fajardo-Lim ISSN 0118-9113 *The Manila Journal of Science* 4(1): 29-37 (2001).

SOCIAL SCIENCES DIVISION

“Household Vulnerability to Employment Shocks, 1997-1998,” by Michael M. Alba ISSN 1655-1516 *Philippine Review of Economics* 38(1): 53-91 (2001).

BOOK/MONOGRAPH

The awards are given annually to outstanding books and/or monographs published in the Philippines or elsewhere by Filipino authors or co-authors within five years preceding the award.

Plaques of recognition are awarded to the author/s of books and/or monographs adjudged to be outstanding in the field of agricultural sciences, biological sciences, chemical, mathematical and physical sciences, engineering sciences and technology, health sciences, and social sciences.

Books and/or monographs are judged for their quality and originality of content, contribution to science and technology, clarity of presentation, and thoroughness of documentation.



OUTSTANDING BOOK AWARDEES

AGRICULTURAL SCIENCES DIVISION

Ornamental Horticulture: A Little Giant in the Tropics by **Tito J. Rimando**, ISBN 971-560-054-9, Published by the SEAMEO Regional Center for Graduate Study and Research in Agriculture (SEARCA), Los Baños, Laguna, 2001.

BIOLOGICAL SCIENCES DIVISION

Key Conservation Sites in the Philippines: A Haribon Foundation and Birdlife International Directory of Important Bird Areas by **Neil Aldrin D. Mallari, Blas R. Tabaranza, and Michael J. Crosby**, ISBN 971-569-405-5, Published by the Bookmark, Inc., 2001.

SOCIAL SCIENCES DIVISION

Txt-ing Selves: Cellphones and Philippine Modernity by **Raul Pertierra, Eduardo F. Ugarte, Alicia Pingol, Joel Hernandez, and Nikos Lexis Dacanay**, ISBN 971-555-440-7, Published by the De La Salle Press, Inc., Malate, Manila, 2002.

Managing Urbanization Under a Decentralized Governance Framework, Volume 2 by **Eduardo T. Gonzalez, Charmaine G. Ramos, Gemma Esther B. Estrada, Leslie V. Advincula-Lopez, and Gregorio Luis A. Igaya**, ISBN 971-564-037-0, Published by the Demographic Research and Development Foundation (DRDF), Inc., Diliman, Quezon City and the Philippine Institute for Development Studies (PIDS), Makati City, 2001.

OUTSTANDING MONOGRAPH AWARDEES

AGRICULTURAL SCIENCES DIVISION

Go Global, Grow Royal Fruits of the Tropics by **Domingo E. Angeles and Leon O. Namuco**, ISBN 911-560-031-X, Published by the SEAMEO Regional Center for Graduate Study and Research in Agriculture (SEARCA), Los Baños, Laguna, 1999.

HEALTH SCIENCES DIVISION

Clinical Practice Guidelines on the Diagnosis, Treatment and Control of Tuberculosis by **Jaime C. Montoya and Renato B. Dantes**, published by the Philippine Society for Microbiology and Infectious Diseases, Cubao, Quezon City and the Philippine College of Chest Physicians, Diliman, Quezon City, 2000.

NEW AWARDS LAUNCHED

NAST-LELEDFI AWARD FOR OUTSTANDING RESEARCH IN TROPICAL MEDICINE

Tropical diseases like tuberculosis, malaria, dengue, etc., are still a major health threat to the Filipinos today. Poverty, high population growth, pollution, poor sanitation and inadequate health care system further aggravate the problem into alarming proportions.

At the vanguard in preventing and containing the spread of tropical diseases are health scientists who advance our understanding of the nature of the problem and devise means to minimize and if possible eradicate such diseases.

Yet these people are seldom recognized for their significant and often heroic contributions to science and society.

Thus, NAST and the LEL Educational Development Foundation, Inc., founded by Dr. Lino Ed. Lim, have decided to jointly sponsor the NAST-LELEDFI Award for Outstanding Research in Tropical Medicine. The award is intended to recognize outstanding research works that contributes to the advancement of the country's knowledge and practice in Tropical Medicine. It will be given annually during the celebration of the health month.



OUTSTANDING SCIENCE COMMUNICATOR AWARD

(formerly S&T Outstanding Journalism Award)

NAST established the Outstanding Science Communicator Award to promote and develop a vibrant science culture by way of accurate information dissemination. This award will honor a science communicator who has written articles on an important aspect of science and technology within the award period. In so doing, the Academy formally recognizes the critical role S&T communication contributes to the promotion and development of science culture. United Laboratories, Inc. (UNILAB), cognizant of the importance of this award, has agreed to sponsor this award jointly with the Academy. The first awarding ceremony for the Outstanding Science Communicator Award was held on 19 December 2003 at Club Filipino in Manila.

Mr. Zac B. Sarian of the Manila Bulletin and Agriculture Magazine won this year's Outstanding Science Communicator Award. He was cited for his dedication to make *Agriculture* a news feature service, which has paved the way for greater interest in agriculture sciences news and stories. The power of his works has been instrumental in promoting quality and value-oriented agricultural education in the country, and in harnessing among the youth a better appreciation of the potential and key role of agricultural sciences in achieving economic development for the nation and enhancement of the social well-being of the Filipino people.



The Board of Judges was co-chaired by National Scientist Gelia T. Castillo and Dr. Florangel Rosario-Braid (President, Asian Institute of Journalism and Communication) and the panel of members consisted of Acd. Emil Q. Javier, Ms. Betty Lou S. Peñera (Philippine Information Agency) and Mr. Angelo B. Palmones (President, Philippine Science Journalists Association). The eight nominees in the 2003 competition included: Mr. Rony V. Diaz (The Manila Times), Melvin G. Calimag (Metropolitan Computer Times), Zelda dela Trinidad Soriano (Manuel L. Quezon University), Lilybeth G. Ison (Philippine News Agency), Constanca J. Sales (TODAY), Rodolfo A. Fernandez (The Philippine Star), Angelina B. Resurreccion (TODAY), and Zac B. Sarian (Manila Bulletin and Agriculture Magazine).

BENEFITS OF ACADEMICIANS AND NATIONAL SCIENTISTS

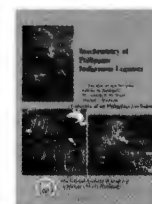
RESEARCH FELLOWSHIP GRANTS

Fifteen (15) Academicians were granted research fellowships. The table below shows the list of Academicians who have on-going research fellowships.

| Academician | Title of Research | Duration |
|-----------------------------|--|---|
| NS Benito S. Vergara | Additional Research to Upgrade and Put-up New Displays at the PSHC | 01 Feb 2002-31 Jan 2003 |
| Acc. Faustino T. Orillo | Research Materials on the New National Scientists (1998-2001) | 01 Feb 2002-31 Jan 2003 |
| Acc. Raul V. Fabella | Membership Size and Efficiency in Competing Partnerships | 01 Mar 2002 - 29 Feb 2003 |
| Acc. Rafael D.Guerrero III | Preparation of a Handbook for Vermicompost Vermimeal Production and Utilization | 01 Dec 2002- 30 Nov 2003 |
| Acc. Prescillano M. Zamora | Assessment of the Conservation Status of Biological Diversity of Philippine Pteridophytes (families & genera) | 01 Dec 2002- 30 Nov 2003 |
| Acc. Teodulo M. Topacio Jr. | An Assessment of the Rabies National Eradication Prevention, Control and Vaccination Program | 01 Mar 2003- 28 Feb 2004 |
| Acc. Quintin L. Kintanar | To conduct a research on Human Genome that will lead to the formulation of the possible stand or official statement of NAST on Human Genome and to compile all scientific discussion on forensics, cloning, and clinical versus research testing | 01 Feb 2003- 31 Jan 2004 |
| Acc. Mercedes B. Concepcion | Population:How and Why It Matters | 01-29 Feb 2003 01 Sep 2003 - 28 Feb 2004 |
| NS Benito S. Vergara | PSHC Display on National Scientists Carmen and Gregorio Velasquez | 01 Apr 2003 - 31 Mar 2004 |
| Acc. Emil Q. Javier | Pancho's Vascular Flora of Mount Makiling and Vicinity (Luzon, Philippines) Part II | 15 May 2003 - 14 May 2004 |
| Acc. Asuncion K. Raymundo | National Program on Bioremediation of Toxic and Hazardous Waste | 15 May -14 Nov 2003 |
| Acc. Ledivina V. Cariño | Urbanization, Industrialization and Land Conversion:The Philippine Experience | 15 May 2003 - 14 May 2004 |
| Acc. Filemon A. Uriarte Jr. | Solid Waste Management: Principles and Practices | 01 Aug 2003 - 31 Jul 2004 |
| Acc. Evelyn Mae T. Mendoza | Part 1: Preparation of a Biotech Tutorial and Presentation on CD and Part 2: Completion of Books on National Scientists and Academicians | 01 Sep 2003 - 31 Aug 2004 |
| Acc. Ricardo M. Lantican | Promoting and Developing Science Culture Through Publication of Biographies of National Scientists and Academicians | 01 Oct 2003 - 30 Sep 2004 |

PUBLICATION ASSISTANCE

Acc. Evelyn Mae T. Mendoza received publication assistance for her monograph entitled "Biochemistry of Philippine Indigenous Legumes."



IN MEMORIAM

The Chemical, Mathematical and Physical Sciences Division lost two of its members in 2003.

ACADEMICIAN TITO A. MIJARES, Ph.D. (Statistics) **December 26, 1922 - August 18, 2003**



As a scientist, Academician Tito A. Mijares made his significant contributions in multivariate analysis and theoretical statistics on normal approximations to trace distributions which were all published in internationally recognized journals of statistics.

With a strong science and engineering background (he was a registered electrical engineer and meteorologist before he took his MS and PhD in statistics), Dr. Mijares, as Executive Director of the Bureau of Census and Statistics, which later became the NCSO, successfully organized and put in place a data collection system and infrastructure throughout the country which could undertake regularly and efficiently censuses and surveys for the next two decades (1965-1984). His distinguished leadership paved the way for (a) conceptualizing, designing, conducting and managing census operations in all its aspects, i.e., population; agriculture; industrial and economic; fisheries; (b) all annual and quarterly surveys and monthly prices, and (c) social surveys on labor force, income and expenditure, demographic and health surveys and the integrated national survey of households. As (ex-officio) Civil Registrar General, he also introduced significant improvements in the country's civil registration. As Deputy Director-General of NEDA for statistical coordination, he chaired the Statistical Advisory Board Committee on Statistics which set the statistical policies and standards in the operations of the Philippine Statistical System. This system has developed to a strong decentralized but centrally coordinated system of today. Dr. Mijares also led the intensive faculty development programs to professionalize the statistical manpower in the country.

Dr. Mijares held the distinction of being at the helm of three key institutions in government on a concurrent capacity, i.e., Deputy Director General of NEDA, Executive Director of the NCSO (formerly Bureau of the Census and Statistics), and Dean of the University of the Philippines Statistical Center (UPSC). For his outstanding contributions to mathematical statistics and theory, Dr. Mijares was honored as one of the first ten Academicians of NAST in 1978. Academician Tito A. Mijares is recognized as the "Father of the Philippine Statistical System."

ACADEMICIAN MELECIO S. MAGNO, Ph.D. (Physics) **May 24, 1920 - September 27, 2003**



Academician Melecio S. Magno is recognized among the nation's scientific community for his outstanding public service and contributions to the growth of basic and applied sciences particularly in physics in the country, as well as in the advancement of the national technological development.

In the late 1958, he returned to the country with a Ph.D. in Physics, the second one after Dr. Casimiro del Rosario, his mentor who was then the NSDB head and later was conferred as the dean of Filipino physicists. His return to the academe marked his stewardship and guidance of physics education in the University of the Philippines and in the country. He was immediately named the head of the Department of Physics of the College of Arts and Sciences of UP and was appointed to other key positions such as the chairmanship of the Department of Meteorology, College Director for Undergraduate Programs and as Dean of College of Arts and Sciences.

Dr. Magno spearheaded the faculty development and graduate manpower training program of the University, including the interuniversity consortium programs in the basic sciences. Eventually, he became the Vice President for Academic Affairs of the University in 1975. He was named Acting Chairman of the National Science Development Board (NSDB) in 1976 and became its Chairman and later the Minister of Science from 1976 to 1978. As Minister of Science, he was appointed as Assemblyman at the Interim Batasang Pambansa from 1978-1981. He was elected Chairman of the Committee on Science and Technology of the Assembly. His position provided him a crucial role in policymaking for the science and technology development of the country.

In 1981, having served the country in science education and S & T governance, selflessly and devotedly, he opted to retire to lead a more quiet life. Even in retirement, he served as President of the Science Foundation of the Philippines which provided assistance to the promotion of basic and applied science in the country and Vice President of the National Academy of Science and Technology from 1982-1988.

ADVISORY FUNCTION

The National Academy of Science and Technology has continued to fulfill its advisory function through relevant activities in 2003. As the country's premier advisory body on S&T, NAST remains proactive on legislative matters and consistently gives advice to the Executive Branch on S & T related matters.

In support of this major function, NAST holds the Annual Scientific Meeting (ASM) and regularly conducts scientific fora (SIFs) and roundtable discussions (RTDs). The topics dealt with in 2003 included the population crisis, biotechnology, toxic and hazardous wastes, water resources, population, solid waste management particularly hospital wastes, biodiversity and sustainable agriculture, health insurance, human genome, human reproductive cloning, among others. These fora participated in by the country's leading scientists have led to the formulation and drafting of specific policy interventions. The National Scientists and Academicians, together with local and foreign experts, have fused their actions and expertise to advice the executive branch, legislators and other policy-making bodies.

25TH ANNUAL SCIENTIFIC MEETING

The ASM, the Academy's major event, once again convened the country's leading scientists and researchers from all over the country to discuss various aspects of the ASM theme, *Addressing the Demographic Crisis in the Philippines*. The Health Sciences Division with Acd. Ledivina V. Cariño composed the Steering Committee. Acd. Ramon Abarquez Jr. served as Chair while Acd. Cariño stood as Co-Chair. The ASM was held at the Manila Hotel on 09-10 July 2003.

The plenary sessions, simultaneous technical paper presentations, scientific poster exhibits, awarding of science achievers, and the launching of new NAST Awards highlighted the Scientific Meeting. Senator Rodolfo Biazon gave the keynote address.

PLENARY SESSION TOPICS , SPEAKERS AND REACTORS

| TOPIC | SPEAKERS | REACTORS |
|---|------------------------------|--|
| <i>Plenary Session 1</i> "Population Challenges in the 21st Century" | DR. CORAZON M. RAYMUNDO | NS. BIENVENIDO O. JULIANO DR. JAMELA R. REVILLEZA |
| <i>Plenary Session 2</i> "Food Security and Safety" | HON. LUIS P. LORENZO JR. | ACD. RICARDO M. LANTICAN DR. GABRIEL O. ROMERO |
| <i>Plenary Session 3</i> "Basic Health Services and Population Growth" | DR. ALBERTO M. ROMUALDEZ JR. | ACD. QUINTIN L. KINTANAR DR. THELMA E. TUPASI |
| <i>Plenary Session 4</i> "Economic Implications of Demographic Crisis" | DR. FELIPE M. MEDALLA | ACD. RAUL V. FABELLA DR. MA. SOCORRO G. BAUTISTA |

Twenty-one invited scientific papers related to the theme were presented in the simultaneous technical sessions: five in agricultural sciences; three in biological sciences; three in chemical, physical and mathematical sciences; three in engineering sciences and technology; three in health sciences and four in social sciences.

| TOPIC | SPEAKERS | REACTOR |
|--|--|---------------------------|
| AGRICULTURAL SCIENCES DIVISION (ASD) | | |
| "Enhancing Livestock Production Technologies in R&D Base with Increasing Population" | DR. JAMIER B. MATEO | |
| "The Rice Problem in the Philippines: Trade, Constraints and Policy Implications" | DR. ARSENIO M. BALISACAN | |
| "Gains in the Philippines: Feeding the Population Based on the Present" | DR. ERTSMIO M. SALAZAR | |
| "Sustainable Marine Fisheries Production in the Philippines" | MR. JONATHAN O. DICKSON | |
| "Towards Sustainable Agriculture in the Philippines" | DR. ROLANDO W. PLATON | |
| BIOLOGICAL SCIENCES DIVISION (BSD) | | |
| "Mechanical, Chemical, and Biological Methods of Contraception" | DR. VIRGLIO B. OBLEPIAS | |
| "Formal Contraception: An Approach to the Demographic Crisis in the Philippines" | DR. MILDRED C. NEGRE-PAREJA | |
| "Sex Preselection in Animals: Current Methods and Applications" | DR. CONRADO A. VALDEZ | |
| CHEMICAL, MATHEMATICAL, AND PHYSICAL SCIENCES DIVISION (CMPSD) | | |
| "Demographics and Education" | ACD. BIENVENIDO F. NEBRES, S.J. | |
| "Water Supply in the Philippines: Cebu as Object of a Class Study" | DR. HERMAN VAN ENGELEN, S.W.D. | |
| "Population: Demand on Air" | FR. JOSE RAMON T. VILLARIN, S.M. | |
| ENGINEERING SCIENCES AND TECHNOLOGY DIVISION (ESTD) | | |
| "Competitiveness in R&D" | ENGR. RAUL C. SABULARSE | |
| "Competitiveness in Education" | ACD. REYNALDO B. VEA | |
| "Global Competitiveness in Engineering and Technology Practice" | ACD. ANGEL L. LAZARO III | |
| HEALTH SCIENCES DIVISION (HSD) | | |
| "Implications of the Demographic Crisis on Health and Nutrition" | DR. JAIME Z. GALVEZ-TAN | DR. RODOLFO F. FLORENTINO |
| "Immunization Program of DOH in the face of Demographic Crisis" | HON. MANUAEL M. DAYRIT <i>to be represented by</i> DR. MYRNA C. CABOTAJE | DR. MARY ANN D. LANSANG |
| "The National Health Insurance Program in the Face of the Demographic Crisis" | DR. FRANCISCO T. DUQUE III | MR. MARIO M. TAGUIWALO |
| SOCIAL SCIENCES DIVISION (SSD) | | |
| "Using the Capabilities Approach to Analyze Access to Information and Communication Technologies (ICTs) by the Poor" | MR. ERWIN A. ALAMPAY | |
| "Probing the Decisions Behind Induced Abortion in the Philippines" | DR. AURORA E. PEREZ | |
| "Demand Housing in the Metropolitan Cities of the Philippines" | DR. MARIFE M. BALLESTEROS | |
| "Women, Migration and Reintegration" | MS. ESTRELLA MAIDIZON ANONUEVO | |

Acad. Perla D. Santos Ocampo, NAST President, Senator Rodolfo G. Biazon, and Hon. Estrella F. Alabastro, DOST Secretary led the ribbon cutting during the opening of the Poster Session and Exhibits on 09 July.

For this year, 143 papers were accepted for the poster presentation compared to last year's 133. An innovation in this year's ASM is the launching of the e-poster session—papers were presented electronically using the Powerpoint format. The Board of Judges for the Best Poster Awards was composed of Acad. Salcedo L. Eduardo (Chair), N.S. Clare R. Baltazar, N.S. Gelia T. Castillo, Acad. Veronica F. Chan, Acad. Mercedes B. Concepcion, Acad. Ernesto O. Domingo, N.S. Bienvenido O. Juliano, Acad. Ricardo M. Lantican, Acad. Apolinario D. Nazarea, Acad. Teodulo M. Topacio Jr. and Acad. William T. Torres. The judges chose one winner per division who received P5,000.00.



Another highlight of the two-day affair was the launching of the book, *Rizal the Scientist*, also on the first day of the ASM. The book is a compendium of papers on the scientific endeavors of Dr. Jose Rizal presented during a NAST co-sponsored symposium in commemoration of Rizal's Centennial Death (1896). Acad. Andrew B. Gonzalez, FSC, of DLSU facilitated the printing of the book.



On the second day, two new awards were launched. These were the NAST-LELEDFI Award for Outstanding Research on Tropical Medicine and the Outstanding Science Journalism Award.

The two-day affair culminated with the formulation of policy recommendations for legislative and executive action and for consideration of concerned agencies. This year's resolutions focused on the pressing issues of population and human genome. The resolutions were presented by Acd. Ledivina V. Cariño and Resolutions Committee Chair Acd. Quintin L. Kintanar to DOST Secretary Estrella F. Alabastro.

| 2003 NAST BEST POSTER AWARDS |
|--|
| <p>AGRICULTURAL SCIENCES</p> <p><i>"Agrobacterium-mediated Transformation of Davao 'Solo' Papaya for PRSV (Papaya Rigspot Virus) Resistance"</i> by Vermando M. Aquino, T.B. de Leon, M.G. Colle, G. A. Romo, and P.A. Perez, Institute of Plant Breeding, College of Agriculture, University of the Philippines, Los Baños, Laguna</p> |
| <p>BIOLOGICAL SCIENCES</p> <p><i>"Gene Discovery for Pest Resistance in Corn: Bacterial and Insect-Gut Specific Chitinases"</i> Mari-Sol P. Hidalgo, Roberta N. Garcia, Cleotilde A. Caldo and Antonio C. Laurena, Biochemistry-Analytical Services Laboratories, Institute of Plant Breeding, College of Agriculture, University of the Philippines, Los Baños, Laguna</p> |
| <p>CHEMICAL, MATHEMATICAL AND PHYSICAL SCIENCES</p> <p><i>"Inventory of Dioxins, Furans, and Dioxin-Like PCBs in the Philippines"</i> A.F. Pablo, C.M. Silverio, V.M. Pasagui, and A.T. Marquez, Environmental Division, Industrial Technology Development Institute, Department of Science and Technology</p> |
| <p>ENGINEERING SCIENCES AND TECHNOLOGY</p> <p><i>"Utilization of Rice Hull Ash and Solsona White Clay for the Manufacture of Ceramic Water Filters"</i> by Samuel S. Franco and E.A. Salamangkit, Department of Ceramic Engineering, Mariano Marcos State University, Batac, Ilocos Norte</p> |
| <p>HEALTH SCIENCES</p> <p><i>"Five Year Antibiotic Sensitivity Profile of Lower Respiratory Tract Pathogens from Hospitalized Patients"</i> by Delia C. Ongtengco, Leilani A. Baltazar, Roberta S. Santiago, Pilar Lim-Navarro and Cecilia A. Isaac, Biological Sciences Department, Medical Affairs Division, United Laboratories, Mandaluyong City</p> |
| <p>SOCIAL SCIENCES</p> <p><i>"Population Structure of the Higaonon Tribe of Rogongon, Ilagan City"</i> by D'Vincent Quijoy, Mark Anthony J. Torres, and Cesar G. Demayo, Department of Biological Sciences, College of Science and Mathematics, MSU-Iligan Institute of Technology, Iligan City, Lanao del Norte</p> |

Among this year's sponsors were DuPont Far East Inc., Monsanto Philippines, United Laboratories Inc., Commission on Population, California Manufacturing Company, ISAAA, Academy for Education Development, PCAMRD-DOST, Canon Marketing Philippines Inc., and Villman Computers. Unilab provided the IDs of the participants and assisted during the registration. Several DOST agencies provided assistance by sending some of their personnel as ushers and usherettes.

It was indeed a successful ASM! A total of 846 participants attended the Opening Ceremonies and 725 during the Closing Ceremonies. Thirty practitioners from the broadcast, print and cyber media covered the two-day affair. Each was given a kit that contained copies of the plenary and technical papers.

2003 NAST RESOLUTIONS

1. RESOLUTION ON PHILIPPINE POPULATION POLICY

WHEREAS, the Philippines is facing a demographic crisis of major proportion, the population having increased four-fold from year 1950 (19.9M) to year 2000 (76.5M) , and noe increasing by 2.36% a year, such that the population will reach 82 M by the end of year 2003 and is projected to reach 106M by year 2020 and 126M by year 2040;

WHEREAS, increasing population requires an equivalent increase in the amount of resources to meet the basic needs of man, by way of food, clothing, shelter, energy, health services, and education & training;

WHEREAS, in the Philippines, economic development and distribution of wealth have not been able to keep pace with the rapid rate of population growth, evidenced by 40% of the population falling below the poverty line;

WHEREAS, overpopulation is a factor that contributes to socio-economic problems such as poverty, malnutrition, poor health, high unemployment/underemployment, crime and violence;

WHEREAS, the rapid increase in population also results in a poor quality of life and deterioration of the environment through pollution of air, water, and land, overexploitation of natural resources, destruction of forest, and loss of biodiversity;

WEHEREAS, many of the problems that the Philippine society faces today are complex and interconnected and at least in part, aggravated by the rapid increase in the number of people;

WHEREAS, the present generation has the responsibility to ensure a better quality of life for future generations;

WHEREAS, the National Academy of Science and Technology is legally mandated to act as an advisory body to the President and the Cabinet on science and technology matters;

NOW, THEREFORE, the National Academy of Science and Technology, in assembly, hereby resolves to:

a.) Call on government, in partnership with the business and civil society, to adopt a clear and non-coercive population management policy with a goal of zero population growth by year 2025 through responsible parenthood by all families who need and desire to plan their family, using all available effective and safe methods of fertility regulation that are compatible with our values and beliefs. In this regard, we reject abortion as a method of population control;

b.) Call on the scientific community to undertake research on the interaction among factors affecting population configurations and their social, economic and environmental implications.

2. RESOLUTION ON HUMAN GENOME AND HUMAN RIGHTS

WHEREAS, the human genome has been sequenced through the International Human Genome Project (IHGP), and its applications to Filipino health and national economic development are broad and far-reaching;

WHEREAS, the Universal Declaration on the Human Genome and Human Rights approved by the United Nations General Assembly in 1997 recognizes that research on the human genome and resulting applications open up vast prospects for the progress in improving the health of individuals and of human kind as a whole, but emphasizes that such research should fully respect the human dignity, freedom and human rights;

WHEREAS, it is the policy of the Republic of the Philippines, as embodied in the 1987 Constitution, to protect and promote the people's right to health and to value the dignity of every human person and guarantee full respect for his and her human rights, including the right to life of the unborn from conception;

WHEREAS, the National Academy of Science and Technology (NAST) is legally mandated among others, to serve as a reservoir of scientific and technological manpower and to act as an advisory body of the President of the Republic of the Philippines and the Cabinet on policies concerning science and technology in the country;

WHEREAS, NAST believes in the free exercise of research on the human genome, but with due regard for the principles set out in the United Natuions Universal Declaration on the Human Genome and Human Rights and the policies laid down in 1987 Constitution of the Republic of the Philippines;

WHEREAS, the Philippines, being at the early stages of development in genetic research and application, needs to provide guidelines to its scientific community, especially in areas where research activities and applications already exists.

NOW, THEREFORE, the National Academy of Science and Technology, in assembly, hereby resolves to:

a.) Call on the national government to direct all relevant government agencies to develop , promote and support research on human genome and develop mechanisms so that research results can be accessed and utilized for the benefit of the patients and the general public, while taking into account the principles set forth in the Universal Declaration of the Human Genome and Human Rights and the policies laid down in the 1987 Constitution of the Republic of the Philippines;

b.) Create a working group to look into the ethical, legal, and social implications of knowledge resulting from the Human Genome Project and to recommend to NAST the appropriate policy and procedural guidelines that may be submitted to the national government and research institutions for their consideration and approval. The guidelines should cover, but not limited to:

i. genetic testing and research , including the requirement of freeand prior informed consent of research subjects; the requirements for packaging, labeling and transport of specimens for validated genetic test that are only available abroad; and the appropriate standards to ensure that clinical tests offered are one of the highest possible quality;

ii. forensic uses of the DNA for, *inter alia*, human identification, disputed parentage cases, mass disaster cases, and criminal investigations;

iii. somatic cell nuclear transfer, including the banning of artificial reproductive cloning for the purpose of producing a human being while allowing therapeutic cloning for the purpose of producing stem cells, except if the stem cells are derived from living human embryo; and crafting of policies and regulations on the disposition of excess human embryos; and

iv. cross-cutting issues such as those relating to privacy and genetic discrimination; intellectual property protection; benefits-sharing mechanisms; and equitable distribution of limited research resources.

NAST POLICY STATEMENT ON HUMAN REPRODUCTIVE CLONING

The issue of human reproductive cloning has again rise due to news of the birth of babies allegedly produced through this process. However, to date, no scientific evidence has been presented to back up such claims.

Human reproductive cloning, which is more popularly known as "human cloning" is defined as assisted reproductive technology with the goal of producing a human being identical to another human being. Scientific data on the reproductive cloning of animals demonstrate that the procedure is far from perfect. Many clones die; only a small percentage of clones-about 1 to 5% for sheep and pigs, come to term. Abnormalities such as swollen placentas, enlarged hearts and defective kidneys have been observed in cloned mammalian fetuses. Coming up with implanted cloned embryos is also very difficult. Cloning Dolly, the sheep, the first mammal to be cloned from adult cell in 1997, was successful only after failures with 276 eggs. At the age of five, Dolly was diagnosed to suffer from arthritis indicating premature aging, and at six, she was recently put down due to a progressive lung disease.

- Considering the scientific evidence which show the serious risks that procedures of human reproductive cloning may bring about to the donor of eggs, the surrogate mother and to the resulting fetus and newborn.
- Considering the ethical, psychological, sociological and theological concerns

The National Academy of Science and Technology, the country's highest advisory body on S&T matters, leads the science community in supporting the ban on research on cloning human beings and reaffirms the Department of Science and Technology stand of 1997 on non-support for any research on human reproductive cloning.

INFORMATION FORA, ROUNDTABLE DISCUSSIONS AND OTHER ACTIVITIES

SCIENCE INFORMATION FORA

In April 2000, NAST recommended to the Philippine government

"...We therefore advocate and promote the safe and responsible applications of modern biotechnology in science and technology, agriculture and food, health and medicine, environment and trade and industry -- for the upliftment of the Filipino Nation. Considering the tremendous potential of this technology, we urge policymakers to base their decisions on sound scientific evidence."

To further promote a balanced information dissemination and better understanding of biotechnology, NAST has sponsored or co-sponsored with various organizations several fora throughout the country. Through these regional and provincial engagements, science-based and accurate information about biotechnology and genetically modified organisms (GMOs) were disseminated to concerned stakeholders, particularly among extension workers, local media practitioners, local government personnel and other individuals and groups from the government, private and non-government organizations.

Regional Forum on Biotechnology and GMOs (13 February 2003, Davao City)

This forum was the first of a series of fora for the year 2003. The Biotechnology Coalition of the Philippines (BCP) together with the DOST Region XI co-organized the activity which was held at the Royal Mandaya Hotel in Davao City. DOST Secretary Estrella F. Alabastro and Senator Aquilino Q. Pimentel Jr. attended the activity.



Provincial Forum on Biotechnology and GMOs: Towards a Common Agenda (20 June 2003, Cagayan Valley)

This forum was conducted with DOST Region II and the BCP as co-sponsors. Speakers who were all experts in their respective fields discussed the issues and concerns surrounding the science of modern biotechnology.

Provincial Forum on Biotechnology and GMOs: Towards a Common Agenda (23 June 2003, Sorsogon)

The activity was co-organized with the Lingap Para sa Kalusugan ng Mamamayan Foundation (LIKAS), Inc., and the DOST Region V. Its aim was to create awareness among the people of Sorsogon about biotechnology as an option and a tool for agricultural productivity.

Regional Forum on Biotechnology and GMOs (04 November 2003, Baguio City)

This forum was co-organized with the DOST-CAR, Biotechnology Coalition of the Philippines (BCP), and the Cordillera Industry, Energy Research and Development Consortium (CIERDEC).

NAST also co-sponsored the following fora with Philippine Society of Nutritionist-Dieticians (PSD), Inc.- Food and Nutrition Authority

Forging Strategies for Accelerated Nutrition Improvements (18-19 and 22-23 September 2003, Cagayan de Oro and Iloilo, respectively)

The fora were held consecutively on 18-19 and 22-23 September 2003 at the Xavier Estate Country Club, Cagayan de Oro City and at Barcelo Sarabia Manor Hotel and Convention Center, Iloilo City, respectively. As co-sponsor, NAST provided one of the speakers, Dr. Nina G. Barzaga, for the biotechnology session.

Roundtable Discussion on Human Genome: Promises and Problems (13 March 2003, Traders Hotel, Manila)

True to its mandate, NAST in collaboration with the Philippine Council on Health Research and Development (PCHRD), Philippine Council for Advanced Science and Technology Research and Development (PCASTRD) and the Biotechnology Coalition of the Philippines (BCP) co-sponsored a public discussion of yet another pressing issue, the human genome, its promises and problems.

A draft resolution on Human Genome was presented by NAST President Acd. Santos Ocampo. The aim of the RTD was to formulate a possible stand on behalf of the scientific community on human genome and formulate an initial draft of a national gene policy. (Pls see NAST Policy Statement, p. 20)



Roundtable Discussion on Population: How and Why It Matters (04 April 2003, Traders Hotel, Manila)

Co-sponsored by the Academy for Educational Development, the RTD was able to bring together the "who's who" in the field of population studies in the country. Spearheading the activity was Academician Mercedes B. Concepcion, NAST Focal Person on Population, who also presented a paper with the same title.

The RTD resulted in the formulation of a policy statement on the need to address the effects of the nation's continued high population growth rate and on the economic and social welfare of Filipinos. (Pls see NAST resolution, p. 20)

Roundtable Discussion on Solid Waste Management: Focus on Hospital Wastes (27 May 2003, Pearl Manila Hotel, Manila)

Organized by the Chemical, Mathematical and Physical Sciences Division of the Academy and co-sponsored with Medical Center Manila, the RTD aimed to clarify and rationalize the new regulations on hospital waste disposal and at the same time disseminate information on the issues surrounding solid waste management. Acd. Jose O. Juliano as the NAST Focal Person, stood as moderator and master of ceremonies.

**Roundtable Discussion on Global Competitiveness
(20 June 2003, Manila Hotel, Manila)**

Together with the Philippine Council for Industry and Energy Research and Development (PCIERD), the Engineering Sciences and Technology Division of NAST organized this RTD. Acd. Angel L. Lazaro III presented a paper on Global Competitiveness on Professional Practice. Dr. Graciano P. Yumul Jr. of PCIERD presented the roadmap to achieve global competitiveness. Highlight of the RTD was the signing of a covenant between the agencies.



**Roundtable Discussion on Health Insurance and Management
(20 November 2003, The Pearl Manila Hotel, Manila)**



Roundtable Discussion on Health Insurance and Management held in November 2, 2003 gathered the key people in the fields of Health Care and Insurance Management.

Among the guests and speakers were Drs. Francisco Duque (PhilHealth), Benito Reverente and Rhais Gamboa. Acd. Ernesto Domingo, NAST Focal Person on the topic, and NAST President Perla D. Santos Ocampo, obtained the support of UNILAB who acted as the major sponsor.

**Roundtable Discussion on Access to Education
(Voucher Education): Public and Private Initiatives
(02 December 2003, Angelo King International Conference,
De La Salle University, Taft Ave. Manila)**

Spearheaded by Acd. Andrew Gonzalez, FSC, NAST Focal Person, the event was able to gather the key personalities in the field of education. Education Secretary Edilberto de Jesus presented the initiatives set by the Department of Education. The RTD looked into the possibility and feasibility on "How do we make quality basic education accessible to all Filipinos aged 6-16?"



CONFERENCES AND WORKSHOPS



**Water and Fish Summit
(30 January 2003,
PCAMRD Head Office, Jamboree Road
Los Baños, Laguna)**

NAST co-sponsored with the Philippine Council for Aquatic and Marine Research and Development in Los Baños, Laguna the "Water and Fish Summit." The aim of the Summit was to respond to the Philippine commitment to the World Summit on Sustainable Development and translate into national context, the action agenda for the sustainable development of water and aquatic resources.

Workshop on Toxic and Hazardous Waste Remediation (06 March 2003, Traders Hotel, Manila)

NAST focused on one of the hottest issues concerning environment. The seminar-workshop was co-sponsored by Zuellig Foundation. Invited experts made objective, accurate assessment of the extent of the problem and the implications of the situation. Secretary Elisea Gozun of DENR participated in the seminar-workshop. Spearheading the workshop was Acd. Asuncion K. Raymundo, NAST Committee Chair on Toxic and Hazardous Wastes.



Aquamarkets: Accessing and Meeting Global Requirements of Markets for Aquatic Products (02-06 June 2003, Dusit Hotel, Makati City)

With the theme "Accessing and Meeting Global Requirements of Markets for Aquatic Products," the convention underscored the importance of the aquaculture sector as a significant provider of foreign exchange earnings and the role it plays in promoting food security and alleviating poverty. Topics and issues that affect the aquaculture like industry overview, production and management practices, product standards, safety and quality, marketing efficiency, trade agreements and import regulations, tariffs and non-tariff barriers and strategies for action to achieve market requirements and optimize market access were tackled in the seminar-consultations and forum.

Buntis Congress (13 July 2003, ABS-CBN, Midwives Association of the Philippines Galleria Suites, Ortigas Center)

The Congress was co-sponsored by the Academy together with Mr. Angelo B. Palmones, broadcast journalist and Director for Special Projects of ABS-CBN. Participated in by mothers, expectant mothers, pediatricians, and health care specialists, the activity was able to disseminate correct and up-to-date science-based information on proper maternal and natal care.

1st Joint Student-Faculty Conference on Statistical Sciences (27 September 2003, UPLB, Laguna)

NAST through the Outstanding Young Scientists, Inc., co-sponsored the 1st Joint Student-Faculty Conference on Statistical Sciences. Organized by the University of the Philippines Los Baños Institute of Statistics and the University of the Philippines Diliman School of Economics, the conference was held at the New CAS Building, College of Arts and Sciences, UP Los Baños.

SCIENCE LEGISLATIVE FORUM

The Science Legislative Forum (SLF) on Human Genome was held on 03 June 2003 at the Ramon V. Mitra Building, House of Representatives. Ten congressmen (namely: Perpetuo B. Ylagan, Constantino G. Jaraula, Josefina M. Josen, Simeon L. Kintanar, Jesli A. Lapus, Benasing Macarambon Jr., Arthur Y. Pingoy Jr., Vicky Hernandez-Reyes, Ruben Torres, and Manuel Zamora) and their staff attended the activity.



Aimed at informing the legislators science-based information on the human genome and to formulate a resolution concerning human genome, the SLF was able to finalize the resolution presented during the RTD on 03 March 2003.

D.L. UMALI MEMORIAL LECTURE

The 9th D.L. Umali Lecture Series, which was held at the Umali Auditorium, SEARCA, Los Baños, Laguna, had for its theme *Biodiversity and Sustainable Agriculture*. Welcome Remarks were delivered by Dr. Diokno Suprpto (SEARCA, Acting Director) and Mrs. Nelia T. Gonzalez (President, D.L. Umali Foundation).

The speakers were Dr. Perry S. Ong, convenor, Biodiversity Program of CIDS and Associate Professor, Institute of Biology, UP Diliman (2002 NAST OYS Awardee) who discussed "*The Philippine Biodiversity Crisis*"; Dr. Edwino S. Fernando, Professor, Department of Forest Biological Sciences, CFNR, UPLB who focused on "*Discovering and Understanding Biodiversity: The Palms of the Philippines*"; Dr. Liwayway M. Engle, geneticist and Head Genetic Resources and Seed Unit, AVRDC who presented a paper entitled "*Indigenous Vegetables -Conserving a Heritage to Benefit the Present and the Future*", and Dr. Tom Mew, program Leader and Head, Entomology and Plant Pathology Division, IRRI, who discussed "*Using Genetic Diversity to Achieve Sustainable Rice Disease Management*". Dr. Luis Rey I. Velasco stood as the Master of Ceremonies.

The activity was attended by more than a hundred participants which included National Scientists Dolores A. Ramirez and Benito S. Vergara, Academicians Romulo G. Davide, Quintin L. Kintanar, Faustino T. Orillo, Salcedo L. Eduardo, Rafael D. Guerrero III, Evelyn Mae T. Mendoza, Asuncion K. Raymundo, and students and faculty of the University of the Philippines Los Baños. Acd. Emil Q. Javier was in charge of the preparation of the 2003 memorial lecture.



ADVISORY ON BILLS ON POLICIES RELATED TO S&T

The Academy provided technical inputs and comments to the following:

1. ***House Bill No. 5636 - National Food Authority Reorganization Act of 2002***
2. ***Bilateral Science and Technology Agreement Between the United States and the Philippines***
3. ***Human Resources Operational Programs for 2003-2005 (S&T HRD Plans)***

SCIENTIFIC LINKAGES FUNCTION

Since 1978, NAST has forged international and national scientific linkages with other science, engineering, and technology academies and similar organizations. The Academy's international and national linkages are aimed at (a) promoting collaborative efforts among Filipino scientists, and between Filipino and foreign scientists; (b) promoting and encouraging scientific cooperation through the Scientists Exchange Visit Program under the memorandum of agreement between NAST and a foreign science academy; (c) endorsing participation in international conferences, meeting, fora, seminars, workshops, and similar scientific activities ; and (d) publishing and exchanging scientific literatures.

MAINTENANCE AND EXPANSION OF LINKAGES

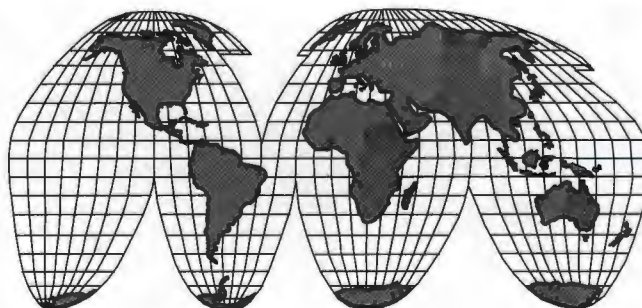
The Academy has formed long-term and extensive cooperative relationships in science and technology with academies and societies in more than 11 countries and 8 international network organizations. It has signed more that 20 cooperative agreements both at the local and international levels. Through these linkages, collaborative activities such as roundtable discussions, seminars and conferences on pressing S&T issues have been possible.

NORTH AMERICA

American Association for the
Advancement of Science
Philippine-American Academy
of Science and Engineering
US National Academies of
Sciences

EUROPE AND CENTRAL ASIA

German Research Society
The Royal Society of London
The Royal Swedish Academy
of Sciences
Turkish Academy of Science



ASIA

Academy of Sciences Malaysia
Malaysian Scientific Association
Chinese Academy of Sciences
Indian National Science Academy
Korean Academy of
Science and Technology

NEW LINKS FORGED

The Academy accepted the proposal of the Korean Academy of Science and Technology (KAST) for the two academies to sign a Memorandum of Understanding (MOU) for scientific collaboration.

On September 24, 2003, NAST President Acd. Perla D. Santos Ocampo, upon approval by the NAST Executive Council, signed the MOU. KAST President, Prof. In K. Han signed the MOU for KAST

INTERNATIONAL MEETINGS ATTENDED

Steering Committee Meeting of the Inter Academy Medical Panel.

Venue: Cuernavaca, Mexico

Date: 18- 22 June 2003

Sponsor: IAMP

Acd. Perla D. Santos Ocampo attended the Steering Committee Meeting of IAMP where plans for the 2nd Global Meeting were discussed.

She also participated in the Disease Control Priorities in Developing Countries Workshop.



ASEAN CASE Annual Meeting and the ASEAN La Main a la Pate (LAMAP) Workshop 2003

Venue: Kuala Lumpur, Malaysia

Date: 15-17 September 2003

Sponsors: ASEAN CASE, Academy of Sciences Malaysia, French Academy of Sciences



Acd. Evelyn Mae T. Mendoza and NAST Exec. Director Luningning E. Samarita attended the Annual CASE Meeting and the workshop on La Main ala Pate (LAMAP). Based on the workshop, they recommended that the Academy consider the LAMAP method of science education for the young for the project that NAST is developing.

Acd. Mendoza and Director Samarita also had the opportunity to discuss their recommendations and the LAMAP project with the delegates from the Department of Education.

4th General Assembly Meeting of AASA and International Symposium on Food Resources and Security

Venue: Tehran, Iran

Date: 22-25 September 2003

Sponsor: AASA

Acd. Rafael D. Guerrero III represented NAST in the 4th Association of Academies of Sciences in Asia (AASA) General Assembly. He also presented a paper entitled "Sustainable Aquaculture as a Food Resource and Security in Asia during the International symposium.



IAP General Assembly 2003

Venue: Mexico City, Mexico

Date: 1-4 December 2003

Sponsor: IAP

Academician Rafael D. Guerrero III represented the Academy in the Inter Academy Panel's General Assembly Meeting. Aside from participating in the business meeting, Acd. Guerrero presented a proposal during the IAP Forum on water resources entitled "Water Resources Management for Sustainable Development of Developing Countries."

In keeping with this year's agenda, the Academy also prepared and submitted six (6) NAST positions supporting the IAP Statements on: (1) Human Genome; (2) Mother and Child Care; (3) Science and Media; (4) Science Capacity Building; (5) Science Education; and (6) Access to Science Information.

JOINT COLLABORATIONS

Anti-Inflammatory Agents from Marine Organisms Project

Through the efforts of Academician Conrado S. Dayrit, Dr. Gisela P. Concepcion of the UP Marine Science Institute was able to get funding from the COSTED for the project "Anti-Inflammatory Agents from Marine Organisms." The grant was in the amount of US\$10,000. The Academy, through the NAST-Philippine Science Heritage Center Foundation, Inc., facilitated the release and transfer of funds.

Mindanao Science Education Project (MinSEP)

Dr. Bruce Alberts, US NAS President, identified science education as one of the possible collaborative projects between NAS and NAST. Thus, the Academy's Science Education Panel composed of Academicians William G. Padolina, Ledivina V. Cariño, Perla D. Santos Ocampo, Evelyn Mae T. Mendoza, National Scientist Gelia T. Castillo and SEI-DOST Director Ester B. Ogena is working closely with the US Embassy Manila and Dr. Marie Ricciardone to develop a proposal on enhancing the science education in the Philippines specifically in Mindanao.





22nd Annual PAASE Meeting

Venue: Manila Hotel, Manila

Date: 11-12 July 2003

NAST assisted in the coordination of the 22nd Annual Meeting of the US-based Philippine American Academy of Science and Engineering (PAASE). Delegates from the United States and the Philippines attended the activity. A simple dinner was hosted by NAST President, Acd. Perla D. Santos Ocampo at their Greenhills residence.

Future collaborations between the two academies were discussed by their respective Executive Councils.

Biodiversity Research and Its Contribution to Sustainable Development

Venue: Hotel Rembrandt, Quezon City

Date: 19 September 2003

On behalf of Acd. Santos Ocampo, Acd. Guerrero presented a paper entitled “NAST Efforts on Biodiversity Policies and Sustainable Development” during this conference.

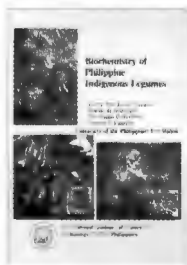
Special Forum for the Scientist: Implications of Genomics for the Developing Countries

Venue: NIH Conference Room, UP Manila

Date: 29 November 2003

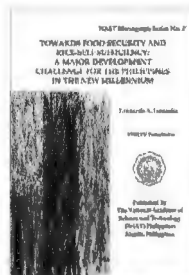
The Academy together with UP Manila and in cooperation with the Philippine Science Centrum co-sponsored the special lecture of Prof. Lap Chee Tsui, Vice Chancellor of the University of Hongkong and the President of Human Genome Organization. He discussed the advances in human genomics and how it affects the lives of the developing countries.

NEW PUBLICATIONS RELEASED



“Biochemistry of Philippine Indigenous Legumes”

Evelyn Mae T. Mendoza,
Felicito M. Rodriguez,
Ma. Jamela R. Revilla
and Antonio C. Laurena



“Monograph No. 3. Towards Food Security and Rice-Self Sufficiency: A Major Development Challenge for the Philippines in the New Millennium”

by Leonardo A. Gonzales

THE PHILIPPINE SCIENCE HERITAGE CENTER

Philippine Science Heritage Center (PSHC) or Salinlahi is a project of the National Academy of Science and Technology which aims to highlight the important achievements and contributions of Filipino scientists to science and technology. Through the various displays, visitors at PSHC especially the young students, will be proud of our own science heritage.

HIGHLIGHTS

- Completion of new exhibits on the Center for Tuberculosis in Children in the Philippines
- Completion of the NAST Institutional Video. The video was produced by the Science and Technology Information Institute.
- The Araos family lent six wooden crocodiles for display at the Center
- The PSHC Implementing Rules and Regulations were published in the Manila Standard and Manila Times on 02 February 2003.
- The PSHC Tax exemption was approved by the Bureau of Internal Revenue last 22 May 2003.



MIS AND PLANNING

- Completed data structured cabling at the NAST office and establishment of local area network
- Development of temporary 25th Annual Scientific Meeting website
- Participation in Nationwide Planning
 - Philippine Research, Education and Government Information Network (PREGINET) 1st National Partners' Meeting on 27-28 January 2003 at the Phivolcs Auditorium, UP Diliman, Quezon City.
 - DOST Planning Conference on 6-7 February 2003 at DAP, Tagaytay City
- NAST Executive Director's Involvement
 - S&T Human Resources Development Plan Inter-Agency Committee on Philippine Plan of Action for Older Persons

ACADEMICIANS

In addition to their activities in the Academy, members pursue their professions and interests in characteristic vigor and excellence. Their work takes them to many parts of the country and beyond its shores, to promote and contribute to science and technology, and to their applications to uplift the socio-economic conditions of their countrymen.

The Academy's 53 members are actively involved in the following areas:

- Research and Development (R&D)
- R&D Management
- Education
- Policymaking and Regulation
- Entrepreneurship and Industry
- Extension, Advocacy and Community Service

AGRICULTURAL SCIENCES DIVISION

Acad. Leopoldo S. Castillo
 Acad. Romulo G. Davide
 Acad. Rafael D. Guerrero III
 Acad. Ricardo M. Lantican
 Acad. Faustino T. Orillo
 NS Dolores A. Ramirez
 Acad. Teodulo M. Topacio Jr. (Chair)
 NS Benito S. Vergara
 Acad. Ruben L. Villareal

BIOLOGICAL SCIENCES DIVISION

NS Clare R. Baltazar
 Acad. Filomena F. Campos
 Acad. Magdalena C. Cantoria
 Acad. Veronica F. Chan
 Acad. Salcedo L. Eduardo
 Acad. Edgardo D. Gomez
 Acad. Emil Q. Javier (Chair)
 Acad. Asuncion K. Raymundo
 Acad. Joventino D. Soriano
 NS Jose R. Velasco

CHEMICAL, MATHEMATICAL AND PHYSICAL SCIENCES DIVISION

Acad. Lourdes J. Cruz
 NS Bienvenido O. Juliano
 Acad. Jose O. Juliano
 NS Clara Y. Lim-Sylianco
 Acad. Evelyn Mae T. Mendoza (Chair)
 CM. Amador C. Muriel
 Acad. Apolinario D. Nazarea
 Acad. Bienvenido F. Nebres, SJ
 CM. Eduardo A. Padlan
 Acad. William G. Padolina

ENGINEERING SCIENCES AND TECHNOLOGY DIVISION

CM. Jose B. Cruz
 Acad. Ceferino L. Follosco (Chair)
 Acad. Angel L. Lazaro III
 Acad. William T. Torres
 Acad. Filemon A. Uriarte, Jr.
 Acad. Reynaldo B. Veal

HEALTH SCIENCES DIVISION

Acad. Ramon F. Abarquez, Jr.
 Acad. Solita F. Camara-Besa
 NS Paulo C. Campos
 Acad. Conrado S. Dayrit
 NS Fe Del Mundo
 Acad. Ernesto O. Domingo
 Acad. Edito G. Garcia
 Acad. Carmen LI. Intengan
 Acad. Quintin L. Kintanar
 Acad. Perla D. Santos Ocampo

SOCIAL SCIENCES DIVISION

Acad. Ledivina V. Cariño
 NS Gelia T. Castillo (Chair)
 Acad. Mercedes B. Concepcion
 Acad. Onofre D. Corpuz
 Acad. Raul V. Fabella
 Acad. Andrew B. Gonzalez, FSC
 NS Alfredo V. Lagmay

RESEARCH AND DEVELOPMENT

Agricultural Sciences Division

Ecology, biology and culture of earthworms
Mt. Pinatubo eruption: a case study in the application of disaster veterinary medicine and veterinary public health
Bioactive compounds in earthworms with pharmacological properties
Rust fungi of the Philippines

Biological Sciences Division

Antimicrobial properties of bacteria from extreme environment
Philophthalmid and prosthoganimid flukes of Philippine birds
Coral reef habitat and productivity enhancement
Economic value of coral reef biodiversity: Southeast Asia
Conservation status of the biodiversity of Philippine pteridophytes
Standardization and preparation of pharmacopeial monographs of herbal drugs from priority Philippine medicinal plants



Acad. Evelyn Mae Tecson-Mendoza and co-workers inspect transgenic papayas for their project aimed at developing new papayas with delayed ripening trait



Acad. Edgardo Gomez meeting with colleagues on the rehabilitation of Con Dao National Park in Vietnam (top) and at work in the deep (lower).

Chemical, Mathematical and Physical Sciences Division

Pharmacologically important conotoxins and neuropeptides from marine snails
Anti-tuberculosis compounds from marine organisms
Control of ripening in papaya and mango by genetic engineering
Physicochemical and molecular studies of storage proteins in coconut
Molecular strategies to improve the nutritional and functional properties of mungbean

Engineering Sciences and Technology Division

Wave energy generation using relative motion between two floating bodies of different spring-mass characteristics
Solid waste management principles and practices

Health Sciences Division

A study on putting up a 200-ward bed, University Medical Center, Dasmariñas, Cavite
Effects of environment: lead exposure in the neurodevelopmental status of Filipino children
Women in health sciences
Microcirculation: target therapy in cardiovascular disease: a clinician's perspective
MVD relevance in the hypertension syndrome
Applying chronic heart failure trial evidences regarding ACEI use in Case-to-case basis
Family affair strategy in the control of hypertension and co-morbidities

Social Sciences Division

Regulatory governance in the Philippines
Citizen participation in Asia
NGO governance in Asia
Three studies on Philippine English across generations: towards integration and some implications
Mission statement and philosophies of education in a Philippine setting
Population: How and why it matters
Rice in our life

R & D MANAGEMENT



As Chair of the Technical Advisory Committee/Interim Science Council of the Consultative Group of International Agricultural Research (CGIAR), Acad. Emil Q. Javier steers the CGIAR global enterprise toward commodities, crop traits and problems which are important to the poor in developing countries. His committee helps ensure that the quality of science in CGIAR institutes is advanced and at the cutting edge and is relevant to the needs and conditions of developing countries.

As Deputy Director-General for Partnerships of the International Rice Research Institute, Acad. William G. Padolina confers with country officials and visits sites; photo shows Acad. Padolina with Lao PDR Minister of Agriculture and Forestry Dr. Siene Saphangthong (in white cap) in the experiment station of the National Agricultural Research Center in Vientiane, Lao PDR.



Acad. Rafael D. Guerrero III, as executive director of PCAMRD, leads this DOST agency in the formulation of strategies, policies, plans, programs and projects for aquatic resources research and development. The photo shows Acad. Guerrero together with the baranggay officials of Brgy. Tادلak, Los Baños, as he turned over the earthworms for the vermicomposting project

EDUCATION

Various Academicians hold high positions in Philippine universities and colleges and are engaged in the teaching and mentoring of future scientists and leaders:

Administrators and Professors

Acad. Bienvenido F. Nebres, S.J.
President, Ateneo de Manila University

Acad. Reynaldo B. Veal,
President, Mapua Institute of Technology

Acad. Raul V. Fabella
Dean, School of Economics
University of the Philippines Diliman (UPD)

Acad. Salcedo L. Eduardo
Dean, College of Veterinary Medicine
UP Los Baños Laguna (UPLB)

Acad. Andrew Gonzales, FSC
Vice-President for Academics and Research
De La Salle University

Acad. Conrado S. Dayrit
President, Our Lady of Guadalupe Colleges
(Nursing Education)

NS Paulo C. Campos
Controller, Emilio Aguinaldo College

Acad. Edgardo D. Gomez
Professor, UP Marine Science Institute

Many of our Academicians and Corresponding Members (CM) are active in teaching undergraduate and graduate courses, training and supervising thesis students and in the improvement of curricular programs in various universities.



CM Ed Padlan teaches graduate level course in protein structure and engineering at UP Los Baños and UP Diliman.



Acad. Reynaldo B. Veal, as President of Mapua Institute of Technology, looks into all facets of administering this leading technology learning institution in the country.



Acad. Fr. Bienvenido F. Nebres, S.J., is President of the Ateneo de Manila University, spearheads various activities with faculty, staff and students---planning academic programs, helping build houses, raising social consciousness.

Acad. Asuncion K. Raymundo
Professor and Director, UPLB

Acad. Ledivia V. Cariño
University Professor, UPD;
Visiting Professor, Cranfield School of Management
(UK)

NS Bienvenido O. Juliano
Professorial Lecturer, UPLB

Acad. Veronica F. Chan
Professorial Lecturer, University of Santo Tomas
(UST)
Chair, Microbiology, EAC College of Medicine
Chair, Microbiology, College of Medicine,
San Beda College.

CM Eduardo A. Padlan
Adjunct Professor, UPD, UPLB
Visiting Professor, UST

Acad. Lourdes J. Cruz
Professor, UPD

Acad. Apolinario D. Nazarea
Professor, UPD

Acad. Evelyn Mae Tecson Mendoza
Professor, UPLB

POLICYMAKING AND REGULATION

Various Academicians are members or chairs of important technical committees in the government and in the international scene which conduct science-based studies and make policy recommendations in the fields of economics, governance, agriculture, environment, population, education, science and technology, and others. Some of them are also involved in the regulatory agencies of the country such as the different boards of the Professional Regulatory Commission and the National Committee on Biosafety of the Philippines.

- NS Gelia T. Castillo, member, International Scientific Advisory Council, Eco-regional Fund for Methodological Initiatives; member, Board of Trustees, Center for Agriculture and Rural Development
- Acad. Mercedes B. Conception, Chairperson, Inter-Agency Technical committee on Population and Housing Statistics
- Acad. Ledivina V. Cariño, Team Leader, Regulatory Governance in the Philippines
- Acad. Emil Q. Javier, Chair, Technical Advisory Committee, CGIAR
- Acad. Andrew Gonzales, member, Council of Advisers, International Organization of Folk Art Philippines
- Acad. Rafael D. Guerrero III, member, Technical panel for Agricultural Education, (CHED)
- Acad. Salcedo L. Eduardo, Member, National Advisory Committee for the control of Animal Disease and Emergency
- Acad. Ruben L. Villareal, Chair, DOST Scientific and Technical Panel
- Acad. Conrado S. Dayrit, member, Steering Committee, Philippine Pharmacopeia BFAD-DOH project
- Acad. Reynaldo B. Vea, Member, IT and e-Commerce Council, Republic of the Philippines
- Acad. William T. Torres, Member, IT and e-Commerce Council, Republic of the Philippines



National Scientist Gelia T. Castillo continues to serve as chair or member of national and international advisory committees, development missions, evaluation teams and boards of trustees of various institutions, sharing her expertise and vast experience in the social sciences, her insights and kernels of wisdom.



Acad. Teodulo M. Topacio Jr. chairs the Professional Regulatory Commission's Board of Veterinary Medicine and leads in the national anti-rabies immunization campaign.

- Acad. Teodulo M. Topacio Jr., Chair, Board of Veterinary Medicine, Professional Regulatory Commission (PRC)
- Acad. Angel L. Lazaro III, Chair, Board of Civil Engineering, PRC
- NS Dolores A. Ramirez, Vice-chairperson, National Committee on Biosafety of the Philippines (NCBP)
- Acad. Ricardo M. Lantican, Chair, Scientific and Technical Review Panel of the NCBP; member National R & D Team for Vegetables, Legumes and Root Crops, PCARRD.
- Acad. Prescillano M. Zamora, Scientific Adviser, national Biodiversity Conservation Priority Setting Workshops; member, PAWB-DENR Philippine Plant Conservation Committee

ENTREPRENEURSHIP AND INDUSTRY



As a managing partner, Acad. Angel L. Lazaro III handles various design and supervision projects, from highway and bridges to airports and harbors, from waterworks and sewerage systems to mechanical and electrical systems, and from site development planning to computer software development. In photo is Acad. Lazaro together with a Japanese visitor.

After several retirements, Acad. Jose O. Juliano is as busy as ever. He is President of Calamba Medical Center, member of several Boards such as Mabuhay Vinyl Corporation, Zuellig Foundation, Interphil Lab, Luzon Development Bank, Calamba Eye Center, St. John Colleges and others. At 72, he formed South Luzon Hospital and Medical Center, Inc. and is building a PhP400 million 150-bed tertiary state-of-the-art hospital at Greenfield City, Sta Rosa, Laguna.



Acad. Ceferino L. Follosco is chairman of the Board of the Alpha Machinery and Engineering Corporation and the Follosco Manufacturing and Industrial Corporation. He continues to tirelessly work towards greater productivity in the industry sector. During the past years, Acad. Follosco has expounded the concepts and principles of industry clustering as collaborative model of governance for global competitiveness through lectures and workshops all over the country. He has assisted various agencies of the DOST and DTI in the different regions.

National Scientist Paulo C. Campos actively oversees the management and planning of Medical Center Manila which is one of the leading health care centers in Metro Manila and its educational partner, the Emilio Aguinaldo College. Moreover, he actively engages in social work, business and education in his beloved hometown, now a city, Dasmariñas, in Cavite.



Acad. William T. Torres, President of Mozcom Philippines, is considered as one of the pioneers and visionaries of Philippine Internet. Mozcom is the first Internet Service Provider (ISP) to offer different levels of connectivity to corporate and individual users.

Extension, Advocacy and Community Service



Acad. Lourdes J. Cruz is involved in a community service project in Morong Bataan training residents in simple food processing technologies and bee raising. Moreover, Acad. Cruz has also involved this community in a research that will utilize the biodiversity in the area; photo shows a consultation with residents on the project 'Biodiversity and Drug Development in the Philippines.' This collaborative project involves researchers from UP Manila college of Medicine, UP Diliman Marine Science Institute and Michigan State University.



Acad. Romulo G. Davide tirelessly continues his highly successful Farmer-Scientist project in his home province Cebu.

Acad. Ramon F. Abarquez, Jr. is in demand as resource speaker for hypertension management and cardiovascular diseases. In 2003, he went around the country discussing these topics.



ACCOMPLISHMENTS OF ACADEMICIANS AND NATIONAL SCIENTISTS

Significant Positions Held

SOLITA F. CAMARA-BESA

- Member, Ethics Review Board, Research Implementation and Development Office (RIDO), UP College of Medicine and Philippine General Hospital
- Member, 25th ASM Resolutions Committee, NAST

MAGDALENA C. CANTORIA

- Member, Steering Committee, Philippine Pharmacopeia Project, supported by the Department of Health - Bureau of Food and Drugs (DOH-BFAD) and the Japan International Cooperation Agency (JICA), 1998 to date
- Chair, Technical Working Group II on Herbal Drugs, and Member, Technical Working Group III on General Considerations, Philippine Pharmacopeia Project, supported by DOH-BFAD and JICA, 1998 to date
- Re-elected Member, Board of Trustees, NRCP Research Foundation, Inc. 26 May 2003
- Member, Board of Judges, Best Poster Award in Biological Sciences, 25th Annual Scientific Meeting sponsored by NAST, held 9-10 July 2003 at the Manila Hotel, Manila
- Re-elected Chair, Section on Pharmacopeia, Division IV Pharmaceutical Sciences, National Research Council of the Philippines (NRCP), 05 August 2003
- Chair, Publications Committee NRCP

LEDIVINA V. CARIÑO

Philippines

- Secretary, Executive Council, National Academy of Science and Technology, 2002 to date
- Chair for Public Administration and Political Science, Division of Social Sciences, National Research Council for the Philippines. 2003 to date.
- Member, UP Press Editorial Board, 2002 to date.
- Chair, Sub-committee for Public Administration, Evaluation of Graduate Education in the Philippines, sponsored by the Fund for Assistance to Private Education and the Commission on Higher Education, May 2003 to date
- Project Director, Philippine Non-Profit Sector Project, 1998 to date.
- Team Leader, Regulatory Governance in the Philippines, Consortium of the Centre for Regulation and Competition, Institute for Development Policy and Executive Development, NCPAG-UP. 2000 to date.
- Member, Board of Trustees, Philippine Institute for Development Studies, 1998 to date
- Member, National Program Steering Committee, Philippines-Canada Local Government Support Program, 2001 to date

International

- Local Associate, Comparative Non-Profit Sector Project, John Hopkins University, 1998 to date.
- Visiting Professor, Cranfield School of Management (United Kingdom), 2000 to date
- Member, Board of Editors, *Public Organization Review: A Global Journal*. 2001 to date.

GELIA T. CASTILLO

- Member, International Scientific Advisory Council, Eco-regional Fund for Methodological Initiatives, The Hague, 1996-2003
- Member, Biotechnology advisory Council, St. Louis, Missouri, 2000- ____
- Member, Board of Trustees, Philippine Rice Research Institute, 1987 - ____
- Member, Board of Trustees, Center for Agriculture and Rural Development (CARD), 1999 - ____
- Member, Board of Trustees, Ramon Magsaysay award Foundation, 2000-2003
- Member, E+C248 External Advisory Committee, Biotechnology Information Center SEARCA, 2001- ____
- Member, Board of Trustees, Angelo King Institute for Economics and Business Studies, De La Salle University, 1999- ____
- Senior Research Adviser, UPWARD (Users' Perspectives with Agricultural Research and Development). UPWARD is a network of Asian Agricultural Research and Development Workers dedicated to the involvement of different stakeholders and users of agricultural technology in rootcrop research and development. It is sponsored by the International Potato Center with funding from the Netherlands government.
- Chair, Social Science Division, NAST and Member, NAST Executive Council 2001-2005
- Member, General Education Council, University of the Philippines, 2001- ____
- Consultant, International Rice Research Institute (IRRI), 1994- ____
- Member, external Review Panel for the Gender and Diversity Program of the CGIAR, July-October 2003
- Member, Human Development Network Executive Committee, 2000- ____

VERONICA F. CHAN

- Chair, Workshop I on Surveillance and Data Collection on Measles and Poliomyelitis" 25 November 2003, Philippine Foundation for Vaccination at the Manila Pavilion Hotel
- Professional Lecturer, UST Graduate School
- Chair, Microbiology/Parasitology, EAC College of Medicine
- Chair, Microbiology, College of Medicine, San Beda College
- Professor Emeritus, UPM College of Public Health
- Lecturer, Institute of Child and Family Health, July 2003

MERCEDES B. CONCEPCION

- Member, Hugh Greenwood Environmental Science Award Board of Judges
- Member, 24th ASM Resolutions Committee
- Member, Posters for NAST Annual Scientific Meeting 2002
- Member, Board of Judges, Poster Awards Committee, ASM 2002
- Convenor, Roundtable Discussion on Population: How and Why It Matters?
- Chairperson, Inter-Agency Technical Committee on Population and Housing Statistics
- Member, Technical Committee on Urban-Rural Definition
- Member, Board of Trustees, Foundation for Adolescent Development
- Member, Advisory Committee on the 2003 National demographic Survey
- Member 24th ASM Invitations and Registrations Committee
- Member, Board of Trustees, Philippine Center for Population and Development

JOSE B. CRUZ

- Associate Editor, Journal of Optimization Theory and Applications
- Chair-Elect, Engineering Section, American Association for the Advancement of Science
- Chair, NAE Peer Committee on Electronics Engineering
- Member, NAE Committee on Membership

CONRADO S. DAYRIT

- President, NAST Foundation, Inc.
- President, Daniel dela Paz Foundation
- Member, Steering Committee Philippine Pharmacopeia, BFAD-DOH Project
- President, Our Lady of Guadalupe Colleges (Nursing, Education)

SALCEDO L. EDUARDO

- Dean, College of Veterinary Medicine, UPLB
- Curator, UPLB Museum of Natural History
- Member, UPLB Revitalized General Education (RGEP) Council
- Member, National Agricultural & Fishery Council (NAFC) – Committee on Poultry, Livestock, and feeds
- Member, National Advisory Committee for the Control of Animal Disease and Emergency (NAC-ADCE)
- Member, Philippine Eagle Working Group, PAWB-DENR
- Member, National Poultry Research & Development Team, PCARRD
- Member, Board Of Judges, Gawad Saka Award for Livestock, Department of Agriculture
- Member, Veterinary Drugs and Products Advisory Committee, DA
- Member, Industry Desk of the Bureau of Animal Industry
- Member, Board of Judges in the Selection of the best Meat Establishments in the Philippines for 2003, National Meat Inspection Commission
- Chair, Board of Judges for the Best Posters Award, 25th ASM , NAST, July 9-10, Manila Hote
- Member, Poster Committee, 25th ASM , NAST, July 9-10, Manila Hotel

EDGARDO D. GOMEZ

- Executive Committee Member, International Union Biological Sciences
- Member, International Organizing Committee of the 10th International Coral Reef Symposium (Okinawa, Japan, 2004)

ANDREW B. GONZALEZ, FSC

- Member, Social Sciences Division, National Academy of Science and Technology
- Vice-President for Academics and Research De La Salle University
- President, Manila Bulletin Publishing Corporation
- Member, Board of Trustees, Bayanihan Folk Arts Foundation
- Member, Board of Trustees, Lyceum of the Philippines
- Member, Board of Trustees, Centro Escolar University
- Member, Board of Trustees, De La Salle University-Araneta
- Member, Board of Trustees, DLSU-Dasmariñas Cultural Heritage Foundation
- Member, Council Advisers, International Organization of Folk Art Philippines Foundation, Inc.
- Member, Board of Trustees, Linguistic Society of the Philippines
- Chair, Flora Pascasio MD Research Foundation, Inc.
- Chair, Anthony C. Aguirre Memorial Foundation, Inc.
- Member, Board of Trustees, Summer Institute of Linguistics

RAFAEL D. GUERRERO III

- Executive Director, Philippine Council for Aquatic and Marine Research and Development-Department of Science and Technology
- DOST Focal Person for ASEAN-COST Sub- Committee on Marine Science and Technology
- Focal Person on Water Resources, National Academy of Science and Technology
- President, Philippine Fisheries Association, Inc.
- Chairman, Project Steering Committee, Visayan Sea Coastal Resources and Fisheries Management Project

- Member, Technical Panel for Agricultural Education, CHED
- Member, Committee on Fisheries and Aquaculture, National Food and Agriculture Council
- Member, Board of Directors, National Fisheries Research and Development Institute
- Member, Presidential Commission on Sulu-Sulawesi Conservation

EMIL Q. JAVIER

- Chair, Interim Science Council (ISC), Consultative Group on International Agricultural Research Council (CGIAR), January 2, 2000 - September 28, 2003
- Vice President, National Academy of Science and Technology
- Board Member, International Service for the Acquisition of Agri-Biotechnology Applications (ISAAA), Southeast Asia Center, Philippines
- Member, Board of Directors, Centro Escolar University (CEU)
- Chair, Asia Rice Foundation, Inc. (ARF)
- President, Historical Society of the Philippine Independent Church
- Head Advisor, Biotech Coalition of the Philippines
- Member, Executive Advisory Committee, Biotechnology Information Center (BIC), SEARCA
- Member, Board of Directors, Nutrition Center of the Philippines
- Vice President, D.L. Umali Foundation, Inc. (DLUF)
- Chair, Board of Judges, 2003 The Outstanding Filipino (TOFIL) Award

BIENVENIDO O. JULIANO

- Member, Scientific Career Council Special Technical Committee on Agricultural Sciences, 2003-2005
- Chair, Election Committee, National Academy of Science and Technology
- Member, Poster Paper Committee, ASM, NAST
- Senior Consultant, Philippine Rice Research Institute, Los Baños
- Professorial Lecturer V, Institute of Chemistry, UPLB
- Member, Editorial Board, *Journal of Cereal Science*, 1987-
- Member, Editorial Board, *Food Reviews International*, 1985 -
- Member, Editorial Advisory Board, Encyclopedia of Grain Science, C. Wrigley, H. Corke, C. Walker, ed Elsevier Sci. Oxford, UK, 2001-2003

QUINTIN L. KINTANAR

- Chairman, NAST ASM Resolutions Committee
- Member, NAST ASM Poster Committee
- Member, Board of Judges, NAST-DuPont Talent Search for Young Scientist
- Member, Board of Judges, NAST-Hugh Greenwood Environmental Science Award
- Member, NAST Core Group on Human Genome
- Short-term Consultant, Vietnam-Sweden Health Cooperation
- Member, Executive Board, Philippine Pharma

RICARDO M. LANTICAN

- Professor Emeritus, UPLB and serves as advisor to graduate students
- Chair, Scientific and Technical Review Panel of the NCBP
- Reviewer of R&D programs of Bureau of Agricultural Research (BAR) of DA
- Member, National R&D Team for Vegetables, Legumes and Rootcrops, PCARRD
- Chairman, Scientific Career Council of Special Technical Committee on Agricultural Sciences, from 1991 to April 2003
- Member, Award Committee, TWAS Prize for Young Scientist, ASM, NAST
- Member, Board of Judges, NAST-DuPont Talent Search for Young Scientist, ASM
- Member, Board of Judges, Best Poster Awards, ASM, NAST

ANGEL L. LAZARO III

- Member, 25th ASM Resolutions Committee, NAST
- Member, Engineering Sciences and Technology Division, NAST
- Member, Pro Scientia Transformatrix Award Committee, NAST
- Member, Poster Committee, 25th ASM, NAST
- Member, Finance and Steering Committee, 25th ASM
- NAST Focal Person, Roundtable Discussion on Global Competitiveness on Engineering and Technology Services
- Co-Chairman, Technical Panel for Engineering on Higher Education (CHED), January 2000 to present
- Chairman, Board of Civil Engineering, Professional Regulatory Commission (PRC)
- Member, Technical Adviser, Professional Regulatory Board (PRB) January 2002 to present

EVELYN MAE TECSON MENDOZA

- Chair, Committee for Institutional Capacity Enhancement for Regulation and Research, DA-Biotech Program (DA Special Order No. 388 s.2001, August 14, 2001)
- Member, Executive Council, NAST

FAUSTINO T. ORILLO

- Professor Emeritus of Plant Pathology, UPLB College of Agriculture since 1987
- Academician, National Academy of Science and Technology since 1983
- Member, Board of Trustees, NAST Foundation
- Regular Member, National Research Council of the Philippines (NRCP), Division of Agriculture and Forestry
- Ex-Officio Member, Board of Directors, UPLB College of Agriculture Alumni Association, since 1986

EDUARDO A. PADLAN

- Adjunct Professor, Marine Science Institute, University of the Philippines, Diliman
- Adjunct Professor, Institute of Chemistry, University of the Philippines, Los Baños
- Visiting Professor, School of Graduate Studies, University of Sto. Tomas

ASUNCION K. RAYMUNDO

- Professor II - Institute of Biological Science, UPLB
- Director - Institute of Biological Sciences, UPLB
- Member, NAST Task Force on Hazardous Waste
- Member, Biotechnology Panel, PCASTRD- DOST
- Member, Biotechnology Panel, PCARRD-DOST
- Judge - Outstanding Microbiologist - Philippine Society of Microbiology (PSM)
- Judge - Eusebio Garcia Molecular Biology Award - NRCP
- Editor - Proceedings: Seminar Workshop on Bioremediation of Toxic and Hazardous Wastes NAST
- Evaluation panel for Basic Research, UPLB

PERLA D. SANTOS OCAMPO

- Honorary President, International Society of Tropical Pediatrics
- Honorary President, Association of Pediatric Societies of the Southeast Asian Region
- President, National Academy of Science and Technology
- Member, Association of Academies of Sciences in Asia (AASA)
- Council Member, Federation of Asian Scientific Academies and Societies (FASAS)
- Member, Philippine Association for the Advancement of Sciences (PHILAAS)
- Council Member, ASEAN Scientific Engineering and Technological Academies
- Steering Committee Member, InterAcademy Medical Panel (IAMP)
- Active Member, National Research Council of the Philippines (NRCP)
- Chairperson, Undergraduate Pediatric Curriculum, Philippine Pediatric Society
- Chairperson, Centennial Commission, Philippine Medical Association
- President, C.H.I.L.D. Foundation
- Honorary President, Philippine Economic and Cultural Endowment, Inc.
- Founding President, Philippine Society for Pediatric Gastroenterology, Nutrition and Hepatology
- President, Philippine Society for Developmental and Behavioral Pediatrics
- Emeritus Professor, University of the Philippines
- Honorary Fellow, American Academy of Pediatrics
- Honorary Member, Australian College of Pediatrics, Japan Pediatric Society and Pediatric Association of Nigeria
- Head, PGH Multidisciplinary Child and Adolescent Unit
- Honorary President and Chairman Emeritus, Philippine Association for the Gifted

TEODULO M. TOPACIO, JR.

- Chairman, Executive Board, Philippine Society for the Protection of Animals (PSPA)
- Chairman, Board of Veterinary Medicine Examiners, Professional Regulation Commission (PRC)
- Chairman, National Advisory Committee for Animal Disease Control and Emergency (NAC-ADCE), under the Office of Secretary Department of Agriculture
- Chairman, National Veterinary Drug Formulatory Committee, Department of Health
- Ad Interim Member of the NAST Executive Council representing the Agricultural Division. Attended the monthly meetings for 2003
- Professor Emeritus, College of Veterinary Medicine, UPLB
- President Emeritus, Philippine College of Veterinary Public Health, a specialty organization in the Philippine Veterinary Medical Association
- Member, NAST Documentation Committee
- Chairman, Plenary Session for Agriculture, NAST ASM 2003. Five papers were presented.
- President and Chairman of the Board, Dr. Teodulo M. Topacio, Jr. Foundation Inc. that promotes excellence in veterinary education, research and extension. Awarded a scholarship grant to a senior veterinary student for 2003-2004
- Donor, Dr. Teodulo M.C. Topacio Sr Cash Award and a Plaque for Excellence in Veterinary Microbiology
- Consultant and Project Development Officer for Good Governance, Department of Environment and Natural Resources
- Reactor: "Commonly Asked Questions About Rabies". Seminar sponsored by the Anti-Rabies Unit, UP PGH
- Director, Philippine Association of the Board Examiners (PABE), Professional Regulations Commission (PRC)
- Member, Philippine Foundation for Vaccination, Inc. 2003. Recommended by Acd. Perla D. Santos Ocampo, NAST President and approved by Dr. Lulu Bravo, Foundation President

FILEMON A. URIARTE, JR.

- Research Fellow, NAST

REYNALDO B. VEA

- Vice-Chairman for the Private Sector, Sectoral Committee on Infrastructure Development, Regional Development Council for Metro Manila, since May 2003
- Member, Technical Committee on Engineering and Technology, Science Career Council, DOST, since March 2003
- Member, I.T. and e-Commerce Council (ITECC), Republic of the Philippines, since June 2003
- Member, International Scientific Committee, East Asia Society for Transportation Science (EASTS), 5th International Conference, Fukuoka, Japan, October 2003
- President, Mapua Institute of Technology

JOSE R. VELASCO

- Professor Emeritus (reports every Friday for consultation, writing, odd jobs, etc.)

BENITO S. VERGARA

- Vice Chair, S&T Subcommittee on Museums, NCCA
- Member, Board of Asia Rice Foundation (ARF)
- Member, ARF Working Group
- Member/Section Leader - Millennium Assessment of Laguna Lake Basin
- Member, DA-BAR Ornamental Horticulture
- Member, PCARRD Ornamental Horticulture
- Member, IRRI Biosafety Committee
- Board Member, Los Baños Orchid Society
- Judge, Poster Exhibit, NAST 25th ASM
- Project Leader, PSHC
- Affiliate Faculty Member, IRRI

RUBEN L. VILLAREAL

- Chair, DOST Scientific and Technical Panel, 5-17 May 2003
- Member, Expert Evaluators' Panel in the European Commission, Brussels, 27-31 October 2003

PRESCILLANO M. ZAMORA

- Scientific Adviser, National Biodiversity Conservation Priority Setting Workshops
- Member, International Union for the Conservation Nature (IUCN) 2002-2003 (Philippine Plant Specialist Group)
- Member, Board of Editors, Asia Life Sciences, The Asian International Journal of Life Sciences
- Trustee, Foundation for Integrative and Development Studies (2001-2002)
- Reviewer, UP Third World Center Publication "Kasarinlan" (peer-reviewed) on its issue on "Environment" (2002)
- Reader, Thesis Committee of a MS Biology Student, UP Diliman QC

Publications/Papers Presented

RAMON F. ABARQUEZ, JR.

- Abarquez, Ramon Jr., Medical Malpractice Bill: Anti-people and prodeprivation. Health & Lifestyle, 2003, Dec - Jan: 16-17
- Abarquez, Ramon Jr. Winning the battle of the bulge. Health & Lifestyle 2003; 1:44-45
- Abarquez, Ramon Jr., Proactive Strategy to Reduce Hospitalization (part 1) Health & Lifestyle 2003; (1) :19
- Abarquez, RF Jr. preventing heart ailment right at your home. Philippine Daily Inquirer, February 1, 2003 p. B-10

- Abarquez, RF, Jr. Shifting Paradigms, Proactive Strategy to reduce hospitalization part II, Why does heart failure develop? *Health & Lifestyle*, 2003 1(3):18
- Abarquez, RF, Jr. Shifting Paradigms, Proactive Strategy to reduce hospitalization part III, Why does heart failure develop? *Health & Lifestyle*, 2003 1(4):18
- Abarquez, RF, Jr. Microcirculation, the Missing Link *Health & Lifestyle*, 2003 1(5):17
- Abarquez, RF, Jr. Heart Failure and Microcirculation - 1 *Health & Lifestyle*, 2003 1(6):29
- Abarquez, RF, Jr. Heart Failure and Microcirculation - 2, *Health & Lifestyle*, 2003 1(7):29
- Abarquez, RF, Jr. Furor regarding Ampalaya, *Health & Lifestyle*, 2003 1(8):29

MAGDALENA C. CANTORIA

- PHARMACOGNOSY IN ACTION AND IN PRACTICE. 2003. NRCP Research Foundation, Inc., Bicutan, Taguig, Metro Manila. *In press*

LEDIVINA V. CARIÑO

Publication:

- *Between the States and the Market: The Non-Profit Sector and Civil Society in the Philippines*, Quezon City: Center for Leadership, Citizenship and Democracy. National College of Public Administration and Governance, University of the Philippines. Editor and author/co-author of five chapters. Launched February 2003
- Chapter 1: "Between the State and the Market: Defining the Sector in the Philippines": 1-26.
- Chapter 2: "Social Origins of the Sector": 27-60 (with Ramon L. Fernan III)
- Chapter 3: "Size and Contours of the Sector": 61-96
- Chapter 8: "Contributions to Politics and Society": 231-270
- Chapter 9 - "Drawbacks and Challenges": 271-296

Accepted for Publication

- "The Philippines," in *Global Civil Society III*. Edited by Lester Salomon. With Rachel Racelis, Ramon E. Fernan III, S. Wojciech Sokolowski and Lester M. Salomon. Forthcoming
- "Regulatory Governance in the Philippines: A Profile." In *Regulatory Governance*. Edited by Martin Minogue. forthcoming
- "Ugnayan ng Pahinungod Manila -Memories of the Early Days," in Froilan P. Inocncion (ed.) *Isang Dekada ng Diwang Boluntarismo*. Manila: UP Manila Ugnayan ng Pahinungod. Forthcoming

Unpublished papers completed in 2003

- "Asia, " a comparative study of the impact of the nonprofit sector and civil societies of India, Pakistan, Thailand and the Philippines. Prepared for the John Hopkins Impact Book. April 2003.
- "Enabling Environment for Poverty Reduction," discussion paper on the Portfolio on Enabling Environment. Prepared for the 2003 UNDP-GOP Annual Review, May 23, 2003
- "Citizen Participation in Asia", paper submitted to the UNDP Regional Governance Programme. 01 September 2003
- "Decentralization in Southeast Asia," written for the *Encyclopedia for the Public Administration and Public Policy*. On line publication of Marcel Dekker. 15 October 2003
- "Law and Civil Society," paper presented to the International Conference of the International Society for Third Sector Research, Beijing, China. 24-26 October 2003

GELIA T. CASTILLO

Papers published and/or presented:

- Gelia T. Castillo, *The Eloquence of Seeds*, in *COGITO ERGOSUM and Other Musings on Science*, edited by Queena N. Lee-Chua, Ateneo de Manila University Press, 2002, pp.20-27
- Gelia T. Castillo, *Science Communication Whose Time Has Come: An Evaluation Report on the Global Knowledge Center on Crop Biotechnology*, ISAAA, January 2003
- Gelia T. Castillo, *Biotechnology: What it Means for You and Your Future*, (notes on the ISAAA-University of Illinois at Urbana - Champaign Survey of Opinions about Biotechnology in Food Production) March 2003

- Gelia T. Castillo, "Farmer Field Issues on Institutionalization, Scaling Up, Monitoring and evaluation and Policy Development" in Farmer Field Schools: From IPM to Platforms for Learning and Empowerment, Report from an International Learning Workshop, CIP-UPWARD 2003, pp.56-57
- Gelia T. Castillo, Working with Diversity to Enrich Future Harvests: A Review of the CGIAR Gender and Diversity Program, October 2003

LEOPOLDO S. CASTILLO

- One volume of the Annotated Bibliography on Philippine Biodiversity: Livestock and Poultry (Agrobiodiversity) 1949-1997 on "CARABAOS" is published with funding support from the Philippine Carabao Center

Volumes waiting for publication

Of the series on 'Annotated Bibliography on Philippine Biodiversity: Livestock and Poultry (Agrobiodiversity) 1947-1997 the following are for publication:

- Poultry with two parts:
 - Part I: Broilers/Growing Chicks/Older Birds
 - Part II: Layers, Ducks, Turkeys, Others
- Swine
- Beef Cattle
- Meat and Egg processing
- Conventional and Non-conventional Feed Resources and related topics in Animal Science

VERONICA F. CHAN

- Chan, V.F., "Update: Japanese Encephalitis in the Philippines" NAST Journal, 2003

MERCEDES B. CONCEPCION

- "Reflections on the Asia and Pacific Population Conferences" Asia-Pacific Population Journal, June 2003
- "A Long Way to Go" NEWSBREAK, 21 July 2003 issue Vol. 3 No.14,

JOSE B. CRUZ

- Shankar K. Subramanian, Jose B. Cruz, Phillip R. Chadler, and Meir Pachter, "Predicting Pop Up Threats from an Adaptive Markov Model," Chapter 19 in *Recent Developments in Cooperative Control and Optimization*, Editors: Sergiy Butenko, Robert Murphey, and Panos Pardalos, Kluwer Academic Publishers, Norwell Massachusetts, pp. 357-366, 2003
- D. Garagic and J.B. Cruz, Jr., "An Approach to Fuzzy Noncooperative Nash Games," *Journal of Optimization Theory and Applications*, Vol. 118, No. 3, pp. 475-491, September 2003
- Yong Liu, Marwan A. Simaan, and Jose B. Cruz, Jr., "An Application of Dynamic Nash Task Assignment Strategies to Multi-Team Military Air Operations," *Automatica*, Vol. 39, pp. 1469-1478, August 2003

Conference Presentations

- Yong Liu, Marwan A. Simaan, Jose B. Cruz, Jr., "Game Theoretic Approach to Cooperative Teaming and Tasking in the Presence of an Adversary," *Proc. American Control Conference*, Denver, CO, June 2003, CD ROM
- Marwan A. Simaan and Jose B. Cruz, Jr., "Ordinal Decision Making in Competitive Business Models," *Hawaii International Conference on Business* June 18-21, 2003, CD ROM
- Yong Liu, David Galati, Marwan A. Simaan, and Jose B. Cruz, Jr., "Control of Cooperative Systems," *Proc. International Conference on Computer, Communication and Control Technologies CCCT '03* Vol. III, pp. 333-338, July 2003, Orlando, Florida
- Genshe Chen and Jose B. Cruz, Jr. "Genetic Algorithm for Task Allocation in UAV Cooperative Control," *AIAA Guidance, Navigation, and Control Conference*, August 11-14 2003, Austin, Texas, CD ROM

- Jose B. Cruz, Jr., Genshe Chen, Denis Garagic, Xiaohuan Tan, Dongxu Li, Dan Shen, Mo Wei, Xu Wang, "Team Dynamics and Tactics for Mission Planning," *Proc. 42nd IEEE Conference on Decision and Control*, pp. 3579-3584, Maui, Hawaii, CD ROM, December 2003
- Shankar K. Subramanian* and Jose B. Cruz, Jr., "Adaptive Models of Pop Up Threats for Multi-Agent Persistent Area Denial," *Proc. 42nd IEEE Conference on Decision and Control*, pp. 3579-3584, Maui, Hawaii, CD ROM, December 2003

Book Reviews

- Book review of "Advances in Aircraft Flight Control," by Mark B. Tischler, Taylor and Francis, London, U.K., 1996, Reviewed by Genshe Chen and Jose B. Cruz, Jr., *Automatica*, Vol. 39, No. 11, November 2003, pp. 2016-2019.

CONRADO S. DAYRIT

- Commentary: In Correct Amounts, All Foods and Drugs are Safe. Business World, Feb 10, 2003
- Coconut Oil: Atherogenic or Not (Homobono B. Calleja Professorial Lecture) Philippine Journal of Cardiology (in press April –June 2003)
- The Historic UP Medicine Class of 1943 and UP Manila
- "History" Philippine Pharmacopeia (for publication)

SALCEDO L. EDUARDO

- **EDUARDO, S.L.** 2003. Three trematodes, *Brachylecithum (Brachylecithoides) microfiliforme* n. sp., *Athesmia heterolecithodes* (Braun, 1899) (Dicrocoeliidae) and *Posthovitellum sabahense* Fischthal & Kuntz, 1973 (Eumegacetidae) from Philippine wild birds. *Philippine Journal of Veterinary Medicine*, 40(1): 19-26
- **EDUARDO, S.L.** 2003. Scanning electron microscope observation on two species of the genus *Carmyerius* Stiles & Goldberger, 1910 (Paramphistomoidea: Gastrothylacidae). *Philippine Journal of Veterinary Medicine*, 40(1): 27-31
- VENTURINA, V.M.; ANCHETA, P.B.; DOBSON, R.J.; **EDUARDO, S.L.**; & GRAY, G.D. 2003. Use of a larval development assay to estimate anthelmintic efficacy in goats in smallholder farming systems. *Philippine Agricultural Scientist*, 86 (2): 134-139.
- PADILLA, M.A.; GA, S.A.; DIVINA, B.P.; LUCAS, S.F.; & **EDUARDO, S.L.** 2003. Prevalence of *Isospora suis* concidiosis and factors associated with infection in pig herds in Batangas Province, Philippines. *Philippine Agricultural Scientist*, 86 (2): 140-145.
- **EDUARDO, S.L.** & **GADDI, C.B.** 2003. New species and New records and trematode parasites of Philippine wild birds. *Philippine Journal of Veterinary Medicine*, 40(2): in press

EDGARDO D. GOMEZ

- Licuanan, S.M. and Gomez, E., "Giant Clam Conservation in Southeast Asia." 2002; in *Tropical Coasts* 9(2): 24-31

ANDREW B. GONZALEZ, FSC

- Our graduate schools. *Philippine Journal of Education*. 80.8.362
- Life-long education. *Philippine Journal of Education* 80.9.410
- Can the system be reformed? *Philippine Journal of Education* 80.10.458
- Public Administrative Changes in Education for a Globally Competitive Work Force. *Educators speak*. Manila Bulletin 353.19.11, F29
- An Asian Liberal Education for the Third Millennium. *Ideya* 4.1.12-19
- Vision of the La Sallian Cathetical Program in the Philippines five years hence. *BAMCREF Report* Vol. 1.4.4-5
- The Basic Education Curriculum. *Philippine Journal of Education* 81.1.26
- Mastery of learning for the Basic Education Curriculum. 81.2.74
- Why Language, Mathematics, Science and Social Studies. *Philippine Journal of Education* 81.3.122
- An unfinished symphony - - 934 days at DECS. Manila (Privately printed for the author)
- Towards an adult faith – Religious themes in contemporary language. Manila. De La Salle University Press.
- My vision of the Lasallian Catechetical in the Philippines five years hence. *BAMCREF Report*. 1.5.3,5

- GONZALEZ , ANDREW, FSC and LOLITA V. ARCINAS, project directors and editors. Teacher's guide: Expanding our horizons year 1. Crossing Boundaries in English Communicative Approach to Language through Content Learning High School English Language and Literature Series. Manila: De La Salle University Press
- GONZALEZ , ANDREW, FSC and LOLITA V. ARCINAS, project directors and editors. Teacher's guide: Seeking Unity in Diversity year 2. Crossing Boundaries in English Communicative Approach to Language through Content Learning High School English Language and Literature Series. Manila: De La Salle University Press
- GONZALEZ , ANDREW, FSC and LOLITA V. ARCINAS, project directors and editors. Teacher's guide: Harmonizing Poetry and Technology year 3. Crossing Boundaries in English Communicative Approach to Language through Content Learning High School English Language and Literature Series. Manila: De La Salle University Press
- GONZALEZ , ANDREW, FSC and LOLITA V. ARCINAS, project directors and editors. Teacher's guide: Listening to Many Voices year 4. Crossing Boundaries in English Communicative Approach to Language through Content Learning High School English Language and Literature Series. Manila: De La Salle University Press

RAFAEL D. GUERRERO III

- Guerrero, R.D. III, K. Hotta and L.A. Guerrero. 2003. Use of "Ocean Green" for the Culture of *Kappaphycus alvarezii* in the Philippines. *ASIA LIFE SCIENCES* 12 (1): 39-43
- Guerrero, R.D. III (ed.) Philippine Fisheries Review and Digest. Philippine Fisheries Association, Inc. Los Baños, Laguna. 117 p.

EMIL Q. JAVIER

- Sustaining Excellence: Paper read during the Phi Kappa Phi UP Chapter Diamond Jubilee. Induction of 2003 Members, March 12, 2003
- The *Pahinugod* Ideal: A Moral Compass for the *Iskolar ng Bayan*, Message to prospective Gurong Pahinugod Volunteers. UP Los Baños. March 17, 2003.
- The Power of Hope. Message to the Graduates of Center Escolar University, PICC, Manila, March 20, 2003.

BIENVENIDO O. JULIANO

- Juliano, B.O. 2003. An adventure in rice chemistry and technology – the Japan connection. *Journal of Applied Glycoscience* 50 suppl:73-76
- Juliano, B.O. 2003. 1025 Rice. Pages 4995-5001 in *Encyclopedia of Food Sciences and Nutrition*. B. Caballero, L Trugo, P Finglas, ed. Elsevier LTD., Oxford, UK

Papers accepted for publication:

- ET Champagne, D Wood, BO Juliano, DB Bechtel. 2004. Grain Composition (The rice grains and its gross composition), In *Rice Chemistry and Technology*, 3rd ed. ET Champagne, ed. American Association of Cereal Chemists, ST. Paul, MN, USA.
- JS Godber, BO Juliano. 2004. Rice Lipids. In *Rice Chemistry and Technology*, 3rd ed. ET Champagne, ed. American Association of Cereal Chemists, St. Paul, MN, USA.
- Juliano, BO. 2004. Rice Overview (Ms209). In *Encyclopedia of Grain Science*. C. Wrigley, H Corke, C Walker, ed. Elsevier Sci., Oxford, UK (in press)
- Juliano, BO. 2004. *Rice Chemistry and Quality*. Philippine Rice Research Institute, Muñoz, Nueva Ecija, Philippines (in press), ca. 480 pp.

Book Chapter in preparation:

- RR del Rosario, OM del Rosario, LT Roferos, BO Juliano. 2004. Rice quality and rice-based products. In *Rice Compendium. Rice R&D in the Philippines in the last 100 years*. Philippine Rice Research Institute, Muñoz, Nueva Ecija, Philippines

QUINTIN L. KINTANAR

- Vietnam National Medicines Policy Implementation Manual
- Vietnam Strategic Plan for Regional/International Harmonization and Integration of Pharmaceutical Sector

EVELYN MAE TECSON MENDOZA

In Refereed Scientific Journals

- Mendoza, EMT and N. San Juan-Bachiller. 1999. Preliminary biochemical study of bud rot disease of coconut caused by *Phytophthora palmivora*. The Philippine J. Coconut Studies 24: 21- 32. (Released in 2002)
- Mendoza EMT. 2002. Molecular strategies to increase and stabilize the sucrose content of sugarcane (*Saccharum officinarum* L.) . Philipp. Agr. Sci. 85: 307-318.
- Tecson-Mendoza EM. 2002. Safety assessment of food products derived through modern biotechnology. Philipp. J. Nutrition 49: 1-16.
- Revilleza MJR, De Lumen BO, Galvez, AG, Krenz, DC and Mendoza EMT. 2002. Ontogeny of methionine-rich proteins in the developing cotyledon of soybean (*Glycine max* (L.) Merr.). The Philippine Agricultural Scientist. 85(3): 266-272.
- Ramirez DA and EM Tecson-Mendoza. 2003. Ensuring the safety of genetically modified food crops. FFTC Extension Bulletin 528: 8-12.

Popular Articles

- Tecson-Mendoza EM. 2003. Modern biotechnology: overview and issues. The Philippine experience. 4 pp.
- Tecson-Mendoza EM. 2003. Modern biotechnology-derived foods and feeds: Assuring their safety. 6 pp.
- Mendoza EM Tecson. 2003. Assuring the Food and Feed Safety of Genetically Modified Crops. Institute of Plant Breeding, CA, UPLB, 4 p.(revised)

Books/Monographs

- Tecson-Mendoza EM, FM Rodriguez FM, JM Revilleza and AC Laurena. 2003. Biochemistry of Philippine Indigenous Legumes. National Academy of Science and Technology Philippines, Manila, 106 pp.

Papers Presented in Scientific Meetings as Posters/ Published Abstracts

- Angeles, J.G.C., M.E. Cueno, M.G.Q. Diaz, H.L. Gaza, A.C. Laurena, R.P. Laude, and E.M.T. Mendoza. 2003. Establishing a New Codon Preference Table for the Coconut (*Cocos nucifera* L.). Trans. Nat. Acad. Sci. & Tech. Philippines, 25(1):59-60
- Laurena, A.C., L.R. Laureles, L.F. Pateña, R.C. Barba and E.M.T. Mendoza. 2003. Coconut (*Cocos nucifera* L.) Expresses *Gus* in Selected Plant Parts. Trans. Nat. Acad. Sci. & Tech. Philippines, 25(1):61.

EDUARDO L. PADLAN

- G.P. Concepcion and E.A. Padlan (2003). "Are human getting `mad-cow disease" from eating beef, or something else?" Medical Hypotheses 6, 699-701.
- N.R. Gonzalez, E.A. Padlan, R. de Pascalis, P. Schuck, J. Schlom, and S.V.S. Kashmiri (2003). "Mimimizing immunogenicity of the SDR-grafted humanized antibody CC49 by genetic manipulation of the framework residues" Mol. Immunol. 40. 337-349.

ASUNCION K. RAYMUNDO

- Raymundo. A.K., T.O. Zulaybar, R.D. Ayo, Y.A. Ilagan, and E.S. Luis. 2003. Simplified bioprocess of producing simple form of tylosin as feed additive. Philippine Agric. Scientist 86.244-253.
- So, J. , A.K. Raymundo, M.S. I.P. Torres, R.S. So, T.O. Zulaybar. 2003. Production and utilization of locally-purified tylosin from high-yielding *Streptomyces fradiae* No.93 as an oral therapeutic agent in poultry. Proceeding of the 2003 Annual Convention of the Philippine Society for Microbiology, Baguio City.
- Guerra, M.A.R.V., R.G. Monsalud and A.K. Raymundo. Numerical taxonomic reassessment of local antibiotic and enzyme-producing *Bacillus* isolates. Proceeding of the 2003 Annual Convention of the Philippine Society for Microbiology, Baguio City.

- Papa, I.A., T.O. Zulaybar, M.A. Tavanlar, and A.K. Raymundo. 2003. Fermentation medium for pleuromutilin production by *Clitopilus passerkerianus* 76. Proceeding of the 2003 Annual Convention of the Philippine Society for Microbiology, Baguio City.

PERLA D. SANTOS OCAMPO

- Tropical Pediatrics: 2002-2015
- History of the Philippine Medicine
- Philippine Medical Association's Coffee Table Book (One hundred years of PMA in nation building: Service to the People for a Healthy Philippines)
- Centennial History of the Philippine Medical Association
- Pediatric Education: The Continuing Search for Relevance and Excellence.

TEODULO M. TOPACIO, JR.

- The Mt. Pinatubo Eruption: A case study in the application of disaster veterinary medicine (Disastrology) and Veterinary Public Health. Presented at the Asian Veterinary Congress Response and Dynamism. Read at the 25th Anniversary of the Katalyst Klan, an academic service organization of the De La Salle Araneta University.
- A concept proposal for the establishment of the UPLB College of Human and Comparative Medicine. Submitted to Dr. Emil Q. Javier, University Professor and members of the Agricultural Sciences Division, NAST
- The Past is the Future of the Philippine Society of Animal Science. Read at the 37th Anniversary of the Society.
- Department of Environment and Natural Resources (DENR) Good Governance Development Program
- Comments and recommendations on the Philippine National Standard for Agriculture and Fishery Products. Submitted to the Head of the Technical Staff of the Bureau of Agriculture and Fishery Standards (BAFFPS)

REYNALDO B. VEA

- *Getting from Point A to B. Philippine Science and Technology 20 Years Hence.* Newsbreak Magazine, March 2003

JOSE R. VELASCO

- Some Aspects of Science Policy (submitted to Policy Notes)
- Plants and Environment (submitted to Asia Life Sciences)
- Minutes of Sessions (in Spanish) of the Imus Municipal Council, 1903 to 1921. Compiled and translated to English (privately printed)

PRESCILLANO M. ZAMORA

- Zamora, P.M., G.C. Rivero and L. Co. 2001. Annotated Bibliography on Philippine Biodiversity L Filicopsida (Ferns). Quezon City: UP Center for Integrative and Development Studies.
- Tolentino, V.S. and P.M. Zamora. 2001. The microspongium and the male gametophyte. Development in *Pitosporium resiniferum* Hermis (Pittosporaceae). Philippine Journal of Science 130(1):1-4

Completed Researches

SALCEDO L. EDUARDO

- Scanning Electron Microscope Observations on Adult *Eurytrema Pancreaticum* (Janson, 1889) Looss, 1907 (Trematoda: Dicrocoeliidae), A Parasite of Ruminants in the Philippines
- Revision of the trematode family Gastrothylacidae (Trematoda: Paramphistomoidea)
- Scanning electron microscopy of the terminal genitalium of some species of the genus *Carmyerius* (Trematoda: Gastrothylacidae)
- A new species of parasitic fluke (Trematoda: Syncoeliidae) from the whale shark, *Rhincodon typus* Smith, 1829 (Elasmobranchii: Rhicodontidae) in the Philippines

EDGARDO D. GOMEZ

- Program Coordinator, Pacific Seaboard R&D Program: DOST (Funding Agency), October 1999-September 2003
- Program Coordinator, Marine Biodiversity Enhancement at the Hundred Islands National Park, PTA (funding agency), 2001-2003

ANDREW B. GONZALEZ, FSC

- Philippine Education and the American Legacy Fifty Five Years After
- Education and Social Change in Southeast Asia: From Colonialism to ASEAN Country Case Study (Philippines)
- Language Planning and Intellectualization
- The Social Dimensions of Philippine English
- Philippines Past, Present, and Future Dimensions of Higher Education

RAFAEL D. GUERRERO III

- A study on ecology of earthworms in San Pablo City and Los Baños, Laguna
- Biology and culture of the "Giant Earthworm" (*Pheretima* sp.) in the Ifugao Rice Terraces
- Effect of different substrates on the growth and reproduction of the African Nightcrawler (*Eudrilus eugeniae*)

QUINTIN L. KINTANAR

- Filipino scientists perspectives in Human Genome Research

EVELYN MAE T. MENDOZA

- As Project Leader. Development of Gene Constructs and Appropriate Transformation Systems for the Fatty Acid Modification of Coconut Oil. With Dr. AC Laurena, Ms. RN Garcia and Ms. LF Pateña as study leaders. June 1998-2004. Funded by IPB/PCARRD-DOST.
- As Study Leader. Molecular Control of Ripening in Sugarcane. 1997-2003.

ASUNCION K. RAYMUNDO

- Detection of *Ralstonia solanacaerum* from banana fruits and stalks by polymerase chain reaction

PERLA D. SANTOS OCAMPO

- Medical Education in the Philippines: Challenges, Opportunities
- Total Quality Management in Pediatric Health Care
- The PPS Annual Conventions: Forty Years and Onwards
- Reconfiguring Pediatric Education in the Post Genomic Era
- Beyond Screening: Challenges in Measuring Outcomes
- Toward a Gender Sensitive and Ethical Health Care in the Philippines
- Nurturing a Developing Brain
- A Conspectus of the Philippine Micronutrient Situation and Plan of Action for Nutrition

BENITO S. VERGARA

- I Love Tilapia (Children's Book)
- Waling-waling – The Search for the Most Beautiful Orchid in the World (Children's Book)
- Carageenan – and Treasures from the Sea
- Salinlahi Guidebook
- Ornamental Plants of the Philippines – Cut Foliage
(all co-published by NAST)

RUBEN L. VILLAREAL

Journals/Books/Proceedings (all published in 1st quarter of 2003)

- Co-editor with DA Ramirez and VA Fernandez. 2002 Journal of Southeast Asian Education
- Villareal, R.L., Aman Wisakartakusumah, EG a Cedicol, and Syed Jalaluddin Bin Syed Salim. 2002. The SEAMEO SEARCA University Consortium: Southeast Asia Response to a Global Concern in Education. Journal of Southeast Asian Education 1(1):45-61.
- Villareal, R.L., BC Cedicol, N. Jayamankala, and Bris Cach Tuyen. 2002. Agricultural Educations response to the Changinge Demand for Quality Trained Human Resources: The Southeast Asia Experience. Journal of Southeast Asian Education 1(1): 101-125

PRESCILLANO M. ZAMORA

- An assessment of the Conservation Status of the Biodiversity of Philippine Pteridophytes, Part I (2001-2002) (Completed 15 September 2002)
- The Mangrove Ecological Diversity Type of Malampaya Sound, Taytay, Northern Palawan (Completed 1 October 2002)
- Status and Trends of Biodiversity in Greater Palawan, Part 5. Conservation International (Completed March 2002)

On-going Researches

RAMON F. ABARQUEZ, JR.

- Microcirculation: Target Therapy in Cardiovascular Disease, A Clinician Perspective
- MVD Relevance in the Hypertension Syndrome
- Applying Chronic Heart Failure Trial Evidences Regarding ACEI use in Case-to-case Clinical Practice
- Family Affair Strategy in the Control of Hypertension and co-morbidities

PAULO C. CAMPOS

- Study on Putting Up a 200-Ward Bed University Medical Center in Dasmarinas, Cavite

MAGDALENA C. CANTORIA

- Standardization and preparation of pharmacopeial monographs of crude herbal drugs from priority Philippine medicinal plants.
- Contributions to the General Chapters. Philippine Pharmacopeia 1. Part II, Herbal Drugs (a) Introduction and Preface (b) General Notices and Requirements © Commentary (d) General Information

LEDIVINA V. CARIÑO

- Philippine Non-Profit Sector Project, sponsored by the Ugnayan ng Pahinungod, funded by Ford Foundation, 1998-2002. Project leader and Philippine Associate
- Regulatory Governance in the Philippines, 2nd year, Center on Regulation and Competition, IDPM, University of Manchester. Team Leader

GELIA T. CASTILLO

- Rice in Our Life - A research project for PhilRice - International Year of the Rice 2004

MERCEDES B. CONCEPCION

- Population: How and Why It Matters

CONRADO S. DAYRIT

- Anti-infective Uses of Coconut Oil and Monolaurin (a) vs. HIV-AIDS; (b) vs. SARS; (c) vs. Helicobacter pylori infection and peptic ulcer; (d) vs. herpes and other viruses; (e) vs. multi-drug resistant TB

SALCEDO L. EDUARDO

- Philophthalmid and Prosthogonimid flukes of Philippine birds

EDGARDO D. GOMEZ

- Project Coordinator, Coral Reef Habitat and Productivity Enhancement. PEW Charitable Trust (Funding Agency), May 2001 - May 2004
- Project Director, The Economic Value of Coral Reef Biodiversity: Examples from Southeast Asia, TOTAL Foundation (Funding Agency), 2002-2004

ANDREW B. GONZALEZ, FSC

- Three Studies on Philippine English Across Generations: Towards an Integration and Some Implications
- Mission Statements and Philosophies of Education in a Philippine Setting
- Rizal the Scientist
- God-Talk in Philippine Setting
- Trinity

RAFAEL D. GUERRERO III

- Preparation of a Handbook for Vermicompost-Vermimeal Production and Utilization (Research Fellowship/NAST)
- Search for bioactive compounds in earthworms with pharmacological properties

FAUSTINO T. ORILLO

- Rust Fungi of the Philippines (Uredinales)

ASUNCION K. RAYMUNDO

- Antimicrobial properties of bacteria from extreme environment

PERLA D. SANTOS OCAMPO

- Effects of Environmental Lead Exposure in the Neurodevelopmental Status of Filipino Children
- Women in Health Sciences

FILEMON A. URIARTE, JR.

- Preparation of a guidebook on "Solid Waste Management Principles and Practices"

JOSE R. VELASCO

- Study of the citrus-greening disease
- Electro-magnetic communication among plants

BENITO S. VERGARA

- Ornamental Plants of the Philippines - To Plant

PRESCILLANO M. ZAMORA

- Awaiting Decision of NAST Council: An Assessment of the Conservation Status of the Biodiversity of Philippine Pteridophytes, Part 2 (2002-2003)

S&T Policy and Program Implementation Including Conferences, Seminars and Others

RAMON F. ABARQUEZ JR.

Acad. Abarquez Jr. participated in about 50 local and international conferences/seminars as speaker, moderator or reactor in 2003. The following is a partial listing:

- Speaker, The Diabetic Heart, Vastarel Cardiology Weekend Course, Canyon Woods Resort, Tagaytay City, January 25, 2003
- Speaker, Beyond BP lowering- the role of ACEI in preventing cardiovascular complications. Annual Scientific Symposium, Philippine Heart Center and Philippine Heart Center Medical Alumni Society, MAB Hall PHC, Quezon City, February 5, 2003
- Speaker, The Cardiovascular-Renal Continuum, Annual Scientific Meeting the Philippine Rehabilitation Society, Galleria Suite Conference Room, Pasig City, February 4, 2003
- Plenary Speaker, Micro-vascular Disease Role in the Hypertension Syndrome, Philippine Society of Hypertension and Philippine Lipid Society 8th Joint Annual Convention, EDSA Shangrila Hotel, February 10, 2003
- Luncheon Satellite Symposium Speaker, Very-low-dose Combination, Is it the key to successful control of blood pressure? Philippine Society of Hypertension and Philippine Lipid Society 8th Joint Annual Convention, Isla I Ballroom, EDSA Shangrila Hotel, February 11, 2003
- Dinner Symposium Speaker, The hardworking Hypertensive therapy patients hardly notice, Philippine Society of Hypertension and Philippine Lipid Society 8th Joint Annual Convention, Isla II, Ballroom, EDSA Shangrila Hotel, February 11, 2003
- Luncheon Symposium Speaker, A new Paradigm in controlling the course of cardiovascular disease., Philippine Academy of Family Physicians, PICC Convention Center, Manila, February 27, 2003.
- Speaker, Why Another Calcium Blocker as Therapeutic Option for Cardiovascular Disease. Pasay Parañaque Medical Society, Philippine Medical Association Monthly Scientific Meeting, Club Intramuros, Manila, March 27, 2003
- Speaker, Chamber Enlargement, ECG course, Section of Cardiology, Department of Medicine, UP PGH Midtown Ramada Hotel, April 24, 2003
- Speaker, Luncheon Symposium, Willow tree wonder drug, ECG course, Section of Cardiology, Department of Medicine, UP PGH Midtown Ramada Hotel, April 24, 2003
- Speaker, Cardiovascular Continium Novartis Speakers' Bureau, Boracay Regency Resort, Boracay Aklan, May 23-25, 2003
- Speaker, Luncheon Symposium, Management Synergy is Definitive, Authoritative in Cardiovascular Therapy, 34th Annual Scientific Meeting, Philippine Heart Association, may 29, 2003
- Speaker, Aspirin, Willow Tree Wonder Drug, Breakfast Scientific Meeting, Adult Cardiology Division, Philippine Heart Center, July 3, 2003
- Speaker, Management Synergy is Definitive, Davao Medical Society, Apo View Hotel, Davao City, July 5, 2003
- Speaker, proactive Management of Congestive Heart Failure, 2nd Postgraduate Courser in Division of Adult Cardiology, Philippine Heart Center, Quezon City, July 18, 2003
- Participant, Leadership Seminar, PMA-Unilab, Hyatt Hotel, Manila, July 19, 2003
- Speaker, Why another ACEI?, Norm in Cardiovascular Therapy, Westmont Launch Symposium, EDSA Shangri-la Hotel, Pasig City, July 25, 2003

- Speaker, Antiplatelet therapy, the need for careful consideration of the evidence from randomized trials. Parañaque Medical Society, Richmond Hotel, Pasig City, August 8, 2003
- Speaker, LIFE, Staged Risk Profile for temporal focused therapy in the Hypertension Syndrome, Department of Medicine, UP-PGH, Taft Avenue, Manila, August 27, 2003
- Speaker, Crestor a super statin, Department of Medicine, The Medical City Hospital, Richmond Hotel, Pasig City. August 27, 2003
- Speaker, Anti-platelet Therapy: The need for careful consideration of the evidence from randomized trials, Bacolod Medical Society; L'Fisher Hotel, Bacolod City, August 30, 2003
- Speaker, Genetic factors and microvascular network in hypertension, Life Style Modification Hypertension Specialist Course, Philippine Society of Hypertension, Philippine Heart Center Medical Arts Building, September 6, 2003
- Speaker, Life, Losartan versus Atenolol in Hypertensive with LVH, Cardiovascular Section, Department of Medicine, UP-PGH Hospital, October 9, 2003
- Speaker, Anti-platelets, Need for Evidence based studies. Iloilo Medical Society, Zarabia Hotel, Iloilo City, October 10, 2003
- Speaker, Digitalis should be first line therapy in chronic heart failure, 3rd Annual Meeting, Heart Failure Society of the Philippines. Holiday Inn Galleria Manila, Mandaluyong City, October 17, 2003

International Meeting Activities

- Speaker, Why Another ACEI?, Speaker Bureau Therapharma, New World Hotel, Ho Chi Minh, Vietnam, January 18, 2003
- Participant, European Society of Cardiology Annual Meeting, Florence, Italy, March 19-22, 2003
- Participant, European Society of Hypertension, Milan, Italy, June 14-17, 2003
- International Speaker's Bureau Meeting, Valiant Symposium, America Heart Association 2003 Annual Scientific Meeting, Orlando, Florida, USA, November 9-12, 2003
- South Asia Representative, World Hypertension League Long range Strategic meeting, World Health Organization Building, Geneva, Switzerland, November 20-21, 2003
- Lecturer, Why Another Calcium Blocker, Vietnamese Medical Society, New World Hotel, Saigon, Vietnam, November 28, 2003
- Speaker, Vietnam Heart Association, Why Another Calcium Blocker, New World Hotel, Ho Chi Minh, Vietnam, November 29, 2003
- Speaker, Philippine Delegation, Why Another Calcium Blocker, New World Hotel, Ho Chi Minh, Vietnam, November 29, 2003

SOLITA F. CAMARA-BESA

- 25th Annual Scientific Meeting of NAST. July 09-10, 2003, Manila Hotel
- NAST Roundtable Discussion on Population, April 3, 2003 at the Traders Hotel
- Forum on ethics in Scientific Research, July 22, 2003, UP College of Medicine

MAGDALENA C. CANTORIA

- Resource Speaker, 3rd Symposium on the Philippine Pharmacopeia "Meeting the Challenges of Developing the Philippine Pharmacopeia", sponsored by the Department of Health-Bureau of Foods and Grugs (DOH-BFAD) and the Japan International Cooperation Agency (JICA), held on 07 March 2003 at the Dusit Hotel Nikko, Makati City
- "Development of Standard Monographs of Crude Plant Drugs" paper presented during the 3rd Symposium on the Philippine Pharmacopeia "Meeting the Challenges of Developing the Philippine Pharmacopeia", sponsored by the Department of Health-Bureau of Foods and Drugs (DOH-BFAD) and the Japan International Cooperation Agency (JICA), held on 07 March 2003 at the Dusit Hotel Nikko, Makati City
- Participant, 70th Annual Meeting of the National Research Council of the Philippines, "Advancing the Frontiers of Knowledge for National development and Welfare". Held 15 March 2003 at the Manila Hotel, Manila
- Participant, 4th Asia Pacific Policy Forum on Biodiversity Conservation, sponsored by the Australian Embassy Manila and the NAST, held 07 May 2003, at the Ballroom, Bayview Park Hotel, Manila
- Participant, 25th Annual Scientific Meeting, "Addressing the Demographic Crisis in the Philippines", sponsored by the NAST, Philippines, held 9-10 July 2003, at the Manila Hotel, Manila

- Participant, Symposium/Policy Forum on Biodiversity Research and Its Contribution to Sustainable Development. Sponsored by the Department of Science and Technology, in cooperation with the Biodiversity Research Programme and Policy Studies Project (BRP and PSP) of SEAMEO, Regional Center for Graduate Study and Research in Agriculture (SEAMEO-SEARCA), and Philippine Association of Career Scientists, held on 19 September 2003, at the Hotel Rembrandt, Quezon City

GELIA T. CASTILLO

- Field trip to Tarlac and Nueva Ecija to visit project to reduce water use in irrigated areas, IRRI and NIA, January 23-24, 2003
- Resource Person, Specialized Training Course on Rice-Based Training Systems for Agricultural Technologists of ARMM Region, PhilRice, Nueva Ecija, February 3, 2003
- Member, Task Force on Integrated Natural Resources Management, IRRI, February -March 2003. Participated in four meetings
- Participant, Ecoregional Fund Conference held in Potchefstroom, South Africa, February 17-21, 2003
- Participant, meeting of ISAAA (International Service for the Acquisition of Agri-Biotech Applications) to discuss the evaluation report of ISAAA, Bangkok, Thailand, March 26-28, 2003
- Moderator, Population and Development Roundtable Discussion, March 3, 2003
- Participant, Meeting of the Biotechnology Advisory Council, May 21-23, 2003, Washington, DC
- Resource Person, UPWARD Planning Meeting, Los Baños, Laguna, June 1-4, 2003
- Field Visit to Calamba Sampaguita growers, Urban-Periurban Agriculture
- Board meetings with PhilRice, CARD, Angelo King Institute of Business and Economic Studies, the Ramon Magsaysay Award Foundation, and the NAST Council are held every quarter or every month.
- Research Person, Study Tour and Workshop on "Strategies for Sustainable Development of Agricultural Production Systems in the Highlands of the Greater Mekong Sub-Region (GMS) countries, Kunming, Yunnan Province, China, September 12-16, 2003
- Participant, Rice Biofortification Challenge Program Meeting, IRRI, September 6-8, 2003
- Meeting of the Biotechnology Advisory Council, St. Louis Missouri, November 3-7, 2003

LEOPOLDO S. CASTILLO

- Participated in the Carabao Development Forum at the Philippine Carabao Center in Muñoz, Nueva Ecija and also the inauguration of its research and training building on December 12, 2002
- Participated in the Farmers' Forum and Inauguration of PCC at UPLB animal Facilities on 11 March 2003
- Participated in the Roundtable discussion on "The Human Genome: Promises and Problems" at the Diplomat Hall, Traders Hotel, Roxas Blvd., Pasay City on 13 March 2003
- Attended the Awarding Ceremonies of Hugh Greenwood Environmental Science Award, Mabuhay Palace, Manila Hotel on 26 April 2003.
- Participated in the 25th Annual Scientific Meeting "Addressing the Demographic Crisis in the Philippines, Manila Hotel, 09-10 July 2003.
- Through the year, attended the NAST miscellaneous social activities
- Participated in SEARCA Agriculture Development Seminar on "Averting the Water Crisis in Agriculture" by Dr. Wilfredo David at Drilon Hall, SEARCA, UPLB on 11 September 2003
- Attended the 16th Annual Convention of the Philippine Society of Animal Nutritionists with the theme "Feed Reference Standards: A key to Optimum Animal Productivity and Efficiency" at the Dusit Hotel Nikko, Ayala Center, Makati on 10 October 2003

VERONICA F. CHAN

- Speaker, 7th Foundation Day Toxelta Foundation School of Medicine, Las Piñas on "Viral Diseases of Global Importance: SARS, AIDS, Hepatitis B" 7 November 2003
- Speaker, 7th Civitas Asia National Student Conference, 13 November 2003, University of the Asia and the Pacific on "Human Health and Communicable Diseases", Pasig City

ROMULO G. DAVIDE

- 40th Scientific Convention of the Philippine Phytopathological Society Inc. May 7, 2003 in Cebu City

CONRADO S. DAYRIT

- Health and Medical Benefits of the Coconut" MAP-ABCD Foundation Symposium, AIM, Makati, Dec. 3, 2002 (Management Association of the Philippines)
- Aging Process at the Cellular Level 9Symposium on Ageing) Philippine College of Physicians' 50th Anniversary, May 7-9, 2003
- Coconut Oil: Atherogenic or Not, HB Calleja Professorial Lecture of the 34th Philippine Heart Association Convention, May 28-31, 2003
- Coconut Oil on Weight and Obesity, 9th Annual Convention of the Philippine Association for the Study of Overweight and Obesity, July 12, 2003
- Coconut Oil for Better Health, Philippine Coconut Authority Forum, August 27, 2003
- Coconut for Better Health (Symposium) Philippine Association for the Advancement of Science, September 19, 2003. Thomas Aquinas Research, UST

FE DEL MUNDO

- Health Situation of Children in the Philippine Rural Communities lecture with slides, NYC
- From "Tiangge" to Comprehensive Health Clinic in San Ildefonso Bulacan, Philippines
- Conference with the University Women of San Francisco, California, USA - Subject: TB in Children
- Lecture on TB in Children
- PMA Centennial Foundation
- The 11th Asian Congress of Pediatrics and the 1st Asian Congress on Pediatric Nursing, Bangkok, Thailand
- Special Symposium on Dengue and Dengue Hemorrhagic Fever, Bangkok, Thailand
- Conference of Doctors' of Medicine, Long Island New York on TB in Children, Philippines
- Reach-Out Care, New York City, lecture with slides to physicians on Community Health Sciences

SALCEDO L. EDUARDO

- Speaker, Symposium on Companion Animal Zoonoses, Philippine College of Veterinary Public Health & Philippine College of Canine Practitioners, January 20, 2003, Discovery Center, Ortigas Center, Pasig City
- Presented a paper, 70th Annual Convention of the Philippine Veterinary Medical Association. February 19-21, 2003, Bohol Tropics Hotel Resort, Tagbilaran, City
- 70th Annual Meeting of the National Research Council of the Philippines. Manila Hotel, Manila, March 15, 2003
- Speaker, CHED-TPAE Development of Curriculum (Dacum) Workshop to Identify the Competence Standard for the DVM Program. April 1, 2003Days Hotel, Tagaytay City
- Annual Convention of the Philippine Society for Parasitology/ Philippine Animal Health Center, August 23, 2003
- Plenary Speaker, Symposium on S & T for Health & Wealth, Philippine Association for the Advancement of Science (PhilAAS), September 19-20, 2003, Thomas Aquinas Research Complex, UST, Manila

EDGARDO D. GOMEZ**International:**

- Meeting of the Synthesis Panel of the GEF Targeted Research on Coral Reefs. 04-06 December 2003. Hawaii, USA
- PEW Fellows Program in Marine Conservation 2003 Annual Meeting. 15-21 October 2003. Blaine, Washington, USA
- International Conference of Experts on "Defying Ocean's end: An Agenda for Action." Conservation International and Moore Foundation. 30 May -03 June 2003. Los Cabos, Mexico
- Seminar on Recent Development in Coral Reef Science and Management at the WorldFish Center. 09-12 April 2003. Penang, Malaysia. Paper presentation: "Aquaculture and Restocking of Giant Clams."

- 20th Pacific Science Congress. 17-21 March 2003. Bangkok, Thailand. Paper presentation: "Coral Reef Rehabilitation/Enhancement."
- Meeting of TOTAL Foundation of France. 03-04 February 2003. Paris, France. Presentation of progress report on the project "Economic Value of Coral Reef Biodiversity."
- 2nd Meeting of the Reef Remediation Working Group on Targeted Research (GEF/World Bank/ICLARM). 11-15 February 2003. Singapore

National/Local:

- 70th Annual Meeting of the National Research Council of the Philippines. 15 March 2003. Manila Philippines
- 7th National Symposium on Marine Science, Philippine Association of Marine Science (PAMS), Cagayan de Oro. 22-24 October 2003.
- Paper presentation: "Marine Biodiversity Enhancement at the Hundred Islands National park: Coral Reef Component." Gomez, E.D., HT Yap, L. de la Cruz, MJ Palomar, M Sabater, and R. Dizon
- Oral presentation: "Different Approaches in Reef Rehabilitation." Gomez, ED, PC Cabaitan, and MZ Reyes
- Poster presentation: "Coral Reef Habitat and Productivity Enhancement Through Coral Transplantation and Giant Clam Restocking." Gomez, ED, MZ Reyes, and PC Cabaitan.
- Oral presentation: "Skipping Connectivities: The Flying Giant Clam." Licuanan, S., M. Suzanne, ED Gomez, and R. Estrellada.

ANDREW B. GONZALEZ, FSC

Acad. Gonzalez participated in about 40 local and international conferences/seminars as speaker, moderator or reactor in 2003. The following is a partial list:

- Paper Presenter, Paper: Some Ideas on the Nature/Purpose of Tertiary Education, its Demands, Challenges and Development, January 14, 2002
- Paper Presenter, Paper: Acquiring Cultural Competence, DLSU-D University Week Lecture, DLSU-D, Dasmariñas, Cavite, January 23, 2002
- Participant, 3rd Speaker's Bureau Meeting Pfizer, Shangrila Makati Hotel, February 2, 2003
- Speaker, Beyond BP lowering- the role of ACEI in preventing cardiovascular complications. Annual Scientific Symposium, Philippine Heart Center and Philippine Heart Center Medical Alumni Society, MAB Hall PHC, Quezon City, February 5, 2003
- Speaker, The Cardiovascular-Renal Continuum, Annual Scientific Meeting the Philippine Rehabilitation Society, Galleria Suite Conference Room, Pasig City, February 4, 2003
- Plenary Speaker, Micro-vascular Disease Role in the Hypertension Syndrome, Philippine Society of Hypertension and Philippine Lipid Society 8th Joint Annual Convention, EDSA Shangrila Hotel, February 10, 2003
- Luncheon Satellite Symposium Speaker, Very-low-dose Combination, Is it the key to successful control of blood pressure? Philippine Society of Hypertension and Philippine Lipid Society 8th Joint Annual Convention, Isla I Ballroom, EDSA Shangrila Hotel, February 11, 2003
- Dinner Symposium Speaker, The hardworking Hypertensive therapy patients hardly notice, Philippine Society of Hypertension and Philippine Lipid Society 8th Joint Annual Convention, Isla II, Ballroom, EDSA Shangrila Hotel, February 11, 2003
- Paper Presenter, Paper: Vision of the Lasallian Catechetical Program in the Philippines Five Years Hence, National Lasallian Catechetical Convention, Waldo Perfecto Seminar Room, DLSU, June 14-15, 2002
- Paper Presenter, Paper: Transformational Leadership in a Learning Community, DLSU-PSI Graduate School of Business Lecture, Caltex Asia, Ortigas Center, Mandaluyong City, July 23, 2002
- AIM State of Philippine Competitiveness 2002, SGV Hall, Asian Institute of Management, Makati City: **Welcome Remarks**, July 29, 2002
- Paper Presenter, Paper: English in the Philippines, US Peace Corps Philippines, Pre-Service Training, Lake View Health Resort Hotel, Los Baños, Laguna, August 6, 2002
- Paper Presenter, Paper: Defining and Attaining Quality in Basic Education, First Quarter Enrichment Session, San Benildo Integrated School, Antipolo, August 9, 2002
- Paper Presenter, Paper: Ang Wikang Filipino Tungo sa Globalisasyon, Computer Studies Assembly, Buwan ng Wika 2002, Intellect Seminar Room, DLSU, August 14, 2002

- Institute Cervantes Booklaunching of Shedding Light on the Chabacano Language, National Museum, August 15, 2002
- Paper Presentor, Paper: Administrators as Christians, Institutional Faculty Development Management Development Program, Ortigas Seminar Room, DLSU Library, August 17, 2002
- Philippine Association of Administrators of Student Affairs Back-to-Back Seminar Workshops, Development Academy of the Philippines, Tagaytay City, **Keynote address: The Responsible Student Leadership : The Need of the Times**, August 22, 2002
- Paper Presentor, Paper: The Presidential Commission on Educational Reform and Teacher Education, Philippine Normal University Foundation Day Convention, Philippine Normal University, Taft Avenue, Manila, September 3, 2002
- Interreligious and International Federation for World Peace Convocation 2002 on Governance and the Role of Religion in Peace and Security, Hilton, New York, September 20-23, 2002
- Paper Presentor, Paper: Breakthroughs in Academe and Industry Tie-Ups, Philippine Quality and Productivity Movement, Inc. 20th National Quality and Productivity Congress " Breakthroughs in Tough Times", October 16, 2002
- Paper Presentor, Paper: Internationalization of Academic Programs in Education: Implications for Health Professionals Education, 3rd National Conference on Health Professionals Education, National Graduate School for the Health Sciences, University of the Philippines Manila, October 17, 2002
- Paper Presentor, Paper: Administrators as Christians, Institute for Faculty Development, Management Development Seminar, October 19, 2002
- Paper Presentor, Paper: Creed, Dogmatic, Formulae and Language Change: Renewing God Talk on the Trinity, Symposium on Pluralism and Fundamentalism in the Church, Yuchengco Building, De La Salle University, October 26, 2002
- Paper Presentor, Paper: Breakthrough in Academic Excellence and Linkages, AMA Quality Management Forum, Hotel Rembrandt, Quezon City, October 28, 2002

RAFAEL D. GUERRERO III

- Guerrero, R.D. III. 2003. Aquaculture Developments in the Philippines. Paper presented at the Symposium on Aquaculture of the American Soybean Association, Tarlac, Philippines. 13 March
- Guerrero, R.D. III. 2003. Aquaculture Developments in the Philippines. Paper presented at the Philippine Aquaculture Conference and Exhibition (PACE 2003). Bacolod City, Philippines, 08 May
- Guerrero, R.D. III. 2003. The Scientist as Entrepreneur and Technology Transfer Agent. Paper presented at the 13th National Congress of the PHILARM. Bacolod City, Philippines, 12 May
- Guerrero, R.D. III. 2003. Role of PCAMRD in Enhancing Global Competitiveness of Philippine Fisheries. Paper presented at the International Forum on AquaMarkets. Makati City, Philippines. 2-5 June
- Chair, Discussion on Regional Networks, Group for Fisheries and Aquatic Research, WorldFish Center, Penang, Malaysia, 5 November 2002
- Guerrero, R.D. III. 2003. Vermicomposting: An Efficient and Environmentally-Friendly Waste Management System. Paper presented at the 22nd Annual Meeting of the Philippine-American Academy of Science and Engineering and the 52nd Annual Convention of the Philippine Association for the Advancement of Science. Manila, Philippines, 11-12 July
- Guerrero, R.D. III. 2003. Fish Disease Impacts on Cage Cultured Tilapia in the Philippines. Paper presented at the International Conference on Disease Management for Sustainable Fisheries. Kerala, India, 25-28 August
- Guerrero, R.D. III. 2003. The Role of NAST in Biodiversity Conservation and Management. Paper presented at the Workshop on Biodiversity Conservation. Quezon City, Philippines. 19 September
- Guerrero, R.D. III. 2003. Sustainable Aquaculture as a Food Resource in Asia at the International Symposium on Food Resources Sustainability and Security. Tehran, IR Iran. September.
- Guerrero, R.D. III. 2003. Tilapia Industry: An Overview. Paper presented at the 2nd Tilapia Congress. Pampanga, Philippines. 13 November
- Guerrero, R.D. III. 2003. Issues, Challenges and Lessons Learned on Taal Lake Resources Management in the Philippines. Paper presented at the lake Congress 2003. Tagaytay City, Philippines, 27 November.
- Guerrero, R.D. III. 2003. Notes on the Ecology of Earthworms in San Pablo City and Los Baños, Laguna. Paper presented at the First Philippine Vermi- Symposium-Workshop, Los Baños, Laguna. 25 November

EMIL Q. JAVIER

- Biodiversity and Sustainable Agriculture, 9th DL Umali Lecture Series organized by the National Academy of Science and Technology, SEAMEO Regional Center for Graduate Study and Research in Agriculture (SEARCA) and the DL Umali Foundation, Inc. (DLUF)

BIENVENIDO O. JULIANO

- Annual Meeting, Rice Varietal Improvement Group, National Rice Cooperative Testing Project, Tarlac College of Agriculture, Camiling, Tarlac, April 29, 2003. Participant
- National Academy of Science and Technology, 25th Annual Scientific Meeting, Manila Hotel, July 09-10, 2003
- Sharing and Dialogue Conference on the Scientific Basis of the Nutritional Value of Brown Rice, FNRI, DOST, Sept 2, 2003. Paper presented: Issues on Brown Rice
- Philippines-IRRI Workplan Meeting, PhilRice Maligaya, Muñoz, Nueva Ecija, Sept. 1, 2003. Participant, Group 1.
- 1st Laguna Rice Summit, Cultural Center, Santa Cruz, Laguna, Sept. 18, 2003. Resource person
- Biofortification Challenge Program Crop Meeting, IRRI, Los Baños, Laguna. Oct 6-8, 2003. Participant
- Peer review of RD&E projects, PhilRice, Maligaya, Muñoz, Nueva Ecija, Oct 15-16, 2003. Reviewer.

QUINTIN L. KINTANAR

- Attended NAST Meetings, Seminars/Conferences
- Participated in National Agricultural and Fishery Council's Roundtable Discussion on Risk Assessment of Lead in Seafoods

RICARDO M. LANTICAN

- Moderator, Agricultural Science Symposium, Annual Scientific Meeting of NAST, 10 July 2003
- Visit to Genetic Transformation Laboratories, Protein and Toxicological Laboratories in UK and US, conferences with senior staff of the Environmental Protection Agency (EPA) and USDA in the US, 11-31 August 2003

ANGEL L. LAZARO III

- Lecturer, "Engineering for Non-Engineers" organized by Asian Development Bank (ADB), ADB Pasig City, March 18, April 28 and May 21, 2003
- Presented special paper entitled "Global Competitiveness", Philippine Institute Civil Engineers (PICE) 29th National Convention, November 6, 2003. Philippine International Convention Center (PICC), Pasay City
- Keynote Speaker and Inducting Officer PICE Baguio City during the Oath Taking of the new Civil engineer, June 29, 2003, Prince Plaza Hotel, Baguio City
- Participant, Asian Development Bank (ADB)/Confederation of Filipino Consulting Organizations, Inc. (COFILCO) Seminar on the Development of Filipino Consulting Services, October 9-10, 2003. The Astoria Plaza, Ortigas Center, Pasig City
- Speaker, NAST 25th ASM, Engineering Sciences and Technology Division (ESTD) on the topic "Competitiveness in Practice" at the simultaneous technical sessions, July 10, 2003, The Manila Hotel.
- Moderator, NAST 25th ASM-ESTD on the topic "Infrastructures Development" July 9, 2003, Manila Hotel
- Presented a paper, NAST Roundtable Discussion on Global Competitiveness (Professional Services in engineering and Technology), June 20, 2003, Manila Hotel
- Participant, Commission Planning Conference, Professional Regulatory Commission (PRC), January 30-31, 2003
- Resource Person, Hearing conducted by the Arbitration Panel between MWSS and Maynilad Services, August 15, 2003, EDSA Plaza Hotel

FAUSTINO T. ORILLO

- Participated in the meeting of the Agricultural Sciences Division of NAST to screen ASD nominees for NAST Awards for Y2003, held at SEARCA, UPLB Campus, February 21 2003
- Participated in the election meeting of NAST, held at the Executive Lounge, DOST, Bicutan, 29 May 2003
- Attended the 9th DL Umali Memorial Lecture series on the theme "Biodiversity and Sustainable Agriculture, held at the Umali Auditorium, SEARCA, UPLB Campus, 02 July 2003
- Attended the 25th ASM of the National Academy of Science and Technology, held at the Manila Hotel, 9-10 July 2003.

Honors Conferred and Recognition Received

RAMON F. ABARQUEZ, JR.

- Outstanding Lifetime Achievement Award in Cardiology, Presidential Award, Philippine Heart Association, May 28, 2003, Philippine Heart 24th Annual Scientific Meeting, EDSA Shangri la Hotel, Mandaluyong City

PAULO C. CAMPOS

- Natatanging Bayaning Mamamayan ng Cavite, Tagaytay International Convention Center, Tagaytay City, August 2003
- Distinguished Caviteños issued by General Emilio Aguinaldo Outstanding Achievement Award, 31 August 2003

MAGDALENA C. CANTORIA

- Recipient, financial assistance for the publication of a book entitled, "PHARMACOGNOSY IN ACTION AND IN PRACTICE. 2003. NRCP Research Foundation, Inc. (NRCPRFI), 24 September 2003.

LEDIVINA V. CARIÑO

- Member, First International Scientific Committee, International Centre for Human Sciences in Byblos, Lebanon, sponsored by the Republic of Lebanon and UNESCO. January 2003 to date
- Member, First International Advisory Committee, Ash Institute for Democratic Governance and Innovation, John F. Kennedy School of Government, Harvard University. October 2003 to date.

GELIA T. CASTILLO

- The Honor Society of Phi Kappa Phi Recognition Award for "achievements and contributions towards sustaining a culture of excellence and service to the nation; of using knowledge to create a just, caring, and humane world." 2003

LEOPOLDO S. CASTILLO

- The Philippine Carabao Center at Muñoz, Nueva Ecija named one of its four convention halls in the Research and Training Building after Dr. Leopoldo S. Castillo
- "A Tribute to the Pillars of the Carabao Industry: Leopoldo Sanchez Castillo -the Living Legend", written by Director Arnel del Barrio of the Philippine Carabao Center at UPLB (PCC Newsletter, Vol V, No.5 Special Issue page 5, December 2002).

JOSE B. CRUZ

- Outstanding Service to Engineering, College of Engineering, University of Illinois, April 2003
- Elected Corresponding Member, NAST, July 2003

ROMULO G. DAVIDE

- Fellow Award given by the Philippine Phytopathology Society, Inc. May 7, 2003 in Cebu City during its 40th Convention
- International Publication Award given by the University of the Philippines, Diliman, Quezon City on 5 March 2003
- Service Award given by the Philippine Phytopathological Society, Inc on 7 May 2003 in Cebu City
- Plaque of Recognition given by the Cebu State College of Science and Technology-AIFC, 2 May 2003

CONRADO S. DAYRIT

- President, UP Medicine Class 1943 - Awarded the UP Medicine's Most Distinguished Class of the Year (2002)
- Phi Kappa Phi Honor Society's Culture of Excellence Lecture No. 1: "Health Issues on Coconut Oil and Other Fats and Oils", Sep. 27, 2002
- Keynote Speaker, Philippine Pharmacopeia Project 3rd Symposium, March 7, 2003

FE DEL MUNDO

- Lifetime Achievement Award in Medicine
- Awarded by the Orange Country Community, New Jersey, Lifetime Achievement Award in Medicine
- Award for Great Achievers of the World, Armed Forces of the Philippines Commissioned Officers' Club, Camp General Emilio Aguinaldo, Quezon City
- FEU-N. Reyes Med. Foundation-New Jersey Chapter on Meritorius Award of Distinction to Dr. Fe del Mundo
- Gusi Peace Prize Award - November 20,2003

SALCEDO L. EDUARDO

- 2003 Gregorio Y. Zara Award for Basic Research, Philippine Association for the Advancement of Science (PhilAAS)

EDGARDO D. GOMEZ

- Concepcion D. Dadufalza Distinguished Achievement Award, University of the Philippines, 04 March 2003

RAFAEL D. GUERRERO III

- Certificate of Recognition as Resource Person on Vermicomposting Marikina Valley Lion's Club, October 10, 2003, Quezon City
- Certificate of Recognition as Paper Presenter on "The Scientist as Entrepreneur and Technology Commercialization Agent" Philippine Association of Research Managers, Inc. May 11, Bacolod City
- Elected Member, Philippine-American Academy of Science and Engineering

EMIL Q. JAVIER

- 2003 UPLB Most Distinguished Alumnus

BIENVENIDO O. JULIANO

- Selected as one of the Outstanding Filipino Rice Advocates by the Development Communication Division, PhilRice (book preparation)

FAUSTINO T. ORILLO

- Elected Member, Mycological Society of the Philippines

ASUNCION K. RAYMUNDO

- 2003 Service Award - Philippine Society of Microbiology
- SEARCA Professorial Chair Holder

PERLA D. SANTOS OCAMPO

- Honorary president, International Society of Tropical Pediatrics
- Honorary President and Chairperson Emeritus, Philippine Association for the Gifted

REYNALDO B. VEA

- Diamond Jubilee Awardee for Outstanding Achievement, Phi Kappa Phi, International Honor Society, UP Chapter, March 2003

JOSE R. VELASCO

- Awarded - - Member, Selection Committee, Outstanding Caviteño Award, 2003
- Velasco Professorial Chair in plant physiology-ecology, UPLB
- Velasco ITDI/NRCP Award for applied/ basic study (to be given in alternate years)

PRESCILLANO M. ZAMORA

- NAST Research Fellow (15 October 2001-14 September 2002)

FINANCIAL REPORT

National Academy of Science and Technology

BALANCE SHEET

as of December 31, 2003

ASSETS

Current Assets

| | | | |
|---|---------|--|--------------|
| Cash | | | |
| Cash - Disbursing Officers | 60,662 | | |
| Cash in Bank - Local Currency, Current Account | 75,284 | | |
| Cash in Bank - Foreign Currency, Current Account | 26,776 | | |
| Receivables | | | 162,722 |
| Due from the National Treasury | 609,633 | | |
| Due from NGAs | 709,893 | | |
| Other Receivables | 984 | | 1,320,510 |
| Office Supplies Inventory | | | 7,856 |
| Prepaid Insurance | | | <u>6,961</u> |
| | | | 1,498,049 |

Property, Plant and Equipment

| | | | |
|-------------------------------------|--|------------------|------------------|
| Fixed Assets - Other Structures | | 3,802,586 | |
| Office equipment | | 1,435,059 | |
| Furniture and Fixtures | | 483,880 | |
| IT Equipment and Software | | 2,088,246 | |
| Library Books | | 54,498 | |
| Motor Vehicles | | 991,927 | |
| Other Property, Plant and Equipment | | <u>68,705</u> | |
| Total | | 8,924,901 | |
| Less: Accumulated Depreciation | | <u>3,429,683</u> | <u>5,495,218</u> |

TOTALASSETS

6,993,267

LIABILITIES AND EQUITY

Liabilities

Current Liabilities

| | | |
|-------------------------------|-----------|--|
| Accounts Payable | 2,317,031 | |
| Due to Officers and Employees | 25,182 | |
| Due to National Treasury | 75,284 | |
| Due To BIR | (13,449) | |
| Due to GSIS | 2,036 | |
| Due to PHILHEALTH | 63 | |

| | | |
|-------------------|----------------|-----------|
| Due to Other NGAs | 1,277,046 | |
| Other Payables | <u>160,111</u> | |
| Total Liabilities | | 3,843,304 |

| | | |
|-------------------|--|------------------|
| Equity | | |
| Government Equity | | <u>3,149,963</u> |

TOTAL LIABILITIES AND EQUITY

6,993,267s

NAST COMMITTEES

25th ASM Steering Committee

1. Acd. Ramon F. Abarquez (HSD) (Chair)
2. Acd. Ledivina V. Cariño (SSD) (Co-Chair)
3. Acd. Solita F. Camara-Besa (HSD)
4. NS Paulo C. Campos (HSD)
5. Acd. Conrado S. Dayrit (HSD)
6. Acd. Ernesto O. Domingo (HSD)
7. NS Fe del Mundo (HSD)
8. Acd. Quintin L. Kintanar (HSD)
9. Acd. Perla D. Santos Ocampo (HSD)
10. Ms. Luningning E. Samarita
(Executive Director, NAST Secretariat)
11. Mr. Aristotle P. Carandang
(Information Officer V, NAST Secretariat)

25th ASM Finance and Exhibits Committee

1. Acd. Conrado S. Dayrit (HSD) (Chair)
2. Acd. Edgardo D. Gomez (BSD)
3. Acd. Andrew B. Gonzalez, FSC (SSD)
4. Acd. Angel L. Lazaro III (ESTD)
5. NS Fe del Mundo (HSD)
6. Acd. Bienvenido F. Nebres, SJ (CMPSPD)
7. NS Dolores A. Ramirez (ASD)
8. Acd. Perla D. Santos Ocampo (HSD)
9. Dr. Rafael C. Bundoc (OYS)
10. Dr. Eva Marie C. Cutiongco (OYS)
11. Dr. Ma. Lourdes de Leon-Matsuda (OYS)
12. Dr. Mario R. Festin (OYS)
13. Dr. Ricardo Jose DLT. Quintos II (OYS)
14. Dr. Ricardo H.M. Wang (OYS)
15. Ms. Rosemarie S. Espino (Secretariat)
16. Ms. Zenaida T. Mapua (Secretariat)

25th ASM Invitation, Reception and Registration

1. NS Paulo C. Campos (HSD) (Chair)
2. Acd. Veronica F. Chan (HSD)
3. Acd. Mercedes B. Concepcion (SSD)
4. Acd. Lourdes J. Cruz (CMPSPD)
5. Acd. Conrado S. Dayrit (HSD)
6. Acd. Ricardo M. Lantican (ASD)
7. Acd. Reynaldo B. Veja (ESTD)
8. Ms. Charyl S. Castilleja (Secretariat)
9. Ms. Reihvelle A. Perez (Secretariat)

25th ASM Documentation and Program Committee

1. Acd. Ernesto O. Domingo (HSD) (Chair)
2. NS Gelia T. Castillo (SSD)
3. Acd. Ceferino L. Folloso (ESTD)
4. Acd. Emil Q. Javier (BSD)
5. Acd. Evelyn Mae T. Mendoza (CMPSPD)
6. Acd. Teodulo M. Topacio, Jr. (ASD)
7. Acd. William T. Torres (ESTD)
8. Ms. Rowena V. Briones (Secretariat)

25th ASM Publicity and Socials Committee

1. Acd. Carmen LI. Intengan (HSD) (Chair)
2. Acd. Filomena F. Campos (BSD)
3. NS Gelia T. Castillo (SSD)
4. Acd. Ceferino L. Folloso (ESTD)
5. Acd. Andrew B. Gonzalez, FSC (SSD)
6. Acd. Rafael D. Guerrero III (ASD)
7. Acd. Jose O. Juliano (CMPSPD)
8. Mr. Angelo B. Palmones (DZMM)
9. Ms. Ma. Luisa Tanyag (STII-DOST)
10. Ms. Lyn Resurreccion (TODAY)
11. Mr. Aristotle P. Carandang (Secretariat)

25th ASM Resolutions Committee

1. Acd. Quintin L. Kintanar (HSD) (Chair)
2. Acd. Solita F. Camara-Besa (HSD)
3. Acd. Mercedes B. Concepcion (SSD)
4. Acd. Raul V. Fabella (SSD)
5. Acd. Emil Q. Javier (BSD)
7. Acd. Angel L. Lazaro III (ESTD)
8. Acd. William G. Padolina (CMPSPD)
9. NS Benito S. Vergara (ASD)
10. Dr. Ida F. Dalmacio (OYS)
11. Ms. Reihvelle A. Perez (Secretariat)
12. Ms. Leila T. Viriña (Secretariat)

25th ASM Posters Committee

1. Acd. Quintin L. Kintanar (HSD) (Chair)
2. Acd. Mercedes B. Concepcion (SSD)
3. Acd. Salcedo L. Eduardo (BSD)
4. Acd. Angel L. Lazaro III (ESTD)
5. Acd. Evelyn Mae T. Mendoza (CMPSPD)
6. NS Dolores A. Ramirez (ASD)
7. Acd. William T. Torres (ESTD)
8. Mr. Aristotle P. Carandang (Secretariat)

25th ASM Best Poster Board of Judges

1. Acd. Salcedo L. Eduardo (BSD) (Chair)
2. NS Clare R. Baltazar (BSD)
3. NS Gelia T. Castillo (SSD)
4. Acd. Veronica F. Chan (BSD)
5. Acd. Mercedes B. Concepcion (SSD)
6. Acd. Ernesto O. Domingo (HSD)
7. NS Bienvenido O. Juliano (CMPSPD)
8. Acd. Ricardo M. Lantican (ASD)
9. Acd. Apolinario D. Nazarea (CMPSPD)
10. Acd. Teodulo M. Topacio, Jr. (ASD)
11. Acd. William T. Torres (ESTD)
12. Mr. Aristotle P. Carandang (Secretariat)

25th ASM Physical Arrangement Committee

1. Ms. Luningning E. Samarita (Secretariat)
2. Ms. Chona S. Santos (Secretariat)
3. Ms. Leila T. Viriña (Secretariat)
4. Mr. Eliseo D. Raganit (Secretariat)
5. Mr. Francis S. Maglantay (Secretariat)

26th ASM Steering Committee

1. NS Gelia T. Castillo (SSD) (Chair)
2. Acd. Ledivina V. Cariño (SSD) (Co-Chair)
3. Acd. Mercedes B. Concepcion (SSD)
4. Acd. Onofre D. Corpuz (SSD)
5. Acd. Raul V. Fabella (SSD)
6. Acd. Andrew B. Gonzalez, FSC (SSD)
7. Acd. Emil Q. Javier (BSD)
8. NS Alfredo V. Lagmay (SSD)
9. Mr. Aristotle P. Carandang (Secretariat)
10. Ms. Luningning E. Samarita
(Executive Director, NAST Secretariat)

26th ASM Finance and Exhibits Committee

1. Acd. Andrew B. Gonzalez, FSC (SSD) (Chair)
2. Acd. Veronica F. Chan (BSD)
3. Acd. Ernesto O. Domingo (HSD)
4. Acd. Angel L. Lazaro III (ESTD)
5. NS Fe del Mundo (HSD)
6. Acd. Bienvenido F. Nebres (CMPSPD)
7. NS Dolores A. Ramirez (ASD)
8. Acd. Reynaldo B. Veja (ESTD)
9. Dr. Corazon M. Raymundo (OYS)
10. Dr. Queena N. Lee-Chua (OYS)
11. Ms. Rosemarie S. Espino (Secretariat)
12. Ms. Zenaida T. Mapua (Secretariat)

26th ASM Invitation, Reception and Registration

1. Acd. Mercedes B. Concepcion (SSD) (Chair)
2. Acd. Filomena F. Campos (BSD)
3. Acd. Lourdes J. Cruz (CMPSPD)
4. Acd. Solita F. Camara-Besa (HSD)
5. Acd. Rafael D. Guerrero III (ASD)
6. Acd. Reynaldo B. Veja (ESTD)
7. Ms. Charyl C. Apuyan (Secretariat)
8. Ms. Virginia Francia O. Gavica (Secretariat)

26th ASM Documentation and Program Committee

1. Acd. Mercedes B. Concepcion (SSD) (Chair)
2. Acd. Ceferino L. Folloso (ESTD)
3. Acd. Emil Q. Javier (BSD)
4. Acd. Evelyn Mae T. Mendoza (CMPSPD)
5. Acd. Teodulo M. Topacio, Jr. (ASD)
6. Acd. William T. Torres (ESTD)
7. Ms. Rowena V. Briones (Secretariat)

26th ASM Resolutions Committee

1. Acd. Emil Q. Javier (BSD) (Chair)
2. Acd. Ledivina V. Cariño (SSD)
3. Acd. Solita F. Camara-Besa (HSD)
4. Acd. Rafael D. Guerrero III (ASD)
5. Acd. William T. Torres (ESTD)
7. Acd. William G. Padolina (CMPSPD)
8. Dr. Paciente A. Cordero, Jr. (OYS)
9. Ms. Reihvelle A. Perez (Secretariat)

26th ASM Publicity and Socials Committee

1. Acd. Andrew B. Gonzalez, FSC (SSD) (Chair)
2. Acd. Asuncion K. Raymundo (BSD)
3. Acd. Ceferino L. Follosco (ESTD)
4. Acd. Ramon F. Abarquez, Jr. (HSD)
5. Acd. Rafael D. Guerrero III (ASD)
6. Acd. Jose O. Juliano (CMPSPD)
7. Mr. Angelo B. Palmones (DZMM)
8. Ms. Ma. Luisa Tanyag (STII-DOST)
9. Ms. Lyn Resurreccion (TODAY)
10. Dr. Queena N. Lee-Chua (PDI)
11. Ms. Guada B. Ramos (Secretariat)
12. Ms. Charyl C. Apuyan (Secretariat)

26th ASM Posters Committee

1. Acd. Raul V. Fabella (HSD) (Chair)
2. Acd. Salcedo L. Eduardo (BSD)
3. Acd. Evelyn Mae T. Mendoza (CMPSPD)
4. NS Dolores A. Ramirez (ASD)
5. Acd. William T. Torres (ESTD)
6. Acd. Quintin L. Kintanar (HSD)
7. Mr. Aristotle P. Carandang (Secretariat)

26th ASM Best Poster Board of Judges

1. Acd. Salcedo L. Eduardo (BSD) (Chair)
2. Acd. Veronica F. Chan (BSD)
3. NS Gelia T. Castillo (SSD)
4. Acd. Mercedes B. Concepcion (SSD)
5. NS Bienvenido O. Juliano (CMPSPD)
6. Acd. Apolinario D. Nazarea (CMPSPD)
7. Acd. Ricardo M. Lantican (ASD)
8. NS Benito S. Vergara (ASD)
9. Acd. Ernesto O. Domingo (HSD)
10. Acd. Angel L. Lazaro III (ESTD)
11. Acd. William T. Torres (ESTD)
12. Mr. Aristotle P. Carandang (Secretariat)

26th ASM Physical Arrangement Committee

1. Ms. Luningning E. Samarita (Secretariat)
2. Ms. Chona S. Santos (Secretariat)
3. Ms. Virginia Francia O. Gavica (Secretariat)
4. Mr. Eliseo D. Raganit (Secretariat)
5. Mr. Roberto L. Arat (Secretariat)

COMMITTEE ON NAST BUILDING

1. Acd. Ledivina V. Cariño (SSD)
2. Acd. Ceferino L. Follosco (ESTD)
3. Acd. Emil Q. Javier (BSD)
4. Acd. Angel L. Lazaro III (ESTD)

PSHC ADVISORY COMMITTEE

1. Acd. Perla D. Santos Ocampo (Chair)
2. Acd. Conrado S. Dayrit (NAST Foundation President)
3. NS Benito S. Vergara (PSHC Project Leader)
4. Prof. Fortunato T. de la Peña (Undersecretary, DOST)
5. Dr. Fe Hidalgo (DepEd Undersecretary for Programs and Projects)

PSHC WORKING COMMITTEE

1. NS Benito S. Vergara (ASD) (Chair)
2. NS Gelia T. Castillo (SSD)
3. Acd. Salcedo L. Eduardo (BSD)
4. Acd. Carmen Li. Intengan (HSD)
5. Acd. Evelyn Mae T. Mendoza (CMPSPD)
6. NS Dolores A. Ramirez (ASD)
7. Ms. Luningning E. Samarita
8. Dr. Augusto C. Sumalde

COMMITTEE ON ELECTION

1. NS Bienvenido O. Juliano (CMPSPD)
2. NS Clare R. Baltazar (BSD)
3. Acd. Ernesto O. Domingo (HSD)
4. Acd. Raul V. Fabella (SSD)
5. Acd. Rafael D. Guerrero III (ASD)

PUBLICATION AWARDS COMMITTEE

1. NS Dolores A. Ramirez (ASD) (Chair)
2. NS Gelia T. Castillo (SSD)
3. Acd. Ernesto O. Domingo (HSD)
4. Acd. Ceferino L. Follosco (ESTD)
5. Acd. Emil Q. Javier (BSD)
6. Acd. Evelyn Mae T. Mendoza (CMPSPD)
7. Acd. Teodulo M. Topacio, Jr. (ASD)

NAST DUPONT TALENT SEARCH FOR YOUNG SCIENTISTS BOARD OF JUDGES

1. Acd. Tito A. Mijares (CMPSPD) (Chair)
2. Acd. Onofre D. Corpuz (SSD)
3. Acd. Edgardo D. Gomez (BSD)
4. Acd. Ricardo M. Lantican (ASD)
5. Acd. Quintin L. Kintanar (HSD)
7. Acd. William T. Torres (ESTD)
8. Dr. Eliezer A. Albacea (OYS)
9. President of Engineering Society
10. President of NRCP

NAST WEBSITE COMMITTEE

1. Acd. Reynaldo B. Veja (ESTD) (Chair)
2. Acd. Evelyn Mae T. Mendoza (CMPSPD)
3. Acd. Bienvenido F. Nebres, SJ (CMPSPD)
4. Acd. William T. Torres (ESTD)

NATIONAL SCIENTISTS COMMITTEE

1. NS Fe del Mundo (HSD) (Chair)
2. NS Clare R. Baltazar (BSD)
3. NS Paulo C. Campos (HSD)
4. NS Gelia T. Castillo (SSD)
5. NS Bienvenido O. Juliano (CMPSPD)
6. NS Alfredo V. Lagmay (SSD)
7. NS Clara Y. Lim-Sylianco (CMPSPD)
8. NS Dolores A. Ramirez (ASD)
9. NS Jose R. Velasco (BSD)
10. NS Benito S. Vergara (ASD)

NAST PRO SCIENTIA TRANSFORMATRIX AWARD COMMITTEE

1. Acd. Apolinario D. Nazarea (CMPSPD) (Chair)
2. Acd. Ramon F. Abarquez Jr. (HSD)
3. Acd. Magdalena C. Cantoria (BSD)
4. Acd. Raul V. Fabella (SSD)
5. Acd. Rafael D. Guerrero III (ASD)
6. Acd. Jose O. Juliano (CMPSPD)
7. Acd. Angel L. Lazaro III (ESTD)
8. Acd. William T. Torres (ESTD)
9. Representative from PCIARD

TWAS PRIZE FOR YOUNG SCIENTIST AWARD COMMITTEE

1. Acd. Emil Q. Javier (BSD) (Chair)
2. Acd. Filomena F. Campos (BSD)
3. NS Paulo C. Campos (HSD)
4. Acd. Ricardo M. Lantican (ASD)
5. NS Fe del Mundo (HSD)
6. NS Dolores A. Ramirez (ASD)

HUGH GREENWOOD ENVIRONMENTAL SCIENCE AWARD BOARD OF JUDGES

1. Acd. William G. Padolina (CMPSPD) (Chair)
2. NS Clare R. Baltazar (BSD)
3. Acd. Mercedes B. Concepcion (SSD)
4. Acd. Quintin L. Kintanar (HSD)
5. Acd. Teodulo M. Topacio Jr. (ASD)

NAST EXECUTIVE COUNCIL

CY 2002-2005



PERLA D. SANTOS OCAMPO, M.D.
President



EMIL Q. JAVIER, Ph.D.
Vice-President



LEDIVINA V. CARIÑO, Ph.D.
Secretary



GELIA T. CASTILLO, Ph.D.
Member



GEFERINO L. FOLLOSCO, Ph.D.
Member



EVELYN MAE T. MENDOZA
Member



TEODULO M. TOPACIO, JR.
Ad Interim Member

NAST SECRETARIAT



Office of the Executive Director

| | |
|----------------------|-----------------------------|
| Executive Director | :Luningning E. Samarita |
| Planning Officer III | :Leila T. Viriña |
| Clerk II | :Virginia Francia O. Gavica |

Technical Services Division

| | |
|-------------------------|-------------------------|
| Information Officer V | :Aristotle P. Carandang |
| Information Officer III | :Rowena V. Briones |
| Information Officer II | :Reihvelle A. Perez |
| Stenographer II | :Charyl C. Apuyan |

Administrative Services Division

| | |
|--------------------------|-----------------------|
| Administrative Officer V | :Rosemarie S. Espino |
| Accountant III | :Zenaida T. Mapua |
| Cashier III | :Chona S. Santos |
| Driver II | :Francis S. Maglantay |
| Utility | :Eliseo D. Raganit |

Philippine Science Heritage Center

| | |
|-----------------|----------------------|
| PSHC Staff | :Ferdinand C. Gutlay |
| Biotech Project | :Roanne V. Pacapac |



From rare flora and fauna, to scientific contributions, to inventions, to interesting facts about our nation, the Philippine Science Heritage Center is here to impart knowledge about the richness of our science culture. Salinlahi is a legacy for generations to come.

What is the Philippine Science Heritage Center also called SALINLAHI?

The Philippine Science Heritage Center (PSHC) is a prime government science museum that features the richness of Philippine science and technology.

PSHC or SALINLAHI (meaning "heirloom of a generation") also serves as a resource center for all interested in Philippine contributions to science and technology.

Why the creation of SALINLAHI?

Highlighting of our heritage is most important in the development of our Filipino values, not to mention our education. The Filipino cultural heritage is already extensively presented in various museums of the country. SALINLAHI is the only center specifically devoted to the important contributions Filipinos have made to the world of science.

What are the objectives of SALINLAHI?

Generally, SALINLAHI seeks to highlight Philippine scientific contributions - and the Filipino scientists who made them possible - to the world, thereby eliciting a sense of pride in every Filipino who learns of such great accomplishments, and encouraging the youth to pursue careers in science.

Specifically, SALINLAHI aims to:

- (a) Document the works, ideas, inventions and scientific products of Filipino scientists, and other accomplishments in the field of science, which have had significant impact on the improvement of human lives;
- (b) Display samples of inventions, scientific products, memorabilia, references and library materials
- (c.) Produce printed materials for use in teaching as well as for the information of the general public;

- (d.) Serve as a resource center for students and other individuals interested in Philippine scientific and technological contributions.

What does SALINLAHI feature?

SALINLAHI exhibits features the following:
Philippine National Scientist

The display emphasizes the lives of Filipino scientists, starting with accomplishments and biographies of National Scientists, with memorabilia and video presentation of their accomplishments

NAST History

This is a simple textual display on the history of the National Academy of Science and Technology, the government's advisory and highest recognition body in S&T.

Bioteknologiya!!!

An interactive exhibit featuring the history, principles and applications of modern biotechnology in our everyday lives.

Coconut Oil for Better Health

The exhibit features the properties of coconut oil and its effect on human health.

Contributions of Filipino Scientists

Significant contributions of Filipino scientists are displayed at the PSHC and are further categorized according to the following sections:

Sariling Atin
Sa Ating Galing
Kagalingan ng Pilipino
Gawa ng Filipino

MUSEUM HOURS:

**Mondays to Fridays, 8:00 am to 5:00 pm
(by appointment)**

FREE ADMISSION

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Trunklines (632) 837-2071 to 82 loc. 2170-75

Fax: (632) 837- 3170; email:

nast@mozcom.com; nast@dost.gov.ph

NAST PUBLICATIONS

| TITLE | AUTHOR | PRICE (PhP) |
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| <i>Gamot. Tabak at Sandata: Isang Talakayan (1996)</i> | | 186.00 |
| <i>Guide to the Collections of Philippine Type-Specimens of Parasitic Protozoa, Helminths and Anthropods</i> | Salcedo L. Eduardo | 300.00 |
| <i>Immunodiagnosis of Some Parasitic Infections in the Philippines (1998)</i> | Edito G. Garcia and Wilfred U. Tiu | 110.00 |
| <i>The Makapuno Mutant Coconut (1998)</i> | National Scientist Dolores A. Ramirez and Evelyn Mae T. Mendoza | 240.00 |
| <i>Microalgae of Taal Lake (1999)</i> | Macrina Tamayo Zafaralla | 150.00 |
| <i>Nata de Coco: A Filipino Delicacy (1999)</i> | National Scientist Benito S. Vergara | 50.00 |
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| <i>Filipino Heroes of Science: National Scientists of the Philippines (1978-1998)</i> | Evelyn Mae Tecson Mendoza and Serlie F. Barroga-Jamias (editors) | 150.00 |
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