



National Academy of
Science and Technology

**13TH
ANNUAL SCIENTIFIC
MEETING**

**THEME: MANAGING ECOSYSTEMS FOR
LONG-TERM HUMAN SURVIVAL**

**PHILIPPINE INTERNATIONAL
CONVENTION CENTER
Roxas Boulevard, Manila
July 9-10, 1991**

**NATIONAL ACADEMY OF SCIENCE
AND TECHNOLOGY**

**13TH
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MEETING**

**THEME: MANAGING ECOSYSTEMS FOR
LONG-TERM HUMAN SURVIVAL**

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Roxas Boulevard, Manila
July 9-10, 1991**

PROGRAM OF ACTIVITIES

July 9, 1991

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July 9, 1991

MORNING

8:00 REGISTRATION (Foyer of Delegates' Lounge)

8:30 **OPENING CEREMONIES**
Meeting Room 4

National Anthem

Invocation **Alfredo V. Lagmay, National Scientist**

Welcome Address **Dioscoro L. Umali, National Scientist**
President
National Academy of Science and Technology

Opening Address **Hon. Ceferino L. Folloso**
Secretary
Department of Science and Technology

Introduction of the
Keynote Speaker **Prescillano M. Zamora, Academician**

Keynote Address **Hon. Fulgencio S. Factoran, Jr.**
Secretary
Department of Environment
and Natural Resources

Master of Ceremonies: **Joventino D. Soriano, Academician**

9:45 Poster Session and Coffee Break

Meeting Room 4

10:30 **Plenary Session I**

Chairman: **Carmen C. Velasquez, National Scientist**

Rapporteur: **Leopoldo S. Castillo, Academician**

**"Conservation and Management of
the Philippine Marine Ecosystem"**
(Edgardo D. Gomez, Miguel D. Fortes
and Prescillano M. Zamora)

Edgardo D. Gomez
Director
Marine Science Institute
University of the Philippines Diliman

Discussants: **Angel C. Alcala**
President
Silliman University

Ricardo M. Umali
Undersecretary
Department of Environment and Natural Resources

**"Mangrove Reforestation in Bohol
- A Success Story"** Eugenio Padem
Agricultural Entrepreneur

Open Forum

12:00 L u n c h

AFTERNOON

Meeting Room 4

1:30 **Plenary Session II**

Chairman : **Magdalena C. Cantoria**, *Academician*

Rapporteur: **Clare R. Baltazar**, *Academician*

**"Conservation and Management of
the Philippine Freshwater Ecosystem"** **Rafael D. Guerrero III**
Executive Director
Philippine Council for Aquatic and
Marine Research and Development

Discussants: **Carlito R. Barril**
Professor
Institute of Chemistry
University of the Philippines Los Baños

Macrina T. Zafaralla
Professor
Institute of Biological Sciences
University of the Philippines Los Baños

Perla Magsalay
Coordinator
Asian Wetland Bureau (Philippines)

**"Control of River Pollution in
Pampanga - A Success Story"** **Domingo Lee**
Agricultural Entrepreneur

Open Forum

3:00 Coffee Break

Meeting Room 4

3:30 **Plenary Session III**

Chairman : **Ruben L. Villareal**, *Academician*

Rapporteur: **Benito S. Vergara**, *Academician*

**"Conservation and Management of
the Philippine Terrestrial Ecosystem"**
(Percy E. Sajise and Enrique P. Pacardo)

Enrique P. Pacardo
Director
Institute of Environmental
Science and Management
University of the Philippines
Los Baños

Discussants: **Delfin M. Ganapin, Jr.**
Assistant Secretary
Department of Environment and Natural Resources

Domingo M. Ramirez
Associate Dean
College of Forestry
University of the Philippines Los Baños

Roger Concepcion
Chief
Division of Land Classification and Utilization
Bureau of Soils, Department of Agriculture

**"Reforestation with Bamboo
- A Success Story"**

Domingo Alfonso
Agricultural Entrepreneur

Open Forum

July 10, 1991

MORNING

Meeting Room 4

8:30 Plenary Session IV

Chairman : **Solita F. Camara-Besa**, *Academician*

Rapporteur: **Carmen Ll. Intengan**, *Academician*

**"The Conservation and Management
of Urban Ecosystem**

Manuel M. Dayrit

Director

Field Epidemiology Training Program

Department of Health

Discussants: **Gelia T. Castillo**, *Academician*

University Professor

University of the Philippines Los Baños

Hon. Orlando S. Mercado

Senator

Republic of the Philippines

Antonio Abaya

Columnist

Manila Chronicle

Beta P. Balagot

Director

Environmental Management Bureau

Department of Environment and Natural Resources

**"Ecosystem of Urban Community
- A Success Story"**

Cynthia Cajudo

Vice-Mayor

Olongapo City

Open Forum

9:45 Poster Session and Coffee Break

10:30 Scientific Sessions

July 10, 1991

10:30 Scientific Sessions

Mathematical, Physical and Engineering Sciences Chairman: Melecio S. Magno , <i>Academician</i>	Function Room A
Biological Sciences I Chairman: Magdalena C. Cantoria , <i>Academician</i>	Meeting Room 8
Biological Sciences II Chairman: Prescillano M. Zamora , <i>Academician</i>	Meeting Room 7
Agricultural Sciences Chairman: Faustino T. Orillo , <i>Academician</i>	Meeting Room 4
Health Sciences Chairman: Edito G. Garcia , <i>Academician</i>	Function Room B/C

SCHEDULE OF PAPER PRESENTATIONS

MATHEMATICAL, PHYSICAL AND ENGINEERING SCIENCES	BIOLOGICAL SCIENCES I	BIOLOGICAL SCIENCES II	AGRICULTURAL SCIENCES	HEALTH SCIENCES
R. Andres	R. Matias	I. Pagulayan	D. Ferraren	G. Concepcion
I. Cruz	S. Halos	C. Pham	R. Gapasin	B. Guevarra
E. Escultura	A. Herrera	G. Reyes	P. Nieves	C. Sylianco
S. Gervacio	C. Longid	G. Rivero	V. Soliman	E. Mendoza
C. Saloma	N. Lopez	C. Santiago	J. Tambalo	
F. Sumera	J. Mamaril		L. Trung	
D. Yanga			Q. Dai	

July 10, 1991

3:30

CLOSING CEREMONIES

Meeting Room 4

Opening Remarks

Conrado S. Dayrit, *Academician*

**Philippine Science Talent
Search Awards**

Dioscoro L. Umali, *National Scientist*

assisted by:

Tito A. Mijares, *Academician*

Chairman

Board of Judges

First Prize :

Raul Francisco C. Roño

Second Prize:

Vincent V. Hilomen

Third Prize:

Virginia P. Roxas

Special Citations:

Lemnuel V. Aragonés

Maribel T. Joson

Amir S. Lapiz

**Outstanding Young Scientist
Awards**

Dioscoro L. Umali, *National Scientist*

assisted by:

Joventino D. Soriano, *Academician*

Victor B. Amoroso

- Botany

Alberto T. Barrion

- Entomology

Ma. Cecilia Gastardo-Conaco

- Psychology

Emerenciana E. Ballelos-Duran

- Biophysics

Edwino S. Fernando

- Plant taxonomy

Ma. Socorro H. Gochoco

- Economics

Joseph Y. Lim

- Economics

Florentino C. Sumera

- Chemistry

Violeta M. Villegas

- Fruit breeding
and genetics

Closing Remarks

Dioscoro L. Umali, *National Scientist*

Master of Ceremonies: **Filomena F. Campos**, *Academician*

July 10, 1991

**MATHEMATICAL, PHYSICAL AND ENGINEERING SCIENCES
Function Room A**

Chairman: **Melecio S. Magno**, *Academician*

- 10:30 "Fiber-Optic Reflectometric Investigation of Acid-Base Equilibria in Immobilized Indicators: Effect of the Nature of the Immobilizing Agent" (Fortunato Sevilla III and Roberto T. Andres) **Fortunato Sevilla III***
Research Center for the Natural Sciences
University of Santo Tomas
Manila
- 10:50 "Studies on the Gasification of Biomass Fuels with Oxygen-Enriched Air" **Ibarra E. Cruz***
Dept. of Mechanical Engineering
College of Engineering
University of the Philippines Diliman
- 11:10 "The Geometry of Uncontrolled Probabilistic Motion" **Edgar E. Escultura***
IMSP, College of Arts and Sciences
University of the Philippines Los Baños
- 11:30 "Singularity of Graphs in Some Special Classes"
Open Forum **Severino V. Gervacio***
MSU Iligan Institute of Technology
Mindanao State University
Tibanga, Iligan City
- 12:00 Lunch
- 1:30 "Calculating Two-dimensional Fourier Transforms: I. Performance II. Normalization III. Graphics" (Caesar Saloma, Maricor Soriano and Grace Gerella) **Caesar Saloma***
National Institute of Physics
College of Science
University of the Philippines Diliman
- 1:50 "Electrochemical Synthesis of Electronic and Ionic Conductive Polymer Composite Polyaniline/PEO Network" (Florentino C. Sumera and Naoya Ogata) **Florentino C. Sumera***
Institute of Chemistry
College of Science
University of the Philippines Diliman
- 2:10 "A Mean Field RVB Theory Copper Oxide- Based High T_c Superconductors in Terms of Auxilliary Bosons" (Danilo M. Yanga and C. Navarro) **Danilo M. Yanga***
National Institute of Physics
College of Science
University of the Philippines Diliman

Open Forum

*To present paper

July 10, 1991

BIOLOGICAL SCIENCES I
Meeting Room 8

Chairman: **Magdalena C. Cantoria**, *Academician*

- 10:30 "Cell Biology of the Philippine Amoeboflagellate - *Naegleria* sp." (R.R. Matias, G.L. Enriquez and F.F. Natividad) **Ronald R. Matias***
Natural Science Research Institute
University of the Philippines Diliman
- 11:00 "Multiproduct Fermentation: Production of Gluconic Acid and Glucose Oxidase by *Penicillium funiculosum* 4072" (Saturnina C. Halos, Benjamin Gloria, Luisa F. Malamug, Mark D. Arboleda and Wilfredo I. Jose) **Saturnina C. Halos***
Natural Science Research Institute
University of the Philippines Diliman
- 11:30 Histopathological Effects of Manganese Intoxication" (Annabelle A. Herrera and Elena S. Catap) **Annabelle A. Herrera***
Institute of Biology
College of Science
University of the Philippines Diliman
- Open Forum
- 12:00 Lunch
- 1:30 "Studies on the Effects of Gamma Radiation on *Kalanchoe pinnata* (Pers.), Kataka-taka (Tag.), Life Plant (Eng.)" **Cecilie S. Longid**
Institute of Biology
College of Science
University of the Philippines Diliman
- 2:00 "Metazoan Ectoparasites of some Cultured Fishes from Laguna Lake and Vicinities" **Nellie C. Lopez**
Institute of Biology
College of Science
University of the Philippines Diliman
- 2:30 "Heavy Toxic Metal Resistance of Selected *Rhizobium* Strains" (Juanita C. Mamaril, Lorele C. Trinidad, Lilia SP.Tolentino and Vilma T. Capuno) **Juanita C. Mamaril***
BIOTECH, University of the Philippines
Los Baños

Open Forum

*To present paper

July 10, 1991

BIOLOGICAL SCIENCES II
Meeting Room 7

Chairman: **Prescillano M. Zamora**, *Academician*

- 10:30 "The Reproductive Biology and Laboratory Maintenance of *Vivipara angularis* Muller (Prosobranchia: Viviparidae)"
(**Imelda F. Pagulayan** and **Joel Cepillo**)
Imelda F. Pagulayan*
Institute of Biology
College of Science
University of the Philippines Diliman
- 11:00 "Microbial Production of L-Methionine Using Carbohydrates of Agricultural and Industrial By-Products"
(**Chay B. Pham** and **William G. Padolina**)
Chay B. Pham*
BIOTECH
University of the Philippines Los Baños
- 11:30 "Toxicity and Mutagenicity Testing of Selected Herbal Drugs"
(**Gloria D. Reyes** and **Asuncion K. Raymundo**)
Gloria D. Reyes*
Institute of Biological Sciences
University of the Philippines Los Baños
- Open Forum
- 12:00 Lunch
- 1:30 "Diniconazole Effects on Water Relations, Photosynthesis and Tocopherol Levels in Peanut"
(**Gilda C. Rivero** and **D.M. Orcutt**)
Gilda C. Rivero*
Institute of Biology
College of Science
University of the Philippines Diliman
- 2:00 "Intraspecific Hybridization between *Penicillium aurantio-brunneum* by Fusion of Somatic Protoplast"
(**Claro M. Santiago, Jr.**, **R. de la Peña**),
G.P. Reyes and **E. Adriano**)
Claro M. Santiago, Jr.*
Industrial Technology Development Inst.
DOST, Taguig, Metro Manila

Open Forum

*To present paper

July 10, 1991

AGRICULTURAL SCIENCES
Meeting Room 4

Chairman: Faustino T. Orillo, *Academician*

- | | |
|--|--|
| 10:30 "Control of Flowering, Seed Germination and Progeny Evaluation of Taro, <i>Colocasia sculenta</i> (L.) Schott" | Dilberto C. Ferraren
PRCRTC
Visayas State College of Agriculture
Baybay, Leyte |
| 10:50 "Efficacy of <i>Trichoderma aureoviride</i> Rifai as Biocontrol Agent for <i>Sclerotium rolfsii</i> Sacc. Causing Stem Rot in Peanut (<i>Arachis hypogaea</i> L.)
(R.M. Gapasin and S. Fernandez) | Ruben M. Gapasain*
Department of Plant Protection
Visayas State College of Agriculture
Baybay, Leyte |
| 11:10 "Evaluation of Local Ingredients (Fish, Shrimp, Snail and Leaf Meals and Ricebran)for Feeding Nile Tilapia (<i>Oreochromis niloticus</i>) Fingerlings"
(Plutomeo M. Nieves and Rusteo V. Barro) | Plutomeo M. Nieves*
Department of Aquaculture
Regional Institute of Fisheries
Technology
Bicol University
Tayhi, Tabaco, Albay |
| 11:30 "Exploitation Rate, and Yield-per-recruit and Virtual Population of Sinarapan (<i>Misticththy luzonensis</i> Smith) in Lake Manapao, Buhi, Camarines Sur" | Victor S. Soliman
College of Fisheries
Bicol University
Tayhi, Tabaco, Albay |
| Open Forum | |
| 12:00 Lunch | |
| 1:30 "Inoculation of VA Mycorrhiza for the Improvement of Growth and Yield of Agricultural Crops, Fruit Trees and Forest Tree Species in a Grassland Soil"
(Jocelyn D. Tambalo-Zarate and Reynaldo E. de la Cruz) | Jocelyn D. Tambalo-Zarate*
Mycorrhiza Laboratory, BIOTECH
University of the Philippines Los Baños |
| 1:50 "Urea-Treated Straw With Limited Supplementation for Sustained Ruminant Production in the Developing Countries" | Le Trong Trung
Dairy Training and Research Institute
College of Agriculture
University of the Philippines Los Baños |

*To present paper

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- 2:10 "Response of Crop Plants to Enhanced UV-B Radiation and Possible Implications to the Rice Crop"
(Q.J. Dai, V.P. Coronel and B.S. Vergara)
- Dai Quijie**
International Rice Research Institute
Los Baños, Laguna

Open Forum

HEALTH SCIENCES
Function Room B/C

Chairman: **Edito G. Garcia**, *Academician*

- 10:30 "Antimicrobial Activity, Antimutagenicity, Cytotoxicity and Neuroactivity of Some Philippine Marine Sponges and Tunicates"
(Giselia P. Concepcion, Arceli R. Camus and Gina B. Caraan)
- Gisela P. Concepcion***
Marine Science Institute
College of Science
University of the Philippines Diliman
- 11:00 "Alkaloid Studies on Selected Philippine Plants"
(Beatrice Q. Guevarra, A.M. Aguinaldo, E.I. Esposo C.P. Garcia M.G. Nonato and B.V. Recio)
- Beatrice Q. Guevarra***
Research Center for the Natural Sciences
University of Santo Tomas
Manila
- Open Forum
- 12:00 Lunch
- 1:30 "Antigenotoxic Effects of Bone Marrow Cells of Refined Coconut Oil Administered Simultaneously with Azaserine, Dimethylhydrazine, Dimethylnitrosamine, Benzo (a) Pyrene, Methylmethanesulfonate and Tetracycline"
(Clara Y. Lim-Sylianco, J. Balboa, R. Casareno, R. Mallorca and E. Serrano)
- Clara Y. Lim-Sylianco***
Institute of Chemistry
College of Science
University of the Philippines Diliman
- "Biochemical and Nutritional Qualities of Several Philippine Indigenous Food Legumes"
- Evelyn Mae T. Mendoza**
Institute of Plant Breeding
University of the Philippines Los Baños

Open Forum

*To present paper

Poster Papers

MATHEMATICAL, PHYSICAL AND ENGINEERING SCIENCES DIVISION

July 9, 1991

Title of Paper

Presenter/Address

Optical Fiber Biosensors
Based on Plant Tissues

**Roberto T. Andres, N.V. Rodriguez
and F. Sevilla III**
Research Center for the Natural Sciences
University of Sto. Tomas, Manila

Milling of High Moisture Paddy
Using Rubber Roll Ricemill
Quezon City

Vicente S. del Pilar
National Food Authority
Quezon City

Energy Analysis of a Proposed
Model of a Natural Convection
Flue-curing Barn

Samuel S. Franco and J.L. Woods
Philippine Tobacco Authority
Batac, Ilocos Norte

Determination of Milling Degree
Using the Alcohol Alkali Bran
Staining Method

Ma. Theresa Isabales
National Food Authority
Quezon City

July 10, 1991

Aerial Photogrametry for Land
Planning and Development

Walden S. Ric
College of Engineering
Central Philippines University
Iloilo City

Development of Palay
Purity Tester

Vicente del Pilar
National Food Authority
Quezon City

A Proposed Model for the Waste
Utilization Value

Wilfredo I. Jose and Jacob S. Tio
Dept. of Chemical Engineering
University of the Philippines Diliman

On the Dynamics of Resource-
Consumer-Toxicant Systems: Models
of the Reproductive Effort and
Resulting Offspring of an Individual
Organism

Jose T. de Luna
Dept. of Mathematics
Mindanao State University
Marawi City

BIOLOGICAL SCIENCES DIVISION

July 9, 1991

Title of Paper

Presenter/Address

Morpho-Histochemical
Studies of Some
Medicinal Ferns

Victor Amoroso
Central Mindanao University
Musuan, Bukidnon

Localization of Zinc in
the Gonadal Tissue
Oreochromis niloticus

Virginia S. Cariño and N. N. Cruz
Institute of Biology
College of Science
University of the Philippines Diliman

In Vitro Selection and
Propagation of Shoot Moth
Resistant Pines

Saturnina C. Halos, E. Nancy
and A. Anacleto
Natural Science Research Institute
University of the Philippines Diliman

Interspecific Hybridiza-
tion Between *V. radiata*
(L.) Wilczek and *V.*
glabrescens (M.M. & S)
Through Embryo Culture

Desiree M. Hautea, C.J. Mendoza
and R.N. Garcia
Institute of Plant Breeding
University of the Philippines Los Baños

July 10, 1991

Competition of Water Hyacinth
with *Hydrilla verticillata* Royle
and *Pistia stratiotes* Linn.

Claro M. Santiago, Jr.
Industrial Technology Development Inst.
DOST Compound, Bicutan

Strain Improvement in
Selected Strains of Edible Fungi

Claro M. Santiago, Jr., B.B. Mercado
E.D. de Leon, R.P. Flores, R.P. Garcia
and M.B. Bigol
Industrial Technology Development Inst.
DOST Compound, Bicutan

Recovery of Chromium from
Leather Tanning Effluent

Claro M. Santiago, Jr., D.B. Isaac
P.G. Anglo, B.M. Garcia
C.M. Silverio, R.L. Esguerra
F.C. Rodillo and M.B. Bigol
Industrial Technology Development Inst.
DOST Compound, Bicutan, Taguig, MM

Development of a Process
in the Production of Medium
Chain Triglycerides (MCT) From
Coconut Oil Fatty Acids

D.L. Binlayo, C.H. Viernes, L.C. Hermosura
S.B. Tan, B.L. Roan, Y. Valderrama
A.L. Gonzales, and V.P. Arida
Industrial Technology Development Inst.
DOST Cmpnd., Bicutan, Taguig, MM

AGRICULTURAL SCIENCES DIVISION

July 9, 1991

Title of Paper

Presenter/Address

Organogenesis from Leaf Callus
of Mung Bean (*Vigna radiata*
L. Wilczek) and Moth Bean
(*Vigna aconitifolia* Jacq Marechal)

Renato A. Avenido and
D. D. Menancio-Hautea
Institute of Plant Breeding
University of the Philippines Los Baños

Development of Tissue Culture
Techniques for Woody Spices

Ramon C. Barba
Institute of Plant Breeding
University of the Philippines Los Baños

Mechanism of Resistance of
Eggplant (*Solanum melongena*
Linn.) to the Cotton Leafhopper,
Amrasca biguttula (Ishida)

Merdelyn Caasi Lit and E.N. Bernardo
Institute of Plant Breeding
University of the Philippines Los Baños

Branch Cutting Propagation of
Bambusa blumeana, *B. vulgaris*,
B. vulgaris var. *striata*, *Dendrocalamus*
merrillianus, *Gigantochloa levis*,
Using Indolebutyric Acid

Manuel L. Castillo
College of Forestry
University of the Philippines Los Baños

Micropropagation of Banana
and Rattan for Mass Distribution

Lilian F. Pateña and R.A. Avenido
Institute of Plant Breeding
University of the Philippines Los Baños

Endosperm Culture of
Calamansi (*Citrus fortunella
mitis*)- A Progress Report

Lilian F. Pateña and R.C. Barba
Institute of Plant Breeding
University of the Philippines Los Baños

Tissue Culture of Garlic and
Shallot

Lilian F. Pateña B. A. dela Rosa
and T.L. Rosario
Institute of Plant Breeding
University of the Philippines Los Baños

Somaclonal Variation and
Induced Mutation in Ramie

Lilian F. Pateña, Ma. A A. Punzalan
E.A. Sana, R.C. Barba and C. Abella
Institute of Plant Breeding
University of the Philippines Los Baños

July 10, 1991

Tissue Culture of Mature
and Immature Embryo of Corn

Eden A. Perez, O.P. Damasco
and A.B. Zamora
Institute of Plant Breeding
University of the Philippines Los Baños

Reaction of Recovered Tungro-
Infected Rice Plants to Eliza
Test

A.C. Pizzaro and N.G. Fabellar
Gregorio Araneta University Foundation
Malabon, Metro Manila

Growth and Mortality of Blood Cockle
(*Anadara granosa* Linn.) in
Mambulao Bay, Camarines Norte

Soliman Victor
College of Fisheries
Bicol University
Tayhi, Tabaco, Albay

Tissue Culture of Bamboo

Alfinetta B. Zamora, S.Sm. Gruezo
and O.P. Damasco
Institute of Plant Breeding
University of the Philippines Los Baños

In Vitro Selection for Salinity
Resistance in Tomato

Alfinetta B. Zamora, V.C. Lapitan
E.A. Perez D.A.del Rosario
A.C. Sumague and V.P. Roxas
Institute of Plant Breeding
University of the Philippines Los Baños

Conservation of Abaca and
Root Crops *in Vitro*

Alfinetta B. Zamora, K.P. Baradas
and E.S. Estano
Institute of Plant Breeding
University of the Philippines Los Baños

Tissue Culture: Adjunct
to Potato Breeding

**Alfinetta B. Zamora
and Cynthia N. Paet**
Institute of Plant Breeding
University of the Philippines Los Baños

Development and Application
of Tissue Culture Techniques
for Virus Elimination and
Germplasm Conservation in
Bananas and Plantains

**Alfinetta B. Zamora, O.P. Damasco
C.S. Ramos and L.S. Sasuman**
Institute of Plant Breeding
University of the Philippines Los Baños

HEALTH SCIENCES DIVISION

July 9, 1991

Title of Paper

Presenter/Address

The Chemical and Biological Studies
on *Mikania cordata* (Burm.F.).
B.L. Robinson

Alicia M. Aguinaldo
Research Center for the Natural Science s
University of Santo Tomas
Manila

Efficiency of Structured Lipid
vs. Soybean Oil in the
Rehabilitation of Malnourished
Children - A Field Study

**Carmen Ll. Intengan, J.S. Pesigan
T. Cawaling and C.S. Dayrit**
NAST, Bicutan
Taguig, Metro Manila

Cutaneous Manifestations of HIV
Infection in Filipino Hospitality
Girls

**Emily F. Piansay, C.G. Hayes
C.R. Manaloto, L.T. Caringal
A.B. Andrada, P. Mejia
and V.B. Sevilla**
Department of Health
Manila

July 10, 1991

A Multi-Media Instructional
Kit

Erlinda R. Santos
College of Pharmacy
Philippine Women's University
Manila

The Hemostatic Activity of the
Extractives of *Musa errans* (Blanco)
Teodoro var. *botoan* Teodoro

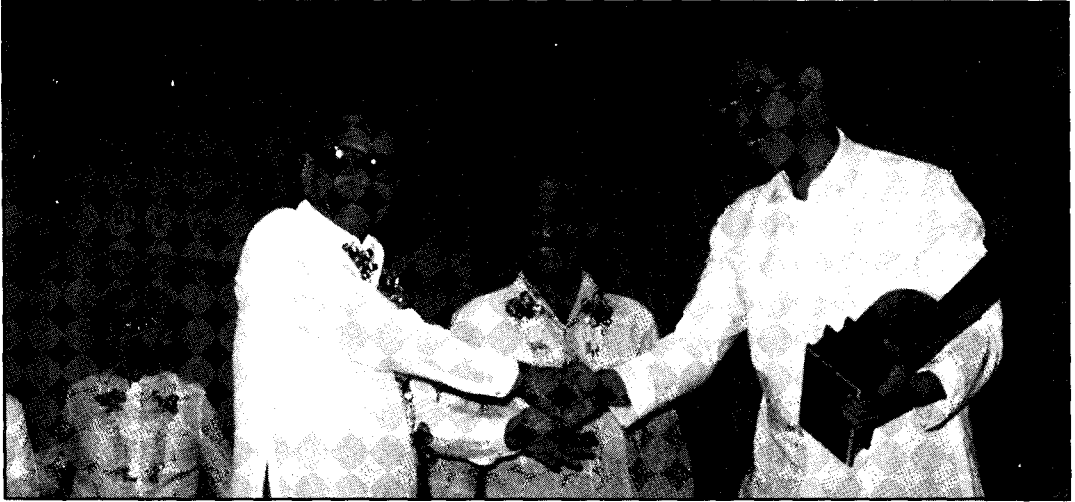
Erlinda R. Santos and L. de la Merced
College of Pharmacy
Philippine Women's University
Manila



Drs. Leopoldo S. Castillo, Apolinario D. Nazarea, and Ruben L. Villareal were inducted by Science Secretary Ceferino L. Folloso as members of the Academy during the investiture ceremonies held in the 12th Annual Scientific of the Academy on July 11, 1990 at the Philippine International Convention Center (PICC).



In same occasion, nine (9) were given Outstanding Young Scientists (OYS) awards for their exemplary contributions in their fields. They were: Ambrosio Raul R. Alfiler (Entomology), Adelina A. Barrion (Insect Genetics), Manuel M. Dayrit (Epidemiology and Public Health), Emmanuel M. Lagare (Mathematics), Rodel Maghirang (Vegetable Breeding), Roberto N. Padua (Theoretical Statistics), Lilian F. Pateña (Plant Tissue Culture), Manuela Fe Tarroja (Physics), and Wilfred U. Tiu (Biology).



Also during the 12th ASM, the NAST-TWAS Science Prize in Biology was awarded to Dr. Wilfred U. Tiu. It was awarded in 1990 to a young scientist (under 40 years of age on the day of the awarding) who has made significant contributions in biological sciences. The awardee received US\$2,000 cash prize from TWAS and a plaque from NAST. The NAST-TWAS Science Prize award is a joint undertaking of the Academy and the Third World Academy of Sciences (TWAS).



The Academy held its 12th Annual Scientific Meeting on July 11, 1990 at the Philippine International Convention Center (PICC), Manila. Dr. Klaus Lampe (inset), Director-General of the International Rice Research Institute gave the keynote address and delivered a paper entitled "Management of Resources in Research." Academician Gelia T. Castillo was plenary speaker and delivered a paper entitled "Sustainable Development in Search of Heroes".

On the instance of the Academy and the Department of Science and Technology (DOST), President Corazon C. Aquino signed Executive Order No. 430 on October 15, 1990 creating the National Committee on Biosafety of the Philippines.



The Academy held a National Consultation on the Guidelines of Collecting Biological Specimens in the country by foreign scientists. The consultation led to the final establishment of the agreement between implementing agencies and enactment of the Guidelines on the Collections of Biological Specimens, which is now being enforced.

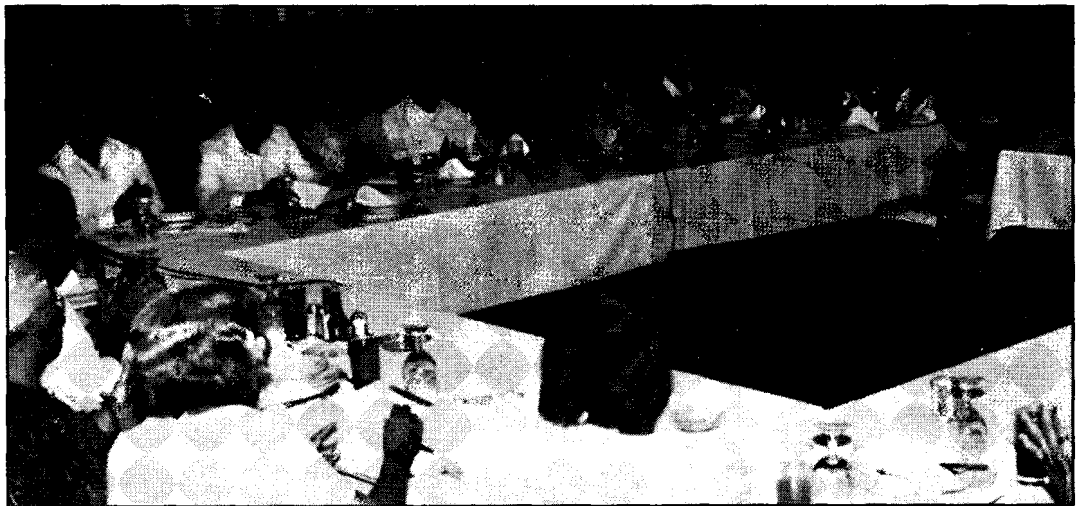


The Academy hosted the Regional/Seminar Workshop on Biotechnology on December 3-6, 1990 at the Philippine Village Hotel, Pasay City. After NAST President Discoro L. Umali welcomed the 267 participants, Science Secretary Ceferino L. Follosco gave the keynote address. National Scientist Paulo C. Campos gave the participants an overview of the seminar/workshop. The event was attended by foreign participants from Malaysia, UNDP/DEVNETS-TIPS (Italy), India, and Canada. The seminar/workshop was organized by the National Academy of Science and Technology (NAST), Department of Science and Technology (DOST) Federation of Asian Scientific Academies and Societies (FASAS) and the University of the Philippines (UP).



The NAST Rice Task Force coordinated by NAST President Dioscoro L. Umali conducted a series of round table conferences. The Task force originally aimed to come up with a "white" paper on the rice self-sufficiency.

However in August 1990, upon reassessment of its plans, the Task Force decided to undertake a comprehensive review of the rice production consumption continuum at the provincial level in the priority provinces and evolve a model for nationwide implementation. On site projects are on going in the provinces of Laguna and Camarines Norte.



For science literacy awareness, the Academy held series of science literacy fora for science writers of the print media. Featured were experts from different agencies. Representatives from the major dailies regularly attended these sessions.

The NAST Speakers Bureau which began early in 1990 has served different regions of the country through scientific and technological lectures as requested by different regions.

ACADEMICIANS

Year Elected	Academician	Specialization
1978	Paulo C. Campos, M.D.	Medicine
1978	Alfredo V. Lagmay, Ph.D.	Experimental psychology
1978	+Cecilio F. Lopez, Dr. phil.	Philippine linguistics and Oriental studies
1978	Tito A. Mijares, Ph.D.	Statistics
1978	+Juan S. Salcedo, Jr., M.D.	Nutrition and public health
1978	+Alfredo C. Santos, Dr. phil.	Physical chemistry
1978	Dioscoro L. Umali, Ph.D.	Genetics and plant breeding
1978	Carmen C. Velasquez, Ph.D.	Parasitology
1978	+Gregorio T. Velasquez, Ph.D.	Phycology
1978	+Gregorio Y. Zara, D. Sc.	Engineering and invention
1979	Encarnacion Alzona, Ph.D.	History
1979	+Teodoro A. Agoncillo, Litt. D. (h.c.)	History
1979	Jose Encarnacion, Jr., Ph.D.	Economics
1979	Pedro B. Escuro, Ph.D.	Plant breeding and genetics
1979	Raymundo A. Favila, Ph.D.	Mathematics
1979	+Francisco M. Fronda, Ph.D.	Animal Husbandry
1979	Bienvenido O. Juliano, Ph.D.	Organic chemistry
1979	Melecio S. Magno, Ph.D.	Physics
1979	Fe del Mundo, M.D., M.A	Pediatrics
1979	+Geminiano T. de Ocampo, M.D.	Ophthalmology
1979	+Eduardo A. Quisumbing, Ph.D.	Plant taxonomy and systematic morphology
1979	+Jose N. Rodriguez, M.D.	Leprology
1979	+Casimiro del Rosario, Ph.D.	Physics
1980	Luz Oliveros-Belardo, Ph.D.	Pharmaceutical chemistry
1980	Magdalena C. Cantoria, Ph.D.	Botany
1980	+Emerita V. de Guzman, Ph.D.	Plant physiology
1980	Conrado S. Dayrit, M.D.	Pharmacology, cardiology

+ deceased

1980	+Francisco O.Santos, Ph.D.	Agricultural chemistry
1980	Joventino D. Soriano, Ph.D.	Cytogenetics and mutation research
1980	Clara Y. Lim-Sylianco, Ph.D.	Biochemistry and organic chemistry
1981	Clare R. Baltazar, Ph.D.	Systematic entomology
1981	+Julian A. Banzon, Ph.D.	Biophysical chemistry
1981	+Amando M. Dalisay, Ph.D.	Economics
1981	Benjamin D. Cabrera, M.D., M.P.H.	Medical parasitology and public health
1982	Emil Q. Javier, Ph.D.	Plant breeding and genetics
1983	Gelia T. Castillo, Ph.D.	Rural sociology
1983	Jose O. Juliano, Ph.D.	Nuclear chemistry and physics
1983	+Hilario D.G. Lara, M.D., Dr.P.H.	Public health
1983	Bienvenido F. Nebres, S.J., Ph.D.	Mathematics
1983	Faustino T. Orillo, Ph.D.	Mycology
1983	Jose R. Velasco, Ph.D.	Plant physiology
1985	Quintin L. Kintanar, M.D., Ph.D.	Environmental medicine
1985	Quirino O. Navarro, Ph.D.	Nuclear chemistry
1985	+Gregorio F. Zaide, Ph.D.	History
1987	Solita Camara-Besa, M.D., M.S.	Biochemistry
1987	Filomena F. Campos, Ph.D.	Plant breeding/cytogenetics
1987	Lourdes J. Cruz, Ph.D.	Biochemistry
1987	Edito G. Garcia, M.D.	Medical parasitology
1987	Carmen Ll. Intengan, Ph.D.	Nutrition
1987	Dolores A. Ramirez, Ph.D.	Biochemical genetics
1987	Benito S. Vergara, Ph.D.	Plant physiology
1987	Prescillano M. Zamora, Ph.D.	Plant anatomy-morphology
1988	Ricardo M. Lantican, Ph.D.	Plant genetics
1990	Apolinario Nazarea, Ph.D.	Biochemistry
1990	Leopoldo Castillo, Ph.D.	Animal science
1990	Ruben Villareal, Ph.D.	Plant breeding

+ deceased

NATIONAL SCIENTISTS

Year Conferred	National Scientist	Specialization
1978	+Juan S. Salcedo, Jr., M.D.	Nutrition and public health
1978	+Alfredo C. Santos, Dr. Phil.	Physical chemistry
1978	+Gregorio Y. Zara, Dr. Sc.	Engineering and inventions
1980	Fe del Mundo, M.D.	Pediatrics
1980	+Eduardo Quisumbing, Ph.D.	Plant Taxonomy, systematic and morphology
1982	+Geminiano T. de Ocampo, M.D.	Ophthalmology
1982	+Casimiro del Rosario, Ph.D.	Physics, astronomy and meteorology
1982	+Gregorio T. Velasquez, Ph.D.	Phycology
1983	+Francisco M. Fronda, Ph.D.	Animal husbandry
1983	+Francisco O. Santos, Ph.D.	Agricultural chemistry and human nutrition
1983	Carmen C. Velasquez, Ph.D.	Parasitology
1985	+Teodoro A. Agoncillo, Litt. D. (<i>h.c.</i>)	History
1985	Encarnacion A. Alzona, Ph.D.	History
1985	+Hilario D.G. Lara, M.D., Dr. P.H.	Public health
1986	+Julian A. Banzon, Ph.D.	Biophysical chemistry
1986	Dioscoro L. Umali, Ph.D.	Genetics and plant breeding
1987	Luz Oliveros-Belardo, Ph.D.	Phytochemistry
1987	Jose Encarnacion, Jr., Ph.D.	Economics
1988	Alfredo V. Lagmay, Ph.D.	Experimental psychology
1989	Paulo C. Campos, M.D.	Nuclear medicine

+deceased

The Executive Council of the Academy for 1989-1992

National Scientist Dioscoro L. Umali	-	President
Academician Conrado S. Dayrit	-	Vice-President
Academician Joventino D. Soriano	-	Secretary
Academician Magdalena C. Cantoria	-	Member
National Scientist Jose Encarnacion, Jr.	-	Member
Academician Bienvenido O. Julianio	-	Member
Academician Faustino T. Orillo	-	Member

1991 ASM Program Committee

Academician Joventino D. Soriano	-	Chairman
Academician Solita Camara-Besa	-	Member
Academician Gelia T. Castillo	-	Member
Academician Conrado S. Dayrit	-	Member
National Scientist Alfredo V. Lagmay	-	Member
Academician Melecio S. Magno	-	Member
Academician Tito A. Mijares	-	Member
Academician Faustino T. Orillo	-	Member
Academician Dolores A. Ramirez	-	Member
Academician Prescillano M. Zamora	-	Member

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