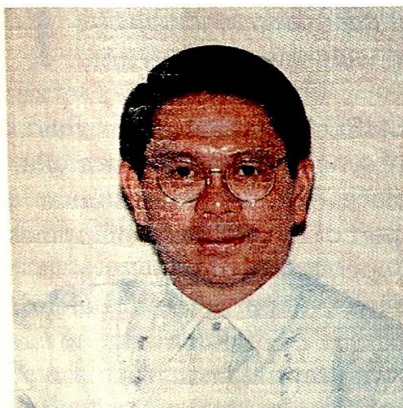


1995
ANNUAL REPORT

PHILIPPINE COUNCIL FOR HEALTH RESEARCH AND DEVELOPMENT

Chairman's Message



Being globally competitive, being at par with the best of the world is a tough task. We all recognize this difficulty, but however daunting this task is, we cannot escape it, especially as the world moves into one small global village.

There are advantages and disadvantages in living in a small village. On the upside, the spirit of community is stronger as information flows easily from one country to the other. Thanks to the benefits brought about by improved information and communication technologies.

The downside is that there is very little room and very little time to develop our niches to lengthen the differentiation stage of our products and services.

The S&T sector is faced with two major concerns all at the same time. We are expected to respond to the challenge of being globally competitive and of producing a world class human resources. We are faced with a traditional inward-looking culture, and change, as usual, will be an uphill undertaking.

Despite these daunting challenges, I commend the Philippine Council for Health Research and Development (PCHRD) for its boldness to adopt global competitiveness as its theme in 1995, its 13th year as a Council and for taking concrete steps towards global excellence.

A handwritten signature in black ink, appearing to read 'W. Padolina', written over a yellow rectangular background.

WILLIAM G. PADOLINA, Ph. D.
Chairman, PCHRD Governing Council,
and Secretary, DOST

Executive Director's Message



In 1995, we openly adopted the theme of global competitiveness. And with some celebration.


Timed during our 13th PCHRD Day Celebration, this open declaration may sound out of sync for an S&T sector who is most removed from the marketplace. Despite this distance from the latter, we believe that as part of the team of Philippines, Inc., we have to tow the line to propel the country towards its place among the community of nations, at par, and not behind.

The year was also marked with several firsts. In technology transfer, this was the first time we got together three private companies, running going concerns in the pharmaceutical industry, to sign licensing agreements to commercialize the results of our research in medicinal plants. Our negotiations with them opened our eyes to a very different ballgame which need a high level of competence and professionalism.

It was also the first time we gathered together our 35 completed scholars. A recognition day. A venue for building a social support network among PCHRD scholars. An occasion worth sharing to potential researchers so they will know that a researcher's career is rewarding.

We also launched PCHRD's Outstanding Health Research Award or the *Parangal Saliksik Pangkalusugan* to recognize individuals or groups who had been able to bridge the gap between knowledge and practice through the absorption of their results in the health care delivery system.

These are some of the highlights of what happened in 1995 at PCHRD. Our contributions may not be directly discernable, as concrete market products would be, but they strengthen and hone the very resource that will make all our aspirations happen — the health and quality of life of our people. In the future, the peoples of the world.


PACITA L. ZARA, M.D.
Executive Director

Inroads in R&D

To strengthen our country's capability in vaccine production, and, consequently equip our scientists for future international cooperation, PCHRD funded the establishment of a vaccine multi-purpose pilot plant. This was effected through a tripartite Memorandum of Understanding between the Department of Science and Technology (DOST), Department of Health (DOH), and the University of the Philippines (UP).

The project will provide the production technology for recombinant vaccines. It will initially focus on the development and transfer of the production technology for a malaria transmission blocking vaccine called TBV25H. This vaccine was developed by Dr. David Kaslow of the National Institutes of Health in Bethesda, Maryland, USA. Laboratory tests showed that TBV25H is very effective in limiting the spread of drug-resistant parasites.

In addition, the following seven health R&D projects were completed during the year.

Development of cerebrospinal fluid shunt. Through this project, a CSF shunt, a device used in the treatment of hydrocephalus, a condition characterized by excessive accumulation of fluid in the inner cavities of the brain, was developed.

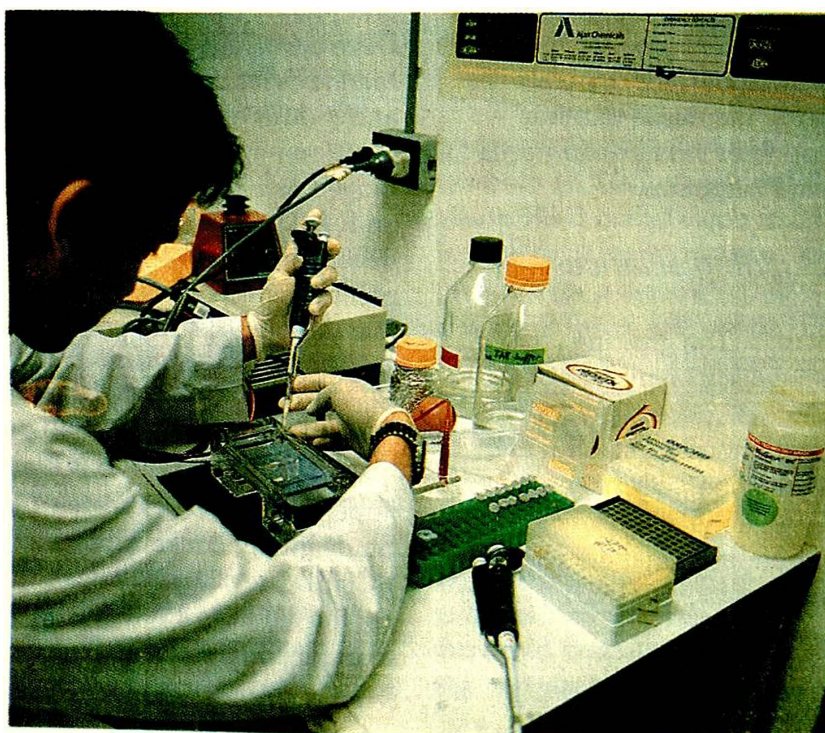
A validation of the WHO case management protocol for pediatric patients with bloody diarrhea. The project provided basis for the proper management of bloody diarrhea for Filipino patients.

Situational analysis on diabetes R&D program. This manuscript serves as a reference or guide for health

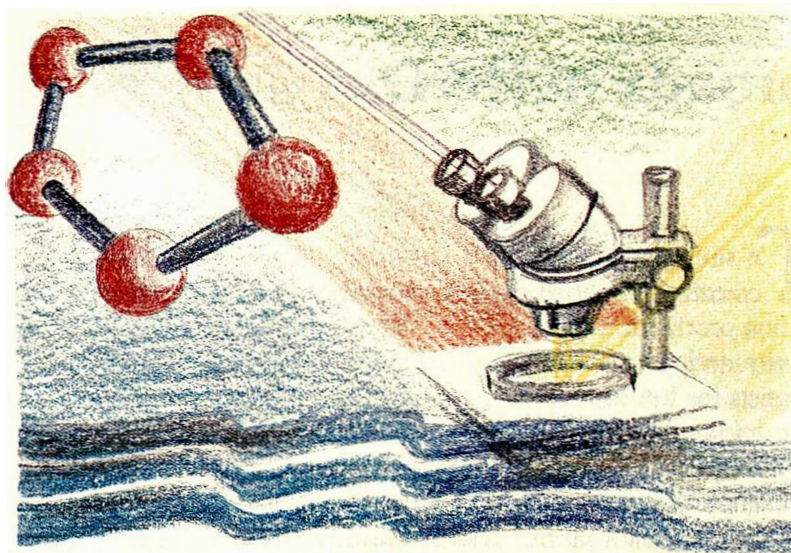
researchers in the planning and in developing research proposals or protocols on diabetes.

Development of simple immunoassay for the clinical detection of serum transferrin. The project produced a simple, sensitive, and inexpensive immunoassay kit and procedure for laboratory and field determinations of serum transferrin level.

Clinical trial on FVRice. The study came out with a prescribed amount of iron-fortification that will improve the hemoglobin level of an at-risk population group.



Surveillance for multi-drug resistant typhoid fever in Metro Manila. An improved treatment of multi-drug resistant typhoid fever (MDR-TF) resulted and specific control measures to prevent spread of endemic MDR-TF were drawn up.



Prevalence of antibodies to hepatitis C virus among risks groups in the Philippines. The project determined the distribution and risk of hepatitis C infection in various groups in the Philippines.

These results are expected to add on to the world's pool of knowledge in health. Some of the product-based results, although aimed primarily at meeting basic domestic needs, may also serve the needs of other countries with similar needs as the Philippines.

Building alliances

The growing multidisciplinary task of the Council necessitated that it continuously establish and strengthen alliances with institutions that have similar vision and that are willing to work along PCHRD's priority areas.

This move is expected to maximize the use of resources, nationally and internationally, to achieve common objectives.

Putting their heads together, PCHRD, the Philippine Council for Advanced Science and Technology Research and Development (PCASTRD), Philippine Council for Aquatic and Marine Research and Development (PCAMRD), Marine Science Institute (MSI), and Industrial Technology Development Institute (ITDI) moved as one to formulate an R & D program on the development of pharmaceutical products from marine sources. The group singled out seaweeds as a priority.

The National Tuberculosis (TB) Research Study group, convened by PCHRD, reviewed studies conducted from 1988 onwards and pinpointed research gap on the disease's epidemiology

and surveillance, prevalence and control, and case finding.

PCHRD, together with UP Manila and DOH-Essential National Health Research Program (ENHR), recognizes the value of study groups in identifying and implementing priority research projects.

In the National Capital Region (NCR), PCHRD will be sitting in the technical panel of the Local Health Board's research committees. It is expected that this move by NCR will be replicated in other local government units.

PCHRD is also participating in a task force formed by the Philippine Society of Hypertension (HPN) to identify research priorities which would serve as a reference for researches needed in the control of HPN.

Likewise, the Council is assisting the Philippine Sports Commission in formulating a research agenda.

A consensus building workshop will be convened with multisectoral participation from the different sectors involved in sports medicine.

Meanwhile, PCHRD is discussing with the National Tobacco Administration on a possible collaboration to develop medicinal products from tobacco.

Internationally, two teams of Chinese scientists are expected to forge a working partnership with their local counterparts in the development of medicinal and pharmaceutical preparations from plants as a result of the bilateral exchange program between Philippines and China. The Chinese delegates visited various production plants and research agencies, and held dialogues with the private sector and the academe. Similar activities were undertaken by the Philippine delegates who went to China in 1995.

Polishing research policies

PCHRD took the lead in the tripartite dialogue between the Department of Science and Technology, Department of Budget and Management (DBM), and research agencies in the

Visayas region. The dialogue covered the review of 1996 health R&D projects from different agencies for endorsement to DBM.

Five other zonal reviews were undertaken in

consultation with and involvement of users of research results: key factors in ensuring the success of R&D activities

other parts of the country. The activity is aimed at assessing and ensuring that R&D activities requiring government funds are aligned with the priority products and services reflected in the S&T Agenda for National Development (STAND).

The Council finetuned its criteria for assessing the viability of health R&D projects. The revised criteria evaluate the project's contribution in the aspects of health and quality of life, S&T thrusts, economic significance, and social desirability. It is expected that these refinements will enhance the attractiveness of research

results for local and international consumption.

To enhance research utilization, an operational plan for a client-centered research management framework was drawn up. The latter identified consultation with and involvement of users of research result as key factors in ensuring the success of R&D activities. It also stressed the need for a pre-feasibility study for projects with product-based results to identify the presence or absence of users who will absorb the product.

Recognizing the essential role of the private sector in R&D, incentives to fast-forward its participation was developed.

The policy provides for participation of the private sector in all R&D stages and allows R&D contribution to be in cash or in kind. It also provides for a flexible royalty sharing scheme, first option in technology commercialization, and recognition of intellectual property right.

Aware of the problems that insufficient budget gives to scholars and research grantees, the Council increased financial support for the recipients of its scholarship

***grant for thesis/
masters degree
projects was
raised to
P100,000 from
P30,000;
dissertation/
doctoral degree
projects upped to
P200,000 from
P60,000***

and thesis/dissertation assistance programs. This year, the grant for thesis/ masters degree projects was raised to P100,000 from P30,000 while that for dissertation/doctoral degree projects was upped to P200,000 from P60,000. The new rates aim to entice more masteral and doctoral students to upgrade the quality of thesis and dissertation proposals and to correct the present level of financial assistance given the soaring cost of conducting health-related studies.

PCHRD also amended its Research Fellowship Grant to encourage more budding researchers to pursue research careers. The amendments included an increase in stipend from P2,500 to 10,000; and an increase in Maintenance and Other Operating Expenses (MOOE) of research projects under this scheme from P100,000.00 to P200,000.00, an amount comparable to the PhD dissertation grant.



Building a strong research force

As the S&T system moves towards building world-class laboratories, the demand to upgrade and develop centers of excellence has never been more pressing.

Recognizing this need, DOST, through the Council awarded an P8M grant to UP Manila for the operationalization of its Institutes for Socio-Biomedical Research (ISBMR). The grant will be used to meet the infrastructure requirements of the specialized laboratories within ISBMR.

While the health R&D sector is aware of the increasing globalization trend, it is more pressed to develop research capability in the regions.

To sustain the Council's efforts in this respect, PCHRD continued to support various R&D activities thru its Regional Health Research and Development Committees (RHRDCs) in Regions 1,2, CAR, NCR or Metro Manila Health Science Community (MMHSC), 6,7, 8, and 11.

RHRDCs are voluntary and cooperative networks of organizations involved and interested to undertake health research.

Thru these RHRDCs, a decentralized mode of funding studies by new researchers from the regions is implemented. Called the



Regional Research Fund (RRF) mechanism, this approach is not only developing more researchers, it is also increasing the number of researches assisted by the Council. Among the completed projects funded through RRF were:

The Efficacy of Nifedipine compared to hydralazine management of hypertension in severe

preeclamptic patients. The research found that *Nifedipine*, a calcium channel blocker, can be used as an alternative drug in the management of hypertension in severe preeclamptic patients. It is cost effective and easier to administer than hydralazine.

A controlled study of an integrated health approach to promote breastfeeding among working mothers in an industrial setting. The study showed that within a population of working women, the integrated health approach seems to influence some

feeding practices in mothers, specifically successful initiation and improved duration of breastfeeding.

Cyanide content of selected medicinal plants in Iloilo. From among 28 species of medicinal plants, seven were identified positive for cyanide and cyanoglycosides. These are, in decreasing cyanoglycosides content,

Hibiscus surattensis Linn.,
Nerium indicum,
Cardiospermum halicacabum,
Pitoosporum pentandrum,
Blumea balsamifera, *Ocimum*
sanctum, and *Swietenia*
macrophylla.

A case control study of diarrheal disease among children below one year old. The study demonstrated the impact of water supply and environmental sanitation exemplified by collection and storage of clean water and fecal disposal practices in the occurrence of diarrheal diseases.

A study on the efficiency of the combined permanganate and dual media filtration on the removal of iron and manganese in ground water. The study showed that the combined permanganate and dual media filtration was efficient in reducing as well as removing the concentrations of both iron and manganese in Koronadal ground water.

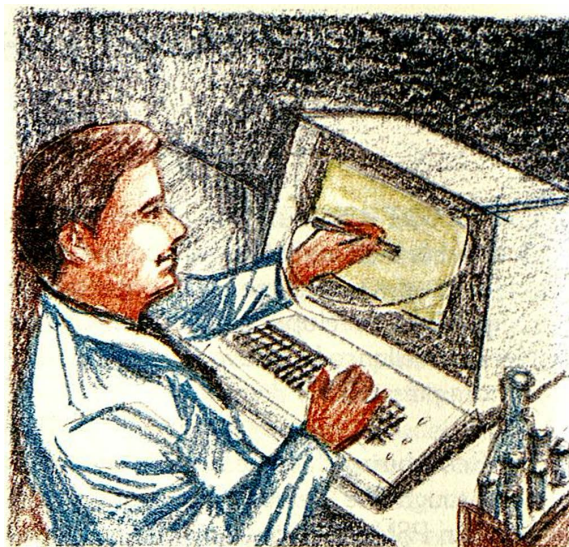
Comparative study on the safety and efficiency of topical Cymbopogon citratus, Peperomia pellucida, their combination, placebo and Piroxicam on muscle/joint pains. Based on the findings of the study, medicinal plant species, *tanglad*, (*Cymbopogon citratus*) *Peperomia* and their

combination can be as effective as the standard drug (piroxicam) for muscle and joint pains.

Some studies on the bioactivity of aqueous extracts from soft corals. Through the study, pharmacological potential of three coral species were discovered. These species include *Sinularia* sp, *Lobophyton* sp, and *Pachyclavularia*.

A seminar-workshop on Biomedical Research Methodology for Region 7, is being organized by the Cebu Institute of Medicine for implementation early next year as a response to the demand for the said training in the region. The trainer and leadership roles that CIM is playing in Region 7, which in the past, was assumed by Manila-based institutions, is a good indication of the success of the Council's institution development program.

In Metro Manila, the Third and Fourth Basic Course on Biomedical Research Methods yielded 32 project proposals, 19 of which are now ongoing.



In RHRDC-8, similar fora generated 60 proposals. Of these, four had obtained funding commitment from DOH-ENHR, and 12 are being considered for PCHRD support.

The training course on Biomedical Research Methodology is a two-phase training program designed to develop a core of researchers and research trainers specializing in biomedical research.

A total of seven biomedical research projects were completed in 1995. These include the following:

Prevalence of psychological problems among children and adolescents in different living conditions after the Mt. Pinatubo eruption and those living in a non-disaster community. The study determined the difference in the nature and extent of psychological problems among

children and adolescent survivors of the Mt. Pinatubo eruption who live in an evacuation camp, a resettlement site, and non-victims who live in a non-disaster community.

Ultrasonic ographic assessment of the endometrium in postmenopausal and premenopausal blood. The study showed that when the cutoff level is set at at 3mm, the sensitivity, specificity, positive predictive value, and negative predictive value of transvaginal endometrial thickness measurement for identifying endometrial abnormality are 97.7%, 62.5%, 70.5%, and 96.8%, respectively. The recommended cutoff is 3 mm because at this level and below, no carcinoma is missed.

Reliability in the radiograph interpretation of primary Koch's infection among radiologists at a university hospital. The study determined the extent of inter-observer and intra-observer reliability in the radiograph interpretation of primary Koch's infection as measured by Kappa statistics. Both intra and inter-observer agreement showed a poor rating.

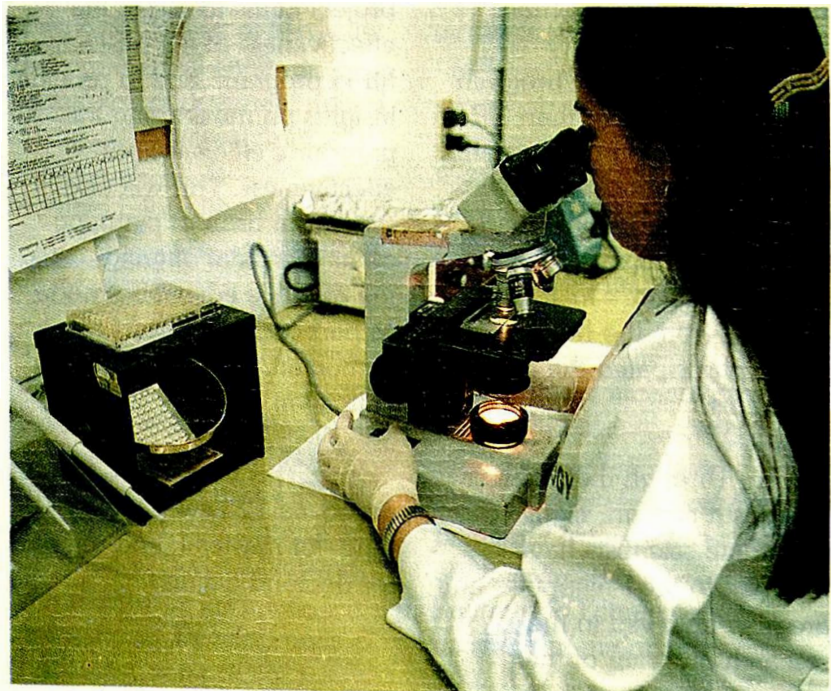
The protective effect of Vitamin A in diarrhea of children 1-5 years old. The study sought to determine the relative risk of developing diarrhea in children 1-5 years old given single dose oral Vitamin A 200,000 IU.

The validity of darkfield examination in the diagnosis of leptospirosis. The study revealed that darkfield microscopy is the readily available, rapid, easy to perform, highly sensitive, and cheap laboratory procedure in the diagnosis of leptospirosis.

Effect of peanut supplemented diet on the cholesterol levels of cats. The study concluded that peanut

diet supplementation may cause a decrease in mean cholesterol levels of the population given a high fat diet. Regular diet, on the other hand, with peanut supplementation may lead to an increase in mean cholesterol levels in cats.

Cord uric acid levels in predicting neonatal outcome in the first seven days of life. The study found that neonatal outcome has no significant correlation with cord uric acid level, Apgar score, gestational age, birthweight, and the presence of maternal risk factor. Cord uric acid was not significantly correlated with gestational age, birthweight, and Apgar score. However, the



maternal uric acid level has a good correlation with cord blood uric acid level.

In 1995, the Council, sponsored a one-day seminar on equipment purchase, the first of a series of seminars on instrumentation, aimed to build within MMHSC member-institutions the capability to derive the most benefit from existing laboratory and hospital equipment.

The Council has also been participating in DOST-coordinated human resource development programs. A 10-year evaluation of the program for the medical sciences under the auspices of the Japan Society for the Promotion of Science (JSPS) was made with the assistance of external consultants. Better dissemination of the program to institutions other than UP, and the inclusion of a research utilization criterion are two of the recommendations made to improve program implementation. In 1995, five scientists from the health sector participated the JSPS programs.

Through the *Balik-Scientist* Program, eight expatriate scientists have returned to the Philippines and are now involved in the research program of their

respective institutions.

In support of alternative methods of instruction, the Council funded a project of the UP Manila College of Public Health entitled, "Evaluation of the Off-Campus Master in Public Health (MPH) Program of UP Manila," a component of UP's Open Education Program.

The project aims to assess the effectiveness of the off-campus MPH program and to provide insights on maximizing the program's efficiency and effectiveness. This will also serve as a basis of planning other curricular offerings using the distance education mode as part of UP's efforts to democratize access to quality education.

This year, the Council approved 12 new scholars, nine for masteral and three for doctoral degrees.

Rewarding excellence

For the first time since the inception of the PCHRD Scholarship Program, a recognition day during this year's celebration of the National Science and Technology Week was held for scholars and thesis grantees who have completed their studies or thesis projects.

Todate, the Council has 35 completed scholars - three Ph.D. scholars, 10 MS scholars, and 22 thesis assistance grantees.

In recognition of exemplary work by individual or group who has been able to bridge the gap between knowledge and practice through the absorption of his/her/their research results in the health care delivery system, PCHRD launched the Outstanding Health Research Award or the *Parangal Saliksik Pangkalusugan*. The award, open to all Filipino health researchers, will be given annually starting 1995. It has two categories, the biomedical research category and the health services research category, each of which carries a cash prize of P100,000 as well as a plaque of recognition.

This year, three entries from 26 submitted proposals were given the PCHRD-Pharmaceutical Health Care Association of the Philippines (PHAP) Student Research Award in Indigenous Sources of Medicine. These are:

"In vivo immuno-radioprotection and correlation with prevention of apoptosis by selected herbal drugs: Organo-histological and DNA analysis," Pamantasan ng Lungsod ng Maynila;
"A comparative study of the anti-hypercholesterolemic effects of alagaw decoction and simvastatin in male albino rats" - *"A comparative study*

of the anti-hypercholesterolemic effects of avocado fruit and simvastatin in egg-induced hypercholesterolemic male albino rats," De La Salle University - Cavite; and, *"A comparative study of Orthosipon arsitatus (Blume) Miq. with allopurinol,"* Manila Central University.

Each of the winning entries was given a financial grant from a low of P 20,000.00 to a high of P30,000.00.

The Marsman Professorial Chair in Pharmacology was given to a lone nominee, Dr. Nelia C. Maramba, a seasoned researcher and professor at the Department of Pharmacology of the UP College of Medicine. The professorial chair, a permanent endowment aimed to encourage research in pharmacology, is given a monthly honorarium of P5,000.00.

At present, Dr. Maramba is involved in two projects, namely "Clinical Screening and Validation Studies of Medicinal Plant Products" under a PCHRD grant and "Poison Control and Information Service Network" with assistance from the International Development Research Centre (IDRC).

For researchers who bridge the gap between knowledge and practice through the absorption of research results in the health care delivery system, PCHRD launched the Outstanding Health Research Award or the Parangal Saliksik Pangkalusugan.

The 6th Scientific Poster Exhibit of Health and Related Technologies held during the 1995 NSTW, was highlighted by the winning entries from the University of Santo Tomas, both in the professional and student categories.

First prize winner in the professional level and adjudged best-packaged technology is the entry titled *"Induced expression of SQM1 protein in acute lymphoblastic leukemia cell line (CEM) and in endothelial cell line derived from human umbilical cord (HUVEC-EC-C)*. This was submitted by Dr. Gloria Bernas.

In the student category, the entry titled *"Local prototype self-retaining ureteral stent designed from a polyvinyl chloride tube: An animal study* by Dr. Raymundo Dimaculangan bagged the major prize.

Giving back what we owe the people

Three production technologies for medicinal plant formulations were transferred this year to three Filipino pharmaceutical companies as they signed a license agreement with PCHRD. The license agreement gives the adopter-companies the right to use the technologies for producing *lagundi* tablet, a cough remedy; *sambong* tablet, a formulation for diuresis and urinary tract stones, and *akapulko* lotion, an antifungal preparation for tinea versicolor locally known as "an-an." These technologies were developed over a span of almost 20 years by the PCHRD-supported National Integrated Research Program on Medicinal Plants (NIRPROMP).

Gruppo Medica,. Inc. signed up for the *lagundi* tablet production. Pascual Laboratories, Inc. adopted *lagundi* and *sambong* tablet production, and Natrapharm licensed *lagundi* and *sambong* tablets as well as *akapulko* lotion production technologies.

Early this year, a Memorandum of Agreement on the transfer of the technology on cataract surgical set between PCHRD and BDM Enterprises was signed during the Council's 13th anniversary. BDM Enterprises is now working to get financial assistance at Window III of the Development Bank of the Philippines through the assistance of PCHRD and the Technology Application and Promotion Institute (TAPI).

The Council has also submitted its application for letters patent for *akapulko* lotion as utility model and hemoglobinometer as an invention.

The technology investment clinic on cerebrospinal fluid (CSF) shunt generated a lot of insights on how best to attract investors.

Feasibility studies (FS) on hemoglobinometry kit (whose transfer is under negotiation), ADPT vaccine; and infant incubator; as well as the pre-FS on continuous passive motion machine and blood glucose analyzer, have been completed.

These developments, when fully realized, will mean better and cheaper health



products for the Filipinos, and , if found applicable and viable, for the citizens of other countries.

Using IT to enhance access to information

Cognizant of the IT revolution that is taking place the world over, the Council made a big leap from providing the usual research abstracts when it acquired three discs containing the full text of the 1991-1993 issues of the five major internal medicine journals or the so called "big five." These are *The New England Journal of Medicine*, *The Journal of the American Medical Association*, *Annals of Internal Medicine*, *The Lancet*, and *The British Medicine Journal*.

As the national node and regional secretariat of the Asia Pacific Information Network on Medicinal and Aromatic Plants (APINMAP), the Council worked hand in hand with the APINMAP Technical Center, the Southeast Asia Regional Center for Graduate Study and Research in Agriculture



(SEARCA), in gathering and processing information on medicinal and aromatic

an alternative distribution medium, the CD-ROM, especially for those with undeveloped communication infrastructure. The HERDIN local database can be

accessed via PHnet (soon in Internet) on a limited basis pending release of the Council's new pricing schedules.



HERDIN staff extended technical assistance to Science Information Network (SciNet) and to DOST-UNESCO-ULIS (SISNAP) survey on national information infrastructure and services.

plants to enhance the content of its databases as well as its inputs to the Asian CD-ROM on traditional medicine which will have its first issue in 1996.

The Health Research and Development Information Network (HERDIN) database will also soon be available in



A lecture-demo on HERDIN services was conducted among 33 participants of RHRDC-VIII training on Health Research Methodology, while two

trainings on Computerized Documentation System-Integrated Set of Information Systems (CDS/ISIS) were conducted in cooperation with the DOST Technology Training Center. These trainings were participated in by 20



information officers from private and government institutions.

As of the end of the year, 3,173 clients with 6,142 search requests were served generating an income of P178,400.00.

Reaching out to people

To disseminate the programs and achievements of the Council, PCHRD conducted regular press conferences, issued press releases, and tapped radio and television. Dialogues were also conducted with selected universities in the regions to promote the products and services of the Council.

PCHRD launched the state-of-the-art (SOA) publication on *Viral hepatitis B: A Comprehensive review from virology to control* authored by Dr. Ernesto O. Domingo, a professor at UP Manila. The 200-page monograph puts together in a

single volume the basic science, clinical aspects, and public health dimension of hepatitis B.

The Council, through its Hazard Watch, monitored and issued informative health releases in response to health issues which included tetanus toxoid, foot-and-mouth-disease, mercury poisoning, and mushroom poisoning.

The Council participated in the 1995 National Technology Fair in Cebu City. Featured in the exhibit were five technologies, namely hemoglobinometer, cataract surgical set, surgical bone implant, *atis* lotion mosquito repellent, and *ipil-ipil* seed gum as alternative binder for pharmaceutical products.



Work Force

Human perspective

PCHRD is manned by a group of competent people from the different sectors of society.

The Governing Council is the highest policy-making body, led by the newly-sworn in DOST Secretary, William G. Padolina. The Department of Health Secretary, Dr. Hilarion Ramiro, sits as co-chairman. The membership includes ex-officio members: Chancellor of UP Manila (Perla Santos Ocampo), Executive Director of the National Nutrition Council (Ms. Elsa Bayani), and Executive Director of PCHRD (Pacita L. Zara). The rest of the members are private sector representatives: from industry (Dr. Abraham F. Pascual), from the medical education sector (Dr. Fernando S. Sanchez), from the practitioners/specialty societies (Dr. Ernesto O. Domingo), and the region (Dr. Josefina Poblete, dean of the Cebu Institute of Medicine).

PCHRD also taps external technical advisers who as individuals and/or members of technical committees/ study groups, assist the Council in assessing the status of research, identifying priority problem

areas and strategies to fill in research gaps, and in developing projects for implementation.

The Secretariat is composed of 75 personnel. Forty five hold technical positions while 28 provide administrative support.

Gruppo Medica Inc.; ASTRA, Inc.; ACRE; Foster-Asia; Zuellig Pharma Corp; and Pharmaceutical Health Care Association of the Philippines (PHAP).

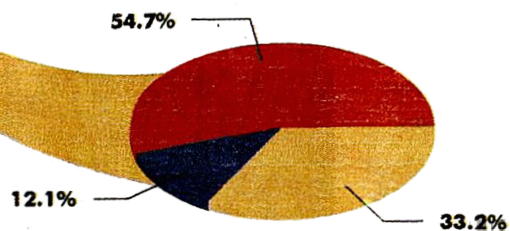
Of the total PCHRD allotment, P29.396M had been expended. The balance is earmarked as continuing appropriation.



Financial Management

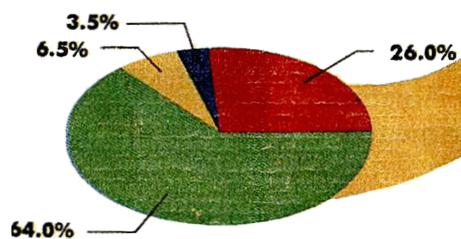
For 1995, the total allotment of the Council was P30.492M. Aside from government appropriations for PCHRD, other funds were generated from external sources like the Department of Science and Technology; Technology Application and Promotion Institute; Marsman Foundation; Eugenio Lopez Foundation; Resins, Inc.;

Of the P29.396M expenditures, P16.091M supported projects under the PCHRD Grants-in-Aid programs on R&D, technology transfer, S&T services and S&T education and training. The rest was spent for the operations of the national health research system, and general administration.



TOTAL EXPENDITURES

Grants-in-Aid	P 16.092M
Operations	P 3.554M
General Administration	P 9.750M



GRANTS-IN-AID

Research and Development	P 4.180M
Technology Delivery	P .565M
S&T Services	P 1.039M
S&T Education and Training	P 10.308M

Research and Development Projects

VACCINES/BIOLOGICALS

Development of simple immunoassay for the clinical detection of serum transferrin
 Milagros B. Leaño
 College of Medicine, University of the Philippines
 DOST-assisted
 COMPLETED

Development of diagnostic kit to detect pathogenic and non-pathogenic strains of Entamoeba histolytica
 Dr. Filipinas F. Natividad
 University of the Philippines - Diliman
 ONGOING

Development of an immuno-diagnostic test for the detection of antibodies against hepatitis B core antigen in serum
 Dr. Bernadette L. Ramirez
 Research Institute for Tropical Medicine
 DOST-assisted
 ONGOING

Establishment of a current good manufacturing practice pilot plant for R&D of recombinant vaccines and other biologicals
 Dr. Jose M. Vergara
 Biologicals Production Service-Department of Health
 NEW

NUTRITIONAL PRODUCTS

Clinical trial of FVRice
 Ma. Regina Pedro
 Food and Nutrition Research Institute
 DOST-assisted
 COMPLETED

Vitamin A fortification of coconut cooking oil and other oil-based processed foods
 Dr. Lydia Marero
 Food and Nutrition Research Institute
 ONGOING

Iron absorption from FVRice-Iron Fortified
 Divinagracia Valdez
 Food and Nutrition Research Institute
 DOST-assisted
 NEW

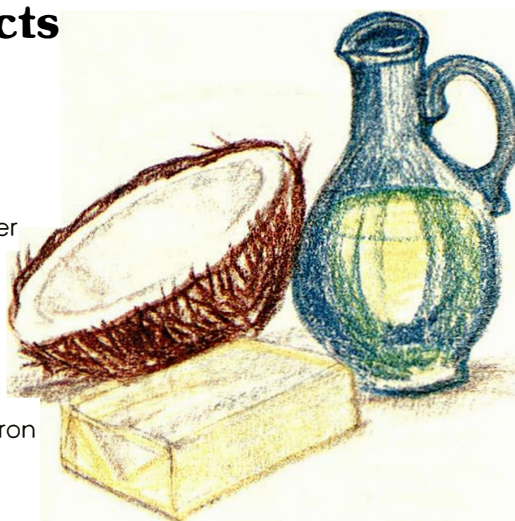
HERBAL MEDICINE

Pharmacologic/Toxicologic studies of Philippine medicinal plants
 Dr. Horacio R. Estrada
 Department of Pharmacology
 College of Medicine, UP Manila
 ONGOING

Dosage forms from medicinal plant constituents
 Dr. Natividad F. de Castro
 College of Pharmacy,
 UP Manila
 ONGOING

Establishment of quality control bioassay procedures for medicinal plant products
 Dr. Romeo F. Quijano
 Department of Pharmacology
 College of Medicine, UP Manila
 ONGOING

Chemistry of selected plants with antitubercular potentials
 Dr. Alicia M. Aguinaldo
 Research Center for the Natural Sciences
 University of Santo Tomas
 ONGOING



Mutagenicity, clastogenicity and antimutagenicity of drug preparations from Philippine medicinal plants
 Dr. Clara Y. Lim-Sylianco
 Institute of Chemistry,
 UP Diliman
 ONGOING

Clinical screening and validation studies of medicinal plant products used in traditional folk medicine in the Philippines
 Dr. Nelia C. Maramba
 Department of Pharmacology
 College of Medicine, UP Manila
 ONGOING

A randomized double blind placebo-controlled crossover trial on sambong tablet in mild hypertension
 Dr. Antonio L. Dans
 College of Medicine, UP Manila
 ONGOING

Studies on seed gum from *Leucaena leucocephala* (Ipil-ipil) for the pharmaceutical industry
 Phase II: Seed Gum from *Leucaena leucocephala* (Ipil-ipil) as an excipient in pharmaceutical liquid dosage form
 Prof. Leticia Barbara Gutierrez
 College of Pharmacy, UP Manila
 ONGOING



Effects of *Tamarindus Indica* (TM) crude leaf extract on systemic blood pressure and hemodynamics of the rat superior mesenteric microcirculation in vivo
 Dr. Xenia Tigno
 Department of Physiology
 College of Medicine
 UP Manila
 ONGOING

TRADITIONAL AREAS OF CONCERN

Communicable diseases

Hospital-based surveillance on drug-resistant typhoid fever (DRTF)
 Dr. Mediadora C. Sanie
 Philippine Society of Microbiology and Infectious Diseases-Research Institute, for Tropical Medicine
 COMPLETED

Prevalence of antibodies to hepatitis C virus among risk groups in the Philippines
 Ernesto O. Domingo
 University of the Philippines - Philippine General Hospital
 COMPLETED

A validation of the WHO case management protocol for pediatric patients with bloody diarrhea (dysentery)
 Dr. Lulu C. Bravo
 Pediatrics Department, UP-PGH
 COMPLETED

Community-based surveillance for drug resistance of M TB in selected areas
 Drs. Tessa Tan-Torres and Myrna Mendoza
 College of Medicine, UP Manila
 DOST-assisted
 ONGOING

Clinical, radiologic, microbiologic and pathologic features of drug susceptible and resistant M. tb and MOTT infection in patients with HIV infection
 Dr. Jaime Montoya
 Research Institute for Tropical Medicine
 DOST-assisted
 DEFERRED

Degenerative and metabolic disorders

Situational analysis on diabetes R & D program
 Dr. Ricardo E. Fernando
 Pediatrics Department, UP-PGH
 COMPLETED

Situational analysis on cardiovascular diseases R&D program
 Dr. Fernando S. Sanchez
 Philippine Heart Center
 COMPLETED

Situational analysis on eye diseases R & D program
 Dr. Salvador R. Salceda
 Institute of Ophthalmology, UP-PGH
 ONGOING

Situational analysis on neurologic diseases R & D program
 Dr. Joven R. Cuanang
 University of the East Ramon Magsaysay Memorial Medical Center
 ONGOING

The practice of cancer pain management among physicians in the Philippines
 Dr. Adriano V. Laudico
 Surgical Oncology Society of the Philippines
 NEW

Cancer pain severity and treatment survey: A study proposal for the Philippines
 Dr. Adriano V. Laudico
 Surgical Oncology Society of the Philippines
 NEW

Development of an in vitro chemosensitivity assay for fresh ex vivo cells from human solid cancers
 Dr. David Y. Dy
 Saint Luke's Medical Center
 NEW

High performance liquid chromatography (HPLC) determination levels in Filipino children with rheumatic heart disease/rheumatic fever (RHD/RF)
 Dr. Christine Leonor Ma. M. Cruz
 UP-PGH
 UPM Manila
 NEW

Nutrition

Food-borne bacterial pathogens of selected processed foods sold in public markets in Metro Manila
 Dr. Alice Alma Bungay
 Food and Nutrition Research Institute
 DOST-assisted
 ONGOING

Environmental/occupational health

Risk assessment of major industries located in Subic Bay Free Port Zone
Ms. Gloria Asprer
Environmental Division, Industrial Technology Development Institute-DOST
NEW

Somatic mutation in peripheral blood lymphocytes among Metro Manila residents: Indicator of exposure to environmental pollution
Mrs. Ma. Teresa Yulo-Nazarea
Philippine Nuclear Research Institute -DOST
DOST-assisted
ONGOING

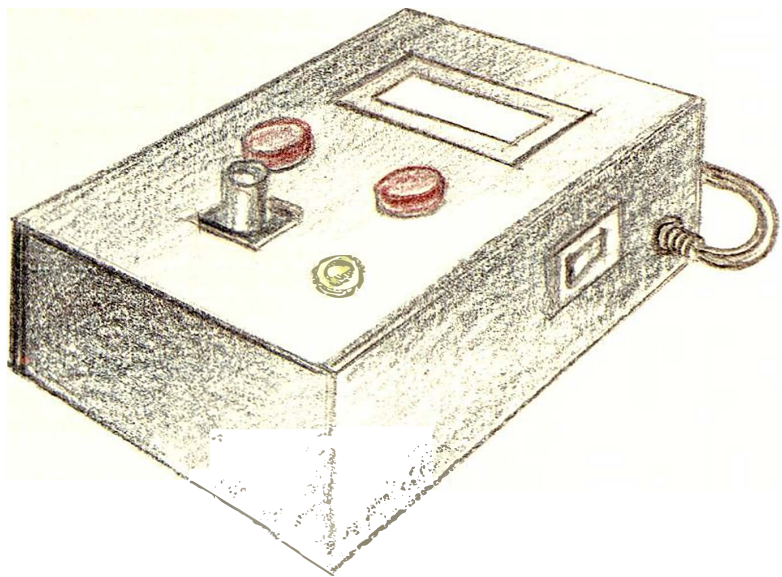
Development of a continuous passive motion (CPM) machine
Phase I - Engr. Renato P. Nuguid
Designs and Systems, Inc.
Phase II - Dr. Rafael C. Bundoc
Orthopedics Department
UP-PGH
NEW

Enhancement of the capability of a locally fabricated hemoglobinometer for analysis of other blood constituents
Dr. Fortunato Sevilla III
Research Center for the Natural Sciences,
University of Santo Tomas
NEW

BIOMEDICAL DEVICES

Comparative study of the efficacy of locally fabricated bone plates and imported bone plates in the treatment of indicated forearm fracture in Filipinos
Phase 1: Biomechanical testing of locally fabricated bone implants
Dr. Rene C. Catan
Hennepin County Medical Center
COMPLETED

Development of cerebrospinal fluid (CSF) shunt (Phase II)
Dr. Renato Q. Sibayan
Department of Medicine and Surgery
University of Santo Tomas
COMPLETED



New Projects Undertaken by Beginning Researchers

These are R&D projects conducted by beginning researchers with a grant of up to a maximum of P50,000 as a requirement of the Biomedical Research Methodology Course or as submitted for funding through the Regional Research Fund.

Training Program on Biomedical Research Methods

NCR

Pattern of initial drug resistance of mycobacterium tuberculosis among patients with pulmonary tuberculosis
Dr. Julieta Dizon
Manila Central University-Filemon D. Tanchoco Medical Foundation

Cresol as a possible alternative to glutaraldehyde as a sterilizing solution
Dr. Norman S. Garcia
MCU-FDTMF

Clinical profile of Filipino geriatric patients seen in FEU hospital; application of a comprehensive geriatric assessment protocol
Dr. Vic Fileto Chua
Far Eastern University-Nicanor Reyes Memorial Medical Foundation

The response of burn scars to intralesional verapamil
Dr. Antonieto Sajul
FEU-NRMMF

A KAP survey on medicine use for common ailments among grade 6 Filipino students
Dr. Emelita Gan
University of Santo Tomas Faculty of Medicine and Surgery

The hospital formulary system: its presence, extent of use, and effect on drug cost among tertiary level hospital in Metro Manila
Dr. Roy Cuison
UST

Adverse drug reactions to antipyretics, analgesic, anti-inflammatory agents, anti-asthmatics, and anti-convulsants among pediatric patients at the UERMMM emergency room
Dr. Ronaldo Macaraig
University of the East-Ramon Magsaysay Memorial Medical Center

Rapid detection of resistance to isoniazid (INH) mycobacterium tuberculosis isolates
Prof. Miriam Marzan
UP College of Arts and Sciences

Prevalence of prolonged LAC in hypertensive and normal pregnant women at the UP-PGH
Dr. Edward Lim
UP-Philippine General Hospital

The Effect of crude aqueous seed extracts from mangifera indica on Diazoxide-induced hyperglycemia in rats
Prof. Georgina Cruz
UP College of Arts and Sciences

Microbiological and phytochemical screening of selected medicinal plants belonging to families leguminosae, euphorbiaceae and compositae
Prof. Imelda Pena
UP College of Pharmacy

Maternal role competence among post-partum adolescents in Metro Manila
Prof. Amor Ballesteros
UP College of Nursing

Effect of an extract from
Phyllanthus debilis on hepatitis B
positive serum

Ms. Constanca Obrero
*UP Institute for Socio-Biomedical
Research*

The antitodal effect of orally
administerd 50% urai leaves
extract in paralytic shellfish
poisoning in mice
Prof. Corazon Santos
UP College of Medicine

Evaluation of the
antimutagenic potential of
crude capsicum frutescens Linn
(*Siling Labuyo*) fruit extract
Prof. Luciana Ilao
UP College of Arts and Sciences

Direct detection of rifampicin-
resistance mutations in the RPO-
B gene of the Philippine
mycobacterium tuberculosis
isolates by polymerase chain
reaction
Prof. Jay Dalet
UP College of Arts and Sciences

The knowledge, attitudes, and
behavior of the lower-middle
class adult urban consumers of
the fifth congressional district of
the city of Manila with regards
to the Generics Act of 1988,
R.R. 6675
Prof. Bernard Karganilla
UP College of Arts and Sciences

Isolation and characterization of
antibiotic poducing bacterial
strains from Philippine fruits
Prof. Luisa Daroy
UP College of Public Health

The prevalence of chronic
respiratory illnesses and reduced
ventilatory function among
garment exposed to cotton
fibers
Dr. Sonny Matias Habacon
FEU-NRMF

REGION VII

Comparison of the effect of
Simvastatin and avocado fruit
flesh on the level of LDL-
cholesterol among
hypercholesterolemic rabbits
Dr. Melfer Montoya
Cebu Institute of Medicine

Regional Research Fund

REGION VI

Knowledge, awareness , and
attitudes towards AIDS and the
sexual practices of male
homosexuals employed in
beauty parlors in Iloilo City
Mr. Salex Alibogha
Central Philippines University

Antitumor studies of curcuma
longa methyl ethyl ketone
(MEK) extract utilization DNA
topoisomerase I yeast bioassay
Mr. Gerard Penecilla
Western Visayas State University

Bioassay on the anti-tumor
activity of *Barringtonia asiatica*
using *saccharomyces cerevisiae*
yeast
Ms. Mansueta Yaplito
Western Visayas State University

REGION VII

A cross-sectional survey of the
prevalence of asthma among
children 3-15 years of age in
Guadalupe, Cebu City
Dr. Daniel Lachica
*Cebu Doctors College of
Medicine*

PCHRD Scholars (SY 1995-1996)

DOCTORAL PROGRAM

Mr. Peter Orbase
Dr. Ph. Medical Microbiology
UP College of Public Health

Mr. Wilfredo Vendivil
Ph. D. Biological Science
University of Santo Tomas

Ms. Evangeline Pagsanhan
Ph. D. Pharmacy
University of Santo Tomas

MASTERAL PROGRAM

Dr. Ma. Elena Borromeo
MS Public Health
UP College of Public Health

Dr. Blanca de Guia
MS Clinical Epidemiology
UP-Clinical Epidemiology Unit

Ms. Ma. Theresa Pia Calderon
MS Pharmacy
UP College of Pharmacy

Dr. Oscar Naidas
MS Clinical Epidemiology
UP-Clinical Epidemiology Unit

Mr. Rupeto Hector Lindo
MS Statistics
University of the Philippines
Diliman

Dr. Jose Navarro
MS Clinical Epidemiology
UP-Clinical Epidemiology Unit

Dr. Jennifer Polo
MSPH Medical Microbiology
UP College of Public Health

Dr. Luis Sundiang
MS Clinical Epidemiology
UP-Clinical Epidemiology Unit

Dr. Felizardo Gatcheco
MS Clinical Epidemiology
UP-Clinical Epidemiology Unit

Lists of Completed Scholars (SY 1995-1996)

Dr. Danilo Menorca
University of Santo Tomas
MS Microbiology

Ms. Gerlie de los Reyes
UP College of Pharmacy
MS Pharmaceutical Chemistry

Lists of Completed Thesis/ Dissertation Grantees for 1995

Ms. Teresita Marie P. Bagasao
Ateneo de Manila University
MS Psychology

Thesis: *Decision-making among urban poor mothers related to demand for appropriate health care intervention for their children*

Ms. Priscilla Torres
University of Santo Tomas
MS Pharmacy

Thesis: *The anti-bacteria and anti-fungal properties of Heliotropium indicum Linn*

Mr. Arnold Hallare
University of the Philippines
MS Biology

Thesis: *Ultrastructural studies on the antispermatic activity of Neem Seed Kernel Extract (NSKE) from Azadirachita Indica A. Juss on Albino Mice Mus Musulus Linn*

Ms. Elena Gianan
University of the Philippines
MS Nutrition

Thesis: *The prevalence of IDD among school children in elementary schools in the municipality of Virac Catanduanes*

Ms. Concepcion M. Salvana
Mindanao State University
MS Chemistry

Thesis: *Isolation and partial characterization of an antimicrobial principle in Nephrolepis Cordifolia*

Ms. Lydia T. Manahan
University of the Philippines
MS Nursing

Thesis: *Assessing the anxiety profile of patients undergoing hysterectomy and mastectomy*

Dr. Ruben R. Rafanan
University of the Philippines
Ph. D. Public Health

Dissertation: *Social role of the elderly population in the Philippine provinces: their determinants*

Dr. Francisco Datar
University of the Philippines
College of Social Sciences and Philosophy

Ph. D. Anthropology
Dissertation: *The impact of seasonality of a fishing ecology on the growth of the Filipino pre-school children*

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Dr. Josefina Poblete
Dean, College of Medicine
Cebu Institute of Medicine

Dr. Fernando S. Sanchez, Jr.
Head, Preventive Cardiology
Philippine Heart Center

Dr. Perla Santos-Ocampo
Chancellor, UP Manila

Dr. Pacita L. Zara
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Development Division

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Notes

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