- Features
- Biodiversity

PHL biodiversity paving way for revitalized drug devt

By S&T Media Service
MAY 14, 2017

In Photo: Dr. Jovencio Apostol (third from left) wins the Outstanding Filipino Researcher Award for NRCP Division of Pharmaceutical Sciences at the recent 2016 Department of Science and Technology National Research Council of the Philippines (DOST-NRCP) Achievement Awards. With him are (from left) Dr.

Marieta Bañez Sumagaysay, NRCP executive director; Dr. Carol M. Yorobe, DOST undersecretary for Science and Technology Services; Mrs. Apostol; National Scientist Edgardo D. Gomez, former NRCP president; Dr. Mildred B. Oliveros, chairman, NRCP Division of Pharmaceutical Sciences.
Philippine biodiversity offers potential leads for the development of pharmaceutical medicines in the country, according to an outstanding researcher who was recently awarded by the Department of Science and Technology-National Research Council of the Philippines (DOST-NRCP).

“There are endemic plants, insects, marine organisms, minerals [in the country] that could be sources of pharmacologic interventions in diseases,” said Dr. Joven Apostol, a 2017 Outstanding Filipino Researcher.

Apostol, a pharmacy professor at the University of Santo Tomas, admitted that while the presence of foreign pharmaceutical manufacturers has dipped over the years as most have shifted operations to the other countries, such a drawback was, in a way, a blessing.

“It has awakened the Filipino spirit to become more entrepreneurial, and there has been a growth spike in drug research and development in academic research institutes and local manufacturers focusing on endemic biomaterials,” he said. “This is also partly due to the encouragement and support of the science and technology agencies of the government and other funding agencies.”

Apostol, likewise, pointed out that basic research is crucial in drug development.

“A pharmaceutical product is only good as it is safe and effective,” he said. “A drug molecule will not advance to formulation and manufacturing without the preliminary data on its safety, effect, mechanism of action, toxicity and others—

basic information on drug source, synthesis, kinetics and interactions, which can only be provided by basic research."

Research in basic pharmacology includes the screening of biomaterials for their effects on the physical and chemical processes of the living organism and on the nature and courses on diseases.

Various methods of testing are employed, such as in vitro, in vivo and in silico. The results of these basic researches serve as the basis to support further studies leading to formulation and clinical use of the drug product.

Gains in the growth of the pharmaceutical sector can be sustained by continuous support to both basic and applied research. This way, the country can reduce our reliance to foreign manufactured drugs.

Apostol is optimistic that, given the right support, structure, formation of scientists, industry and government, it is possible that in five to 10 years, the country is halfway in terms of drug discovery. In such time, the drug being developed should be in the clinical trial phase, and the company doing the development should have spent half a billion dollars, he said.

DOST-NRCP is the country's lead agency in basic research, and is mandated to promote and support basic and problem-oriented researches, particularly those that are multidisciplinary, in the sciences, as well as in the humanities.

It supports researches that identify and provide solutions to national issues and problems, and generate new knowledge in preparation for the future. This June NRCP will host the 17th Science Council of Asia Conference to be participated in by renowned researchers and scientists from 31 academic institutions and organizations of the 18 member-countries across Asia.

Meanwhile, the NRCP will be hosting the 17th Science Council of Asia (SCA) Conference from June 14 to 16 at the Philippine International Convention Center.

Researchers and scientists from 18 SCA member countries along with delegates from 38 international scientific organizations are expected to participate in this annual international conference. This year's conference will have the theme "Science, Technology, and Innovation for Inclusive Development

Dr. Josefino C. Cosimo, Filipino Scientist from the National Aeronautics and Space Administration of the United States, will be one of the plenary speakers on Risk Reduction in Natural Disasters caused by Climate Change, Earthquake, and Tsunami.

NRCP President Dr. Christina A. Binag said the main objective of the annual conference is to provide a collaborative platform for promoting scientific exchange and intellectual cooperation in Asia which may serve as vehicle to achieve development and promotion of a holistic vision that embraces the sciences, humanities, social sciences, and cultures leading to sustainable/inclusive development in the region's quality of life.

Geraldine Bulaon-Ducusin / S&T Media Service

http://www.businessmirror.com.ph/phl-biodiversity-paving-way-for-revitalized-drug-devt/