

Leyte Local Executive... from p1

Meanwhile, Tacloban City Mayor Alfred S. Romualdez, thanked DOST and DOH for choosing Tacloban as the first recipient of this innovative technology. “The trap would be a big help to lower the incidence of dengue in our locality,” said Mayor Romualdez.

According to the DOH Region VIII, Eastern Visayas recorded more than 5,000 dengue cases and 65 deaths in the first six months of 2010. More than one fourth of the cases came from Tacloban with 1,194 cases. Eighty-five percent of the victims were children less than 12 years old.

“We don’t want to see anymore dead children because of this scary disease, we will do all to protect our children,” declared Mayor Romualdez.

He also stated that the local government of Tacloban will allocate funds to buy extra OL mosquito trap kit to distribute to all houses specially the identified high dengue risk areas.

DOST and DOH will distribute 2,800 kits to each of the 16 regions of the country. National Capital Region (NCR) will get a separate allocation of 5,200 OL mosquito trap kits.

Among the local officials who graced the ceremonial distribution of OL mosquito traps were Dr. Jose L. Bacusmo, President of Visayas State University (VSU), Ms. Erlinda Olivia P. Tiu, Regional Director of Philippine Information Agency (PIA), Dr. Edgardo Gonzaga, Regional Director of DOH-VIII, Engr. Edgardo Esperancilla, Regional Director of DOST –VIII and barangay officials. (Edmon B. Agron)

Cagayan Valley... from p3

Academe to bring OL Traps to communities

The academe will dovetail dengue information awareness campaigns in its research and extension program and bring down to the barangay level the technology.

According to Ms. Edmelyn Cacayon, Dean of the College of Nursing, Isabela State University (ISU), “We have community immersion programs, where we adopt a barangay to help increase not only their awareness or knowledge on health but to improve their status of living as a whole.”

ISU adopted Brgy. Villa Fermin in Echague, Isabela and send their nursing students twice a week to conduct lectures and seminars in the community. “We let our students experience and see the real world of service because nurses are not meant for hospitals only but for community service as well,” said Ms. Cacayon.

Brgy. Villa Fermin is a dumpsite in Echague, Isabela. Among the prevailing health issues in the barangay are malnutrition, sanitation and improper waste disposal, making the community highly vulnerable to diseases.

Aside from lectures and seminars, ISU introduced strategies to address these health problems. For instance, the College of Nursing coordinated with the



Department of Science and Technology (DOST) Secretary Mario G. Montejo, leads the ribbon cutting ceremony for the opening of poster and commercial exhibits at the 6th Asian Pacific Organization for Cell Biology (APOCB) Congress.

6th APOCB congress... from p3

biology, molecular biology, drug discovery, emerging technologies and issues in biosafety and biobanking.

During the opening ceremonies last February 26, Dr. Nobutaka Hirokawa, President of the APOCB, highlighted the significance of cell biology in his message, “Cell biology is the core of the life sciences --- molecular biology, structural biology, biophysics, and systems biology. And it does not only cover the basic science but also covers applied science such as pharmaceutical science, clinical medicine, and agricultural science.

In his keynote address, Department of Science and Technology (DOST) Secretary Mario Montejo shared about the initiatives of the DOST in support of cell biology R&D, “This year, we are going to launch new policy and program initiatives on drug discovery, stem cell and genomics. The Philippine Council for Health Research and Development (PCHRD) has already proposed for the creation of the Drug Discovery and Diagnostics Development Program which aims to establish and sustain the country’s capability in drug discovery and diagnostics development through collaborative research and building human, institutional and economic capacity.”

Prior to the plenary lectures, a ribbon cutting ceremony was held for the opening of the poster and commercial exhibits. (Rachel Ann Doreen D. Nadal)

Training Program (NSTP). Under the NSTP’s Civic Welfare Training Service (CWTS), students participate in a community campaign against dengue called “Operation Tumba.” “Tumba” means to destroy all possible habitats for dengue mosquitoes.

Dr. Gregoria Gocal, Director for Community Extension and Services of UCV admitted in an interview, that they spray commercial insecticide every week in their classrooms to secure their students against mosquito bites. “We will definitely shift to this new OL mosquito trap system, not only because it is cheaper. The OL trap is easy to manage, harmless to human and, most importantly environment-friendly,” Dr. Gocal concluded. (Edmon B. Agron)

UP Manila signs... from p3

Together with UP Manila’s signing of the license agreement with Azarias Pharmaceutical Laboratories Inc., PCHRD, also signed the formal transfer of technology entitlement on medicinal plant products generated from National Integrated Research on Philippine Medicinal Plants (NIRPROM) researches to UP Manila in accordance with RA 10055. (Rachel Ann Doreen D. Nadal)

Aside from ISU, University of Cagayan Valley (UCV) formerly known as Cagayan Colleges Tuguegarao (CCT), Quirino State College (QSC) and Nueva Viscaya State University (NVSU) will also align a dengue prevention information campaign through its National Service



PCHRD showcases local health technologies and innovations on its 29th anniversary

Philippine Council for Health Research and Development of the Department of Science and Technology (PCHRD-DOST) celebrated its 29th year anniversary with the theme “Challenges and Innovations in Local Health Technologies” at the Hyatt Hotel and Casino Manila last March 18, 2011.

In his opening message, DOST Secretary Mario G. Montejo expressed his appreciation on PCHRD’s anniversary theme, “I am pleased to note that your anniversary theme this year focuses on local health technologies, which is aligned with the present administration’s advocacy. We believe in our people. We believe that local technology works.”

He further emphasized, “We will be prioritizing and supporting the development of affordable diagnostic kits, quality pharmaceutical products using our local

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DOST Secretary Mario G. Montejo gives his opening message during the 29th Anniversary of the Philippine Council for Health Research and Development

In the Region

Leyte local executives support DOST-DOH OL mosquito trap program

“We will stop dengue incidence in the province now,” said Leyte Governor Jericho L. Petilla, during the launching of the Ovicidal and Larvicidal (OL) mosquito trap in Balyuan Convention Center, Tacloban Leyte on 19 February 2011.

is very important to involve ourselves in this endeavor and be responsible to clean our surroundings to protect ourselves against dengue,” Governor Petilla concluded.

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According to the Department of Health (DOH), dengue incidence in the Philippines has risen to an “all-time high” and reached the epidemic proportion in some regions.

This is the reason why DOH concluded that 2010 is the year of living “dengue-rously,” where dengue took center stage as the most prevailing health issue in the country.

The World Health Organization (WHO) considered dengue as one of the fastest-emerging infections in the world that, despite decades of research, there is no effective drug or vaccine ever developed.

Meanwhile, the Department of Science and Technology (DOST) introduced an alternative to address the alarming dengue situation in the country. This is the DOST Ovicidal and Larvicidal (OL) mosquito trap, a low cost yet effective device designed to reduce the population of the dengue-carrying “Aedes aegypti and Aedes albopictus” mosquitoes by attracting and killing their eggs in a simple but effective science-based system.

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The OL mosquito trap is a technology developed by the Department of Science and Technology (DOST) designed to reduce the population of the dengue-carrying “Aedes aegypti and Aedes albopictus” mosquitoes by attracting and killing their eggs in a simple but proven effective system. This technology will be distributed nationwide in cooperation with the Department of Health (DOH).

“We are more than willing to put this trap in every household especially in those areas with high prevalence of dengue,” said Governor Petilla, as he cited that Leyte was one of the most affected provinces in the country.

The Governor also encouraged his fellow officials and local constituents to be involved and not to wait until they become victims of the disease. “We should be very careful, that people might think that this OL mosquito trap is the all-out solution, this is only a mitigation technique. It

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PCHRD employees pose for posterity

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resources and the development of traditional Filipino medicine...But we need to work together as a purpose driven team."

Assistant Secretary Nemesio T. Gako of the Department of Health (DOH) delivered Secretary Enrique T. Ona's message for the occasion. In his message, Sec. Ona pointed out that challenges and opportunities for technology innovation and health research abound in two areas of the Universal Health Care's (UHC) strategic thrusts --- ensuring access and quality in health facilities and attainment of health-related Millennium Development Goals (MDGs).

"The challenge is to scale up with more resources (human), funding and support systems or infrastructures especially in far-flung areas.

OL Mosquito Trap... from p1

Dr. Lilian de las Llagas, OL trap technical consultant and mosquito expert from the College of Public Health, University of the Philippines Manila (UPM) said that, "In order to appreciate how OL mosquito trap works and understand how dengue virus spreads, it is important to understand the life cycle of the female dengue-carrying Aedes mosquitoes."

Basically, female mosquito has three major chores: To mate with the male mosquito, sip blood of human victim and lay eggs.

"When we talk about the transmission of dengue virus, male mosquito has no significance at all except for reproductive purposes," said Dr. de las Llagas. After mating with the male mosquito, female mosquito starts to hunt a human victim to supply her blood meal from sunrise to sunset. "This is the reason why dengue virus is not transmitted after six o'clock because Aedes mosquito bites only at daytime," added Dr. de las Llagas.

Innovations in drugs and vaccines to support treatment interventions for our key MDG-identified diseases such as HIV, Malaria, and TB are resource-heavy and equally compete for our scarce health budget." he said.

Keynote speaker Dr. Reynaldo L. Garcia, Professor from the National Institute of Molecular Biology and Biotechnology of the University of the Philippines Diliman, identified the challenges on diversifying drug discovery programs in the country.

"First, we always end up with drug-like compounds and then we don't pursue them further. Second, researchers keep taking on "new projects" all the time and we never pursue our initial results. The third challenge is we don't have expertise in lead optimization and we don't have medicinal chemists." he said.



The OL mosquito trap kit distributed by DOST and DOH all over the country

impede mosquitoes' regeneration.

The OL mosquito trap system is designed to attract female mosquitoes to lay its eggs on the trap. Basically, the black paint or black container lures the female mosquitoes. Also, the strip of wet "lawani" board inside the trap creates optimum condition that adds up to the level of attraction for female mosquitoes.

The scientific principle behind this technology is that

As a take home message to the participants, Dr. Garcia stressed, "We need to diversify and scale up. We should be aware that the attrition rate is very high and many of the things we are working on right now are going to fail. The other thing is to plan what to do next, because obviously we would have drug candidates sooner than later and we have to know what to do with them. We should also strategize our drug discovery approach. We should consider partnering; it is about sharing the risk. Lastly, it is important to have a change in mindset. Be more innovative and be

more commercial."

In the panel discussion, experts highlighted the drug development situation in the Philippines in terms of clinical research, ethics, clinical trials regulation, and Intellectual Property Rights (IPR). The panelists included Ms. Linda Grace Mendoza, President of the Philippine Clinical Research Professionals, Inc., Dr. Cecilia V. Tomas, Chair of the Philippine Health Research Ethics Board (PHREB) Subcommittee on Accreditation, Dr. Suzette Lazo, Director IV of the Food and Drug Administration, and Mr. Epifanio Rey Evasco, Director IV of the Bureau of Patents, Intellectual Property Office of the Philippines.

The panel discussion was followed by two breakout sessions covering PCHRD-supported researches on infectious and non-infectious diseases. Session 1 tackled Dengue and Leptospirosis while Session 2 focused on Aging and Memory and Renal Disease. (Rachel Ann Doreen D. Nadal)

mosquitoes preferred to lay their eggs in dark colored containers. "This is not actually a new technology," said Dr. de las Llagas. "This fact has been known since 1969."

What is new about the OL mosquito trap is the natural oviicide and larvicide incorporated to the system. These are pellets in form, made from organic compounds derived from plants. These pellets contain non-toxic substances safe to human. However, when they are incorporated to the system they become ovi-cidal and larvicide. The word "cidal" connotes death. "So once the egg touches the solution it will die. If the egg hatches, the larvae will die, its larvae will not become pupa, its pupa will not become adult and no adult to lay eggs," said Dr. de las Llagas.

The technology is also easy to manage. It is a "set and forget" principle. Set the trap, put it on dump and undisturbed areas or in the suspected areas where mosquitoes are hiding, then forget about it, because the trap itself kills the eggs or the larvae.

If a single female mosquito lays 100 eggs in the trap, this means you trap 100 eggs to become adults in several days, and you prevent 100 mosquitoes to bite approximately 300 human victims at the average of three human victims in every complete blood meal. "It is a simple arithmetic in terms of natural mosquito reduction by simply putting this trap. The more traps, the better," said D. de las Llagas. (Edmon B. Agron)

Cagayan Valley is set to fight dengue

The second leg of the national roll-out of the Ovicidal Larvicide (OL) mosquito trap program of the Department of Science and Technology (DOST) and the Department of Health (DOH) was held at the Kamaranan Hall, Provincial Capitol Tuguegarao City on 7 March 2011.

"This is the right time to center our attention to this innovative technology," said Dr. Urdujah A. Tejada, Regional Director of DOST Region 2. "Given the fact that the dengue cases are increasing all over the country, the National Dengue Prevention and Control Section of DOH, advised that the best way to control this dengue-carrying Aedes mosquitoes is to kill them at the early stage of their lives or through larval source reduction strategies - which is basically the design of the OL mosquito trap," added Dr. Tejada.

The OL mosquito trap is a tool used to reduce the population of the dengue-carrying "Aedes aegypti and Aedes albopictus" mosquitoes by attracting the female mosquito to lay eggs on an ordinary black-plastic or black-painted tin-can with oviicide/larvicide that kills the mosquito egg and larvae.

The provincial government of Cagayan responded positively and ensured its support to the program. "Health is our priority in Cagayan," said Cagayan Provincial Administrator Engr. Tito Perlas, representative of Cagayan Governor Alvaro Antonio.

The DOH has recorded more than 6000 dengue cases with 57 deaths in the region in 2010. The cases increased to 169 percent compared to the cases recorded in 2009. "This caused panic among us, because Cagayan has the highest incidence of dengue among other provinces," said Engr. Perlas. "That is why we are grateful to the people behind this innovative technology. This will be a big help to our local folks in fighting dengue," Engr. Perlas concluded.

The OL mosquito traps were distributed to the high risks areas in the region last 8 March 2011 in cooperation with the DOST Region 2, DOH Region 2, Local Government Unit and the Zonta Club of Central Tuguegarao.

Healthresearch.PH NEWS is published by the Philippine Council for Health Research and Development.

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The Zonta Club Philippines , an international woman's organization receives the OL mosquito trap during its ceremonial distribution held in Tuguegarao City. In this Photo: Atty. Mila Lauigan, Zonta District Chair for Legislative Awareness and Advocacy (center), Dr. Urdujah A. Tejada, Regional Director of DOST Region 2 (4th from left), Dr. Nuna E. Almanzor, Director of Industrial Technology Development Institute of DOST (3rd from right) and Zonta Club Members

Private Sector's Response

The Zonta Club Philippines, an international woman's organization, vows support to the OL mosquito trap program of the government.

"We are committed to elevate the status of women and children in the communities. Part of this commitment is to protect them from dangerous diseases like dengue, that is why we vow to include this OL mosquito trap technology in our advocacies," said Atty. Mila Lauigan, Zonta District Chair for Legislative Awareness and Advocacy. "We can also use our connections to promote this technology because we have members who are holding vital positions in the government and in private sector. They could be a big help to promote OL mosquito trap in their own organizations or group," assured Atty. Lauigan in an interview.

The group also committed to promote the technology in their seminars and allocate budget to buy "pellets" (the ovi-cidal and larvicide component of the system) to be distributed in the remote areas covered by their organization.

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UP Manila signs first license agreement for the technology of Lagundi syrup

The University of the Philippines Manila (UPM) signs its first license agreement for the technology of Lagundi pediatric syrup with Azarias Pharmaceutical Laboratories, Inc. last January 24, 2010.

Per the Resolution of its Board of Regents (BOR) on October 2010, UP Manila adopted the evaluation and recommendation of PCHRD to approve the license application of Azarias based on the policies and guidelines of the DOST.

6th APOCB congress tackles impact and challenges in cell biology

Manila, Philippines – The Asian Pacific Organization for Cell Biology Congress (APOCB) held its 6th International Congress last February 25-28, 2011, at the EDSA Shangri-La, Mandaluyong City.

With the theme "Challenges in Cell Biology: Health, Agriculture, Industry and Education", the APOCB congress brought together educators, postgraduate and post doctoral researchers, students, and experts in cell biology to talk about the latest advances and state-of-the-art technologies in cell biology and their impact on the various fields of medicine, plant and animal sciences, biotechnology and education.

The event featured eleven plenary lectures from well-known experts on a diverse range of topics: cell

In his acceptance message, Project Operations Head of the Azarias Pharmaceutical Laboratories, Inc., Engr. Jaime Joel C. Monje said, "The therapeutic effects of Lagundi is indeed a testimony that the indigenous medicinal products developed in the Philippines can very well compete with the more established preparations coming from imported pharmaceutical companies. Our many thanks to UP Manila and to the office of the PCHRD, for making this long awaited event to be a reality."

Concluding the signing ceremony, Professor Zorayda E. Leopando, Vice Chancellor for Planning and Development, UP Manila stated, "This pioneering partnership with Azarias Pharmaceutical Laboratories Inc. is our proactive and committed response in the implementation of the Philippine Technology Transfer Act of 2009."

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