



## Manileños will volunteer to fight leptospirosis

**T**he spirit of volunteerism is very much alive for Manileños in the fight against leptospirosis, a recent study revealed.

The study, a collaboration of Filipino and Japanese leptospirosis experts from the University of the Philippines – Manila

(UPM) and the Kyushu University (KU), surveyed Metro Manila residents across 30 barangays on their willingness to contribute to a proposed leptospirosis program. The Metro is known to have some of the worst cases of leptospirosis in the country.

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## PH seizes global recognition in health research

**"W**e have successfully won the bid to host Global Forum for Health Research in 2015, it's a great opportunity for the voices of our people to be heard in the global health research arena," said Dr. Jaime C. Montoya, Executive Director, Philippine Center for Health Research and Development (PCHRD-DOST) during PCHRD's 31st anniversary last March 18, 2013 at Sofitel Philippine Plaza.

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## Ibuprofen, eyed as potential drug for congenital heart defect

**A** very cheap and very common fever medicine might just be the one to beat the old drug for congenital heart defect in babies.

Researchers at the University of the Philippines Manila – Philippine General Hospital (UPM-PGH) discovered that common fever medicine, ibuprofen, is an effective substitute in treating the congenital heart defect, patent ductus arteriosus (PDA), in premature born babies.

The fetal artery, ductus arteriosus, is an important artery in maintaining good blood circulation in the fetus during pregnancy. However, during childbirth, ductus arteriosus is expected to close to give way for the normal function of both the baby's respiratory and circulatory systems. With PDA, the artery remains open causing pulmonary distress in infants. Intravenous (IV) doses of indomethacin, the drug of choice for PDA, are commonly prescribed by physicians to close the artery and prevent pulmonary distress in infants.

In the UPM-PGH study, the researchers discovered that administration of two doses of oral ibuprofen showed the same effectiveness as intravenous administration of indomethacin. Both indomethacin and ibuprofen were able to treat six out of ten PDA patients, making ibuprofen a potential alternative to indomethacin for PDA treatment.

Comparing indomethacin with ibuprofen, researchers argued that ibuprofen offers more advantages because it has no major adverse effect while indomethacin may narrow the blood vessels in the kidney, digestive system and the brain. Other advantages of ibuprofen cited include availability, simple administration and affordable cost.

While researchers expressed excitement over the discovery, they said that more studies should be made to verify the result of their research. Further investigation was recommended on ibuprofen's potential as a drug for PDA treatment in a study with bigger number of participants. (Richmond Q. Acosta)

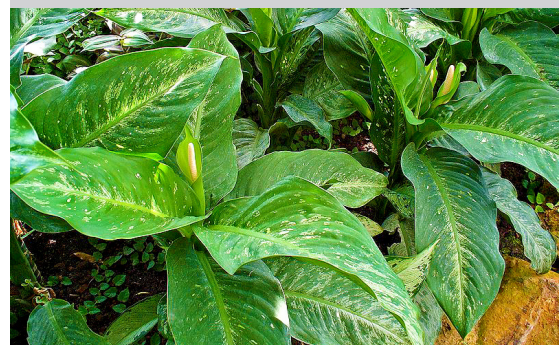
## Dumb cane plant shows potential in treating cancer

**A** study conducted by students from Notre Dame of Dadiangas University in General Santos City discovered that dumb cane plant, scientifically known as *Dieffenbachia maculata*, contains active ingredients that cause antiangiogenesis, a process that inhibits the growth and development of new blood vessels in the body.

Angiogenesis controls the spread of tumour cells in the body by disabling the transport of nutrients toward the cancerous cells. Normally, tumour starts from a single cell and divides to make more cancer cells. The growth of malignant cells will depend on the availability of specific nutrients being transported by blood vessels.

In laboratory experiments, researchers separately analyzed the effects of dumb cane's essential oil, leaf extracts, mineral water and Simvastatin (an anti-cholesterol drug with anti-angiogenic effects) to wild duck embryos. Results showed that embryos exposed to dumb cane's essential oil and leaf extracts had lower blood vessel branching points than the embryos in the mineral water solution. The antiangiogenic properties of both dumb cane's essential oil and leaf extracts were also comparable to Simvastatin.

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## Vitamin C lowers cholesterol

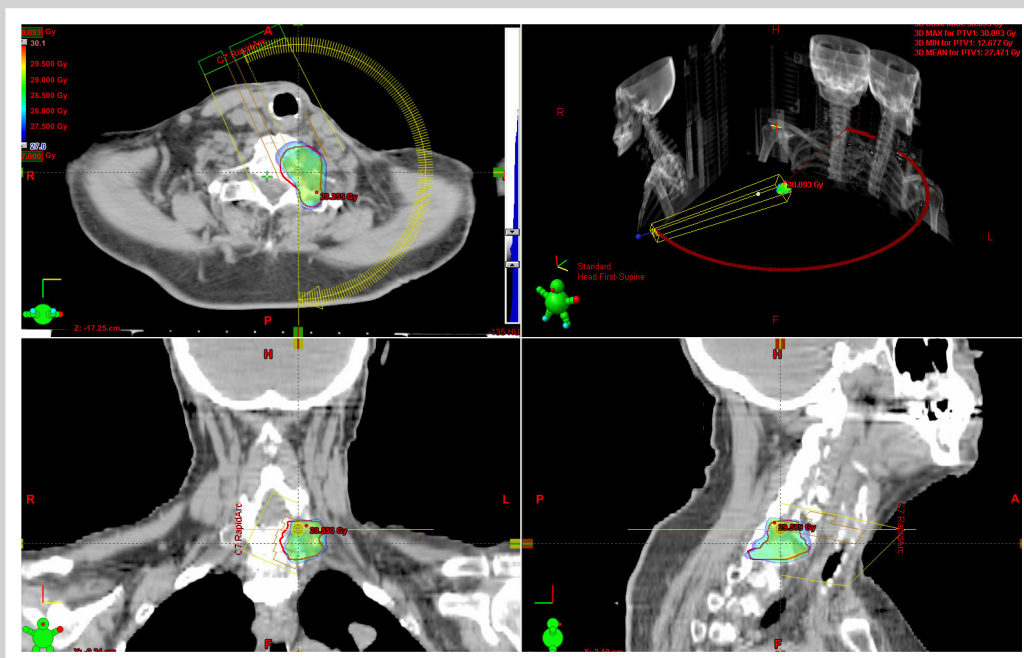
**N**ot just for boosting the immune system, researchers recently discovered vitamin C's benefit to the heart.

Philippine Heart Center (PHC) researchers found out that daily intake of ascorbic acid supplement decreases the amount of low density lipoprotein (LDL) in the blood.

Known as the "bad cholesterol," LDL is one of the major causes of plaque deposits that block the major arteries of the heart. It is believed that LDL's lack of ability to resist oxidation causes the accumulation of cholesterol and fatty acids which block the walls of blood vessels. Over time, the plaque deposits build up causing various cardiovascular diseases.

In the PHC study, researchers explained that the secret of vitamin C's effect on the reduction of bad cholesterol lies in its antioxidant property. Ascorbic acid, as an excellent antioxidant, inhibits the oxidation of LDL, which in turn prevents the accumulation of plaque deposits in the arteries.

Researchers disclosed vitamin C's potential role in the treatment and prevention of heart diseases in the future, banking on its safety and affordability as compared to other drugs. With the promising results of the study, the researchers hope that related future researches will continue to explore the full potential of vitamin C in prevention of heart diseases. (Richmond Q. Acosta)



## Men more susceptible to thyroid cancer metastasis

**I**ncidence of thyroid cancer among women in the Philippines is among the highest observed worldwide but a new research says men are more at risk to thyroid cancer metastasis.

An analysis of metastasis incidence in newly-diagnosed thyroid cancer patients revealed that thyroid cancer metastasis appears to be more associated with the male sex, tumor size, and the type of thyroid cancer. Metastasis is the spread of cancer or tumor from one organ to another part of the body.

Thyroid cancer, meanwhile, is a type of cancer that grows in the thyroid gland. This gland is located in the neck which serves as storage of hormones that regulates blood pressure, heart rate, body temperature and metabolism. Individuals with genetic history of thyroid cancer and exposed to high levels of radiation are more likely to develop thyroid cancer.

In the Philippines, detailed studies on thyroid cancer and frequency of metastasis are nonexistent, according to researchers from the Philippine Society of Nuclear Medicine. Information on thyroid cancer is important because of the high-incidence of thyroid cancer in the country. With an estimated 2500 new cases diagnosed every year, thyroid cancer ranks seventh as the leading type of cancer among Filipinos. It is five times more prevalent among women than in men and more predominant among the 40-50 age group.

Researchers revealed that early identification of risk factors is important because the aggressive type of thyroid cancer is most common among Filipinos. They recommended further studies on high metastasis rate as well as on patient education of the potential risks of thyroid cancer. (Jessica Marie R. Suerte)

## Drinking chocolate milk ensures clear MPI results

**F**or that perfectly clear picture of your heart, don't say "cheese," drink chocolate milk instead.

A research by Dr. Sheila Rose B. Aldovino of the Makati Medical Center (MMC) revealed that drinking chocolate milk helps prevent unclear and confusing results of myocardial perfusion imaging (MPI).

MPI is a must-do diagnostic procedure to observe the clockwork of the heart. It is done to visualize the extent and severity of heart damage, evaluate the treatment done to the heart or check the viability of the heart muscles. However, MPI is not fool-proof.

Movement and activities in the stomach, liver and intestines can result to unclear or poor quality images of the heart, which may confuse doctors into giving a wrong diagnosis.



**C**hocolate has been one of life's guilty pleasures but it boasts a rich history of health benefits. A new study suggests that it may be good for overweight and obese individuals.

Consuming flavanol-rich cocoa can result to increased insulin sensitivity among overweight and obese individuals, according to a study published in the Journal of the ASEAN Federation of Endocrine Studies (JAFES).



Investigating how certain diets affect the quality of MPI results, Dr. Aldovino tested six different kinds of diets to 120 participants undergoing the procedure. She found out that chocolate milk drink is the best dietary provision for ensuring clear MPI visualization of the patient's heart.

Dr. Aldovino attributed the clearer MPI results to the chocolate milk's ability to displace bowel activity away from the heart. As bowel activity

moves away from the heart, fewer obstructions impede the visualization of the cardiac muscles. Hence, clearer MPI images are produced.

"Consumption of chocolate milk is proven by this study as a convenient diet protocol that helps improve quality of MPI images. Application of this diet protocol will make the procedure faster, and this will be more beneficial for the patients and the hospital," Dr. Aldovino said. (Richmond Q. Acosta)

## Eating chocolate just got sweeter

Flavanol is a naturally occurring antioxidant found in various types of plants which is important in maintaining good health. Significant amount of this can be found particularly in cocoa plant. To review the effects of flavanol-rich cocoa for insulin sensitivity among overweight individuals, Dr. Karen Lazaro of Makati Hospital led a meta-analysis study. Results of the study revealed that flavanol-rich cocoa is superior to cocoa with lesser amount of flavanol in increasing insulin sensitivity among overweight and obese individuals.

Low insulin sensitivity, also known as insulin resistance, is a condition wherein the cells of the body become resistant to the hormone insulin. The

hormone controls metabolic processes hence, resistance may lead to a condition called type II diabetes mellitus.

Health-related problem such as type II diabetes mellitus is often linked to obesity and overweight. As defined by World Health Organization (WHO), overweight and obesity means having a body mass index (BMI) of more than or equal to 25 kilogram per square meter and more than or equal to 30 kilogram per square meter, respectively. The major basis for their association is the ability of obesity to produce insulin resistance. Consequently, this resulted to search for foods that are beneficial for overweight and obese individuals.



# Dengue Trend- 2nd Quarter 2013

Dengue cases compared same period last year

## DENGUE BULLETIN



### Quick Facts

**45,037**

reported cases from January to June 15, 2013

**2.8%**

lower compared to same period last year

	Jan	Feb	Mar	Apr	May	Jun
— 2013	11840	10079	8140	6339	6910	1729
— 2012	9667	7308	6785	6159	8899	16457

Regions with highest dengue cases

Region VII  
Region VI  
Region IV-A

Cities in Metro Manila with highest dengue cases

Quezon City  
Manila City  
Kalookan City

### Dengue cases per Region

Region	2013	2012	% Change
I	781	1634	-52.20
II	1575	1652	-4.66
III	2930	7061	-58.50
IV-A	5046	6182	-18.38
IV-B	1028	402	155.72
V	893	1088	-17.92
VI	5109	2616	95.30
VII	6020	4361	38.04
VIII	1621	315	414.60
IX	2834	2160	31.20
X	2398	1587	51.10
XI	4513	3687	22.40
XII	4349	1882	131.08
ARMM	585	258	126.74
CAR	925	939	-1.49
CARAGA	1220	624	95.51
NCR	3210	9888	-67.54
<b>Total</b>	<b>45,037</b>	<b>46,336</b>	<b>-2.80</b>

### Metro Manila

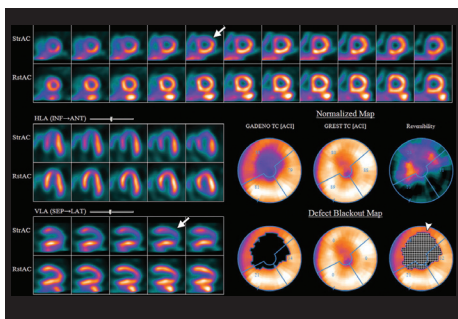
Municipality	2013	2012	% Change
Kalookan City	369	1128	-67.29
Las Piñas City	110	275	-60.00
Makati City	90	241	-62.66
Malabon City	165	361	-54.29
Mandaluyong City	95	142	-33.10
Manila City	556	1639	-66.08
Marikina City	110	209	-47.37
Muntinlupa City	103	153	-32.68
Navotas City	63	117	-46.15
Parañaque City	193	588	-67.18
Pasay City	162	298	-45.64
Pasig City	186	642	-71.03
Pateros	8	86	-90.70
Quezon City	677	2987	-77.34
San Juan City	46	107	-57.01
Taguig City	79	377	-79.05
Valenzuela City	198	538	-63.20
<b>Total</b>	<b>3,210</b>	<b>9,888</b>	<b>-67.54</b>

Based on DOH's National Epidemiology Center dengue surveillance report from January 1 to June 15, 2013

## Overweight patients found unsuitable for heart exam

**A**s far as heart disease is concerned, being overweight is double the trouble.

For years, it is known that being overweight heightens a person's risks in contracting heart disease. Now, new research from St. Luke's Medical Center (SLMC) shows that being overweight causes unreliable results in a diagnostic procedure called myocardial perfusion imaging (MPI).



MPI is a standard procedure used by cardiologists to take a picture of a patient's heart in order to come up with a diagnosis. It is well-recognized that a patient's big body size is more likely to get unclear MPI images than

patients with smaller body measurements. However, no study has actually identified a specific measurement or weight which leads to inaccurate MPI results.

In the recent study, SLMC researchers finally pinpointed the exact body mass index (BMI) by which MPI produces poor quality images of the heart. Researchers found out that quality of MPI results diminishes with patients who have BMI of 28 and above. A BMI of 28 is within the clinical range categorized as overweight.

Researchers stressed that the result of the study is vital in ensuring that the patients always get correct and accurate clinical diagnoses. Explaining that unclear MPI images can confuse doctors into making wrong clinical diagnoses, the researchers advised doctors to use the BMI of 28 as the cut off marker in identifying unsuitable patients for the diagnostic test. (Richmond Q. Acosta)

## Dumb cane plant shows potential in treating cancer

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Toxicity tests, meanwhile, revealed that dumb cane's essential oil and leaf extracts are tolerable to humans. Using human lymphocytes, researchers determined the actual toxicity of dumb cane's essential oil and leaf extracts on human cell. Though dumb cane contains glycoside, an organic poisonous compound, researchers explained that cell viability after 24 hours of incubation is still high.

With the findings, researchers claimed that dumb cane's ability to prevent blood vessel growth and development can be possibly used in the formulation of anti-cancer drug to help prevent the spread of cancer cells in the human body. They recommended further studies to isolate the specific components of dumb cane responsible for antiangiogenic activity and determine the appropriate concentrations for pharmaceutical purposes. (Edmon B. Agron)

## Manileños will volunteer to fight leptospirosis

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Survey revealed that Manileños are willing to work for free on an average of 10 hours every month to help in leptospirosis prevention programs.

It also showed that knowledge about the disease, proximity of homes to a sewer and the likelihood of flooding in the community are the three greatest factors that push Manileños to become volunteers.

Producing as much as 6,700 tons of trash everyday, contributing to risks of widespread leptospirosis outbreak, Metro Manila will indeed benefit a lot from volunteers. Especially with the advent of the rainy season, the researchers believe that the results of the study can have significant implications on policies in leptospirosis programs.

With the presence of committed volunteers, researchers disclosed that the government can save as much as \$125 million a year. As well, because knowledge about leptospirosis is a strong factor that compels Manileños to volunteer, researchers voiced their support to efforts to inform the public through education and health promotion. (Richmond Q. Acosta)







## DOST and UP Manila signs MOU for 4th batch of MD-PhD Molecular Medicine scholars

Since 2010, the Department of Science and Technology (DOST) and University of the Philippines Manila (UPM) has been jointly offering the MD-PhD in Molecular Medicine scholarship program, a pioneering degree program that combines MD and PhD courses on biomedical research and development.

Last May 31, 2013, the DOST, represented by Undersecretary Fortunato T. Dela Peña and UP Manila, represented by Vice Chancellor Joselito C. Jamir, officially signed the Memorandum of Understanding at the Hyatt Hotel Manila. DOST has committed to provide financial support to the qualified scholars and monitor the implementation of the program while UP Manila will ensure the availability of faculty and academic load of subjects, and conduct regular assessment of the curriculum.

Through the scholarship, DOST and UP Manila aims to train aspiring physician-scientists for careers in

basic and applied biomedical research towards the advancement of health from individual to global levels.

Nine outstanding students with above 90% score in their National Medical Admission Test (NMAT) qualified for the scholarship. They were Aedrian Abrilla and Adrian Jonathan Velasco from UP Manila; Jessa Louise Cadacio, Ben Anthony Lopez and Jerico Santos from UP Diliman; Kevin Austin Ona, Elgin Paul Quebral and Ruth Joy Relador from UP Los Baños; and Christian Alfredo Cruz from De La Salle University Manila. Four of them graduated Magna Cum Laude and five graduated Cum Laude.

After eight years, graduates are expected to apply their expertise and knowledge of basic sciences in teaching, conducting researches to improve health service delivery and apply research methods in independent researches that has impact on national development. (Rachel Ann Doreen D. Nadal)

## Eating chocolate just got sweeter

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Flavanols has been proposed as likely candidates because of the link between increased dietary intake of plant-derived chemicals and decreased risk of developing health related problems. Aside from cocoa products, they can also be found in tea, grapes, red wine, and apples.

Lazaro, however, advised the public to exercise caution when considering dietary recommendations for daily intake of cocoa product since excessive consumption may lead to adverse metabolic effects. (Jessica Marie R. Suerte)

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## 7th PNHRS Week celebration puts people at the center of health and health research

**O**n August 7-9, 2013, the 7th Philippine National Health Research System (PNHRS) Week will be held at the Plaza del Norte Hotel and Convention Center, Laoag City, Ilocos Norte with the theme "People at the Center of Health and Health Research."

Hosted by the Region 1 Health Research and Development Consortium, the PNHRS Week celebration will provide a platform for the different stakeholders in health R&D to interact, to learn from each other, to share information and experiences, to voice their concerns, to contribute research-based solutions to health problems, among other things.

Expected to grace the three-day

celebration were Provincial Governor Maria Imelda Josefa R. Marcos, Secretary Mario G. Montejo of the Department of Science and Technology (DOST) and Secretary Enrique T. Ona of the Department of Health (DOH).

Around 500 participants from all the 17 regional health research consortia are expected to participate in the event. For more information, please contact PNHRS secretariat at telephone numbers: (02) 8377534 or (02) 8377537 or visit PNHRS website at <http://www.healthresearch.ph/>.

PNHRS Week is held annually on the second week of August by virtue of Presidential Proclamation No. 1309 signed in 2007. (Rachel Ann Doreen D. Nadal)

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## Core agencies set public consultations for PNHRS Act of 2013

**H**ealth research stakeholders will convene in a series of public consultations on the Implementing Rules and Regulations (IRR) of the newly signed Philippine National Health Research System (PNHRS) Act of 2013 in Davao (June 25), Iloilo (June 26) and Manila (June 28).

The public consultations aim to reach out to the research communities to get their inputs in crafting the IRR for Republic Act 10532. PNHRS core agencies namely, the Department of Science and Technology through the Philippine Council for Health Research

and Development (DOST-PCHRD), the Department of Health (DOH), Commission on Higher Education (CHED) and the University of the Philippines Manila-National Institutes of Health (UPM-NIH) will spearhead the consultations.

The PNHRS Act of 2013 was signed into law by President Benigno S. Aquino III last May 7, 2013. The law seeks to protect and promote the and improve the quality of life of every Filipino through health research and development initiatives. (Rachel Ann Doreen D. Nadal)

## PH seizes global recognition in health research

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The Global Forum for Health Research in 2015 will be the very first biennial meeting jointly organized by the Council on Health Research for Development (COHRED) Group and the Philippine government, through the Department of Science and Technology (DOST) and Department of Health (DOH).

In 2012, Cape Town, South Africa hosted the Global Forum with the theme Beyond Aid... Research and Innovation as key drivers for Health, Equity, and Development. The forum focused on potentials, solutions, and developing capacities specifically in low- and middle-income countries and emerging economies. Other Asian countries such as Thailand (2000), India (2005) and China (2007) have already played host to the forum in the past.

Global Forum for Health Research is an important global conference committed to demonstrating the essential role of research and innovation for health and health equity. Global Forum defines health research as discipline that seeks to understand the impact on health of policies, programs, process, and actions; assist in developing interventions; and contribute to the achievement of health equity and better health for all.

For more information on the Global Forum, visit [www.forum2015.org](http://www.forum2015.org). (Jessica Marie R. Suerte)