

The Lord is like a strong tower, where the righteous can go and be safe.

Proverbs 18:10

DIYARYO  
**KABITENYO**

Nagmamalasakit sa lalawigan

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Be alert, stand firm in the faith, be brave, be strong.

1 Corinthians 16:13

# Ospital ng Imus health workers have returned to work

CITY OF IMUS, Cavite – Almost all of the health workers of the Ospital ng Imus had returned to work last Jan. 24 after recovering from Covid-19.

"Nakabalik na po halos 80 percent to 90 percent ng mga empleyado naming nag-positive," Dr. Jennifer Roamar said.

"Ngayon bumalik na, pinayagan na namin makabalik 'yung mga elective surgery namin at saka 'yung mga OB patients namin, kasi nga, nag-OK na 'yung staffing ng ospital," she added.

Meanwhile, majority of patients

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## Comelec reshuffles election officers in Cavite

TRECE MARTIRES CITY, Cavite – Eleven city and municipal heads of the Commission on Elections (Comelec) in the province of Cavite have been temporarily reassigned to new posts ahead of the

May 9, 2022 polls. Ten municipal election officers and one city election officer were the subject of the reshuffle, Cavite Provincial Election Supervisor Mitzele Morales-Castro disclosed on Jan. 24.

Election officers in six cities and 12 towns, meanwhile, remained in their respective posts, she added. Morales-Castro herself has been reassigned to Rizal for the election period. The acting provincial

election supervisor of Cavite is Patrick Enaje, whose original appointment is in Laguna. "Every national election, the Comelec reshuffles its field officers to maintain competency, integrity,

and absolute impartiality." Morales-Castro said in a text message. "We will return to our original stations after the election period in June 2022."

The reassigned election officers are

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**DIYARYO KABITENYO**

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# Gene regulation: How long do proteins bind?

In an article in the scientific journal *Science*, researchers at Uppsala University show how a DNA-binding protein can search the entire genome for its target sequence without getting held up on the way. The result contradicts our current understanding of gene regulation -- the genetic code affects how often the proteins bind, but not for how long.

Over an organism's lifetime, its genome changes very little. What does change, constantly, are which proteins the cell produces in response to damage, changes in the environment, or stages in the reproductive cycle. The protein production is regulated by DNA-binding proteins that have evolved the ability to turn different genes on or off. Because the environment can change quickly, rapid adaptation is key. The DNA-binding proteins must find the correct DNA code among millions of base pairs, and do so fast.

When DNA-binding proteins search the genetic code for their target sequence, they slide along the DNA helix to speed up the process. When they finally find the right spot, they stay there; the interaction with the "correct" sequence prevents them from sliding along. This mechanism has been widely accepted to describe the search process. It is an appealing hypothesis, yes, but it presents an annoying problem -- the DNA code is full of "almost correct" sequences. If the time a protein resides on a particular DNA motif was determined by the sequence, the searching proteins would constantly linger on sequences that resembled their target.

"If the textbook explanation was correct, the DNA-binding proteins would get stuck all the time off target. Gene regulation would be very ineffective, but we know from previous studies that this is not the case. Our favorite protein, LacI, finds its target sequence among 4.6 million base pairs in a matter of minutes," says Emil Marklund, one of the researchers behind the discovery.

**(OSPITAL... from page 1)**

admitted to the hospital explained. show only moderate symptoms. "Meron man kamining mga... "Meron din kamining isang severe tapos the rest is moderate, kasi 'yung severe, ito 'yung mga walang bakuna kasi na pasyente, pero karamihan naman moderate. Mabilis naman sila maka-recover," Dr. Roamar she added.

**(COMELEC... from page 1)**

the following: Aniceta Laceda, from Amadeo to Mendez Nuñez; Myrna Umandal, from General Emilio Aguinaldo to Ternate; Armando Vencio, from General Trias City to Tanza; Corazon Marasigan, from Magallanes to General Emilio Aguinaldo; Aries Cortez, from Maragondon to Magallanes.

Elisa Ruiz, from Noveleta to Joan Romela Erni, from Tanza to Rosario Amadeo; Jasmin Gilera, from Naic to General Trias City; Linda Estrella, from Noveleta to Maragondon; Glicerio Alarcon III, from Rosario to

Comelec Resolution No. 10742 promulgated on December 16, 2021 prohibits the transfer of officers and employees in the civil service during the election period. But the poll body, in the same resolution, authorizes itself to transfer or assign its personnel from January 9 to June 8, 2022 so it can "effectively and efficiently carry out its constitutional mandate to conduct free, orderly, honest, peaceful, and credible elections."

**AFFIDAVIT OF SELF-DEDICATION  
AS SOLE HEIR**

NOTICE is hereby given that the estate of the late FLORENTINO M. CERRERO who died intestate on December 18, 2011 at No. 204 L. Mariano Street, Amaya PC, Danao, Cebu, consisting of bank deposit with Philippine National Bank - Danao, Cebu branch under the herein below account:

ACCOUNT NAME	SAVING ACCOUNT NO.	BALANCE OF JAN. 18, 2022
FLORENTINA M. CERRERO	2410002665	PHP 55,625.00

has been self-dedicated by his sole heir RENATO E. CERRERO on January 18, 2022 at the Municipality of Danao, Cebu, Philippines before Notary Public Atty. Julius B. Arca and entered in his Notarial Register as Doc. No. 232, Page No. 47, Book No. XLJ, Series of 2022.

(Sp.) Affiant

Publication: DIYARYO KABITENYO  
Dates: January 24, 31 and February 7, 2022

RA Form No. 107 (LERO)

Republic of the Philippines  
Office of the Municipal Civil Registrar  
Rosario, Cebu

**NOTICE FOR PUBLICATION**

CCE-0005-2022 R.A. 30172

In compliance with Section 7 of Republic Act No. 9548, a notice is hereby served to the public that **ROMGIE ZABLAN BEYES** has filed with this office a petition for Correction of Entry in Sex/Gender from MALE to FEMALE in the Certificate of Live Birth of **ROMGIE ZABLAN BEYES** of Rosario, Cebu and whose parents are Rosario Gohit Beyes and Myra Pabx Zablan.

Any person adversely affected by said petition may file his written opposition with this Office not later than 14 February 2022.

(Sp.) MARIA ROSARIO C. SORIANO  
Municipal Civil Registrar

DIYARYO KABITENYO - January 31 and February 7, 2022

Republic of the Philippines  
Province of Cavite  
OFFICE OF THE CITY CIVIL REGISTRAR  
Trece Martires City

Publication Notice  
R.A. 30172

**NOTICE TO THE PUBLIC**

In compliance with the publication requirement and pursuant to OCRG Memorandum Circular No. 2013-1, Guidelines in the Implementation of the Administrative Order No. 1 Series of 2012 (IBR on R.A. 30172), Notice is hereby served to the public that **GIEF NIEL N. MENDOZA** has filed with this office a Petition for Correction of Entry in the Child's sex from "FEMALE" to "MALE" in the Certificate of Live Birth of **LEI ANYL DE TAJA MENDOZA** born on **MARCH 28, 2016** at **Trece Martires City, Cavite** and whose parents are **GIEF NIEL N. MENDOZA** and **JOLINA C. DE TAJA**.

Any person adversely affected by said petition may file his/her written opposition with this office not later than February 14, 2022.

(Sp.) MAXIMO JR. L. LONTOC  
City Civil Registrar

DIYARYO KABITENYO - January 31 & February 7, 2022

## New genetic clues on multiple sclerosis risk

An international team of researchers led by Karolinska Institutet in Sweden have discovered that a cell type in the central nervous system known as oligodendrocytes might have a different role in the development of multiple sclerosis (MS) than previously thought. The findings, published in the journal *Neuron*, could open for new therapeutical approaches to MS.

## Curtailed sleep may alter how intense exercise stresses the heart

In a new study, participants underwent an intense bout of exercise after both normal sleep and after three nights of curtailed sleep. When they exercised after curtailed sleep, the levels of the heart injury biomarker troponin increased slightly more, compared with when the participants performed exercise in their well-rested condition. The study is a smaller pilot study and it is not yet possible to determine if the findings may be of relevance for cardiovascular health. The study is published in the journal *Molecular Metabolism*.  
Previous epidemiological studies have demonstrated that, at the population level, chronically disrupted

and shortened sleep increases the risk of several cardiovascular diseases, such as high blood pressure and myocardial infarction.

In contrast, physical exercise can reduce the risk of cardiovascular disease. However, it has been unknown whether controlled sleep restriction can modulate cardiac stress during strenuous exercise. "Exercise is great for the heart, while lack of sleep can adversely impact the cardiovascular system. But it has been unknown whether shortened sleep can modulate the physiologic stress that intense exercise seems to have on the cells of the heart," says Jonathan Cedernaes, physician and associate professor of medical cell biology at Uppsala University, who led the study.

A specific type of the protein troponin is found in the heart's muscle cells. Low amounts of troponin can be released after high-intensity training. Levels of troponin are routinely determined in the clinic, as significantly higher levels are seen in the setting of acute cardiovascular events. "Higher blood levels of troponin after exercise have been linked to a relative increased prospective risk of cardiovascular diseases. It is not really known what the mechanism is, but at the same time, we know that one's cardiovascular health is modulated through an interplay of lifestyle factors.

Form 28 (Revised June 2019)

Malabon Street (Head Office and Branch)

RAJAH MANSUR (Head Office)

INVESTMENT BANKING, INC. (Incorporated in the Philippines)

Table with columns: ASSETS, LIABILITIES, Stockholders' Equity, CONTINGENT ACCOUNTS, and ADDITIONAL INFORMATION. It lists various financial metrics and balances for the current and previous quarters.

Form 28 (Revised June 2014)

**IMUS RURAL BANK, INC.**  
Name of Bank

**PUBLISHED BALANCED SHEET**  
(Head Office and Branches)  
As of December 31, 2021  
**CONTROL PROOFLIST**

	Account Code	Current Quarter	Previous Quarter
Cash and Cash Items			
Due from Bangko Sentral ng Pilipinas	2080000000000000	18,384,392.38	15,177,135.92
Due from Other Banks	1051500000000000	42,262,835.75	32,180,813.39
Financial Assets at Fair Value through Profit or Loss	1052000000000000	446,872,685.77	446,743,610.50
Available-for-Sale Financial Assets-Net	1120000000000000	0.00	0.00
Held-to-Maturity (DTM) Financial Assets-Net	1052000000000000	0.00	0.00
Unquoted Debt Securities Classified as Loans-Net	1052500000000000	411,568,634.66	393,871,801.34
Investments in Non-Marketable Equity Security-Net	1053000000000000	0.00	0.00
Loans and Receivables - Net	1054000000000000	343,994,067.80	365,551,246.82
Other Financial Assets	1488000000000000	3,367,417.32	187,552.38
Equity Investment in Subsidiaries, Associates and Joint Ventures-Net	1054500000000000	0.00	0.00
Bank Premises, Furniture, Fixture and Equipment-Net	1255000000000000	23,772,024.86	24,475,315.46
Real and Other Properties Acquired-Net	1055010000000000	11,644,554.22	11,783,874.28
Non-Current Assets Held for Sale	1501300000000000	0.00	0.00
Other Assets-Net	1520000000000000	23,471,478.46	22,936,894.34
Net Due from Head Office/Branches/Agencies, if any (Phil. branch of a foreign bank)	1552000000000000	0.00	0.00
<b>TOTAL ASSETS</b>	2100000000000000	<b>2,295,739,069.26</b>	<b>1,713,310,238.17</b>
Financial Liabilities at Fair Value through Profit or Loss	2080000000000000	0.00	0.00
Deposit Liabilities	2150000000000000	1,079,347,343.11	1,094,152,730.36
Due to Other Banks	2202500000000000	0.00	0.00
Bills Payable	2203100000000000	0.00	0.00
Bonds Payable-Net	2252015000000000	0.00	0.00
Unsecured Subordinated Debt-Net	2252020000000000	0.00	0.00
Redeemable Preferred Shares	2202500000000000	0.00	0.00
Special Time Deposit	2203000000000000	0.00	0.00
Due to Bangko Sentral ng Pilipinas	2302500000000000	0.00	0.00
Other Financial Liabilities	2400500000000000	1,790,235.09	1,084,275.64
Other Liabilities	2401000000000000	20,856,966.77	20,600,610.06
Net Due to Head Office/Branches/Agencies (Philippine branch of a foreign bank)	2308500000000000	0.00	0.00
<b>TOTAL LIABILITIES</b>	2000000000000000	<b>1,101,394,542.47</b>	<b>1,115,837,635.96</b>
<b>TOTAL STOCKHOLDERS' EQUITY</b>	3000000000000000	<b>134,344,526.79</b>	<b>197,480,602.41</b>
<b>TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY</b>	3050000000000000	<b>1,235,739,069.26</b>	<b>1,312,797,840.37</b>
<b>TOTAL CONTINGENT ACCOUNTS</b>	4000000000000000	<b>0.00</b>	<b>0.00</b>
<b>ADDITIONAL INFORMATION</b>			
Gross total loan portfolio (TLP)	4990200000000000	371,213,008.85	384,520,183.70
Specific allowance for credit losses on the TLP	4993000000000000	25,847,518.74	16,501,918.27
Non-Performing Loans (NPLs)			
a. Gross NPLs	4993100000000000	62,611,816.56	5,215,364.09
b. Ratio of gross NPLs to gross TLP (%)	4993150000000000	16.87%	2.47%
c. Net NPLs	4993100000000000	42,134,646.80	62,380.38
d. Ratio of Net NPLs to gross TLP (%)	4993110000000000	11.35	0.02
e. Ratio of total allowance for credit losses to gross NPLs (%)	4993120000000000	41.07	198.35
f. Ratio of specific allowance for credit losses on the gross TLP to gross NPLs (%)	4993130000000000	41.28	173.42
Capital Adequacy Ratio (CAR) on Solo Basis, as prescribed under existing regulations			
a. Total CAR (%)	499650500500000000	23.31	21.55
b. Tier 1 Ratio (%)	499650501000000000	23.16	23.41
c. Common Tier 1 Ratio (%) <sup>1/</sup>	499650501500000000	0.00	0.00

I hereby certify that all matters set forth in this Published Balance Sheet are true and correct to the best of my knowledge and belief.

*Roberto Y. De Guzman*  
**ROBERTO Y. DE GUZMAN**  
Manager

## Infant deaths from RSV are much higher than previously known

A new study found that nearly one in ten of all deceased infants under 6 months old were infected with Respiratory Syncytial Virus (RSV). Two-thirds of infant fatalities from RSV occurred in the community and would have been excluded from mortality estimates based on hospital data.

RSV is a common virus that produces cold-like symptoms and is merely a nuisance for the vast majority of people who contract it. But for babies — especially infants in low- and middle-income countries who lack adequate access to medical care — the virus can be fatal.

Prior research has estimated that about 120,000 infants die from RSV each year, but this figure is based on modeling conducted in hospital-based settings and does not account

for RSV deaths that occur in the community, which are not captured in hospital-based surveillance.

Now, a new study led by Boston University School of Public Health (BUSPH) researchers has found that the true burden of RSV infant mortality is substantially higher than what was previously believed.

Published in the journal *The Lancet Global Health*, the study used systematic surveillance to measure the presence of RSV among infants who died in medical facilities or in the community and found that the virus was present in 7 to 9 percent of infants under 6 months old and was primarily concentrated in infants under 3 months old.

Notably, two-thirds of these deaths occurred in the community — i.e., among infants who

never received medical care in a hospital and were overlooked in previous facility-based surveillance.

“The concentration of deaths in young infants less than 3 months old (<3m) is important for two main reasons,” says study principal investigator Dr. Christopher Gill, associate professor of global health at BUSPH. “First, it is a reminder that these very young infants with very small airways are at particular risk of RSV infections anatomically. Second, both of the proposed new tools to prevent RSV infections — maternal vaccinations and infant monoclonal antibodies — will be most effective immediately after birth and could wane after.”

The findings are part of, conclude the three-year Zambia Pertussis RSV Infant

Mortality Estimation (ZPRIME) study, which was conducted among infants at one of the busiest morgues in Lusaka, Zambia. The study is the largest post-mortem RSV surveillance study of its kind and the first to directly measure RSV infant deaths in the community, rather than rely on modeling estimates.

For the project, Gill and colleagues partnered with local mortuary staff to obtain consent for a nasal swab and PCR test of infants from families who lost a child between the ages of four days and six months. The researchers enrolled 2,286 deceased infants, representing almost 80 percent of infant deaths in Lusaka from August 2017 to August 2020, with the exception of a brief suspension of enrollment during

the first wave of the COVID-19 pandemic in 2020.

RSV was detected in at least 7 percent of deceased infants, and closer to 9 percent of deceased infants during the time periods with uninterrupted data. The virus was found in 9 percent of deaths that occurred in the community, compared to 4 percent of deaths that occurred within 48 hours at a medical facility, and 5 percent of deaths that occurred after 48 hours in a medical setting. About 72 percent of the deaths occurred in infants under 3 months old.

The study showed that RSV directly caused at least 2.8 percent of all infant deaths, and 4.7 percent of all infant deaths outside of hospitals. The majority of these deaths were seasonal, occurring in the first

half of the year, and were concentrated in the most impoverished areas of Lusaka.

“Our prior work has shown that delays to seeking and accessing appropriate care is the rule rather than the exception in many impoverished countries,” says study co-author Rachel Pieciak, a research fellow in the Department of Global Health at BUSPH. “Managing RSV infections tends to rely heavily on supportive care such as supplemental oxygen and suction, but we suspect that the majority of the young infants in our study are dying before accessing even basic care. While no small feat, public health interventions aimed at addressing common barriers to care could have the potential to prevent these infant deaths.”

# Can wearable technology predict the negative consequences of drinking?

"How much have you had to drink?" might seem like a simple question, but it is not always easy to answer. Although there are general guidelines about responsible alcohol consumption, a person's level of intoxication depends not only on the number of drinks they consume but also on the alcohol content of those drinks and other factors.

In a new article in *Alcoholism: Clinical and Experimental Research*, researchers in Penn State's Department of Biobehavioral Health demonstrated how wearable sensors can augment researchers' understanding of when drinking will lead to negative consequences. The researchers measured intoxication with an ankle bracelet that can detect alcohol concentration from imperceptible amounts of sweat.

Michael Russell, assistant professor of biobehavioral health, led the research project. "Understanding how much alcohol you have consumed is nuanced," Russell said. "For example, if Person A drinks a 16-ounce pint of craft beer with a 10% alcohol content, Person B drinks a 12-ounce can of light beer with a 4% alcohol content, and Person C drinks a large mixed drink made with several types of liquor, how many drinks have they all had? What if Person A weighs 110 pounds, Person B 220 pounds, and Person C 185 pounds? Does the answer change?"

By using wearable technology to predict alcohol-related consequences — which range from automobile accidents to hangovers to missing work to sexual assault and beyond — we can begin to prevent alcohol-related consequences. Our research shows that wearable sensors can be used to help people understand when their drinking is becoming risky."

Sensors that measure alcohol concentration through the skin, known as transdermal alcohol-concentration sensors, provide more data than periodic breathalyzer results or self-reported drinking measurements. Sensors can record a person's peak intoxication level, the rate at which someone becomes intoxicated, and how much alcohol was in their system and for how long.

Additionally, transdermal sensors are less burdensome than other available methods for measuring intoxication. Breathalyzers and blood sample analyses require active cooperation by the person being measured and can be intrusive. Transdermal sensors, however, are passive and unobtrusive, requiring no input from the wearer.

A person's blood alcohol content can be estimated on the skin because 1% of alcohol consumed is excreted in sweat. The concentration of alcohol in sweat is similar to the concentration in blood. This makes transdermal sensors a good alternative to measuring blood alcohol content, which requires a blood draw.

Breathalyzers and transdermal sensors have different applications. Alcohol in sweat is eliminated more slowly than it is through breath. The amount of alcohol in a person's breath is nearly identical to their blood alcohol content, though the amount of alcohol in sweat lags slightly behind at any given point in time. This means that breathalyzers provide a more accurate instantaneous reading of someone's intoxication during a traffic stop. Transdermal sensors, on the other hand, provide a more nuanced understanding of a person's entire drinking event. Breathalyzers do not capture how much a person drank, how quickly they drank, and how long alcohol remained in their system, and transdermal sensors capture all of that.

This study also demonstrated an intuitive finding about intoxication: when a person becomes intoxicated by consuming the same amount of alcohol on two different days, that person is more likely to suffer negative consequences on the day that they became more intoxicated. In other words, if a person had six drinks on Friday and six equivalent drinks on Saturday, they would be more likely to experience consequences if their peak intoxication were higher on one of those days.

# Even light drinking can be harmful to health

Drinking less than the UK's recommended limit of 14 units of alcohol per week still increases the risk of cardiovascular issues such as heart and cerebrovascular disease, according to new research published in the journal *Clinical Nutrition*.

Academics from Anglia Ruskin University (ARU) examined hospitalisations related to cardiovascular events among more than 350,000 UK residents aged between 40 and 69 from data obtained from the UK Biobank study.

The sample included 333,259 people who drank alcohol.

Participants had been asked about their overall weekly alcohol intake and their intake of specific types of alcohol including beer, wine and spirits. Those participants were followed up for a median of approximately seven years, capturing all incidents where patients had been hospitalised through cardiovascular events.

Anyone who had suffered a previous cardiovascular event was excluded from the analysis, as were former drinkers or those who had not completed information on alcohol intake.

The analysis found

that, for those participants that drank less than 14 units of alcohol per week — the limit recommended by the UK's Chief Medical Officers — each additional 1.5 pints of beer at 4% strength (alcohol by volume) is associated with a 23% increased risk of suffering a cardiovascular event.

The authors argue that biases in existing epidemiological evidence have resulted in the widespread acceptance of the "J-shaped curve" that wrongly suggests low to moderate alcohol consumption can be beneficial to cardiovascular health.

# Researchers discover new way to target secondary breast cancer that has spread to the brain

A study led by researchers at RCSI University of Medicine and Health Sciences and the Beaumont RCSI Cancer Centre (BRCC) has revealed a potential new way to treat secondary breast cancer that has spread to the brain, using existing drugs.

The study, published in *Nature Communications*, was funded by Breast Cancer Ireland with support from Breast Cancer Now and Science Foundation Ireland.

Most breast cancer related deaths are a result of treatment relapse leading to spread of tumours to many organs around the body. When secondary breast cancer, also known as metastatic breast cancer, spreads to the brain it can be particularly aggressive, sometimes giving patients just months to live.

The RCSI study focused on genetically tracking the tumour evolution from diagnosis of primary breast to the metastatic spread in the brain in cancer patients. The researchers found that almost half of the tumours had changes in the way they repair their DNA, making these tumours vulnerable to an existing type of drug known as a PARP inhibitor. PARP inhibitor drugs work by preventing cancer cells to repair their DNA, which results in the cancer cells dying.

"There are inadequate treatment options for people with breast cancer that has spread to the brain and research focused on expanding treatment options is urgently needed. Our study represents an important development in getting one step closer to a potential treatment for patients with this devastating complication of breast cancer," commented Professor Leonie Young, the study's Principal Investigator.

"By uncovering these new vulnerabilities in DNA pathways in brain metastasis, our research opens up the possibility of novel treatment strategies for patients who previously had limited targeted therapy options," said study author Dr Damir Varešlija.

The research, led by Beaumont RCSI Cancer Centre investigators Professor Leonie Young, Dr Nicola Cosgrove, Dr Damir Varešlija and Professor Arnold Hill, was carried out in collaboration with the Mayo Clinic and University of Pittsburgh, USA.