

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

No lockdown this December, Jonvic assures Caviteños

Gov. Jonvic assured Caviteños last Dec. 23 that no lockdown will be imposed in the province during the Christmas season.

In his Facebook post, Remulla first reported the number of COVID-19 cases added to the province from Dec. 5 to Dec. 20.



REMULLA

positibong kaso na tin," he said. "Siguro, naman ay maaari na nating maipagmalaki kahit papaano ay ay patuloy na umaangat ang antas ng pagmamaisid at pag-iingat ng ating mga kaisalawigan laban sa pandemya na nagparalisa sa ating lahat sitong 2020," the governor added.

Remulla said that according to the Provincial Health Surveillance Office, "ang Cavite po ay nanatili sa MGCQ pag-iingat ng ating han." "I repeat NO LOCKDOWN. Pero absolutely no Christmas parties or gatherings pa rin," he emphasized.

883 new COVID-19 cases bring PH tally to 469,886

The country's total number of coronavirus disease cases reached 469,886 after the Department of Health recorded 883 new infections last

Dec. 27. The DOH likewise recorded 7,635 new recoveries, bringing the total number of recovered cases to 438,678. This also brought

the number of active cases down to 22,088. Meanwhile, 42 patients succumbed to the deadly respiratory

disease, raising the country's death toll to 9,109. Meanwhile, 10 cases that were previously tagged as recovered were reclassified as deaths.

- 7 cases on December 1, 2020
- 11 cases on December 4, 2020
- 19 cases on December 7, 2020
- 26 cases on December 8, 2020
- 33 cases on December 9, 2020
- 41 cases on December 10, 2020
- 50 cases on December 11, 2020
- 60 cases on December 12, 2020
- 71 cases on December 13, 2020
- 83 cases on December 14, 2020
- 97 cases on December 15, 2020
- 113 cases on December 16, 2020
- 131 cases on December 17, 2020

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Highest levels of microplastics found in molluscs, new study says

Mussels, oysters and scallops have the highest levels of microplastic contamination among seafood, a new study reveals.

The research — led by researchers at Hull York Medical School and the University of Hull — looked at more than 50 studies between 2014 and 2020 to investigate the levels of microplastics consumed globally as fish and shellfish.

Scientists are still trying to understand the health implications for humans consuming fish and shellfish contaminated with these tiny particles of waste plastic, which finds its way into waterways and oceans through waste mismanagement.

Erangelos Danopoulos, a postgraduate student at Hull York Medical School said: "No one yet fully understands the full impact of microplastics on the human body, but early evidence from other studies suggest they do cause harm.

Breaking bad: How shattered chromosomes make cancer cells drug-resistant

Cancer is one of the world's greatest afflictions because, unlike some diseases, it is a moving target, constantly evolving to evade and resist treatment.

In a paper published in the December 23, 2020 online issue of Nature, researchers at University of California-San Diego School of Medicine and the UC San Diego branch of the Ludwig Institute for Cancer Research, with colleagues in New York and the United Kingdom, describe how a phenomenon known as "chromothripsis" breaks up chromosomes, which then reassemble in ways that ultimately promote cancer cell growth.

Chromothripsis is a catastrophic mutation al event in a cell's history that involves massive rearrangement of its genome, as opposed to a gradual acquisition of rearrangements and mutations over time. Genomic rearrangement is a key characteristic of many cancers, allowing mutated cells to grow or grow faster, unaffected by anti-cancer therapies.

These rearrangements can occur in a single step," said first author Ofer Shoshani, PhD, a postdoctoral fellow in the lab of the paper's co-senior author Don Cleveland, PhD, professor of medicine, neurosciences and cellular and molecular medicine at UC San Diego School of Medicine.

"During chromothripsis, a chromosome in a cell is shattered

into many pieces, hundreds in some cases, followed by reassembly in a shuffled order. Some pieces get lost while others persist as extra-chromosomal DNA (ecDNA). Some of these ecDNA elements promote cancer cell growth and form minute-sized chromosomes called "double minutes."

Research published last year by scientists at the UC San Diego branch of the Ludwig Institute for Cancer Research found that up to half of all cancer cells in many types of cancers contain ecDNA carrying cancer-promoting genes.

In the latest study, Cleveland, Shoshani and colleagues employed direct visualization of chromosome structure to identify the steps in gene amplification and the mechanism underlying resistance to methotrexate, one of the earliest chemotherapy drugs and still widely used.

In collaboration with co-senior author Peter J. Campbell, PhD, head of cancer, aging and somatic mutation at Wellcome Sanger Institute in the United Kingdom, the team sequenced the entire genomes of cells developing drug resistance, revealing that chromosome shattering jump-starts formation of ecDNA-carrying genes that confer anti-cancer therapy resistance.

The scientists also identified how chromothripsis drives ecDNA formation after gene amplification inside a chromosome.



Seal of the Province
City of Tagaytay
OFFICE OF THE SANGGUNIANG PANGLUNSGOD



EXCERPT FROM THE MINUTES OF THE 40th REGULAR SESSION OF THE SANGGUNIANG PANGLUNSGOD OF TAGAYTAY CITY HELD ON SEPTEMBER 23, 2020 AT THE HALL OF JUSTICE AND LEGISLATIVE BLDG., MARINAON MARKET COMPLEX, KATRALAN, NORTH TAGAYTAY CITY

CITY ORDINANCE NO. 2020-006

AN ORDINANCE ADOPTING THE DEPARTMENT OF HEALTH COMPREHENSIVE PROGRAM ON THE DETECTION, CARE AND TREATMENT PROCEDURE FOR THE TUBERCULOSIS (TB) CONTROL AND ERADICATION OF TB IN THE CITY OF TAGAYTAY AND THE CREATION OF THE CITY TUBERCULOSIS COUNCIL THEREON.

Enacted this: 2020

WHEREAS, the Local Government Code (LGC) of 1991, states that every local government unit (LGU) shall exercise the powers expressly granted, implied, as well as powers necessary, appropriate, or incidental for efficient and effective governance. Under the general intent of the Code, the LGU shall exercise support in the promotion of health and safety of their constituents. LGUs are likewise expected to be capable of responding to problems and promoting health issues that need to be prioritized, capable of measuring activities relative to health care and health issues within their respective jurisdictions.

WHEREAS, Republic Act 10327 (TB LAW) was passed and known as the Comprehensive Tuberculosis Elimination Plan Act to end TB by 2035;

WHEREAS, Tuberculosis remains to be a major public health problem in the Philippines and in the City of Tagaytay. It is one of the top ten leading causes of death and illness. Tuberculosis greatly affects the productive age group of our citizens, thereby affecting them economically and the stigma of tuberculosis remains to be detested as an illness;

WHEREAS, in response to the alarming report from the World Health Organization (WHO) and endorsed by the Department of Health (DOH) that the Philippines is ranked number one in the ASEAN and fourth in the world with the highest TB incidence rate; The City Government of Tagaytay has assessed available in consolidating efforts of the public and private health sectors, coordination efforts need to be directed to further address the recent challenges encountered in case finding and case handling efforts, most especially, the rising case of TB TB cases due to increasing antibiotic use and low to follow up;

WHEREAS, during the 2018 Global Tuberculosis High Level Meeting in New York, it was noted that the Philippines committed to meet 2.2 million TB patients in 2030-2032. The three main strategies to achieve this are: increasing contributions to the public sector, formation of high-level body and through regular monitoring, testing and treatment of those found with the disease;

WHEREAS, in the presence of remarkable health advances, care, treatment and prevention, City of Tagaytay shall endeavor to support the national government's efforts in tuberculosis efforts and effective program implementation of the National TB program (NTP). For this to materialize, it is imperative to involve all sectors of the local level such as but not limited to: state government organizations (SOGs), private entities, hospitals and health facilities, schools, health community organizations (HCOs), religious groups represented by the diocese and other faith-based organizations (FBOs), consumer groups represented by the diocese and other faith-based organizations (FBOs), health centers and education and those engaged in agriculture and animal husbandry, community organizations and other stakeholders that include all stakeholders and those living in informal settlements. These groups will be actively involved in various case finding, case handling, monitoring and evaluation, as well as, case of case handling of TB patients;

WHEREAS, one of the strategies of Sustainable Development Goal (SDG) - Number the goal of good health and well-being (SDG 3) is to reduce the tuberculosis, it is to realize the TB Control Program implementation. Local Government units will manage and implement the TB Control Program within the decentralized health system in support of the health sector reform initiatives;

WHEREAS, there is a need to seek necessary public participation/coordination in order addressing the challenges in responding to health issues including public concern TB and TB TB measures, and responding to health sector issues to effectively deliver TB and TB TB services to target populations;

NOW THEREFORE, all of whom are hereby directed to the Sangguniang Panglungsod of Tagaytay to the Regular Session mentioned, passed and hereby number this:

SECTION 1. TITLE - This Ordinance shall be known as "COMPREHENSIVE AND UNIFIED POLICY FOR THE TUBERCULOSIS CONTROL IN THE CITY OF TAGAYTAY".

SECTION 2. OBJECTIVE - This Ordinance aims to strengthen and establish a comprehensive and unified policy for the tuberculosis control program in the City of Tagaytay. It also aims to strengthen target-oriented activities, case finding, detection of TB infection and treatment (Tb) enhanced community involvement, and case handling (management and evaluation) and case of the TB treatment of all ages, sexes, further elaborate the TB burden in the city;

SECTION 3. STATEMENT OF POLICIES - It is hereby declared the policy of the City Government of Tagaytay to institutionalize an integrated, comprehensive, sustainable, and unified policy for the Tuberculosis Control Program through suitable strategies:

41. The City Government of Tagaytay joins the National Government's effort to initiate an effective program for Tuberculosis Control through the National Tuberculosis Control Program (NTP), Mandatory TB Case Notification (MTCN) and Patient-Centered Care (Universal Health Law (RA 11223))
42. The City Government of Tagaytay shall promote public awareness about the various modes of transmission, consequences, and means of prevention and control of TB through a comprehensive city-wide education and information campaigns organized and conducted by the city. Such campaigns shall promote value formation and employ scientifically proven approaches, focus on the family as a basic social unit, and be carried out in all schools and training centers, health centers, hospitals, sport places, and communities. The program shall involve affected individuals and high-risk groups, including support groups.
43. The City Government of Tagaytay shall involve stakeholders from public and private sectors in the TB Control Program implementation as mandated but not only limited to those organizations identified in EO 167 - Comprehensive and Unified Policy for the Tuberculosis Control in the Philippines.
44. The City Government of Tagaytay shall recognize the potential role of affected institutions and social persons in propagating vital information and education messages about TB and shall utilize their experience to address the public about the disease.
45. Consistent with the above mentioned policies and in consonance with the National TB Control Program Strategy, the City further recognizes that:
 - 1) Multi-sectoral involvement is essential to local responses to TB reduction;
 - 2) Citizens of Tagaytay City should be empowered to promote further spread of TB through access to appropriate information and resources for prevention;
 - 3) The introduction of socio-economic development policies and programs should include the consideration of the impact of TB;
 - 4) Resources should be allocated using cost-consideration the unique vulnerabilities of various population groups, including children, persons deprived of liberty, and other vulnerable groups affected by TB and its impact; and
 - 5) Continued efforts should be made to consistently improve the performance and access the quality of TB-related programs.
46. Tuberculosis is a preventable, treatable disease. Prevention and control strategies including testing, prevention of transmission based on the actual, potential or suspected TB status is prohibited, unless under the selective stage upon the determination of the medical specialist.
47. The educational institution shall inform students to use prophylactic medicine or prophylactic medicine, disseminate, handle or administer or report any current incident on the basis of health status, potential or suspected TB status, unless under the selective stage upon the determination of a medical specialist. This shall include any perception of suspicion of TB cases which may arise from a general feeling of illness, fatigue, or weakness.
48. To ensure and strengthen the overall implementation of NTP, that TB cases remain undetected, undiagnosed and untreated, all Tagaytay Health Centers and City of Tagaytay Hospitals;
49. A functional service delivery network and referral system shall be established in City of Tagaytay. Teaching institutions for patients care to follow up shall be open to public in all health facilities, TB National Disease Free zone health care facility or another shall be in place using a standard referral form. Feedback or response to referral is strongly encouraged to account for all TB cases. The referral shall be based on patients' disease or symptoms;
50. To strengthen a positive environment for TB disease, in order the rights attached to it, thereby promoting health-seeking behavior in the population at large, such as ensure that information correct to all facilities and communities shall be implemented to promote tuberculosis among populations;
51. To ensure that all stakeholders for City of Tagaytay shall be encouraged to address "No Discrimination, No Stigmatization" policy of TB Control for their implementation and compliance;
52. The City Government of Tagaytay shall provide at least 20% of reported drug expenditures for drug susceptible and drug-resistant TB to improve national performance especially in terms of tuberculosis drug consumption;
53. The City Government of Tagaytay shall ensure all cases identified TB cases from all public

and private health-care providers and facilities, to include hospitals (RA 10762) - Mandatory TB Case Notifications. If direct non-compliance, this may lead to revocation of business permit;

- ii. To ensure compliance by TB infection control guidelines;
- iii. To ensure compliance by DOH AO 2011-0039- Guidelines for Managing Tuberculosis Control Program during Emergencies and Disasters and to provide support for NTP emergency disaster preparedness and response;
- a). To ensure that all health centers are accredited TB DOTS Centers, and
- ii). To ensure that all health facilities public and private shall comply and give full support in meeting the targets in case detection, care and treatment.

SECTION 4. NATIONAL TUBERCULOSIS CONTROL PROGRAM POLICIES

The Manual of Procedure (MOP) for the National Tuberculosis Control Program (NTP), serves as the guide that are limited to for the implementation of the TB program in all DOTS facilities in the Philippines. Therefore, all health care providers must provide TB diagnosis, treatment, and counseling services to patients in accordance with this Manual of Procedure.

- a). Systematic screening shall be implemented in all DOTS health facilities. Cough of 2 weeks shall be the primary screening tool for systematic screening while Chest X-ray shall be done in targeted high risk groups.
- b). Active case finding shall be implemented in targeted settings, targeted community and workplace using Chain X-ray as primary screening tool.
- c). All people living with HIV (PLHIV) and those diagnosed with Diabetes Mellitus shall be screened for TB.
- d). All health (DOTS) facilities should set up a strong TB surveillance amongst all employees of the city especially health-care workers and those who apply for health certificates.
- e). Sputum MDRIF test shall be the primary diagnostic tool for diagnosis of both pulmonary and extra-pulmonary TB with or without high suspicion for multi-drug resistance. All presumptive pulmonary and extra-pulmonary TB shall be asked to expectorate a sputum sample and should undergo Sputum MDRIF test.
- f). Other screening tests (i.e. Tuberculin Skin Testing-TST, Interferon Gamma Release Assay (IGRA) and diagnostic tests (i.e. Loop Mediated Isothermal Amplification-TB LAMP, Direct Sputum Smear Microscopy (DSSM, TB Culture) for TB shall also be used with or without Sputum MDRIF test if needed.
- g). Direct Sputum Smear Microscopy (DSSM) shall be used for monitoring treatment of TB patients.
- h). All health (DOTS) facilities, whether public or private shall establish their own in-house TB diagnostic laboratory (i.e. DSSM, Sputum MDRIF, Sputum X-ray and TB LAMP). All laboratories providing TB diagnostic tests, shall participate in Quality Assurance (QA) systems of the NTP.
- i). A TB Medical Management Committee (TMMMC) shall be established per district to provide clinical expertise and guidance in diagnosis and management of clinically difficult TB cases both drug susceptible and drug resistant cases.
- j). All diagnosed TB cases shall be provided with free adequate drugs and standard treatment for either drug susceptible or drug resistant TB regimen within 7 days from collection of sputum for diagnosis.
- k). Adherence counseling shall be done for every patient prior to treatment.
- l). Fixed dose combination (FDC) composed shall be used as first line drugs (i.e. Isoniazid, Rifampicin, Pyrazinamide, Ethambutol) for drug susceptible TB while second line drugs (i.e. Quinolones, Bedaquiline, Delamanid, etc.) for drug resistant TB. For Latent TB infection (LTBI), Isoniazid or Rifampicin shall be used among contacts of TB cases especially children and persons who are immunocompromised.
- m). Treatment adherence shall be ensured through patient centered approaches. Treatment support shall be provided by health workers, community or family members. All Adherent Drug Regimens (ADR), whether once or twice, shall be reported using the official FDA reporting form. All diagnosed TB patients follow case-obs (Case) and should be offered HIV Counseling and Testing (CCT).
- n). Throughout the continuation of TB care, health-care workers shall require patient autonomy and respect all efforts. Patient physical comfort, safety and welfare shall be recognized with psycho-social support. The impact of poverty and food insecurity on TB diagnosis and treatment shall be recognized and addressed.
- o). All health laboratories and other pertinent institutions such as DCEC, School, treatment and free post-treatment shall be provided free laboratory services in the city covered health.
- p). All hospitals shall establish a TB committee to oversee its TB services and a fully operational TB Clinic. City council/legislative shall provide an additional room for TB cases admitted for hospital care.
- q). All health (DOTS) facilities and TB laboratories should ensure appropriate infection control measures at all times following in order of hierarchy: administrative, environmental and respiratory controls.
- r). Screening and reporting for the NTP shall be implemented in all DOTS facilities whether public or private according to internationally accepted case definitions. NTP

records should be kept for at least seven (7) years before properly discarding. The Integrated TB Information System (ITIS) shall be the official web-based electronic TB information system.

SECTION 3. DEFINITION OF TERMS

ACTIVE TB: A person having TB with or without signs and symptoms, with bacteriologic and/or radiographic findings consistent with TB disease.

ACTIVE CASE FINDING: Purposeful effort by a health worker to find TB cases from among TB presumptive in the community who do not seek consultation relating to TB in a health facility.

ACTIVE TUBERCULOSIS CASE FINDING: Is synonymous with systematic screening for active TB, although it normally implies screening that is implemented outside the health (DOTS) facilities.

CASE HOLDING: An activity to treat TB cases through proper treatment regimens and health education.

CONTACT INVESTIGATION: A systematic process for identifying people with previously undiagnosed TB among the contacts of an index case. The investigation includes identification of the source case if the index case is a child as well as candidates for preventive treatment.

DOT - Directly Observed Treatment: An activity wherein a trained health worker or someone present personally observe the patient to take anti-TB medications every day during the whole course of the treatment of all TB cases.

DOTS - Directly Observed Treatment Short-Course: A comprehensive strategy to control TB, and is composed of five components.

DOTS Facility: A health care facility, whether public or private, that provides TB DOTS services in accordance with the policies and guidelines of the National TB Control Program (NTP), DOH.

DSSM - Direct Sputum Smear Microscopy: Principal diagnostic method adopted by NTP because

- a. It provides a definitive diagnosis of active TB
- b. The procedure is simple.
- c. It is economical, and
- d. A microscopy center could be put up even in remote areas.

INDEX (Index patient) OF TB: The initially identified TB case of any age in a specific household or other geographic setting in which others are later found exposed.

IDENTIFIED CASE FINDING: Active case finding among individuals belonging to special or defined population.

IMOTS - Models for the integration of PMDT services to basic DOTS services delivered by health facilities and sites to improve access to PMDT services, including screening, initiation of drug resistant TB treatment and case holding at the peripheral levels.

PASSIVE CASE FINDING: Finding a case of tuberculosis from among TB presumptive who present themselves at the TB DOTS facility.

PMDT FACILITIES-Programmatic Management for Drug Resistant TB Facilities: A health (DOTS) facility that provide services for Drug Resistant TB.

PRESUMPTIVE DRUG RESISTANT TB - Any person whether adult or child, who belongs to any of the DR TB high risk groups, such as: for treatment cases, new TB cases that are contacts of confirmed DR TB cases or non-treatment of Category I and people living with HIV with signs and symptoms of TB.

PRESUMPTIVE EXTRAPULMONARY TB: TB infection acquired having signs and symptoms specific to the suspected extra-pulmonary site with or without signs and symptoms of unexplained fever or night sweats, coughing night sweats, or cough of any duration in high risk group.

PRESUMPTIVE PULMONARY TB: Status in two persons having

- i. Two weeks or longer of one of the following - cough, unexplained fever, unexplained weight loss, bloody/sputum cough.
- ii. Cough of any duration in high risk group, or
- iii. CXR finding suggestive of TB.

PRESUMPTIVE TB - Any person whether adult or child with signs and/or symptoms suggestive of TB whether pulmonary or extra-pulmonary or those with Chain X-ray findings suggestive of active TB.

SYSTEMATIC SCREENING FOR ACTIVE TB: Is the systematic identification of people presumed to have active TB, in a predetermined target group, using face-to-face interviews or other procedures that can be applied regularly.

TD - Tuberculosis. An infection caused by Mycobacterium tuberculosis.

TDT - TB Task Force - a group of volunteers who assist in most of the activities in the implementation of the Tagaytay City TB program under the supervision of the City of Tagaytay TB Council.

SECTION 6: Creation and Composition of the City of Tagaytay Tuberculosis (TB) Council.

6.1 The City Government of Tagaytay shall create the Tagaytay City TB Council as a vehicle for coordination and unification of efforts on TB and, consistent with existing mandates in the Local Government Code, which will be composed of the following:

a	City Mayor	Chairperson
b	City Health Officer/ NTP Medical Coordinator	Vice Chairperson (Alternate Vice Chair)
c	SP-Chairman or Coordinator on Health	Member
d	NTP Nurse Coordinator	Member
e	President, Liga ng mga Barangay	Member
f	TB Task Force Federation Leader	Member
g	Civil Society Organizations (CSO)	Member
h	Private Sector Health Provider	Member
i	Bureau of Lab Management & Forensics SMBP (SOP's Director) Female-Male 2/ Male-male	Member Member

6.2 The main and functions of the Tagaytay City TB Council include:

- a. To identify and establish the vision and immediate tasks of the partners in the organization and delivery of TB care as per NTP guidelines.
 - To establish a network for the TB Council.
 - To ensure the socio-economic development policies and programs and include consideration of the impact of TB infection to the community.
 - To work for the prioritization in the allocation of resources for the TB Program.
 - Spearhead activities and advocacy on TB Elimination.
- b. To coordinate with the different sectors involved in the NTP implementation and ensure that the NTP policies and the DOTs strategy are implemented thereby ensuring case detection rate of at least 90% and treatment success rate of 95%.
 - To strengthen partnership with other government agencies, NGOs and private entities and international agencies for a more comprehensive NTP implementation.
 - To support local community health activities and TB Diagnostic Committee activities to sustain private sector interest and participation in the NTP.
 - To gather resources and additional support (financial and material) for the continuous implementation of the program.
- c. To ensure that efforts and resources are generated and geared towards achieving the goal of having a community where TB is no longer a public health problem.
 - To ensure that the collection for the budget requirements for the TB Program for the City is sufficient.
 - To ensure that the City regularly support the monitoring, supervision, evaluation, training requirements, NTP drug and supplies need.

- To allocate the continuous investment for quality improvement and to certification and accreditation of the City health facilities as HOTS centers.

- a. To create a TB Taskforce in the City of Tagaytay.
 - To assist in all the activities of the Health Center towards an efficient and effective implementation of the program.
 - To help raise awareness and provide information campaign, issue to issue about TB.
 - To assist in data gathering, recording and monitoring of TB cases in the city.
 - To closely report to the City TB Area coordinator and work hand in hand with the therapy to ensure smooth implementation of the program.
- b. To ensure that all Pharmacies in the City shall be enjoined to adhere "No Prescription, No Dispensing" policy of TB Control for their implementation and compliance.
- c. To ensure that infection control in all facilities and environment shall be implemented to prevent transmission among populations.
- d. To adopt policies, guidelines and protocols of the NTP program.

SECTION 7: Alliances and Networking

7.1 This will strengthen partnership with different sectors involved in the program such as government agencies, NGOs, civil society, private sector, donor institutions and other supporting agencies for a more cooperative NTP implementation.

7.2 All public and private health facilities, hospitals, including laboratories, pharmacies, private diagnostic laboratories, work places, transport groups, the care centers, schools and universities in the City shall be engaged in TB control and prevention.

7.3 All physicians practicing in City Government of Tagaytay shall have an invitation and update on TB to ensure key participation in TB Council.

SECTION 8: TB Awareness Campaigns

8.1 A continuous promotion of TB awareness, and Active Case Finding and care shall be conducted per biweekly in the City observed as "Daldalng masamang Cansang" highlighted during the World TB Day (March 31) and the Lung Month (August 18) annually. This is in cooperation with all stakeholders/development partners.

8.2 The City shall provide logistical counterpart to all TB Awareness Campaigns and ensure that a systematic screening activity among high risk community for TB such as the identified urban poor areas, specifically provisions for chest X-ray services and Sputum TB Culture cartridges shall be supported.

SECTION 9: Implementing Rules and Regulations

The TB Council shall draft the implementing rules and regulation of the Ordinance within six (6) months from approval of this ordinance.

SECTION 10: Appropriation

10.1 There shall be an annual fund allocation for the City National Tuberculosis Program (CNTP) under the City Health Office on an annual basis to ensure timely release of funds to ensure program success and sustainable approaches to the efficient and effective delivery of the City TB Control Program. The funding will be provided in the following aspects:

- a) To ensure that the allocation for the budget requirements for the TB program of the City is sufficient.
- b) To ensure that efforts and resources are geared towards achieving the goal of having a community where TB is no longer a public health problem.
- c) To ensure that the NTP policies and the DOTs strategies are implemented, thereby ensuring a case detection rate of at least 90% and a treatment success rate of at least 95%.
- d) To allocate for the continuous investment for quality improvement and certification and accreditation of the City health facilities as DOTs centers. To strengthen and upgrade local community.

health volunteers on TB-DOTS programs.
c) To ensure that the City regularly supports the monitoring, supervision, evaluation, training requirements, and RCT activities.

SECTION 11. Reporting Cases

All infections, outbreaks or form of local application and other transmission events are hereby monitored, supervised, and reported accordingly.

SECTION 12. Separability Clause

If for any reason any part of provisions thereof shall be held unconstitutional or invalid, other parts or provisions hereof which are not affected hereby shall continue to be in full force and effect.

SECTION 13. Effectivity

This Ordinance shall be in force and effect immediately upon its approval in accordance with the law.

ENACTED, September 21, 2020

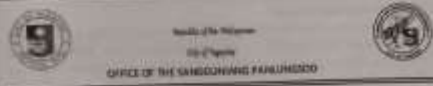
CERTIFIED CORRECT:

INGO ELSO P. DE CASTRO
Acting Secretary to the Sanggunian

APPROVED BY THE CITY MAYOR:

INGO BON, AGNES D. TOLENTINO, OMS
City Mayor

PUBLISHED: DIYARTO KABITENYO
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EXCERPT FROM THE MINUTES OF THE 66TH REGULAR SESSION OF THE SANGGUNIANG PANGLUSOG OF TAGAYTAY CITY HELD ON SEPTEMBER 21, 2020 AT THE HALL OF JUSTICE AND LEGISLATIVE BLDG., MAHOGANY MARKET COMPLEX, LAZARUS SOUTH TAGAYTAY CITY

CITY ORDINANCE NO. 2020-007

AN ORDINANCE ADOPTING THE "NEW NORMAL" TO PREVENT AND CONTROL COVID-19

SPONSOR:
REP. ATHINA BRISANA R. TOLENTINO
REP. ANNABELLE M. SOLIS

WHEREAS, on March 18, 2020, President Rodrigo Duterte declared a State of Public Health Emergency throughout the country due to COVID-19, and required all government agencies and Local Government Units (LGUs) to make full assistance, cooperation, and mobilize the necessary resources to undertake critical surge and appropriate responses and measures to control and eliminate COVID-19 threat;

WHEREAS, on April 25, 2020, the same Agency Task Force for the Management of Emerging Infectious Diseases (ATF-EID) issued Resolution No. 28 which mandates that minimum public health standards must be specified by the Department of Health and adhered to by all sectors;

WHEREAS, on April 27, 2020, the Department of Health issued Administrative Order No. 2020-007 which sets the guidelines on the Minimum Public Health Standards for COVID-19 mitigation and

serve as a guide in institutionalizing key Non-Pharmaceutical Interventions across different settings to control COVID-19.

WHEREAS, Section 16 of the Local Government Code provides that Local governments shall exercise powers necessary, appropriate or incidental for its efficient and effective governance; and those which are essential to the promotion of general welfare;

WHEREAS, with these powers, the City Government of Tagaytay implements the Non-Pharmaceutical Interventions promulgated by DOH Administrative Order No. 2020-007 using the Ordinance's provisions and technical specifications necessary for the adaptation and execution to the "new normal";

NOW, THEREFORE, BE IT ORDAINED BY THE SANGGUNIANG PANGLUSOG OF TAGAYTAY in session assembled, physically and virtually (online) present, that:

SECTION 1. Short Title. This ordinance shall be known as the "New Normal" to Prevent and Control Covid-19.

SECTION 2. Declaration of Principles and Policy. It is the declared policy of the City Government of Tagaytay, to protect the lives of its residents at all times and uphold the whole-of-government and whole-of-society approach to developing solutions and responses to the COVID-19 health crisis. It recognizes that all policies, guidelines and plans shall be prepared of equity considerations and implications of such policies in different sectors of society. The City Government of Tagaytay joins the Department of Health and other national government agencies to continue an evidence-based policy development, decision-making, and implementation of non-pharmaceutical interventions and other mitigation measures to the "new normal".

SECTION 3. General Objective. This ordinance aims to strengthen the capacity of the City Government to prevent, detect, and respond to local COVID-19 cases. This policy operationalizes the minimum public health standards and other applicable laws and guidelines on mitigation measures for COVID-19 response across different settings.

SECTION 4. Definition of Terms. As used in this Ordinance, the following terms shall mean:

- a. **Administrative Controls** - refers to procedural interventions or modifications in policies, standards and processes, that are done to reduce the frequency and severity of exposure to infectious diseases (e.g. hygiene and disinfection protocols, work shifting, etc.)
- b. **Engineering Controls** - refers to physical interventions or modifications in spaces or environments, that is meant to prevent the transmission of infectious diseases (e.g. social/physical barriers, exhaust ventilation, etc.)
- c. **New Normal** - refers to a set of health behaviors and minimum public health standards to be observed and institutionalized to halt the spread of COVID-19 and shall be part of routine practices even after the pandemic.
- d. **Non-pharmaceutical Interventions (NPI)** - refers to public health measures that do not involve vaccines, medications or other pharmaceutical interventions, that individuals and communities can carry out in order to reduce transmission rates, contact rates, and the duration of infectiousness of individuals in the population.
- e. **Protective Personal Equipment (PPE)** - refers to protective garments or equipment worn by individuals to increase personal safety from infectious agents.
- f. **Vulnerable groups** - refers to any person below twenty-one (21) years old, those who are sixty (60) years old and above, those with immunodeficiency, are mobility or other health risks and pregnant women, including any person who resides with the aforementioned.

CHAPTER 1.
Non-Pharmaceutical Interventions for the "New Normal"

The implementation of this Ordinance shall support the localization of the non-pharmaceutical interventions (NPIs) provided for in the DOH Administrative Order No. 2020-007, titled "Guidelines on the Risk-Based Public Health Protocols for COVID-19 Mitigation". This Ordinance shall be guided by the following COVID-19 Mitigation Objectives:

- (1) Increase Physical and Mental Resilience
- (2) Reduce Transmission,
- (3) Reduce Contact, and
- (4) Reduce Duration of Infection.

Section 5. Promote Mental Health.

5.1 The City Government of Tagaytay acknowledges that health emergencies may cause stress, anxiety and depression. As such, interventions to deliver mental health services, professional support, referral mechanisms, and other essential services shall be made available to individuals who need help and support during the COVID-19 health crisis.

SECTION 6. Reduce exposure of vulnerable individuals (e.g., senior citizens, pregnant women, individuals with comorbidity) to person-to-person infection.

6.1 The City Government of Tagaytay shall adopt administrative controls to designate specific lanes or areas for vulnerable individuals in public places and establishments, which may be further supported by engineering controls such as but not limited to placement of temporary barriers and visual cues, if there is a need for them to go out of their residence, otherwise vulnerable groups are not allowed to go out during community quarantine.

SECTION 7. Provide support for essential workforce (e.g., financial aid, lodging transportation to and from the workplace, food, etc.)

7.1 Business, public and private offices and other establishments authorized to operate during community quarantine shall provide services and other forms of support to its workforce such as but not limited to transportation services, financial aid, food and accommodations and personal protective equipment.

SECTION 8. Provide support for vulnerable groups (e.g., social amelioration programs, food assistance, etc.)

8.1 The City Government of Tagaytay shall ensure timely and adequate provision and distribution of services and benefits as mandated by applicable laws and guidelines to groups or individuals, particularly those identified to be vulnerable for the duration of COVID-19. Support and services shall be provided as and be deemed necessary.

SECTION 9. Reduce the use of and exposure to tobacco products.

9.1 To protect the well-being of their residents and non-residents, the City Government of Tagaytay shall prohibit the sale and use of tobacco products in public places as stipulated in Executive Order No. 20. It is intended to protect public health and establishments, stores and administrative offices designate specific smoking areas, however, signage prohibiting smoking about the office and other use of tobacco products shall be provided in such areas.

SECTION 10. Promote Health Adhering Physical Activities.

10.1 The City Government of Tagaytay promotes the conduct of regular exercise and other physical activities to improve physical and mental wellness during the COVID-19 health crisis provided that individuals adhere to the minimum public health standards. If the City Government of Tagaytay designates a specific area for the conduct of exercise physical activities, engineering and administrative controls such as but not limited to ensure distribution and maintenance of handwashing stations and dispenser with alcohol-based solutions, placement of disinfectant for physical distancing shall be implemented.

SECTION 11. Practice personal hygiene (e.g., handwashing with soap and water, sneezing with hand disinfectants, etc.)

11.1 To promote proper hand hygiene, the City Government of Tagaytay shall provide essential handwashing facilities and dispensers in public places and other design facilities and

such facilities must be supported by placement of signage and visual cues to further encourage proper handwashing and cough etiquette.

SECTION 12. Avoid littering, spitting and urinating in public places.

12.1 The City Government of Tagaytay prohibits the act of littering, spitting and urinating in public places such as but not limited to the street, road, alley, sidewalks, public parking lots, or other vacant public and private properties not owned or controlled by the individual.

SECTION 13. Practice of environmental hygiene and disinfection of facilities.

13.1 Buildings, government offices and private and public establishments are hereby directed to conduct routine disinfection of frequently touched surfaces and objects. All disinfection and sanitation procedures shall follow protocols and prescribed disinfectant solutions used in DOH Department Memorandum No. 2020-0137, as amended.

13.2 All public and private establishments such as hotels, restaurants, public and private tourist destinations, amusement and theme parks, spa and wellness clinics, spas, salons and public markets, are hereby required to close business every Monday for the purpose of disinfecting their facilities.

13.3 An establishment may seek reservation from the City Tourism Office for all price booking from date of the effectivity of this provision. However, they should not accept booking or guests every Monday.

13.4 Fast foods are hereby authorized to operate every Monday provided that they shall offer delivery and take-out services only.

SECTION 14. Use of PPE and other medical-grade protective apparel.

14.1 The City Government of Tagaytay shall require all individuals to wear face masks and face shields in public areas. However, individuals with no symptoms can wear cloth, do-it-yourself reusable face masks to ensure steady supply of medical-grade masks and other protective apparel, which shall be reserved for individuals with the like symptoms, health care workers and other essential workers.

SECTION 15. Practice of physical distancing.

15.1 In a given space, the City Government of Tagaytay shall enforce strict compliance with physical distancing protocols (at least 1 meter apart to each, front and back). Establishments, markets, pharmacies, banks, public and private offices, and other services authorized to operate shall conduct social media, meetings, and other engaging online processes.

SECTION 16. Modified work structure and schedule, and alternative work arrangements.

16.1 All businesses, establishments, and private and public offices that are authorized to receive operations shall modify work structure and provide alternative work arrangements such as work from home, working from office, and on rotation basis. All workplaces shall follow the guidelines for return to work set by the DOH Department Memorandum 2020-0137.

SECTION 17. Extend non-essential services.

17.1 All businesses, establishments, and private and public offices that are authorized to receive operations shall modify work structure and provide alternative work arrangements such as work from home, working from office, and on rotation basis.

SECTION 18. Restrict on mass gatherings.

18.1 Mass gatherings shall be prohibited in accordance with the measures provided under official community quarantine classification. Official community assemblies, sporting

articles and other means to promote the coverage gathering of individuals occupying the various positions within of such body as provided for a given sitting shall be provided

SECTION 17. Honor and Justice Accomplished Individuals

17.1 In order to further promote the working procedures and stimulate actions of accomplished individuals of establishments, business and public and private offices engaged in business, promote transparency and other meaningful actions and conduct the necessary recognition and awards to such individuals, contribution to the appropriate authority within body.

17.2 A special distinction award shall be granted to the honorably cited up by groups, community or church completely prior or upon reference to the establishment. Award shall include name, age, marital status, usual address, home address in the country, current health condition, photograph suitable in framed or mounted to the given business card size. A QR code may also be included for given web address for online viewing purpose.

17.3 All government-owned public and private offices/establishment are hereby required to search their data base history in a notebook or a Monitoring Form containing the data base photo record and the name of the award to be awarded to a person.

CHAPTER 8. Rules and Regulations

The various rules delineated the functions and responsibilities required from each office in office rendered to the implementation of the present policy. They include the following:

SECTION 18. The City Social Welfare and Development Office

Welfare support for vulnerable groups such as social assistance program and food assistance.

SECTION 19. The City Division and Risk Reduction Management Office

Collaborate with all other offices to identify existence of the Ordinance may be required for compliance with the WHO and a permit to open the bar and small shops.

SECTION 20. The City Health Office

- 1. Conduct and provide information, education and communication materials for office and compliance of COVID-19.
- 2. Knowledge assessment of the city to prevent and report existence of the Ordinance.
- 3. Conduct the survey for the control and prevention of COVID-19.
- 4. Report and monitor compliance of health and permit establishments to be conducted to meet and comply with or non-compliance with other applicable regulations from the the ordinance to ensure compliance during enforcement of operation of the establishments.
- 5. Carry out the overall coordination among other offices involved in the implementation of the Ordinance.

SECTION 21. The City Information Office

- 1. Carry out training, provide and report on the ordinance to the Division of the office to meet a permit concerning the provisions of the ordinance.
- 2. Conduct a public hearing to the implementation and compliance of the ordinance and
- 3. Coordinate with various establishments in the implementation of the ordinance of the ordinance.

SECTION 22. The City Department Office

Provide a public hearing to promote and to encourage compliance of the ordinance.

- 1. Assist in providing resources of the Ordinance and to encourage public support and participation in its implementation and enforcement.

SECTION 23. The City and Taguig Office of Public Safety (COPS) Department

- 1. Shall operational and non-strategic. Enforce against persons caught violating the ordinance. They shall forward copies of the incident to the division in the Health Office regularly.
- 2. Enforce strict permit and operation procedure to conduct regular inspection of vehicles coming in Taguig.
- 3. Appointed officers to coordinate with the government office/officers.
- 4. Assist city officials, barangay officials and district officials in apprehending violators and to filing the appropriate complaint.
- 5. Liaison to the newly forming Regulatory Commission and coordinate with the City Council Administration for the conduct of the ordinance.

SECTION 24. The City Transport Office

- 1. Collect and receive data from a vehicle and collect reports coming from in the city Health Office.
- 2. Organize collection system to monitor to ensure the effective operation of the

SECTION 25. The President of the Association of Barangay Captains (ABC) Office

- 1. Assist in providing resources of the Ordinance to encourage public support and participation in its implementation and enforcement.
- 2. Coordinate with all Barangay Captains and the COPS in monitoring compliance of the Ordinance within their jurisdiction.
- 3. Provide for resources coordination among the Barangay Health Workers, Kapitan, Parents and other resources for the implementation of activities pursuant to the Ordinance.

CHAPTER 9. Appropriation

SECTION 26. Appropriation. There shall be no appropriation under the Ordinance Office for the implementation of the provisions of the ordinance.

CHAPTER 10. Final and Accountability Provisions

SECTION 27. Accountability. The office shall enforce the accountability of all related stakeholders involved in the implementation of the present policy.

- 1. Any person whether resident or non-resident of Taguig City who non-compliance of the ordinance shall be held according to the following:

- 1. First offense: ₱100,000.00 (One Hundred Thousand Pesos)
- 2. Second offense: ₱200,000.00 (Two Hundred Thousand Pesos)
- 3. Third offense: ₱300,000.00 (Three Hundred Thousand Pesos)

2. No contribution

- 1. First offense: Suspension of operation for one (1) month
- 2. Second offense and onwards: Closure of operation for three (3) months

CHAPTER 11. Miscellaneous Provisions

SECTION 28. Multiple Offenses. Implementation of this Ordinance shall be subject to the provisions of Taguig City Ordinance No. 101, which states that multiple offenses shall be punished.

in the implementation of SOPs in accordance with emerging evidence and practices and as may be deemed necessary by the DCSM and other WUs.

SECTION 32. Transitory Provisions. - Implementation of the present policy shall require a process of transition from pre-existing laws, facilities, arrangements, systems, instruments, contracts, rules and regulations, including in this sector, by transfer or continuation of the transition.

SECTION 33. Implementing Rules and Regulations. - Within six (6) months from the approval of this Ordinance, the necessary rules and regulations shall be issued by the City Engineer for its proper and effective implementation. The City Engineer may also issue additional rules and regulations should the need arise.

Section 34. Reporting Clause. - All ordinances covered by or inconsistent with this Ordinance are hereby repealed or modified accordingly.

SECTION 34. Separability Clause. - If, for any reason, any part or portion of this present ordinance is held unconstitutional or invalid, other provisions hereof are not to be affected thereby, and shall continue to be in full force and effect.

SECTION 35. Effectivity. - This ordinance shall take effect immediately upon approval.

ENACTED: September 21, 2020

CERTIFIED CORRECT:

INGO CEBALFO DE CASTRO
Acting Secretary to the Sanggunian

APPROVED BY THE CITY MAYOR:

INGO BION - AGONIS D. TOLENTINO, DMD
City Mayor

Published: DINARDO KABITENYO
Date: December 28, 2020 - January 3, 2021



Office of the City Mayor
Tagaytay City
OFFICE OF THE GOVERNMENT ENGINEER



EXCERPT FROM THE MINUTES OF THE 4TH REGULAR SESSION OF THE SANGGUNIANG PANGLULUNGSOD OF TAGAYTAY CITY HELD IN AN ORDINARY SESSION AT THE SANGGUNIANG HONOR HALL, 87 HALL OF BLENDED & INNOVATIVE BLDG., MARINOY MARKET COMPLEX, KATIBIHAN, SOUTH TAGAYTAY CITY.

CITY ORDINANCE NO. 2020-413

AN ORDINANCE AMENDING CITY ORDINANCE NO. 2016-0013 OF 2016, AN ORDINANCE MANDATING THE REMOVAL OF ALL OBSTRUCTIONS ON PUBLIC ROADS AND HIGHWAYS IN THE CITY OF TAGAYTAY

SPEAKER: ING. DEVENIR M. DEPISITU

WHEREAS, the Sangguniang Panglungsod issued City Ordinance No. 2016-0013 of 2016, an ordinance mandating the removal of all obstructions on Public Roads and Highways in the City of Tagaytay

WHEREAS, City Ordinance No. 2020-413 was passed in support to the removal of obstructions on

other roads of legal structures and construction obstructing the removal of all obstructions on public roads and highways such as electrical poles, support wires and other wires and facilities caused by utility companies, such as Meralco, EDC and other telecommunication companies.

WHEREAS, the DCSM issued a Memorandum on the Removal of Obstructions from the Road Right-of-Way of National Roads per DCSM Administrative Order No. 2020-01, transmitted to the President and Governor of Pateros on the Removal and Abatement of Trees Affected by DCSM Activity.

NOW THEREFORE, BE IT ORDAINED BY THE SANGGUNIANG PANGLULUNGSOD OF TAGAYTAY ON ITS REGULAR SESSION DULY ASSEMBLED PHYSICALLY AND VIRTUALLY ON LINE THAT:

SECTION 1. - Approve, in whole, Section 1 of City Ordinance No. 2020-413 as amended to read as:

SECTION 1. GENERAL AND ADMINISTRATIVE PROVISIONS

- 1. Obstructing and hazardous trees may be pruned or removed in coordination with the Department of Environment and Natural Resources.
- 2. The City Environment and Natural Resources Office shall issue a corresponding Tree Cutting Permit and/or Earth-Loading Permit including the number of trees based on the analysis of the appropriate infrastructure plan with tree clearing or translocation as the result of actual on-site inspection.
- 3. The City Agriculture Office shall determine the number of trees, location and its special uses, identification if naturally grown or planted, and corresponding values shall be recorded and assessed upon the conduct of pruning and tree cutting by CENSO during the actual tree cutting activities. This shall be the basis in determining the tree replacement and schedule of funding left to the concerned CENSO, categorization of trees (large, medium, small).
- 4. The City Commission of Zoning from the Office of the City Administrator shall issue a certification along the Certificate on the removal of obstructions from along the right-of-way within the jurisdiction of Tagaytay.

SECTION 2. Reporting Clause. - All ordinances, orders, resolutions, and decisions transmitted hereto shall be amended or repealed accordingly.

SECTION 3. Effectivity. - This ordinance shall take effect upon its publication.

ENACTED: October 26, 2020

CERTIFIED CORRECT:

INGO CEBALFO DE CASTRO
Acting Secretary to the Sanggunian

APPROVED BY THE CITY MAYOR:

INGO BION - AGONIS D. TOLENTINO, DMD
City Mayor

Published: DINARDO KABITENYO
Date: December 28, 2020 - January 3, 2021

EXTRAJUDICIAL SETTLEMENT OF THE ESTATE OF CRISPINO TORRES WITH DEED OF ABSOLUTE SALE

NOTICE is hereby given that the estate of the late **CRISPINO LICTAC TORRES** who died intestate on January 1, 2011 in Capitol Highway, Portland, Oregon, U.S.A., consisting of a 1/2 consigned share in the following properties:

• A parcel of land situated in the Vic. of Lomon, Mac. of Davao del Sur, Prov. of Cotabato, in a lot owned by ECT No. 057-20180624, containing an area of **NINETY FIVE (95) square meters;**

• A residential house erected on the above-described parcel of land more particularly described under Tax Declaration No. 277011200033.

Has been adjudicated and extrajudicially settled by and among his heirs as follows:

1/2 share - **ERLINDA TORRES**
1/2 share - to be divided equally, pro indiviso, among **Aldemar Torres, Makina Torres, Miguel Torres, Angelina T. Vogel De Dios, Ma. Edith T. Buening, Josephine Torres, Romeo Torres, Mark Torres, Imelda Torres, Evangelina T. Saramanda, Reynaldo L. Torres, Elton T. Hano, and Angelina Torres.**

This did and in accordance of the amount of **EIGHT HUNDRED THOUSAND PENSOS (P800,000.00)**, hereby **SELL, TRANSFER, CONVEY** the said parcel of land and residential house, in favor of **BACHEL CENSON TRIBANG** on February 4, 2020 in Davao, Cotabato before Notary Public John Danny L. Medina and entered in the Provincial Register at Div. No. 234, Page No. 65, Book No. 73, Series of 2020.

Notary **ANGELITO TORRES** he himself and an Attorney-in-Fact for the other heirs.

Publication - **DIVARDO KABINENYO**
Date - December 24, 21 & 18, 2020

AFFIDAVIT OF SELF ADJUDICATION

NOTICE is hereby given that the estate of the late **KAZAREL B. DAYAO** who died intestate on June 05, 2003 at Calicut, Marikina City, consisting of a parcel of land covered by TCT No. 0-11224 located at Alcala, Westmore, Quezon, Province of Cavite, consisting of an area of 10,000 square meters, more or less, has been self-adjudicated by the late late **RENEE EURELLA H. DEY GARA** on October 9, 2020 at City of Manila, Philippines before Notary Public John A. Hano and entered in the Provincial Register at Div. No. 643, Page No. 40, Book No. 3300, Series of 2020.

Notary **ANGELITO TORRES** he himself and an Attorney-in-Fact for the other heirs.

Publication - **DIVARDO KABINENYO**
Date - December 24, 21 & 18, 2020

No guy has a magic
Magic is in the heart of the girl
loving the guy who can send
her whole being up in 'Cloud
Nine' even with the mere touch
on her fingertips.

Arnold B. Bano

**REPUBLIC OF THE PHILIPPINES
FOURTH JUDICIAL REGION
REGIONAL TRIAL COURT
OFFICE OF THE CLERK OF COURT
TRINIDAD MARIKINA CITY**

BOO UNIBANK, INC.
Mortgage
Foreclosure Case No. F-044-20

JUNREY REVILLA DANG, AN REPRESENTED BY HIS ATTORNEY-IN-FACT, ELIZABETH REVILLA DANG.
Mortgage

NOTICE OF EXTRA-JUDICIAL SALE

Upon Extra-Judicial Petition for Sale under Act 3375, as amended by Act 4118, filed by Mortgagee, **BOO UNIBANK, INC.**, with business address at BOO Corporate Center, 7009 Makati Avenue, Makati City against the Mortgagee, **JUNREY REVILLA DANG, AN REPRESENTED BY HIS ATTORNEY-IN-FACT, ELIZABETH REVILLA DANG**, with residence and postal address at 111 Lot 39, Block 1, Kawangitan 7, Liguayan New City, Brgy. Naranjo, Gen. Trias, Cavite (2116-37, 38, 1, Kawangitan 7, Brgy. Naranjo, Gen. Trias, Cavite) and 17 No. 228-B, Adhans House 1, Solid Med. Area, 4103 Cavite, to satisfy the mortgage indebtedness as of 31 January 2020 amount to **ONE MILLION EIGHT HUNDRED SEVENTY NINE THOUSAND FOUR HUNDRED SEVENTY TWO PESOS & 37/100 (P1,879,472.37)**, Philippine Currency, including interest, penalties, and other charges as of said date but exclusive of all other expenses incidental to this foreclosure and sale, the undersigned Sheriff will sell as public auction on February 25, 2021 at 10:00 o'clock in the morning at the main entrance of the Government Case Bldg. located at the Provincial Capitol Compound, Trinidad Mariquina City, at the highest bidder of CASH and in Philippine Currency, the following described property with all the improvements thereon, to-wit:

TRANSFER CERTIFICATE OF TITLE No. 872-0000000

LOT NO. 10 BLOCK 1 PLAN NO. PCS-04-020221

PORTION OF B.L.K. 14, PSD-04-277009 AND LOT 1008, PDNE (PS-04-000011)

LOCATION: BARANGAY OF NABARRO, MUNICIPALITY OF GEBORAL TAGLE, PROVINCE OF CAVITE, ISLAND OF LUZON

BOUNDARIES:

LINE	DIRECTION	ADJOINING LOT/BLK
1-2	NK	ROAD LOT 6, PCS-04-020221
2-3	NE	LOT 37, BLOCK 1, PCS-04-020221
3-4	SE	LOT 38, BLOCK 1, PCS-04-020221
4-1	SW	LOT 39, BLOCK 1, PCS-04-020221

AREA: FORTY ONE SQUARE METERS (41), MORE OR LESS

All needed bids must be submitted to the undersigned on the above-specified time and date.

In the event the public auction should not take place on the said date and time, it shall be held on **March 04, 2021** without further notice.

Prospective bidders/buyers are hereby required to investigate the description of the site on the said property and ascertain the same, if any there is.

Dated: **Trinidad Mariquina City, December 15, 2020.**

Notary **REYNALDO A. CALIBRAN**
Notary

Cargo Forwarded

BOO UNIBANK, INC.
BOO MANAGEMENT CORP. 6000 CALIBRAN AVENUE
127 Floor BOO Trade Tower, 6000 Calibran Avenue
7009 Makati Avenue, Makati City 1205

JUNREY REVILLA DANG (Solely) and **ELIZABETH REVILLA DANG (Solely)**
111 Lot 39, Block 1, Kawangitan 7, Liguayan New City, Brgy. Naranjo, Gen. Trias, Cavite
17 No. 228-B, Adhans House 1, Solid Med. Area, 4103 Cavite

WARNING: IT IS ORDERED THAT WHosoever is indebted to the above-named JUNREY REVILLA DANG and ELIZABETH REVILLA DANG shall pay to the undersigned Sheriff the amount of the said debt.

Publication - **DIVARDO KABINENYO**

Date - December 24, 18, 2020 and January 4, 2021

Similar factors cause health disparities in cancer, COVID-19

Income level, employment, housing location, medical insurance, education, tobacco and alcohol use, diet and obesity, access to medical care. These are some of the factors causing worse cancer outcomes in people who are Black.

The same factors are also causing worse outcomes from COVID-19 in this population.

"The similarities between COVID-19 illness and cancer disparities is striking," says John M. Cantor, M.D., John G. Scars Professor and Chair of Internal Medicine at Michigan Medicine.

"In cancer we are seeing an even greater what has been observed regularly with COVID -- that the same conditions in our society put specific groups at risk for both."

REPUBLIC OF THE PHILIPPINES
FOURTH JUDICIAL REGION
REGIONAL TRIAL COURT
OFFICE OF THE CLERK OF COURT
TRIPLE MARTIRES CITY

SECURITY BANK CORPORATION
Mortgagee,

FORFEITURE CASE NO. P-18-20

versus
EVA JOY DELA CRUZ ORDO
Mortgagor.

NOTICE OF EXTRA-JUDICIAL SALE

Upon Extra-Judicial Petition for Sale under Act 1513, as amended by Act 6118, filed by Mortgagee, SECURITY BANK CORPORATION, with business address at Security Bank Center Building, 6778 Ayala Avenue, Makati City against the Mortgagee, EVA JOY DELA CRUZ ORDO, with residence and postal addresses 630 BAYLE STREET, BRGY. 177, ZONE 16 DISTRICT 1, TONDOL MANSILA AND KENSINGTON PHASE 7 BLOCK 2 LOT 44, BRGY. SAWARRO, GENERAL TRIAS CAVITE to satisfy the mortgage indebtedness which as of 30 October 2020 amounts to THREE HUNDRED NINETEENTHousand TWO HUNDRED FORTY FOUR PESOS AND 11/100 (P302,244.00), Philippine Currency, including interest, penalties, and other charges, as of and data the existence of all other encumbrances recorded in the foreclosure and sale, the undersigned Sheriff will sell in public auction on February 23, 2021 at 10:00 o'clock in the morning at the main entrance of the Government Center Building located at the Provincial Capitol Compound, Trias Martires City, to the highest bidder for CASH and in Philippine Currency, the following described property with all the improvements thereon, to-wit:

TRANSFER CERTIFICATE OF TITLE NO. 87-20187386

Lot No. 44 Block No. 2 Plan No. P-04-028223
Portion of B.L.C. 14, P-25-04-225891 AND LOT 1806, STRIDE 1183-04-081111
Location: BAKANGAY OF SAWARRO, MUNICIPALITY OF GENERAL TRIAS,
PROVINCE OF CAVITE, ISLAND OF LUZON.

Boundaries	LINE	DIRECTION	ADJOINING LOT(S)
	1-2	SE	804D, LOT 1, PCS-04-028223
	2-3	SW	LOT 45, BLOCK 2, PCS-04-038223
	3-4	NW	LOT 188, STRIDE
	4-1	NE	LOT 41, BLOCK 2, PCS-04-038223

Area - FIFTY EIGHT SQUARE METERS (58, MORE OR LESS)

All needed data must be submitted to the undersigned on the above stated time and date.
In the event the public auction should not take place on the said date and time, it shall be held on **March 04, 2021** without further notice.

Prospective bidders/buyers are hereby enjoined to investigate for themselves the title of the said property and encumbrances thereon, if any there be.

Trias Martires City, December 03, 2020. (Sgd.) LUCID C. ALBAO III
Sheriff IV

Copies Furnished:
SECURITY BANK CORPORATION
LARIÑA PEREZ MANGROBANG MIRALLES
DUMINGQUE AVILA PULGENCIO & SALAS
Counsel for the Mortgagee
47 Floor, Security Bank Center Building
6778 Ayala Avenue, Makati City
Eva Joy Dela Cruz Ordo
630 Bayle Street, Brgy. 177, Zone 16 District 1, Tondol Mansila
Kensington Phase 7 Block 2 Lot 44, Brgy. Sawarro, General Trias, Cavite

WARNING: It is specifically prohibited to receive, deliver or receive the fruits or items belonging to the said lot or lots.

Publication: DIWARYO KABITENYO
Dates: December 21, 28, 2020 and January 4, 2021

DEED OF EXTRAJUDICIAL SETTLEMENT OF ESTATE

NOTICE is hereby given that the estate of the late TERENTA GUTIERREZ MABLANOBAYAN who died intestate on December 11, 2017 at 144 Hulahe Village, Ilog, Cavite; BELLA GUTIERREZ ATLAS who died intestate on December 10, 2010 at San Antonio Medical Center, Quezon City and EMBELITO RODRIGUEZ GUTIERREZ who died intestate on August 16, 1998 at 2079 Jgd. Lagayan St., Marikina, Buntalaya, Koro, Cavite, consisting of one (01) such share of the parcel of land located at Buntalaya, Koro, Cavite consisting an area of one thousand eighty three (1,803) square meters, more or less, covered by Transfer Certificate of Title No. TCTC-141993-874701-2014136070447 issued by the Registry of Deeds for the Cavite City has been allocated and equitably settled by, and among their heirs to one of the children, particularly to CARITES MABLANOBAYAN GUMINGONG for the state of Texas, to LEONARDO GUTIERREZ ATLAS for the state of Bala, to JUAN GUTIERREZ QUILATAN for the state of Florida on December 14, 2020 at Cavite City, Cavite, Philippines before Notary Public Atty. Carlos Estratado C. Montino and covered in her Notarial Register as Doc. No. 130, Page No. 26, Book No. XXXVIII, Series of 2020.

(Sgd.) All heirs
Publication: DIWARYO KABITENYO
Dates: December 21, 28, 2020 and January 4, 2021

EXTRA-JUDICIAL SETTLEMENT OF THE ESTATE OF THE DECEASED AGAPITO T. UNDPIC

NOTICE is hereby given that the estate of the deceased AGAPITO T. UNDPIC who died intestate on December 25, 2018 at Cavite City, Philippines, consisting of Savings Account with Land Bank of the Philippines (LBP) Cavite City Branch, with Account No. 8316-0000-39 has been allocated and equitably settled by and among his heirs to equal share per capita on December 17, 2020 at City of Cavite, Philippines before Notary Public Atty. Niko V. Aguilera and covered in her Notarial Register as Doc. No. 1563, Page No. 47, Book No. 5, Series of 2020.

(Sgd.) All heirs
Publication: DIWARYO KABITENYO
Dates: December 21, 28, 2020 and January 4, 2021

Genetic engineering without unwanted side effects helps fight parasites

Around a third trigger malformations of the world's population in the womb. The situation carries Toxoplasma gondii, a parasite that puts people with a weakened immune system at risk and can increase the risk of

of abortion among sheep, for example.

The parasite has a complex life cycle and infects virtually all warm-blooded creatures, including wild rodents and birds. It is introduced into livestock, and that into humans, exclusively via cats. Only in this main host infectious stages form that are shed with the feces into the environment as encapsulated oocysts and from there enter the food chain.

"If we succeed in preventing the production of these oocysts, we can reduce the occurrence of toxoplasmosis among humans and animals,"

says Adrian Ficht, professor of parasitology and Vice Dean of Research and Academic Career Development at the University of Zurich's Vetsuisse Faculty. He and his research group have developed methods making an intervention of this sort possible.

Republic of the Philippines
Province of Cavite
Municipality of Marikina
Office of the Municipal Civil Registrar

NOTICE TO THE PUBLIC

CFN-094-2020 Date: December 2, 2020

In Compliance with the publication requirement and pursuant to OCRB Memorandum Circular No. 2013-1, Guidelines in the Implementation of the Administrative Order No. 1, Series of 2012 (OR on R.A. 10172), Notice is hereby served to the public that the Name of Decedent, Decease has filed with this Office, a petition for CHANGE OF FIRST NAME from "ROGELIO CANACHIO JOYA" who was born on May 18, 1968 in Marikina, Cavite and whose parents are Clarence Eastern Jota and Maribel Canales.

Any person adversely affected by said petition may file his written opposition with this Office not later than January 11, 2021.

(Sgd.) LEONORA V. LOYOLA
Municipal Civil Registrar

DIARYO KABITENYO - December 28, 2020 and January 4, 2021

Republic of the Philippines
Province of Cavite
Municipality of Marikina
Office of the Municipal Civil Registrar

NOTICE TO THE PUBLIC

CFN-426-RA-19172 Date: December 13, 2020

In Compliance with the publication requirement and pursuant to OCRB Memorandum Circular No. 2013-1, Guidelines in the Implementation of the Administrative Order No. 1, Series of 2012 (OR on R.A. 10172), Notice is hereby served to the public that the Name of Decedent Decease has filed with this Office, a petition for CORRECTION OF GENDER/SEX from "FEMALE" to "MALE", in the certificate of live birth of SIBERON Y. CONTRANO DE MESA who was born on December 8, 1980 in Marikina, Cavite and whose parents are Augusto Magaling De Mesa and Justina Maria Contrano.

Any person adversely affected by said petition may file his written opposition with this Office not later than January 11, 2021.

(Sgd.) LEONORA V. LOYOLA
Municipal Civil Registrar

DIARYO KABITENYO - December 28, 2020 and January 4, 2021

AFFIDAVIT OF SELF-ADJUDICATION WITH ABSOLUTE SALE

NOTICE is hereby given that the estate of the deceased **CRISPINO LUCTAC TORRES** who died intestate on January 5, 2013 in Capital Highway, Portland, Oregon, USA, consisting of 1/3 conjugal share in the following properties:

- 1. One-half (1/2) share (47.5 sqm.) in a parcel of land situated in Barrio de Linares, Municipality of Marikina, Province of Cavite, in the Lot, covered by TCT No. 057-2011020094, containing an area of NINE (9) FIVE (5) SQUARE METERS.
- 2. One-half (1/2) share in a residential house erected on the aforementioned parcel of land and covered by Tax Declaration 227962499931.

has been self-adjudicated by his wife here Ethelinda Delsa Palla Torres, and for and in consideration of the amount of Eight Hundred Thousand Pesos (P800,000.00), she does hereby SELL, TRANSFER, and CONVEY unto Rachel Carina Tumbong the entire properties (1/3 conjugal share and the 1/2 conjugal share of her deceased husband) on October 2, 2020 in Siliang, Cavite, Philippines before Notary Public Atty. Daisy I. Medina and entered in her Notarial Register as Doc. No. 153, Page No. 31, Book No. 219, Series of 2020.

(Sgd.) **Affiant/Vendor**

Publication: DIARYO KABITENYO
Date: December 28, 2020, January 4 & 11, 2021

Republic of the Philippines
Province of Cavite
Municipality of Marikina
Office of the Municipal Civil Registrar

NOTICE TO THE PUBLIC

CFN-428-RA-19172 Date: December 15, 2020

In Compliance with the publication requirement and pursuant to OCRB Memorandum Circular No. 2013-1, Guidelines in the Implementation of the Administrative Order No. 1, Series of 2012 (OR on R.A. 10172), Notice is hereby served to the public that the Name of Decedent Decease has filed with this Office, a petition for CORRECTION OF GENDER/SEX from "FEMALE" to "MALE", in the certificate of live birth of KELLY JEAN MANALIL who was born on January 4, 1997 in Marikina, Cavite and whose parents are Ernesto Antonio Manalil and Rosita Christina Manalil.

Any person adversely affected by said petition may file his written opposition with this Office not later than January 11, 2021.

(Sgd.) LEONORA V. LOYOLA
Municipal Civil Registrar

DIARYO KABITENYO - December 28, 2020 and January 4, 2021

REPUBLIC OF THE PHILIPPINES
PROVINCE OF CAVITE
MUNICIPALITY OF NAIC

NOTICE TO THE PUBLIC

CFN-0006-2020 RA 9848
CFE-0647-2020 RA 19172

In compliance with the publication requirement and pursuant to OCRB Memorandum Circular No. 2013-1, Guidelines in the Implementation of the Administrative Order No. 1, Series of 2012 (OR on R.A. 10172), Notice is hereby served to the public that **HERRY BALTAZAR ERNE** has filed with this Office, a petition for CHANGE OF FIRST NAME from "JENNY" to "HERRY" and CHANGE OF GENDER from "FEMALE" to "MALE" in his Certificate of Live Birth and whose parents are **FRANCISCO ERNE and LEONIDA T. BALTAZAR**.

Any person adversely affected by said petition may file his written opposition with this Office not later than January 11, 2021.

(Sgd.) **GLORIA P. BAGO**
Municipal Civil Registrar

DIARYO KABITENYO - December 28, 2020 and January 4, 2021

AFFIDAVIT

NOTICE is hereby given that ANGELISSA TORRES, Filipino, of legal age, married, and a resident of 206, 17, Lot 13, Phase 2, Arden Hills, Subdivision W, Marikina City, Cavite, after having been sworn to according with law, hereby deposes and says that:

1. On November 29, 2019, he, the undersigned, as witness, in fact of the late of Crispino Luctac Torres, executed and signed an Extrajudicial Settlement of Estate with Ethelinda Delsa Palla Torres which document was registered by the Notary Public V. Medina and entered in his Notarial Register as Doc. No. 314, Page No. 63, Book No. 11, Series of 2020.
2. On July 22, 2020, the Bureau of Internal Revenue (BIR) issued Certificate Authorizing Registration (CAR) number of AR from C-0020-NA-114675-MC-2019-244-114675-A authorizing payment of the estate and capital gains taxes covered by the said document.
3. However, he made a mistake in having an Extrajudicial Settlement of Estate made because what he should have made or ask to be prepared is an Affidavit of Self-Adjudication.
4. He hereby requests the cancellation of the said CAR in compliance with such requirement.
5. He is executing this Affidavit in support of the work of the Notary Public for the purpose of executing the Bureau of Internal Revenue in case of the said CAR and for whatever other legal purpose it may serve.

on November 22, 2020 in Marikina City, Cavite, before Notary Public and entered in Notarial Register as Doc. No. 220, Page No. 95, Book No. 112, Series of 2020.

(Sgd.) **Affiant**

Publication: DIARYO KABITENYO
Date: December 28, 2020, January 4 & 11, 2021

Disposable surgical masks best for being heard clearly when speaking, study finds

Researcher Ryan Co... had any idea to help her... my mouth heard from... communicate with these... a friend who teaches at... students while wearing a... school where some... mask to slow the spread... of... the students have... of COVID-19. Co... hearing loss. The friend... who also has hearing... wanted to know if he... loss, did not know what

to tell her. So, he... under... professor Andrew... Singer at the University... of Illinois Urbana-Cham... to look for solutions... page, leads a team that... Co... an electrical and... studies audio signal pro... cessing... especially for... production... researcher... testing devices.

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New class of antibiotics active against a wide range of bacteria

Wistar Institute scientists have discovered a new class of compounds that uniquely combine direct antibiotic killing of pan drug-resistant bacterial pathogens with a simultaneous immune response for combating antimicrobial resistance (AMR). These findings were published December 21, 2020 in *Nature*.

The World Health Organization (WHO) has declared AMR as one of the top 10 global public health threats against humanity. It is estimated that by 2050, antibiotic-resistant infections could claim 10 million lives each year and impose a cumulative \$100 trillion burden on the global economy. The

list of bacteria that are becoming resistant to treatment with all available antibiotic options is growing and few new drugs are in the pipeline, creating a pressing need for new classes of antibiotics to prevent public health crises.

"We took a creative, double-pronged strategy to develop new molecules that can kill difficult-to-treat infections while enhancing the natural host immune response," said Farukh Dotiwala, M.B.B.S., Ph.D., assistant professor in the Vaccine & Immunotherapy Center and lead author of the effort to identify a new generation of antimicrobials aimed at acting immuno-

modulatory (DAIAs).

Existing antibiotics target essential bacterial functions, including nucleic acid and protein synthesis, building of the cell membrane, and metabolic pathways. However, bacteria can acquire drug resistance by mutating the bacterial target the antibiotic is directed against, inactivating the drugs or pumping them out.

"We reasoned that harnessing the immune system to simultaneously attack bacteria on two different fronts makes it hard for them to develop resistance," said Dotiwala.

He and colleagues focused on a metabolic pathway that is essential for most bacteria but absent in humans,

making it an ideal target for antibiotic development. This pathway, called methyl-D-erythritol phosphate (MEP) or non-mevalonate pathway, is responsible for biosynthesis of isoprenoids — molecules required for cell survival in most pathogenic bacteria. The lab targeted the *ispH* enzyme, an essential enzyme in isoprenoid biosynthesis, as a way to block this pathway and kill the microbes.

Given the broad presence of *ispH* in the bacterial world, this approach may target a wide range of bacteria.

Researchers used computer modeling to screen several million commercially available compounds for their

ability to bind with the enzyme and selected the most potent ones that inhibited *ispH* function as starting points for drug discovery.

Since previously available *ispH* inhibitors could not penetrate the bacterial cell wall, Dotiwala collaborated with Wistar's medicinal chemist Joseph Salvino, Ph.D., professor in The Wistar Institute Cancer Center and a co-senior author on the study, to identify and synthesize novel *ispH* inhibitors molecules that were able to get inside the bacteria.

The team demonstrated that the *ispH* inhibitors stimulated the immune system with many potent bac-

terial killing activity and specificity than current best-in-class antibiotics when tested in vitro on clinical isolates of antibiotic-resistant bacteria, including a wide range of pathogenic gram negative and gram positive bacteria. In preclinical models of gram negative bacterial infection, the bactericidal effects of the *ispH* inhibitors outperformed traditional penicillins.

All compounds tested were shown to be non-toxic to human cells. Immune activation represents the second line of attack of the DAIAs strategy.

Immunologist Kamran Singh, Ph.D., Dotiwala lab predoctoral fellow and first author of the study

Ancient DNA retells story of Caribbean's first people, with a few plot twists

The history of the Caribbean's original islanders comes into sharper focus in a new Nature study that combines decades of archaeological work with genetic technology.

An international team led by Harvard Medical School's David Reich analyzed the genomes of 263 individuals in the largest study of ancient human DNA in the Americas to date. The genetics trace two major migratory waves into the Caribbean by two distinct groups, thousands of years apart, revealing an archipelago settled by highly mobile people, with the distant relatives often living on different islands.

Reich's lab also developed a new genetic

technique for estimating past population size, showing the number of people living in the Caribbean when Europeans arrived was far smaller than previously thought — likely in the tens of thousands, rather than the million or more reported by Columbus and his successors.

For archaeologist William Keegan, whose work in the Caribbean spans more than 40 years, ancient DNA offers a powerful, new tool to help resolve longstanding debates, confirm hypotheses and spotlight remaining mysteries. The “moves our understanding of the Caribbean forward as quickly as we can,” said Keegan, curator of the Florida Museum of Natural

History and co-senior author of the study. “The methods David’s team developed helped address questions I didn’t even know we could address.”

Archaeologists often rely on the remnants of domestic life — pottery, tools, bone and shell discards — to piece together the past. Now, technological breakthroughs in the study of ancient DNA are shedding new light on the movement of animals and humans, particularly in the Caribbean where each island can be a unique microcosm of life.

While the heat and humidity of the tropics can quickly break down organic matter, the human body contains a lockbox of ge-

netic material: a small, unusually dense part of the bone protecting the inner ear. Primarily in the Caribbean and Venezuela between 400 and 3,100 years ago, researchers extracted and analyzed DNA from 174 people who lived in the Caribbean and Venezuela between 400 and 3,100 years ago, combining the data with 89 previously sequenced individuals.

The team, which includes Caribbean-based scholars, received permission to carry out the genetic analysis from local governments and cultural institutions that acted as caretakers for the human remains. The authors also engaged representatives of Caribbean Indigenous communities in a discussion of their findings.

The genetic evidence offers new insights into the peopling of the Caribbean. The islands’ first inhabitants, a group of stone tool-users, boasted to Cuba about 8,000 years ago, gradually expanding eastward to other islands during the region’s Archaic Age. Where they came from remains unclear — while they are more closely related to Central and South Americans than to North Americans, their genetics do not match any particular Indigenous group. However, similar artifacts found in Belize and Cuba may suggest a Central American origin, Keegan said.

About 2,500-3,000 years ago farmers and potters related to the Archaic speakers of northeast South Amer-

ica established a second pathway into the Caribbean. Using the fingers of South America’s Orinoco River Basin like highways, they travelled from the interior to coastal Venezuela and pushed north into the Caribbean Sea, settling Puerto Rico and eventually moving westward. Their arrival ushered in the region’s Ceramic Age, marked by agriculture and the widespread production and use of pottery.

Over time, nearly all genetic traces of Archaic Age people vanished, except for a holdout community in western Cuba that persisted as late as European arrival. Inter-marriage between the two groups was rare, with only three individuals in the study showing mixed ancestry.

With COVID exacerbating superbug threat, researchers ID new weapon

As scientists around the globe wage war against a novel, deadly virus, one University of Colorado Boulder lab is working on new weapons to battle a different microbial threat: a rising tide of antibiotic-resistant bacteria which, if left unchecked, could kill an estimated 10 million people annually by 2050.

"The COVID-19 situation is definitely putting us at risk for increasing resistance to antibiotics, so it's more important now than ever that we come up with alternative treatments," said Corrie Detweiler, a professor of molecular, cellular and developmental biology who has spent her career seeking those alternatives.

In a paper published

Dec. 18 in the journal PLOS Pathogens, Detweiler and her research team unveil their latest discovery -- a chemical compound that works with a host's innate immune response to push past cellular barriers that help bacteria resist antibiotics.

Along with their other recently published discoveries, the authors say the finding could lead to a new arsenal for fighting what could be the next big public health threat.

"If we don't solve the problem of finding new antibiotics or somehow making old antibiotics work again, we are going to see sharply increasing deaths from bacterial infections we thought we had beat, six decades ago," said Detweiler. "This study

offers a totally new approach and could point the way toward new drugs that work better and have fewer side effects."

In the United States alone, 35,000 people die annually from bacterial infections that could not be treated because they've grown resistant to existing drugs. Countless others suffer life-threatening havoc with once-easily treatable illnesses like strep throat, urinary tract infections and pneumonia. By 2050, the authors note, there could be more deaths from antibiotic resistance than from cancer.

"As our existing antibiotics adapt and work less, we risk essentially going back to a period 100 years

ago, when even a minor infection could mean death," said Detweiler.

The pandemic has shone even more light on the problem, she notes, as many patients die not from the virus itself but from hard-to-treat secondary bacterial infections.

Meanwhile, she and other scholars worry that heightened use of antibiotics to prevent or treat those secondary infections, while at times necessary, may be exacerbating resistance.

Most antibiotics in use today were developed in the 1950s, and pharmaceutical companies have since scaled back on research in the field in favor of more profitable ventures.

To bend the pipeline, Detweiler's lab developed a technique called

SAFIRE for screening for new small molecules which work differently than older drugs.

Of 14,400 candidates screened from a library of existing chemicals, SAFIRE identified 70 that hold promise.

The new paper centers around "ID1," which appears to be particularly effective at infiltrating what are known as "Gram-negative bacteria."

With a tough exterior membrane that prevents antibiotics from accessing the cell, and another outer membrane providing a buffer, these bacteria (including salmonella and E. coli) are inherently difficult to treat.

But unlike other

drugs, ID1 takes advantage of the host's initial immune assault on that outer bacterial membrane, then slips inside and goes after the inner membrane too.

"This is the first study to show that you can target a Gram-negative bacteria's inner membrane by exploiting the innate immune response of the host," Detweiler said.

In laboratory and rodent experiments, ID1 reduced survival and spread of Gram-negative bacteria called Salmonella enterica by 99%.

But while it damaged the bacterial cell membranes, it couldn't penetrate the five layers of cholesterol that lined its mammalian host's cell membranes.

Increased meat consumption associated with symptoms of childhood asthma

Substances present in cooked meats are associated with increased wheezing and in children. Mount potentially the future final research-development of asthma report. Their study, published in *Thorax*, highlights pro-inflammatory compounds called advanced glycation end-products (AGEs) as an example of early dietary risk factors that may have broad clinical and public health implications for the prevention of inflammatory airway disease.

Asthma prevalence among children in the United States has risen over the last few decades. Researchers found that

dietary habits established earlier in life may be associated with wheezing and respiratory symptoms. The researchers used NHANES survey data to evaluate associations between dietary AGE and meat consumption frequencies, and respiratory symptoms. They found that higher AGE intake was significantly associated with increased odds of wheezing, importantly including wheezing that disrupted sleep and exercise, and that required prescription medication. Similarly, higher intake of non-seafood meats was associated with wheeze-disrupted sleep and wheezing that required prescription medication.

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Cost-effective hood reduces aerosol exposures to patients, otolaryngologists

The COVID-19 pandemic has contoured to cause dramatic shifts in the practice of otolaryngology. Even with standard precautions such as physical distancing and wearing personal protective equipment, aerosol-generating procedures such as nasolaryngoscopy and nasolaryngoscopy (a commonly performed in-office procedure in which a soft, flexible fiber-scope is passed through the nose and into the throat) and intranasal instrumentation were determined to carry a risk of potential transmission if not adequately protected.

In an effort to mitigate exposure to these airborne particles, researchers from Boston University School of Medicine (BUSM) designed and tested a prototype nasolaryngoscopy hood, spurred by the patent that offers safe and effective protection in reducing aerosol exposures.

In order to test the efficacy of the hood, a particle counter was used to calculate the average number of 0.3-micron particles/L detected during various clinical scenarios that included sneezing, nasolaryngoscopy, sneezing during nasolaryngoscopy and topical lidocaine spray administration. Experiments were repeated to compare the effectiveness of the hood versus no protection.

When no patient barrier (hood or mask) was used, a significant increase in aerosol was detected during sneezing, sneezing during nasolaryngoscopy and topical spray administration. With the hood in place, the level of aerosols returned to baseline levels in each scenario.

"This simple intervention allows patients to undergo routine flexible nasal laryngoscopy, even with topical lidocaine spray administration, with less risk to the provider," explained corresponding author Christopher Brook, MD, assistant professor of otolaryngology — head and neck surgery at BUSM. "If a patient begins to sneeze during the examination, our data suggest that providers will remain protected through the use of the hood," he added.

While this study evaluated the efficacy of the hood in the setting of a routine nasolaryngoscopy in reducing aerosol spread, there are other possible applications but also one major barrier to overcome.

The clinical use, either the hood would need to be mass produced to allow for single use, or a safe and effective protocol of cleaning and reusing each hood would need to be established," said Brook who also is an otolaryngologist at Boston Medical Center.