



UNIVERSITY OF THE PHILIPPINES MANILA HEALTHSCAPE

ISSUE NO. 35

JANUARY 2022

In This Issue

UPM student's automated system for dangerous drugs prescribing wins in international fest

UP Manila leads PH participation in global solidarity trials for COVID-19 vaccines, drugs

5 UPM Graduates Top Pharmacy Board Exams

SHS Tarlac launches 6-year Strategic Plans

Salinlohiya forum tackles technology transfer as a catalyst in research and innovation

Better telehealth implementation and delivery in PH urged

The University of the Philippines Manila Healthscape is produced by the Information, Publication, and Public Affairs Office.

T (02) 8814-1218

E upm-ippao@up.edu.ph

W www.upm.edu.ph/ippao

SPECIAL EDITION WEBINAR

WEBINAR #83

OMICRON: What We Should Know & What We Should Do

WATCH THE LIVESTREAM @ tvup.ph

HOSTED BY:

DR. SUSAN PINEDA MERCADO
Adjunct Faculty
UP Manila-National Telehealth Center

DR. FRANCO FELIZARTA
Infectious Disease and Internal Medicine Specialist
UP Medical Alumni Society in America (UPMASA)

DR. ANNA ONG-LIM
Professor & Chief
Division of Infectious & Tropical Disease in Pediatrics
College of Medicine - PGH UP Manila

DR. JOHN WONG
Epidemiologist
Senior Technical Advisor
EpiMetrics, Inc.

DR. RAYMOND FRANCIS SARMIENTO
DIRECTOR
UP-NH NATIONAL TELEHEALTH CENTER

OPENING REMARKS
DR. TEODORO J. HERBOSA
Special Adviser
National Task Force Against COVID-19

CLOSING REMARKS
DR. STELLA MARIE L. JOSE
Deputy Director, Health Operations
Philippine General Hospital

JANUARY 14, 2022
FRIDAY | 12NN-2PM

STOP COVID DEATHS

Omicron: What we should know and do

For three consecutive days, the fast-spreading Omicron variant of COVID-19 set the highest record of more than 30,000 new cases a day since the beginning of the pandemic in March 2020, with the most at 38,867 last January 15, 2022.

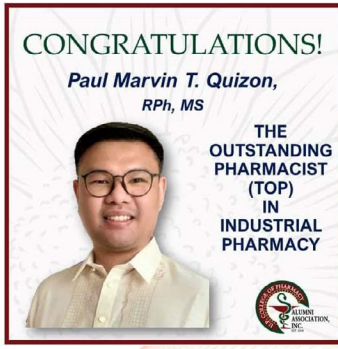
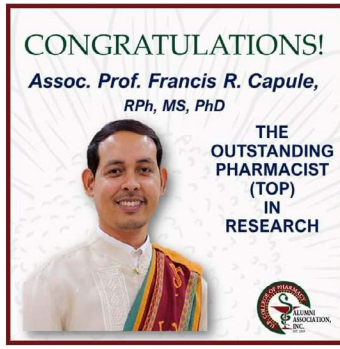
With [56 million](#) Filipinos vaccinated, with some already boosted, many were infected and hospitalized. The Philippine General Hospital alone experienced [a six-fold increase in admissions](#) during this surge.

In [Episode 83 of the Stop COVID Deaths webinar series](#), infectious disease and internal medicine specialist **Dr. Franco Felizarta** said that the Omicron wave will infect 25-50% of the world population. He warned that the more mobile we are, the more cases there will be. "The Omicron is behaving like the original ancestral virus with a lot of susceptible population."

Compared to Delta, Omicron multiplies 70 times more quickly but replicates 10 times more slowly in lung tissues, which means it is less severe than previous variants. He emphasized the importance of vaccination as deaths are less in areas with high vaccination rates.

Dr. Felizarta observed that for every successive wave of COVID-19, the number of deaths is decreasing. Looking at the trend of the surge, he predicts that the current outbreak will last two to three months.

PAGE 4



UPM student's proposed automated system for dangerous drugs prescribing wins in international fest

Rosalina Areola, a 4th year BS Pharmaceutical Sciences student won 2nd place in the International Pharmaceutical Students' Federation Innov8, an online competition on ideas/suggestions about the Application of Blockchain Technology in Community Pharmacy Services.

Her winning entry is entitled "Optimization of Dangerous Drugs Prescription and Dispensing Through Block Chain Technology." According to Areola, the project involves the

application of blockchain technology to streamline the process of prescription and dispensing of dangerous drugs. It makes use of Hyperledger Fabric architecture for the transaction ledgers; although the proposal did not go as far as building the specific models nor making codes or algorithms.

Among all existing blockchain architecture, Hyperledger Fabric is the most straightforward, does not make use of cryptocurrency, has a wide scalability, and is widely-used in the supply chain industry.

"I chose the dangerous drug sector in community pharmacy, as prescribing and dispensing dangerous drugs involve special steps that are not normally done in other prescription medicines, at least in the Philippines. Prescribers need to have a valid S2 license and they make use of special prescription pads issued by the DOH."

While this stringent process is deemed necessary, Areola explained that it is laborious and without a system **PAGE 3**

UP Manila leads PH participation in global solidarity trials for COVID-19 vaccines, drugs

UP Manila is lead implementer of the Solidarity Trials Vaccine (STV) project, an international randomized trial to determine the efficacy and safety of candidate vaccines against COVID-19. The STV aims to uncover second-generation vaccines with greater efficacy, greater protection against variants of concern, offering longer duration of protection, and innovations in storage or routes of needle-free administration.

The Philippines is among the countries included in the STV with its participation approved by IATF Resolution No. 47 as part of the country's

global commitments to collective and inclusive efforts on COVID-19 vaccine development.

The international Randomized Controlled Trials (RCT) are being done to increase the likelihood of finding several effective vaccines, ensure rapid accumulation of data to support rigorous evaluation, and foster international deployment with equity of access.

For the WHO STV project, Dr. Marissa Alejandria and Dr. Jodor Lim are spearheading the trials being conducted across several sites in the country. The public announcement for participants to

the RCT was issued during a forum on Dec. 15 amid the possible emergence of the highly infectious Omicron variant at that time.

Apart from the STV project, UP Manila is also a major participant in the global Solidarity Therapeutics Trial (STT) to determine the efficacy and safety of new and repurposed antiviral drugs in the treatment of COVID-19 patients. The drugs are Hydroxychloroquine, Lopinavir/Intonavir, Interferon beta-1A, and Remdesivir. Sixteen public and nine private hospitals in the Philippines are participating in the STT.

Cynthia M. Villamor



5 UPM Graduates Top Pharmacy Board Exams

Bucking fears and constraints of taking review classes and the licensure examination during the COVID-19 pandemic, five graduates of UP Manila topped the November 2021 pharmacy licensure exams.

Nicola Christine Aquino Rivera

bagged the Top 1 spot with a grade of 93.90, followed closely by **Kristine See Ang** who placed 2nd with 93.10. Both are *magna cum laude* graduates and class valedictorians in 2019 and 2020, respectively.

Three more UPM graduates grabbed Top 10 places with **Patricia Manalese Reyes**, 5th, 91.95; **Francis Anthony Mino Homillano**, 7th, 91.25; and **Timothy Jay Simuangco Antonio**, 9th, 91.15.

UP Manila emerged as the top performing school with a 98.18 % passing rating!

Rivera recalled being prepared to take the exam in November 2020 but it was cancelled due to the COVID-19 pandemic. To maintain her momentum and while waiting for the exam resumption, she worked as an Instructor at UP Manila and later with a private firm.

Balancing review and work, she took a leave weeks prior to the boards to focus on the preparation, studied 10-12 hours everyday and slept enough. With limited time, she focused on the basics and trusted the stock knowledge from 2019 boards review and teachings from undergraduate.

Acknowledging that taking the exam during the pandemic entailed additional fear and anxiety, she proved that a healthy mindset was a great advantage. "Because your opponent in the board exam is mostly fear and anxiety, that's why you are afraid to take it because it is scary to fail," Rivera said.

For Ang, her preparation included



spending the next few months going through the lectures and trying to build a solid foundation of stock knowledge. The drills and other mock exams from the review center served as good practice for the actual boards.

"Maintaining that level of focus throughout the review period was definitely tough. There were days where I felt like I did not make any progress at all," she recounted. Study sessions with friends helped her a lot, including comparing notes and discussing answers to certain questions.

Current work

Ang is now working with a pharmaceutical company. "Since my student days, I have been interested in working in the manufacturing industry. It has only been a short time since I started at Abbott Laboratories and I still have

a lot to learn, but I have been enjoying myself so far. It is possible that I might find something else I want to do in the future, but for now, I want to take my time and gain experience first."

For Rivera who first eyed an engineering career before being convinced by family to pursue a career in the medical field, being a pharmacist is a very diverse and versatile career. She is currently a Clinical Research Associate, helping manage and supervise the conduct of several clinical trials, including COVID-19 treatments.

"I plan to stick here in the next coming years as I've seen the importance of drug discovery and development, especially during the pandemic. Given the versatility of the pharmacy profession, I am not closing my doors to other fields and new opportunities."

Cynthia M. Villamor

UPM STUDENT FROM PAGE 2...

to prevent medication errors and detect fraudulent transactions. For instance, physical prescription pads are still susceptible to forgery and tampering. Pharmacists who have partially filled prescriptions for dangerous drugs may forget to include the number of unused balances that could result in drug misuse.

The pharmacist can commit human errors like giving the wrong drug, wrong strength, or wrong amount which are very crucial as these can result to a patient's death. The possibility of duplicate prescriptions exists with the pharmacist unable to verify a separate prescription from another doctor or issued by another pharmacy. The drug enforcement agency cannot determine this discrepancy until it receives the stored pharmacy records

on dangerous drugs.

In general, Areola said the blockchain technology will automate the process of dangerous drug dispensing that will relieve the workload of pharmacists and leave time for them to perform other tasks.

PPHA 2021 Most Outstanding Pharmacists

Several members of the UPCP won the Most Outstanding Pharmacists during the 2021 PPHA Gabi ng Parangal 2021.

They were **Karen Grace Esteban-Romero**, Don Leon Ma. Guerrero Award; **Assoc Prof. Francis R. Capule**, Outstanding Pharmacist in Research; and **Paul Marvin T. Quizon**, Outstanding Pharmacist in Industrial Pharmacy. **Cynthia M. Villamor**



SHS Tarlac launches 6-year Strategic Plans

The School of Health Sciences recently held a two-day strategic planning for its 6-year action plans through a virtual platform and face-to-face modes. In partnership and cooperation with the Provincial Government of Tarlac, the program aimed to formulate the strategic directions of the campus as it opens its doors to students starting the Academic Year of 2021-2022.

Included in the plans were initiatives in (1) **Academic Curriculum** which focuses on the plans and smooth implementation of the Midwifery, Bachelor of Nursing, and Doctor of Medicine program; (2) **Strengthening of Internal and External Linkages and Partnerships** to ensure a strong working relationship with the Provincial Government of Tarlac and other LGUs, as well as a good working relationship with internal and external stakeholders; (3) **Faculty and Administrative Development** which ensures that the faculty and staff are always aligned with the vision and strategic goals of the University as well as to provide them with opportunities to grow and develop in their personal and academic aspects, (4) **Campus Development Plan** that focuses not only on the fast implementation of the infrastructure needs but as well as fast

internet connection and preparation of the campus for the new normal; (5) **Student Welfare Development** to ensure the safety and security of the students as well as cater to their most pressing needs; (6) **Recruitment and**

Admission which aims to strengthen the coordination with target LGUs to increase and intensify the school's recruitment; (7) **Research** which aims to boost the research capacity of the faculty for tenure and academic growth; and (8) **Extension Services** that includes a comprehensive extension services program as well as a strong partnership with stakeholders.

Chancellor Carmencita Padilla encouraged the group to dream big and ensured her utmost support, *"Asahan niyo po na ako'y nasa inyong likod at sisiguraduhain ko na magagampanan natin ang lahat ng inyong paplanuhin sa araw na ito."* And in the words of SHS Dean Dr Filedito "Joboy" Tandinco, "This is just the beginning of great strides towards good health for Tarlac's poor and sick citizenry". **January Kanindot**

OMICRON FROM PAGE 1...

"Patients who are infected with the Omicron variant get natural immunity which increases the neutralizing antibodies to fight the virus."

Dr. John Wong, senior epidemiologist of EpiMetrics, Inc. talked about the epidemiology of the current surge and offered some projections. He noticed that while cases are higher, deaths and hospitalizations are still lower with the Omicron as compared with the previous waves.

He emphasized that our focus now should be preventing hospitalization, testing and treating high-risk cases (A2/A3) within 3 days of symptoms, increasing access to anti-COVID oral medicine and self-administered rapid antigen testing, and avoiding superspreader events.

Dr. Anna Ong-Lim, chief of the PGH Division of Infectious & Tropical Disease in Pediatrics, addressed homecare for mild cases. She recommended optimizing mask fit and filtration to limit the spread of many viruses and protecting oneself

from other respiratory tract infections. "Hindi lang sapat sabihin na magsuot ng mask, dapat gamitin ang mask ng tama." The mask has to fit well on the contours of the face and seal the gaps on the face, she emphasized.

Dr. Ong-Lim also clarified the difference between isolation and quarantine. "Isolation means we want to separate someone who is already infected, to prevent spreading the virus. Quarantine aims to restrict the activities of somebody who has already been exposed and monitor his or her symptoms."

She also believes that testing should be deprioritized in favor of immediate management—a shift from the previous test-trace-treat approach. "Omicron has distinct features that require a paradigm shift for effective response. Immediate isolation first before testing."

PGH Deputy Director for Health Operations **Dr. Stella Marie L. Jose** capped the webinar with a synthesis and closing remarks. [Click here to watch the full episode.](#) **Anne Marie Alto**

Salinlohiya forum tackles technology transfer as a catalyst in research and innovation

As part of UP Manila's celebration of Science and Technology Week 2021, the Technology Transfer and Business Development Office held the *Salinlohiya* forum with the theme, "Technology Transfer as a Catalyst in Advancing Research and Innovation".

The forum tackled the journeys of the researchers and recognized their efforts and contributions in advancing knowledge and technology transfer through their successful IP applications.

In opening the forum, Vice Chancellor for Research Dr. Armando Crisostomo emphasized that heroism takes many forms and may be seen in the less visible people such as the faculty and staff who use **Ideas, Ingenuity, Inventions, and Innovations** as their weapons to combat the pandemic and other diseases.

"We take pride in the UPM community that swiftly put their act together in solidarity with the government and other organizations and sectors to craft an integrated and science-based response during the almost two years of the pandemic," stated Chancellor Carmencita Padilla. UP Manila has been conducting high impact research in the field of biomedical devices, diagnostics, pharmaceutical interventions, adjunct therapies, digital solutions, and participating in worldwide solidarity trials. The university has also been deeply and widely engaged in studies on other pressing and relevant health issues and problems.

IP, Technology Transfer, and Patent

Atty Rowanie A. Nakan, discussed the fundamentals and importance of IP valuation in technology transfer. She maintained that IP, as an intangible asset, is considered a right defined and protected under the Intellectual Property



Code of the Philippines and should be treated like other tangible properties.

IP valuation is a tool used to facilitate successful technology transfer. The valuation report is a good starting point in evaluating the terms of a proposed licensing agreement, whether said terms are fair to the research and the development institute or the government funding agency.

Cheryl Mccaffery, mentor of World Intellectual Property Organization, discussed the patent as a grant of rights from the government to the countries. "You cannot have a patent if you're just reinventing the wheel, it must be novel," said Ms. Mccaffery as she reminded the researchers to not forget to search patent and scientific literature to make sure that what they think is their invention has not already been invented.

University of Toronto **Prof. Cynthia Goh** tackled the entrepreneurial nature of the e Filipinos but lamented that 83% of these entrepreneurs don't generate new value and therefore, have less chance of it growing bigger and creating more jobs. "A patent is the beginning, it strengthens your position but if you don't convert it to anything, it's not worth anything," she emphasized.

Researcher Journeys

In the panel discussion, three

researchers shared their journeys from research to invention. **Dr. Maria Antonia E. Habana**, UPCM professor in obstetrics and gynecology and clinical professor in clinical epidemiology, recounted the story that spurred the creation of a customized prone pillow for pregnant and other plus size patients with COVID-19 infection. It was very difficult to use ordinary pillows to put her six-month pregnant patient with COVID in the prone position and at the same time, it became difficult to monitor the fetal heart tones and uterine contractions.

"We felt as clinicians we can do so much more," rued Dr. Habana as she lamented the the loss of both the patient and her child and this was when she contemplated designing a pillow with the needed specifications.

NIH research faculty **Dr. Jose B. Nevado Jr.** had hoped for a way to predict the outcomes of leptospirosis patients. Using microarray technology, he developed the prognosticator markers that can predict the occurrence of complications and death in leptospirosis.

Philippine Eye Research Institute Director **Dr. Leo Cubillan**, shared that patient access to eye care, especially in the rural areas, is difficult and results to blindness due to delayed treatment. Using PERI's ocular pharmacology laboratory, his team formulated an anti-infective ophthalmic solution with a broader spectrum coverage.

Charmaine Lingdas

Tell us what you think about this issue.



Better telehealth implementation and delivery in PH urged

Experts expounded on the current state of telehealth in the Philippines and the barriers and opportunities to improve the delivery of virtual care at the macro, meso, and micro settings during the **“UP Manila Telehealth Forum: Innovations in Education, Policy, and Practice”** on December 3, 2021.

Macro level

With guidelines released by the DOH, DILG, and PhilHealth, **Health Undersecretary Dr. Enrique Tayag** enumerated the rules for the implementation of telemedicine technologies in the local government units for consultation, patient monitoring, requirements for the practice of telemedicine, and organization of LGU telemedicine services.

Alternately, **Dr. Meredith del Pilar-Labarda**, School of Health Sciences Leyte professor shared their study finding about the national-level telehealth policy not being felt by the communities. “There is a massive need to upgrade the digital network infrastructure to support telehealth. There have been some efforts by the province to provide telehealth, but the rollout and scale are slow.”

Dr. Labarda, also the Social Innovation in Health Initiatives Project Leader, presented the following problems of telehealth interventions in rural settings based on an ongoing study of telehealth implementation at the LGU level: (1) new patients are not familiar with telehealth, (2) patients still prefer in-person examination in cases of severe symptoms, (3) importance of integrating private and public practitioners into the system, (3) maximizing post-residency doctors during return service, and (5) phased transition to telehealth platforms using telehealth hubs.

From the financing perspective,



Dr. Carlo Irwin A. Panelo, a health economist and UPCM professor said that mainstreaming telehealth in the Philippines requires developing appropriate support packages for the recipients of telehealth. Evaluating its cost-effectiveness and the health outcomes are equally important considerations.

As telehealth financing in the Philippines draws from various mandates such as those of the Universal Health Care Act, DOH, and PhilHealth, he sees that “PhilHealth [must] progressively include telehealth in the benefit coverage because once telehealth is compensated through reimbursements, this will not only signal providers to invest as there is a steady source for the service, it also encourages the population to seek medical care without delay.

Meso level

Dr. Esther Saguil presented the telemedicine initiatives at the Philippine General Hospital to cope with the pandemic restrictions. Among these were the Online Consultation Request and Appointment System (OCRA), the appointment portal for patients where consultations are also done and recorded; Registration of Admission and Discharges (RADISH) which facilitates the seamless generation of documentation and prescriptions needed in telemedicine consultations; OPD Telemedicine Hub, previously a conference room that now holds 21 telemedicine-capable sets of computers; and the *Bayanihan Na!* Operations Center (BNOC) that was repurposed as a triaging and information site.

Asst. Professors Charlemaine Deanne Perez and Francis Lois Ngo

shared the UP Manila Telehealth Initiatives from the College of Allied Medical Professions and College of Pharmacy, respectively. **Dr. Jenniffer Paguio** discussed a two-phase research protocol that focuses on the continuity of care and teleconsultation pathways in PGH.

Micro level

To define quality in and the barriers to achieving telehealth, a multidisciplinary panel shared their experiences and insights in telehealth practice platforms. The panel was composed of **Ma. Khrizalyn Faye Quintin-Gutierrez** from PGH, **Raiza Mariae Ruiz** from CAMP, **Dr. Yolanda Robles** from College of Pharmacy, and **Ma. Angela Mabale** from College of Nursing.

Dr. Jay T. Dalet presented the results and recommendation of the roundtable discussions conducted by the committee with the telehealth providers of PGH that could move telehealth forward in different professions. **Dr. Nemuel Fajutagana** on the topic, “Educating Health Professionals on Telehealth” explained the shift in the educational system with teaching-learning strategies on training future health professionals in providing telehealth services. **Anne Marie D. Alto**

Editorial Box

Dr. Olympia Q. Malanyaon
Director and Editor-in-Chief

Cynthia M. Villamor
Assistant Editor

Cynthia M. Villamor
Anne Marie D. Alto
Fedelynn M. Jemena
Charmaine A. Lingdas
January R. Kanindot
Luz D. Emanó
Francis Nicole G. Maga
Staffwriters

Anne Marie D. Alto
Layout/Design
January R. Kanindot
Design
Luz D. Emanó
Circulation Officer
Joseph A. Bautista
Photographer