## **Innovation to address** unmet medical needs

**MEDICINE** 

he coronavirus disease 2019 (COVID-19) pandemic has demonstrated the impact of the biopharmaceutical industry's performance in the area of innovation. Within a year, for example, a COVID-19 vaccine was developed, and the succeeding months showed biopharmaceutical companies scale

up manufacturing for wider vaccines' reach. Important treatment innovations for mild, moderate and severe cases were also developed and made **TEODORO B. PADILLA** of death and disability." available. As a result of these, millions of lives were saved.

The 11th annual Pharmaceutical Innovation and Invention Index (PII) listed the biopharmaceutical companies that are leading the way when it comes to invention and innovation in search for medicines and vaccines to address unmet medical needs.

The PII explained that not every act of invention is one of innovation. It defined innovation as the long-term realization of the value of an invention, and a foundation for future growth. A pharmaceutical invention means little if it can't be leveraged in a way that provides value to patients and the public and the society as whole.

Among the companies that figured in the latest report were Pfizer, AstraZeneca, Johnson & Johnson, Merck & Co., Takeda, Roche, and Sanofi, Also in the list were GlaxoSmithKline, Moderna, Novo Nordisk, Bayer, Astellas, Boehringer Ingelheim, Eisai, Merck KGaA, Otsuka, and Novartis. These companies have developed, manufactured and made available vaccines and treatments for COVID-19, while at the same making headways in non-communicable diseases such as cardiovascular, chronic respiratory illnesses, diabetes and cancer among others. Some of them also focused on the so-called rare diseases, or conditions that affect only a few in the population.

In the Novartis Annual Results Press Conference held this month, the Swiss company's CEO Vas Narasimhan said that fewer than 10% of diseases known to affect humans are currently treatable. Globally, people also live an average of 10 years with a disease or disability. Yet new treatments broadly still reach only a fraction of eligible patients, and manageable conditions like heart disease cause millions of avoidable deaths each year.

In 2022, Novartis invested \$10 billion in R&D; secured 23 approvals in the United States, European Union, China and Japan for new medicines and new indications for existing medicines. It is also conducting 44 ongoing Phase III programs in its development pipeline.

Meanwhile, it reached 54.6 million patients through access programs predominantly in low- and middle-income countries (LMICs). Novartis Innovative Medicines and Novartis Global Health reached

290 million patients, while an additional 453 million patients were reached with its generic arm.

"Our performance in 2022 showed that we are making progress in addressing society's greatest disease burdens," Mr. Narasimhan said. "Our focus

on cardiovascular diseases, for example, gives countries and healthcare systems solutions to address the world's leading cause

Novartis also reached R&D milestones in 2022. A positive

Phase III readout was seen for an investigational first-in-class, oral medicine for the treatment of a rare and deadly disease in which the innate immune system destroys red blood cells.

As biopharmaceutical companies continue innovating for patients, the company is aware that millions around the world are still without proper access to healthcare. "Translating the latest science into lasting progress requires us to work with healthcare systems and other stakeholders to advance access for underserved patients in LMICs, while also tackling access barriers in some of the wealthiest countries in the world." Mr. Narasimhan said.

With this, Novartis was the first to sign up as a partner for the Access to Oncology Medicines (ATOM) Coalition, a global partnership launched by the Union for International Cancer Control (UICC) in 2022, The goal of this partnership is to increase access to quality-assured essential cancer medicines in low- and lower middle-income countries (LMICs), and to help countries develop the capacity for their proper use. In the Philippines, the company implements various patient support programs to help patients gain access to innovative medicines for a number of diseases.

The PII said that an invention is all about ringing ideas or technologies together in a novel way to create something that did not exist before. On the other hand, innovation is the return on invention or the creation of meaningful value from invention.

From specific examples on how pharmaceutical inventions have reached, saved and improve patients' lives, it is clear that these innovations have been addressing unmet medical needs for the benefit of patients and the society as a whole.

TEODORO B. PADILLA is the executive director of Pharmaceutical and Healthcare Association of the Philippines, which represents the biopharmaceutical medicine and vaccine industry in the country. Its members are in the forefront of research and development efforts for COVID-19 and other diseases that affect Filipinos.

## Develop vaccines for all animal influenza strains, says incoming WHO chief scientist

LONDON — Governments should invest in vaccines for all strains of influenza virus that exist in the animal kingdom as an insurance policy in case of an outbreak in humans, the incoming chief scientist at the World Health Organization (WHO) said on Monday.

Countries ranging from the United States and Britain to France and Japan have suffered record losses of poultry in outbreaks of avian flu in the past year.

The recent spread to mammals of H5N1 commonly known as bird flu — needed to be monitored, but the risk to humans remained low, the WHO said earlier this month.

Incoming WHO chief scientist Jeremy Farrar said he would like to see the pharmaceutical industry at least conduct some clinical trials for all influenza strains such that the world would not have to start from scratch to initiate global manufacturing should the need arise.

"My concern that we're in slow motion watching something which may never happen," he added in a media briefing. "But if it were to happen, would we look back on what we're doing at the moment and say, why didn't we do more?"

Mr. Farrar is a clinical scientist who most recently served as the director of the Wellcome Trust. He was appointed as the WHO's chief scientist in December, and will formally join the agency later this year. — *Reuters* 

# **Expert warns against** pre-medication for people with food allergies

WHILE self-reported food allergy is prevalent globally, only a small proportion, ranging between 1-5%, have an actual food allergy, according to an expert.

Diagnosed individuals should avoid allergenic food to prevent complications, said Raquel Isabelle de Guzman-Donado, an allergy and immunology specialist.

Food allergy and food intolerance are two different conditions. Food allergy triggers an immune system response that can result in serious symptoms, including breathing difficulties and a drop in blood pressure. Conversely, food intolerance affects the digestive system and typically causes milder symptoms, such as stomach discomfort.

Ms. Donado warned that people with food allergies may face lifethreatening symptoms, even if their previous reactions have been mild.

She said that people who take antihistamines or other allergy medicines before eating food they are allergic to should be careful. "It's riskier to premedicate because it gives you a false sense of security. You think you're safe, and then you proceed to feast,"

she said in Filipino during a Feb. 18 radio program on Veritas of the Philippine College of Physicians.

There is no predicting the severity of food allergy reactions, she said.

"You might think you don't have any reactions, but then when the effect of the antihistamine wanes..., all the symptoms come crashing down."

The most severe complication that can arise from an allergy is anaphylaxis, which causes symptoms like constriction of the airways and disturbances in heart rhythm.

About 93% of adolescent and adults in the Philippines aged 10 to 59 remain untested to food allergies, according to a study submitted to the Asian Institute of Management. Only 2.29% of the tested population in the country account for fish allergies. No

other data is present for major allergens such as peanuts, egg, shellfish, wheat and cow's milk.

The June 2019 study also found that affordability, availability, and accessibility are the three problems affecting food sensitivity and allergy detection in the country.

"In the Philippines, because of childhood exposure and other geographical and diet factors, the top allergens are shellfish and fish," Ms. Donado said.

Other conditions that mimic food allergy symptoms include food aversion, which is a strong dislike for a particular food, and eating disorders, which are severe disturbances to a person's eating behaviors and related thoughts.

To reach a food allergy diagnosis, allergologists crosscheck a patient's history with allergy tests, Ms. Donado said.

"It's a painstaking process to get to a food allergy diagnosis," she added, noting how reactions to preservatives and additives could be also mistaken for food allergies. -Patricia B. Mirasol

TOWFIQU BARBHUIYA-UNSPLASH

#### Inflation,

from S1/1

FMIC and UA&P said inflation may slow if the government ramps up support for agriculture.

"The deceleration will continue but local igricultural production must improve quickly for it to ease faster, albeit likely in the second half of the year," it said.

"Notably, Thai rice prices (5% broken) have risen by 21.7% year on year by January and threaten to upset expectedly milder food inflation in the second quarter."

The Philippines buys around 90% of its rice imports from Vietnam, and the rest from Thailand. As inflation remains elevated, FMIC and UA&P said it expects the Monetary Board to hike rates by another 25 bps at its March 23 meeting.

For ING's Mr. Mapa, the BSP may deliver one or two more rate hikes in the first half but at a likely slower pace. He said he also expects a 25-bp hike at next month's meeting.

After the Feb. 18 meeting, BSP Governor Felipe M. Medalla signaled another 25-bp to 50-bp rate hike at its next meeting. He also said inflation is seen to go back within target by November or December this year.

Since May 2022, the central bank has raised rates by a total of 400 bps to curb inflation.

### 'UNSCATHED'

Meanwhile, the Philippine economy may be "relatively unscathed" by a potential global recession this year, FMIC and UA&P said.

"Most recent economic data suggest that the Philippine economy may weather the global recession relatively unscathed," it said, citing improvements in the labor market, infrastructure spending and manufacturing

There are concerns of a global slowdown this year, with the International Monetary Fund (IMF) saying that global growth will slow to 2.9% this year from 3.4% in 2022.

The government is targeting 6-7% growth this year, slower than the 7.6% expansion in 2022.

While elevated inflation may hurt consumer spending, FMIC and UA&P said "high levels of employment, the personal income tax break and overseas Filipino worker (OFW) remittances would blunt much of the negativity."

Data from the statistics agency showed the unemployment rate inched up to 4.3% in December from November's 4.2%. However, it is still better than the 6.6% jobless rate in December 2021.

"Employment may ease in Q1 slightly but should recover as (the National Government) rampsupinfrastructurespendingwiththeearly approval of its budget and the manufacturing sub-sector emitting positive signals in January 2023," FMIC and UA&P said. – Luisa Maria Jacinta C. Jocson, Keisha B. Ta-asan and Kyle Aristophere T. Atienza

#### Central banks, from S1/1

The faster-than-expected January inflation prompted the BSP to raise its average inflation forecast to 6.1% this year from 4.5% previously.

However, the IMF said inflation in Asia will likely moderate this year, returning to central bank targets in 2024 due to easing headwinds, especially as the US dollar has lost some of its strength.

"Central banks in Asia have been hiking interest rates as they tackle above-target inflation. These factors have helped Asian currencies rebound, with most erasing about half of last year's losses, which has eased pressure on domestic prices," it added.

The US Federal Reserve raised the target interest rate by 25 bps earlier this month, bringing the target policy range to 4.5-4.75%, the highest since

The IMF sees Asia and the Pacific region growing by 4.7% this year, faster than the 3.8% in 2022 as global financial conditions ease, commodity prices go down, and China recovers.

"This will make it by far the most dynamic of the world's major regions and a bright spot in a slowing global economy," the multilateral lender said.

The region's emerging economies, which include the Philippines, are also seen to expand by 5.3% this year, as the impact of supply-chain disruptions fades and the service sector grows.

The IMF expects Philippine growth to slow to 5% this year, from 7.6% in 2022, but rebounding to 6% in 2024. The projection is slower than the 6-7% govern-

"China and India alone are expected to contribute more than half of global growth this year, with the rest of Asia contributing an additional quarter. Cambodia, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam are all back to their robust pre-pandemic growth," it said.

In its January World Economic Outlook update, the IMF said the global economy will likely expand by 2.9% this year, slower than the 3.4% expansion in 2022, amid elevated inflation and Russia's war in Ukraine. - Keisha

