

New cancer drugs target deadliest forms of the disease

By David Crow
in Chicago

Johnson & Johnson, AbbVie and other large pharmaceutical companies on yesterday unveiled research showing that their drugs can dramatically improve the prospects of patients suffering from the deadliest forms of cancer, generating excitement at the world's largest meeting of oncologists.

About 35,000 doctors and scientists gathered in Chicago at the weekend for the annual meeting of the American Society of Clinical Oncologists (Asco), where the results of more than 5,000 clinical trials were published.

The data from some studies fuelled hopes that drugmakers are on the cusp of a breakthrough in treating patients who have run out of options.

A large clinical trial of Darzalex, a drug being co-developed by J&J, showed the medicine improved outcomes dramatically for patients suffering from multiple myeloma, an incurable bone marrow cancer that kills half its victims within five years.

Combining the J&J drug with another two medicines commonly given to multiple myeloma patients reduced the risk of a patient's cancer becoming worse by about 70 percent, according to a trial of almost 500 participants.

A fifth of patients on the Darzalex cocktail experienced a "complete response," which means their cancer disappeared entirely, while a further 60 percent had substantial tumour shrinkage. The combination was about twice as effective as the other two medicines alone.

"These results are unprecedented in this cancer," said Dr Antonio Palumbo, an oncologist at the University of To-



A fifth of patients on the Darzalex cocktail experienced a "complete response," which means their cancer disappeared entirely

rino in Italy, who led the study. The Darzalex combination would soon become the most common medicine given to multiple myeloma sufferers, he predicted.

Dr Alan Worsley of Cancer Research UK said the results of the study were "remarkable for this form of the disease, which is one of the most deadly cancers and one of the most difficult to treat."

The trial is the latest in a

string of successful studies of Darzalex, which J&J is co-developing with Danish biotech group Genmab, prompting Jefferies analyst Peter Welford to estimate that the drug would generate USD7bn in peak annual sales.

A smaller trial of an experimental drug recently acquired by AbbVie was also shown to improve markedly the chances of people suffering from another of the deadliest can-

cers, small-cell lung cancer, which tends to affect smokers.

This type of lung cancer spreads throughout the body quickly, rarely responds to treatment, and claims the lives of more than 250,000 people a year. Just 3 percent of patients survive for at least five years following diagnosis.

The drug, known as Rova-T, halted tumour growth in almost 90 percent of patients with high levels of a specific protein, and shrank tumours in 39 percent of sufferers, according to the study of about 71 participants, all of whom had failed to respond to other treatments.

Rova-T adopts a novel approach whereby a toxic agent is delivered directly into the tumour cell so it

can kill the cancer without destroying healthy tissues as well. The method allows patients to be given larger doses of toxins that they would otherwise be able to tolerate.

AbbVie acquired the drug in April when it bought Stemcentrx, the San Francisco biotech which discovered it, in a deal worth up to USD10bn.

"This is another example of a new wave of highly-targeted treatments, which deliver anticancer drugs even more precisely to where they are needed," said Dr Gregory Masters, an oncologist at the Helen F Graham cancer centre in Delaware.

Dr Worsley said: "This was a trial of very sick patients who have had the kitchen sink thrown at

them, so getting response rates like this is impressive."

However, he cautioned that the trial was small and said larger studies would be needed to determine whether the findings could be replicated.

The studies of the AbbVie and J&J drugs were among 20 that were identified by Asco's organisers as being the most impressive. Other drugs in this category included Tecentriq, a Roche medicine that helped patients with cancer of the urinary system; and an experimental treatment from Ganymed, a private German group, which benefited those suffering from a type of stomach cancer.



At a rally in Kiev's Independence Square on March 2, 2014, protesters urged President Putin to withdraw troops from soon-to-be-annexed Crimea

Donetsk faces a creeping Russification

By Roman Olearchyk in Donetsk

At an electronics store in Donetsk, stronghold of the Russia-backed separatists who control Ukraine's breakaway east, Vasili declines payment of 100 hryvnias to install the internet on a mobile phone.

"We don't accept hryvnia any more, only roubles," the shop assistant says, explaining that they exclusively use the Russian currency now on orders of the region's separatist leadership.

A short distance away in Makiivka, a conversation with factory worker Marina underscores how Russian money has become the de facto currency.

The steel plant where she works is one of the few in the war-torn region that was once Ukraine's industrial heartland that continues to pay salaries in the national currency. "We immediately exchange it to roubles as you can't buy anything here in hryvnia any more," she says.

Two years after the Ukrainian conflict erupted - when Russian-backed rebels seized government buildings in scores of towns across the country's

Russian-speaking east and set up their own breakaway republics - the Donetsk and neighbouring Lugansk regions have not (unlike Crimea) been annexed by Moscow.

The Russians held back, perhaps fearing further western sanctions - although many say it was more Moscow's reluctance to shoulder the cost of a densely populated region and its hundreds of thousands of pensioners.

But more than 25 years since Ukraine broke away from the Soviet Union, Donetsk is a city that feels increasingly Russified - politically, economically and socially. The fibres that once held the east to the rest of Ukraine are being torn away, thread by thread.

At local supermarkets the shelves that were emptied at the height of the conflict that has so far claimed nearly 10,000 lives and continues to smoulder, are stocked mostly with Russian imports.

Russian textbooks supplied by Moscow are used at local schools that no longer teach Ukrainian history. Children instead learn a Russian version of the past that glorifies the Soviet era. Russian and separatist

broadcasting has replaced Ukrainian channels. Websites are registered under .ru and not the .ua domain.

Even speaking Ukrainian, two years ago the state language, can be dangerous, sparking animosity from locals or suspicions of subversiveness from gun-toting rebels.

Many worry the ever-widening split with the rest of Ukraine could greatly complicate reintegration should efforts succeed in rekindling the stalled, 15-month-old Minsk agreement aimed to plot a path to peace in the breakaway regions.

Worse, if Minsk continues to languish, the fear among residents is that they will end up living in a frozen conflict zone, similar to Abkhazia and South Ossetia in Georgia or Moldova's Transnistria - propped up by Moscow but not properly part of either country.

Rumours abound over how Moscow subsidises the self-declared Donetsk and Lugansk People's Republics, which operate semi-functional governments that provide basic services such as rubbish collections and pay meagre wages. It is impossible to tell how many residents and

businesses pay taxes to the pro-Russian leaderships.

Some factories that are still operational provide employment, but prices for basic goods have surged and wages have plummeted.

Yet, braving 12-hour queues at checkpoints where shots are often fired, hundreds of thousands of people have returned to Donetsk in the past year as the worst of the fighting has passed.

Denis Pushilin, head of the parliament for the Donetsk-based separatists, says he travels using a passport issued by the Donetsk People's Republic. Others say they are keeping their Ukrainian citizenship - and their Ukrainian vehicle plates. In theory it is possible to apply for a Russian passport, but it is a complicated and time-consuming process.

Some, though, are optimistic "I think we'll have a big future with Russia," says Dima Vesov, a 17-year-old Donetsk resident who has just graduated from a separatist-run school. "Without Russia we wouldn't survive."

The downtown area where Mr Vesov's school is located is well kept, with rose plants, flowing fountains

and outdoor cafés. But just streets away the conditions are grim, with boarded-up shops and residents lining up for humanitarian aid.

A few miles north is the front line, where Ukrainian government and separatist forces fire bullets, mortars and heavier calibre shells at each other from entrenched positions a few hundred metres apart.

During a recent visit to the front by ceasefire monitors from the Organization for Security and Co-operation in Europe - where sniper fire whistled overhead - Alexander Hug, deputy head of the monitoring mission, repeated calls for both sides to pull back. Separatists used the visit to retrieve three dead bodies. Days earlier, seven Ukrainian soldiers had been killed, the most in a single day in more than a year.

Brandishing a chest pin of Joseph Stalin, Eduard Baturin, deputy defence minister for the local pro-Russian militants, defends the former Soviet leader for raising the "USSR to a level when it was respected in the entire world."

"We here in the east are more orientated towards Russia," he insists, saying that Ukraine, whose current

leadership has set course for EU integration, is an artificially created-state.

The OSCE's hope is that increasing the separation within a wide buffer zone will help fully enforce a complete ceasefire that both sides and many citizens say they want. Others say it is too late.

"Too much blood has been spilled," said Marina, the Makiivka factory worker. "My husband, my brother, my father, all of them fought in the war. My mother's friend lost her leg. My best friend's house was destroyed. We had many friends who died. How can we live on friendly terms?"

Vasili, the shop clerk, is more amenable and wants to attend a Russian university. But even he cannot be sure about the city he hopes to return to.

"I am a citizen of Ukraine, I have a Ukrainian passport. I don't have a Donetsk People's Republic or a Russian passport. But I can't give you an answer on whether this is Ukraine, Russia or some sort of Donetsk People's Republic," he says. "We were all better off before this."

By Qassim Abdul-Zahra
and Bassem Mroute

Islamic State kills dozens of its own in hunt for spies

IN March, a senior commander with the Islamic State group was driving through northern Syria on orders to lead militants in the fighting there when a drone blasted his vehicle to oblivion.

The killing of Abu Hayjaa al-Tunsi, a Tunisian jihadi, sparked a panicked hunt within the group's ranks for spies who could have tipped off the U.S.-led coalition about his closely guarded movements. By the time it was over, the group would kill 38 of its own members on suspicion of acting as informants.

They were among dozens of IS members killed by their own leadership in recent months in a vicious purge after a string of airstrikes killed prominent figures. Others have disappeared into prisons and still more have fled, fearing they could be next as the jihadi group turns on itself in the hunt for moles, according to Syrian opposition activists, Kurdish militia commanders, several Iraqi intelligence officials and an informant for the Iraqi government who worked within IS ranks.

The fear of informants has fueled paranoia among the militants' ranks. A mobile phone or internet connection can raise suspicions. As a warning to others, IS has displayed the bodies of some suspected spies in public — or used particularly gruesome methods, including reportedly dropping some into a vat of acid.

IS "commanders don't dare come from Iraq to Syria because they are being liquidated" by airstrikes, said Bebars al-Talawy, an opposition activist in Syria who monitors the jihadi group.

Over the past months, American officials have said that the U.S. has killed a string of top commanders from the group, including its "minister of war" Omar al-Shishani, feared Iraqi militant Shaker Wuhayeb, also known as Abu Wahib, as well as a top finance official known by several names, including Haji Iman, Abu Alaa al-Afari or Abu Ali Al-Anbari.

In the northern Iraqi city of Mosul, the biggest city held by IS across its "caliphate" stretching across Syria and Iraq, a succession of militants who held the post of "wali," or governor, in the province have died in airstrikes. As a result, those appointed to governor posts have asked not to be identified and they limit their movements, the Iraqi informant told The Associated Press. Iraqi intelligence officials allowed the AP to speak by phone with the informant, who spoke on condition of anonymity, fearing for his life.

The purge comes at a time when IS has lost ground in both Syria and Iraq. An Iraqi government offensive recaptured the western city of Ramadi from IS earlier this year, and another mission is underway to retake



Islamic State fighters marching in Raqqa, Syria

the nearby city of Fallujah.

Rami Abdurrahman, who heads the Britain-based Syrian Observatory for Human Rights, said some IS fighters began feeding information to the coalition about targets and movements of the group's officials because they needed money after the extremist group sharply reduced salaries in the wake of coalition and Russian airstrikes on IS-held oil facilities earlier this year. The damage and the loss of important IS-held supply routes into Turkey have reportedly hurt the group's financing.

"They have executed dozens of fighters on charges of giving information to the coalition or putting [GPS] chips in order for the aircraft to strike at a specific area," said Abdurrahman, referring to IS in Syria.

The militants have responded with methods of their own for rooting out spies, said the informant. For example, they have fed false information to a suspect member about the movements of IS leader Abu Bakr al-Baghdadi, and if an airstrike follows on the alleged location, they know the

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RAMI ABDURRAHMAN
SYRIAN OBSERVATORY
FOR HUMAN RIGHTS

suspect is a spy, he said. They stop fighters in the street and inspect their mobile phones, sometimes making the fighter call any unusual numbers in front of them to see who they are.

After the killing of al-Anbari, seven or eight IS officials in Mosul were taken into custody and have since disappeared, their fates unknown, said the informant.

"Daesh is now concentrating on how to find informers because they have lost commanders that are hard to replace," said a senior Iraqi intelligence official in Baghdad, using the Arabic acronym for the Islamic State group. "Now any IS commander has the right to kill a person whom they suspect is an informer for the coalition."

Another Iraqi intelligence official said at least 10 IS fighters and security officials in Mosul were killed by the group in April on suspicion of giving information to the coalition because of various strikes in the city.

Mosul also saw one of the most brutal killings of suspected informants last month, when about a dozen fighters and civilians were drowned in a vat filled with acid, one senior Iraqi intelligence official said.

In the western province of Anbar, the Iraqi militant Wuhayeb was killed in a May 6 airstrike in the town of Rutba. Wuhayeb was a militant veteran, serving first in al-Qaida in Iraq before it became the Islamic State group. He first came to prominence in 2013, when a video showed him and his fighters stopping a group of Syrian truck drivers crossing Anbar. Wuhayeb asks each if he is Sunni or Shiite, and when they say Sunni, he quizzes them on how many times one bows during prayer. When they get it wrong, three of them

admit to being Alawites, a Shiite offshoot sect, and Wuhayeb and his men lay the three drivers in the dirt and shoot them to death.

After Wuhayeb's killing, IS killed several dozen of its own members in Anbar, including some mid-level officials, on suspicion of informing on his location, and other members fled to Turkey, the two intelligence officials said. They spoke on condition of anonymity because they were not authorized to talk to the press.

Some of the suspects were shot dead in front of other IS fighters as a lesson, the Iraqi officials said.

After the Tunisian militant Abu Hayjaa was killed on the road outside Raqqa on March 30, IS leadership in Iraq sent Iraqi and Chechen security officials to investigate, according to Abdurrahman and al-Talawy, the Syria-based activist. Suspects were rounded up, taken to military bases around Raqqa, and the purge ensued. Within days, 21 IS fighters were killed, including a senior commander from North Africa, Abdurrahman said.

Dozens more were taken back to Iraq for further questioning. Of those, 17 were killed and 32 were expelled from the group but allowed to live, Abdurrahman and al-Talawy said, both citing their contacts in the militant group. Among those brought to Iraq was the group's top security official for its Badiya "province," covering a part of central and eastern Syria. His fate remains unknown.

Non-IS members are also often caught up in the hunt for spies. In the Tabqa, near Raqqa, IS fighters brought a civilian, Abdul-Hadi Issa, into the main square before dozens of onlookers and announced he was accused of

spying. A masked militant then stabbed him in the heart and, with the knife still stuck in the man's chest, the fighter shot him in the head with a pistol.

Issa's body was hanged in the square with a large piece of paper on his chest proclaiming the crime and the punishment. IS circulated photos of the killing on social media.

According to al-Talawy, several other IS members were killed in the town of Sukhna near the central Syrian city of Palmyra on charges of giving information to the coalition about IS bases in the area as well as trying to locate places where al-Baghdadi might be.

Sherfan Darwish, of the U.S.-backed Syria Democratic Forces, which has been spearheading the fight against IS in Syria, said there is panic in IS-held areas where the extremists have killed people simply for having telecommunications devices in their homes.

"There is chaos. Some members and commanders are trying to flee," Darwish said.

The U.S.-led coalition has sought to use its successes in targeting IS leaders to intimidate others. In late May, warplanes dropped leaflets over IS-held parts of Syria with the pictures of two senior militants killed previously in airstrikes. "What do these Daesh commanders have in common?" the leaflet read. "They were killed at the hands of the coalition."

The jihadis have responded with their own propaganda.

"America, do you think that victory comes by killing a commander or more?" IS spokesman Abu Mohammed al-Adnani said in a May 21 audio message. "We will not be deterred by your campaigns and you will not be victorious." AP

Tigers may be gone, but many creatures dwell at Thai temples

THE scandal surrounding Thailand's Tiger Temple, where wildlife officers seized 137 big cats this past week, has cast religious sanctuaries for animals in a bad light. Many conservationists and animal rights activists have believed the temple's self-appointed mission to shelter tigers is misguided at best and that the tigers were mistreated to ensure their docility. Tiger parts found during the raid buoyed strong suspicions that the temple, run as an admission-charging zoo, engaged in unethical breeding and illegal trafficking of the endangered animals.

The shady findings at the Wat Pha Luang Ta Bua in western Thailand aside, Buddhism and animals have an intrinsic link, loosely derived from Buddhist precepts promoting compassion for all living beings. While tigers are not typical, many temples in Thailand host smaller menageries.



A visitor feeds a cow at the Wat Hualamphong temple in hopes of earning merit by sparing the cow's life from a butcher's knife in Bangkok

DOGS AND CATS: Dogs may outnumber monks at many temples. Unwanted pets and rescued strays almost invariably end up at the local temple, where the moral code of the monks ensures dogs and cats won't be put down at the pound. The luckier ones will be adopted by a kind-hearted abbot or novice monks, boys who have the energy and enthusiasm to chase the animals. But most will just survive rather than thrive, es-

pecially since their main diet is leftover rice. The stereotype of a temple dog as a skinny, sore-ridden mutt is so ingrained that the Thai phrase for them — 'ma wat' — is slang for a disreputably down-and-out poor person.

Inevitably a crowd of dogs or cats creates crowds of puppies and kittens, straining the temple's resources and risking the animals' health and welfare. Sterilization programs attempt to deal with the problem, but

Lanna Dog Welfare in northern Thailand takes a holistic approach. The group is training monks in all aspects of hands-on basic canine health care to help the 10 to 50 dogs living at each of the more than 1,600 temples around the city of Chiang Mai.

BIRDS, FISH AND TURTLES: Less cuddly animals like birds, fish and turtles lead the lives of second-class citizens. They are found at temples as a result of a Buddhist custom of making merit by freeing animals from captivity. In many cases, the animals serve that purpose over and over, going through cycles of capture and release. The practice, common through much of Asia, is particularly widespread in China, where it is known as fang sheng.

Frail birds, crammed into tiny cages until vendors at the temples sell them to the merit-seekers, either cannot fly out

of the reach of their sellers and are recaptured or they reach the wild where they are not fit enough to survive. Fish and turtles are released into temple ponds too crowded to sustain much aquatic life.

The environmental consequences may also be dire; the massive demand endangers the populations of some species, and the disruption of habitats and migratory patterns can spread animal-borne diseases or introduce invasive species.

TIGERS AND OTHER EXOTIC ANIMALS: Larger animals end up at temples in the same manner as dogs and cats — as a refuge for the unwanted or homeless. For all its notoriety, the Tiger Temple's collection is said to have begun that way, when eight cubs rescued from poachers were brought there for care.

Bears and monkeys are among the wilder animals that might live at temples. But temples are ill-prepared to handle the special needs of such animals, which often are held in appalling conditions. In one famous case, an elephant endured about 20 years chained to a tree, only be killed with a spray of 100 bullets when he tried to escape. **AP**

ASK THE VET

By Dr Ruan Du Toit Bester



CANINE LUNG CANCER TREATMENT

OVER the past few years, there has been several advancements in lung cancer treatment for dogs. Lung cancer has become common among dogs in Macau as more canines are being diagnosed with lung cancer each week. Lung cancer in general is of two types namely, primary and secondary lung cancer. Cancer that originates in the lungs is called primary lung cancer while cancer that originates elsewhere and spreads to the lungs is called secondary lung cancer. Secondary lung cancer is the most commonly occurring form while primary lung cancer is very rare.

The most important aspect in the treatment of cancer is to prevent the cancerous cells from spreading to the other parts of the body. Like any other form of cancer, there are three options for lung cancer treatment in dogs.

TREATMENT OPTIONS FOR CANINE LUNG CANCER

Canine Lung Cancer treatment includes:

- Surgery
- Radiation therapy
- Chemotherapy

FACTORS THAT INFLUENCE TREATMENT OPTIONS

All the three methods of treatment control the spread of the cancerous cells and help to prolong the life of your pet. The method of treatment depends on factors such as the age, the size and the breed of the dog as well as the progression of the cancer.

SURGERY FOR CANINE LUNG CANCER

Surgery is always the primary method of treatment for any form of cancer. However, the size and location of the tumor are two main factors that are taken into consideration before going ahead with surgery. When the cancer is small and is located in only in one area, surgery is the best option as it would help to remove the cancerous mass cells completely from your pet's body.

If the size of the tumor increases and if the tumor is present in more than one place, surgery is not recommended as complete removal of the tumor won't be possible.

CHEMOTHERAPY FOR DOGS SUFFERING FROM LUNG CANCER

Chemotherapy is used both as a primary as well as a secondary method of lung cancer treatment. In chronic cases where the cancer has spread to other parts of the body of the pet or grown large in size, chemotherapy is used as the primary method of treatment. Chemotherapy is also used as a secondary method of treatment after surgery and it has shown promising results to control the spread of the cancer.

RADIATION THERAPY FOR DOG LUNG CANCER

Radiation therapy is not commonly used for lung cancer treatment in dogs and this is because of the proximity of the heart to the lungs. Hence the harmful radiation



might have an undesirable effect on the heart of the pet. Moreover, radiation therapy is also the costliest of the three methods. However, it has been used in some cases and it has shown desirable results.

NATURAL REMEDIES TO PREVENT THE SPREAD OF CANCER

Though natural remedies such as herbs cannot prevent the spread of cancer, they could help to boost the immune system of the pet and thereby prolong his lifespan. The bugwig diet which consists of flaxseed oil and cottage cheese has proven to improve the immune system of pets during cancer. Natural supplements could also be added to the pet's diet. However, it's advisable to obtain the consent of the vet before taking such measures.

Lung cancer is fatal and the different methods of treatment are used to prolong the lifespan of your dog. In addition to treatment it is the duty of the pet owner to make sure that the pet has a peaceful and comfortable life, free from discomfort and pain.

Hope this info helps
Till next week
Dr Ruan

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