

Iran sees progress in knowledge-based pharmaceuticals

Social Desk

The Vice President of Research and Technology at the Ministry of Health, Treatment, and Medical Education announced that there are currently 800 research centers operating, including 52 centers specifically focused on pharmaceuticals. Additionally, there are 1,285 knowledge-based companies in the health sector. These companies contribute to 40 percent of the production of raw materials and their growth has accelerated during the current administration, IRNA reported.

Younes Panahi shared this information during his speech at a three-day conference on the future of pharmaceuticals held at Olympic Hotel on Wednesday. He emphasized that scientific circles have recognized the significance of advancements in pharmaceuticals. Leading universities worldwide have prioritized meeting society's healthcare needs through research endeavors.

Furthermore, Panahi stated that there are currently 257 scientists working in various health-related fields across our country, with 28 percent specializing in pharmaceuticals. Notably, first-rate scientific journals focus on pharmaceutical topics while researchers strive for scientific excellence within this field.

Panahi highlighted how

pharmacy is highly regarded within scientific communities today as it addresses a crucial societal need for medicine and medical equipment. He emphasized that science cannot progress without financial resources.

Heydar Mohammadi, head of Iran's Food and Drug Organization also addressed attendees at this conference by emphasizing Iran's achievements despite harsh sanctions impacting its pharmaceutical industry. Mohammadi proudly stated that we now produce 99 percent of drugs domestically; even amidst COVID-19 pandemic challenges, six domestic corona vaccines were successfully developed—an impressive testament to our nation's capabilities.

Mohammadi stressed that cell therapy discussions hold great importance as a significant portion of required raw materials is produced internally—underscoring further research efforts needed in this area to avoid neglecting its potential benefits. Regarding export opportunities, he urged pharmaceutical manufacturers to support increased activity in this field. He expressed satisfaction with current growth but emphasized the need for continued expansion.

Pharmacists' presence in hospitals was deemed necessary by the official as it aids patient treatment



processes. Additionally, efforts are being made to address concerns related to medical service tariffs during the country's 7th Development Plan to ensure pharmacists' well-being is not compromised. He also expressed hope that with pharmacists playing a vital role, our country would soon achieve complete drug self-sufficiency—realizing a fully functional production and supply chain for pharmaceutical items.

Mohammad Raieszadeh, head of the country's top medical organization, stressed the criticality of considering future advancements in medical sciences and pharmaceuticals. Failing to keep up with these changes could lead us into a disadvantaged position within tomorrow's world. Ignoring the importance of medicine and pharmaceuticals is not an option. Raieszadeh further emphasized that pharmaceu-

tical science and industry are strategic sectors within our nation. Therefore, it is crucial that we unite in supporting this industry rather than allowing other organizations to encroach upon its domain. The progress and development of Iran's pharmaceutical industry should be championed alongside recognizing the contributions of professors and veterans who have dedicated their expertise towards advancing this field.

Fukushima wastewater to be pumped into ocean this week



Japan has announced plans to release wastewater from the stricken Fukushima-Daiichi nuclear plant into the ocean starting Thursday.

Here is what we know about the release, how the water has been treated and concerns around the safety of the exercise, according to AFP. Around 100,000 liters of contaminated water – from cooling the crippled plant's reactors as well as groundwater and rain seeping in – is collected at the site in northeast Japan every day.

Some 1.34 million tons are now stored in around a thousand steel containers at the seaside site, and now there is no more space, authorities say.

Japan decided in 2021, after years of discussion, that it would release at most around 500,000 liters per day into the sea via a pipe one kilometer long.

Plant operator TEPCO says that a special filtering system called ALPS has removed all radioactive elements except tritium.

TEPCO has said it has diluted the water to reduce radioactivity levels.

Tony Hooker, nuclear expert from the University of Adelaide, said that the level of tritium is well below the World Health Organization drinking water limit of 10,000 Bq/L.

"Tritium is regularly released from nuclear power facilities into waterways worldwide," Hooker told AFP.

"For decades (there have been) no evidential detrimental environmental or health effects," he said.

UN atomic watchdog the International Atomic Energy Agency (IAEA) has said the release meets international standards and "will not cause any harm to the environment."

The Japanese government has spent months trying to win over skeptics at home and abroad, with everything from study tours of Fukushima to video live-streams of fish living in the wastewater. Tokyo has also sought to counter disinformation being peddled online about the release, such as manipulated or old photos and claims – denied by Japan – that it bribed the IAEA.

The far more dangerous task remains removing radioactive debris and highly dangerous nuclear fuel from the three reactors that went into meltdown in 2011.

TEPCO plans to use robots to remove the fuel but there are fears that radiation levels are so high that they could even disable the remote-controlled machines.

The whole gargantuan process is expected to take 30 to 40 years and cost around eight trillion yen (\$55 billion).

A peek from other side of the fence



By Ali Amiri
Staff writer

For several years now, it seems that there is a no love lost between the Iranian public and the country's doctors. This sour relationship occasionally manifests itself on social media during medical controversies, such as the case of late Iranian director Abbas Kiarostami, or when a doctor makes a bold statement that goes viral.

Reasons for this strained relationship are manifold. One common complaint among Iranians is that doctors often disregard their patients' time by making them wait unnecessarily for examinations. On top of that, there are concerns about the quality of care provided. Put such complaints alongside the "good life" that doctors are perceived to live, and you might begin to understand why there is so much hostility towards physicians in Iran.

One part of the problem might be the fact that different sectors of Iranian society usually cannot commu-

nicate well with each other. More often than not, there are misconceptions and even myths about professions in Iran, and medicine is no exception. However, doctors are not helping since they usually act like a clan, excluding other people from their circles, or defending their peers even when they are wrong.

Yet, it would be very difficult to refute the role doctors play in any given society since they are our saviors, the ones we turn to when we are facing dangers to our well-being. What perhaps the Iranian public does not know, is the fact that these heroes in white coats spend many years in training to become doctors, and have to spend their entire careers studying to remain updated.

In order to gain a better understanding of the medical training Iranian doctors receive, and the challenges they face in their careers, we turned to Negin Namavari, a 28-year-old, recently graduated medical doctor, who is serving in a disadvantaged village in southern parts of Fars Province, between Shiraz and Jahrom.

"The village I'm practicing in right now didn't use to have a residing doctor," she says, adding, "So the people here really appreciate me, which makes me feel good." For many of us, the idea of spending the early years of our careers in an underprivileged area might be off-putting. Yet, young Iranian doctors are welcomed into the profession by practicing in health care centers scattered across the country, many of them located in villages in underdeveloped regions.

"Although, it's good to be able to grow as a doctor, and become able to take care of a patient all by yourself," says Negin.

The path for her and her peers to become physicians is a long, exhausting one – one that many of us would not dare to cross. After taking on the national university entrance exams head on, they start their training by learning so much, so fast about basic science.

"It takes five semesters, and after that there will be a general exam to check if we have learned the basics of the profession well," Negin says.

Passing the exam, they qualify for the physiopathology, where in a year they learn all about diseases, and how they affect the organs.

"This is when our lessons become more clinical and functional," she says, adding, "So, that makes it three and a half years of training just to gain a theoretical basis for medicine."



Then they become medical stagers, which goes on for two years. One year as a medical student and the other as an extern. During this time, they come into contact with patients, and are required to learn the proper ways of examination. Spending time in hospitals, dealing with sick people is no picnic.



Negin Namavari, a recently graduated medical doctor currently serving in a small village in Fars Province, Iran.

The villagers appreciate their first-ever residing doctor by bringing her delicacies.

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TO BE CONTINUED