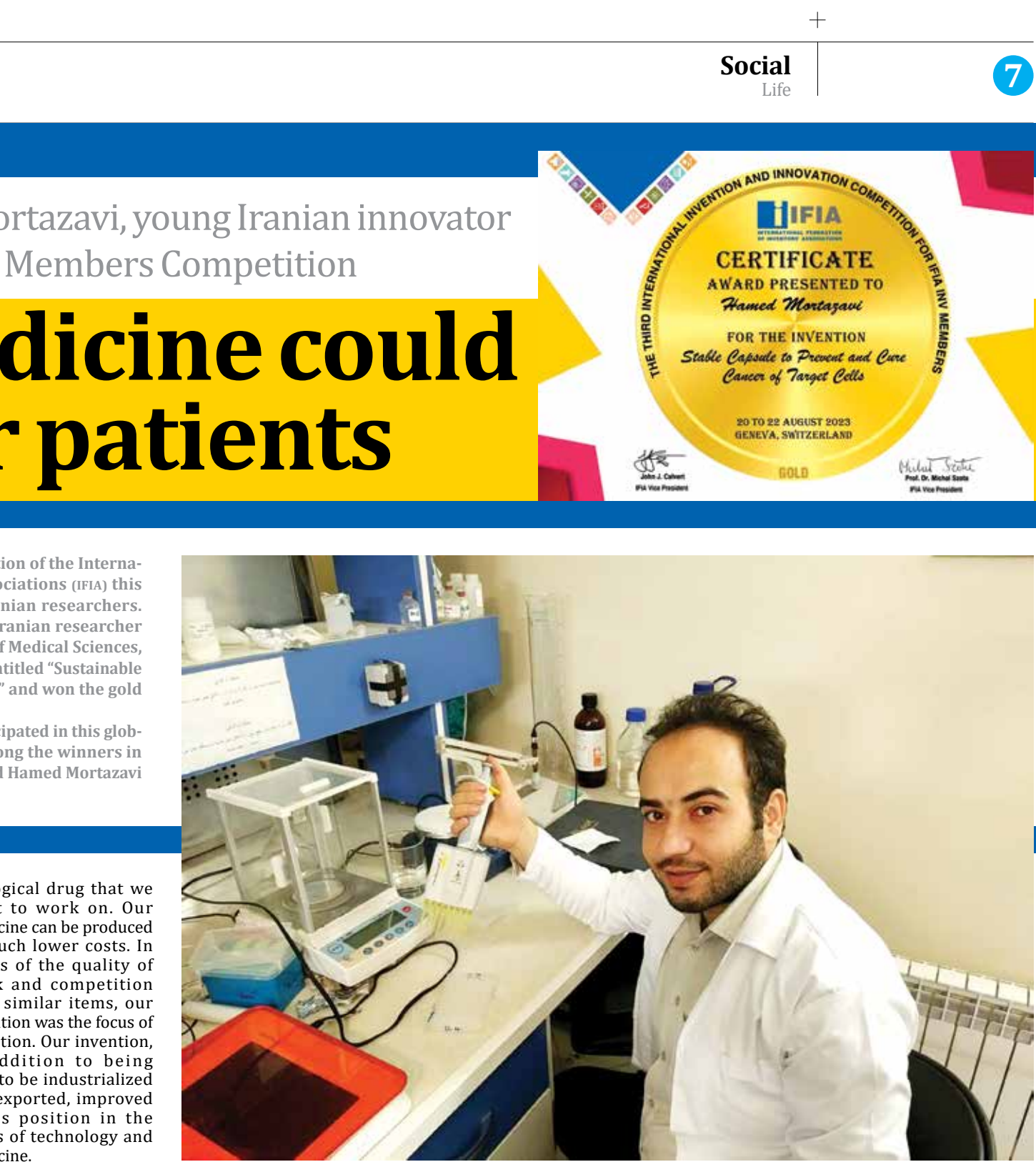
A conversation with Hamed Mortazavi, young Iranian innovator and winner of the 3rd IFIA INV Members Competition

Iranian medicine could save cancer patients



By Ebrahim Beheshti
Staff writer

The 3rd IFIA INV Members Competition of the International Federation of Inventors' Associations (IFIA) this year was a success for Iran and Iranian researchers. Seyyed Hamed Mortazavi, a young Iranian researcher working at Baqiyatallah University of Medical Sciences, and a member of the IFIA innovators, presented his invention entitled "Sustainable Capsule for Cancer Prevention and Treatment for Target Cells" and won the gold medal in the field of medical technologies.

1500 inventors from more than 50 countries of the world participated in this global scientific event, and the young Iranian researcher was among the winners in the field of medical technologies. We have sat down with Seyyed Hamed Mortazavi about the success of his anti-cancer drug.

Mr. Mortazavi, your invention is related to the treatment of cancer. Would you explain why you focused your research on cancer treatment?

For years, different types of cancer have been causing deaths in different parts of the world, especially in Iran, and according to predictions, this painful trajectory will continue in the coming years.

Suspecting cancer in a relative of mine was my initial motivation to start the research. Of course, years ago, one of our university professors said that the World Health Organization asked the world's researchers to focus their research on cancer treatment.

In our research, we were looking for a drug that has a therapeutic effect as well as a preventive effect. Therefore, we finally found a drug that both healthy people can use to prevent cancer and patients can use as a targeted drug.

Considering the available facilities, it was a difficult task. But we took advantage of all available facilities and the advice of professors and researchers and succeeded. This drug is effective in balancing the body's immune system and controls and destroys the disease by penetrating the cancer cells. The material we used is approved by standards of world pharmacology.

Before presenting it at the international competition in Switzerland, what stages did your invention go through in Iran?

An inventor must defend his work in international competitions and that invention must have international items or standards. In order to participate in these competitions, we had to first register our design in the country as a patent, which is what we did. A universal invention must have innovative features and industrialization capabilities. Before this, I was a member of the IFIA, which has a representative in Iran, because I have 12 other patents in the field of medical technologies. Therefore, our work first got internal approvals and was registered as a patent, and then got permission to participate in international competitions.

IFIA was established in 1968 with the aim of supporting inventors. Every year, it organizes patenting events worldwide. This event is held in various fields, and this year the third edition was held in Geneva, Switzerland. The federation has a representative office in many countries and makes public calls for these competitions in all countries. Inventions are sent to the central office in Geneva and are judged by scientific and expert panels. Inventors participate in 13 different groups. There were participants from more than 50 countries.

How did the judges and competitors see your invention? Considering the various pressures against Iran in the past years, perhaps winning the first prize came as a surprise for them.

About 1500 inventors from different countries participated in this scientific event. It was a source of joy for the judges that an Iranian researcher was able to achieve this success and present an invention of this importance and compliance with international scientific standards. Our work was of interest to the judges in several ways. They said that the cost of discovering each effective substance for a cancer drug is $600 million, and we should spend $2 trillion on any biological drug that we want to work on. Our medicine can be produced at much lower costs. In terms of the quality of work and competition with similar items, our invention was the focus of attention. Our invention, in addition to being able to be industrialized and exported, improved Iran's position in the fields of technology and medicine.

According to the support policies for Iranian scientists and researchers, the pharmaceutical industry of our country can become self-sufficient in the coming years. In our innovative plan, i.e. and anti-cancer drug, all the materials are completely Iranian, so there is no need to import raw materials from abroad, and in fact, it is immune to external pressures such as sanctions.

Please briefly explain what your invention drug is going to do for cancer treatment.

The beauty of this drug, which is approved by world pharmacology standards, is that it is derived from nature and has both preventive and curative properties. Healthy people can also use lower doses for prevention. But in the treatment process, the drug penetrates to the origin of cancer in a targeted manner and has the property of balancing the body's immune system. Eighty percent of cancer patients are malnourished, but this drug has an appetite-stimulating effect. It has effective antioxidant compounds and antineoplastic and anti-cancer compounds.

Does the fact that the drug has a targeted use mean that it does not have side effects? What about early tests, were they carried out?

Yes. After taking the drug, it detects a cancerous tumor and penetrates the same cancerous cells in a targeted manner. Its property is anti-cancer, so it does not have any other function to have side effects, especially since its material is natural according to ancient Iranian medicine.

Laboratory tests have their own process, animal tests have been successfully performed and then tested on human patients. In the animal test, we used this drug along with the current pharmaceuticals and therapeutic drugs and we saw that it works very well. Due to its immune system balancing properties, this drug can even be used alongside other treatment methods. As in the next tests, we also prescribed this drug to patients who used chemotherapy and radiation therapy methods. The doctors were surprised by the performance of this medicine and the patients got results quickly without any side effects.

How many years have you been researching this project? In what centers has the research been done?

I own a pharmaceutical company and did the research privately. I signed contracts with specialized laboratories and they performed all kinds of necessary tests for me in accordance with scientific standards. After the experiments worked, I was able to patent the formulation. My project started in 2012 and it took about 9 years until 2021 to be completed and participate in international competitions.

During the time you were working on this project, did you have contacts with research centers and researchers abroad?

Yes, I read many different books published in America and England and articles related to the field. There may be a large number of scientific and useful articles published about a disease that focus on different aspects. But these different data, when put together, can result in success in arriving at a formulation. I read many articles and benefited from the opinions of different professors and researchers inside and outside the country. Other researchers have worked hard in this field for years and have done useful research. But one person or a research team eventually discovers a method by putting these different data together. In 2021, I was sure of my own work and after patenting in Iran, I participated in the IFIA event and won the gold medal.

Have you been contacted by companies or scientific institutions for investment since winning the award?

I would like for Iranian people, and then all the people of the world to benefit from this invention. Therefore, I am ready to cooperate with scientific institutions or universities of medical sciences abroad for the production and use of this medicine. Therefore, if scientific and research institutes want to conduct new laboratory tests on this drug, I will definitely help them.

Investors have also expressed their desire to produce this medicine. But I want this drug to be produced as an Iranian brand so that, along with medical services for the whole world, it brings currency to my country. An advantage of this drug is its low cost compared to current drugs. Because its material is completely Iranian and available. It can also be attractive for insurance companies to easily insure the drug and make its use more accessible to people.

What is the stage of this drug now? Can we see it in the domestic or global drug market in the near future?

Due to the current policies and the support of domestic researchers and researchers, after the success at the IFIA event, this invention has received the special attention of the country's officials in the field of treatment. Many officials are happy about this national success. With this support and the fact that investors have also lined up, this drug will surely be available to people in the near future.

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