

Technology & partnerships: Task for Tec's new School of Medicine dean



Greater use of **technology** and **collaboration** between [Tec de Monterrey](#) institutes is the vision of **Dr. Luis Alonso Herrera**, the new dean of the **School of Medicine and Health Sciences** (EMCS for its initials in Spanish).

In an interview with [CONECTA](#), he shared that he aims to promote **research** and **student training** to face the challenges in these areas.

Dr. Herrera said that he will focus on promoting EMCS to become a **magnet for talent**, and for the **retention of specialists** to transform the institution into a **leader in research**.

*“As a director, the challenge is to **take an institution and transform it**; your goal should be to leave it better than it was when you received it,”* said the dean.

Throughout his career, Herrera has taken on the challenge of assuming different roles as a leader, from directing research groups at the **National Institute of Cancerology (INCAN)**, to public organizations such as the **National Institute of Genomic Medicine (INMEGEN)**.



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Technology for skills development and research

According to the dean, it's important to train **health professionals** to be capable of responding to the challenges and needs of the population, not only in the region but **globally**.

*"It's a big challenge because **the needs have been great since the pandemic**,"* said Dr. Herrera.

"We have to provide our students with the tools so that they can develop, be competitive, and adapt to other places," he added.

To do so, he said that although **high-level academic training** is essential, he will focus on promoting the **development of skills** through the **implementation of technological tools** in the educational process.

*"One of the first that comes to mind is **simulation areas**; these can be very important areas for student training, to prepare them, and give them the opportunity to make mistakes and learn from them to acquire skills,"* he said.

Herrera also points out that **Artificial Intelligence** can be implemented to generate data in the health sector.

*"**Data analysis and identification of predictive algorithms** are important for areas such as logistics management, including preventative health programs and research processes, which go hand in hand with having a large data center,"* he added.

“We must provide our students with the tools so that they can develop, be competitive, and adapt to other places.”

Collaboration with other Tec schools and institutes

Dr. Herrera pointed out that **collaboration** with other Tec schools and research institutes will be vital to continue **positioning themselves in research areas**.

*“By working together with other institutions within the Tecnológico de Monterrey organization, we can create **synergies to obtain better results**,”* he said.

For example, he mentioned that one area of interest lies in strengthening research on **neurocognitive processes**.

*“We have to **understand how we learn**; this would obviously have an impact on the education that we as a school are providing.*

*“The new educational models have to be based on these human learning processes. As the Tec’s [**Institute for the Future of Education**](#) already has those objectives, we can collaborate with them,”* he added.

Regarding the implementation of technology for the development of skills, such as simulation areas and the use of artificial intelligence, Herrera seeks to collaborate with researchers from the Tec’s **School of Engineering and Sciences**.

*“They have research areas where simulators are being implemented, perhaps to solve other problems, but **we could develop simulators together that help us improve the skills of students** in areas of health,”* he added.



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His curiosity about medicine led him to research

From an early age in his native Orizaba, Veracruz, Luis Alonso was fascinated by the field of health, particularly observing the **family doctor**.

*“Back then, doctors came to your house. They knew your whole family and more about your life than you did; they interacted with us a lot. I always found the **life of a doctor** very **interesting**,”* Herrera said.

At the age of 18, his interest in becoming a health professional led him to visit the Faculty of Medicine at the **National Autonomous University of Mexico (UNAM)**. While he was there, he went to a parasitology laboratory, where he changed his mind to become a researcher rather than a doctor.

*“It was there that I discovered what researchers did and how they planned their experiments. I was able to see **what everyday life was like in a laboratory** and I became more interested in research, trying to answer questions such as **why certain diseases occur**.”*

*“When I found out what it was like to do research and see that you could **solve problems** and answer questions, I decided that it was what I wanted to do,”* he recalled.

So, Herrera studied for a degree in **Biology** and eventually completed his community service at the **Institute for Biomedical Research**, in an area that specialized in studying the causes of cancer. He went on to study for a doctorate in **Biomedical Sciences**.

His mentor was **Dr. Patricia Ostrosky**, a researcher in toxicological genetics, which studies damage to people's genetic material and its impact on the development of diseases such as **cancer**.



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Arriving at Tec de Monterrey from the public sector

On account of his work at the **Biomedical Research Institute**, Dr. Herrera was invited to join **INCAN**, where he became the Director of Research and in charge of improving conditions for researchers.

*“For 10 years, it was my job to **transform the infrastructure** of INCAN, which included the implementation of prevention clinics,” he said.*

Then he was given another opportunity to lead an institution, becoming the director of INMEGEN, where he met **Dr. Guillermo Torre**, Rector of **TecSalud** and Vice President of Research at the Tec.

*“There was contact with Dr. Torre and the research team of the [OriGen Project](#). They invited **INMEGEN** to work with them because of their goals, and from there we began to interact. The institute was in charge of sequencing genomes and storing data.”*

It was in January when Dr. Herrera became dean of the Tec's School of Medicine and Health Sciences with the vision of continuing to promote its **position in the international arena**.

*"I understood the school's challenge. Although it is already well positioned, it has the **potential to grow** and achieve an even higher position in the teaching of medicine and health sciences, and in the development of research, to be an **international leader**."*

*"It can make an **impact** in our region first, and then why not **worldwide**?"* he added.

Herrera has taken over from **Jorge Valdez García**, who was in charge of the School of Medicine and Health Sciences for 11 years.

EMCS is a private educational institution that was **founded in 1978**. It currently has 5 undergraduate programs; 17 medical specialties as part of the multicenter program; 2 doctorates: Clinical Sciences and Biomedical Sciences; 1 master's degree in Clinical Sciences; and 31 highly specialized courses.

It is part of the Tec de Monterrey Health System called **TecSalud**, which includes the **San José Hospital**, the **Zambrano Hellion Hospital**, and the **TecSalud Foundation**; and is part of the alliance with public hospitals run by Nuevo León's Ministry of Health.

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