



## Tec professor wins global award for educational innovation excellence

Professor [Lizette Hernández](#) won the [STEM Excellence Award](#) at Labster's 2022 STEM Awards for applying **educational innovation** and for the **impact** it's had on her students and the Tec.

This recognition also places her among the **10 most innovative educators in the world** according to [Labster](#), a global platform specializing in virtual labs and science simulations.

Dr. Hernández was recognized for her **implementation of the Labster simulator** in online, in-person, and hybrid courses at [Tec de Monterrey](#).

*"Receiving an award like this is very motivating. I've always liked **innovative education and technology** is a branch of that. Besides being popular, **it helps students by challenging them and facilitating their learning,**"* said the professor.

The academic from the Department of Basic Sciences of the [Tec's School of Medicine and Health Sciences](#) served as **leader when using Labster during her students' lab practice.**



She was also a key element for the Tec becoming a **pioneer in using this tool in Latin America today**, impacting **more than 3,000 students**.

In her opinion, one of the factors that led to her winning the [2022 STEM Excellence Award](#) was **her work on translating Labster simulations into Spanish**, which she helped achieve and implement.

*“Thanks to the fact that students can practice simulations in both languages, they can learn the **appropriate health lexicon** of the area they’re studying, since it isn’t colloquial terminology,”* pointed out the doctor.

Some of the **criteria** evaluated when **granting this award** include being an educator with outstanding performance in:

Algunos de los **critérios** considerados para **otorgar este reconocimiento** son que se trate de docentes con rendimiento en:

- *Encouraging scientific literacy*
- *Using innovative instructional materials and new teaching approaches*
- *Promoting careers in science and technology*
- *Supporting strategies that increase engagement and effective learning in STEM courses*

- *Embracing evidence-based teaching strategies*
- *Leading an educational institution forward in its use of educational technology (EdTech) to help more students achieve their goals*



## The aim: to expand teaching

According to the School of Medicine professor, the process that led to her **using virtual platforms as a tool** in her labs arose from her motivation to understand the challenges and needs of students.

*“When we were designing **work plan** for the **Tec21 Model**, we were aiming to incorporate **technology** in a way that was **new and different** from what the students were used to,”* recalled Hernández.

The doctor began implementing Labster’s virtual laboratories in 2019, but the arrival of the **COVID-19 pandemic** changed her work paradigm.

*“During the pandemic, Labster helped us take advantage of technology so that our students **could learn to do their lab practice** despite the fact that **there was no access***

**to physical facilities,**” said the professor.

As a result of this experience, Hernández recalled that her fellow teachers decided to expand **the use of the platform and maximize students’ time on it.**

## Interactive learning

For Dr. Lizette Hernández, the purpose of this tool is to **provide fully interactive virtual simulation training** designed to improve the traditional learning experience.

*“**Labster is a virtual laboratory platform** that enables simulated practice in different areas with a **gamification model** that engages students.*

*“It’s a safe space where students can **practice as many times as they want** and where it doesn’t matter if the experiment doesn’t work out the first time round,” she said.*

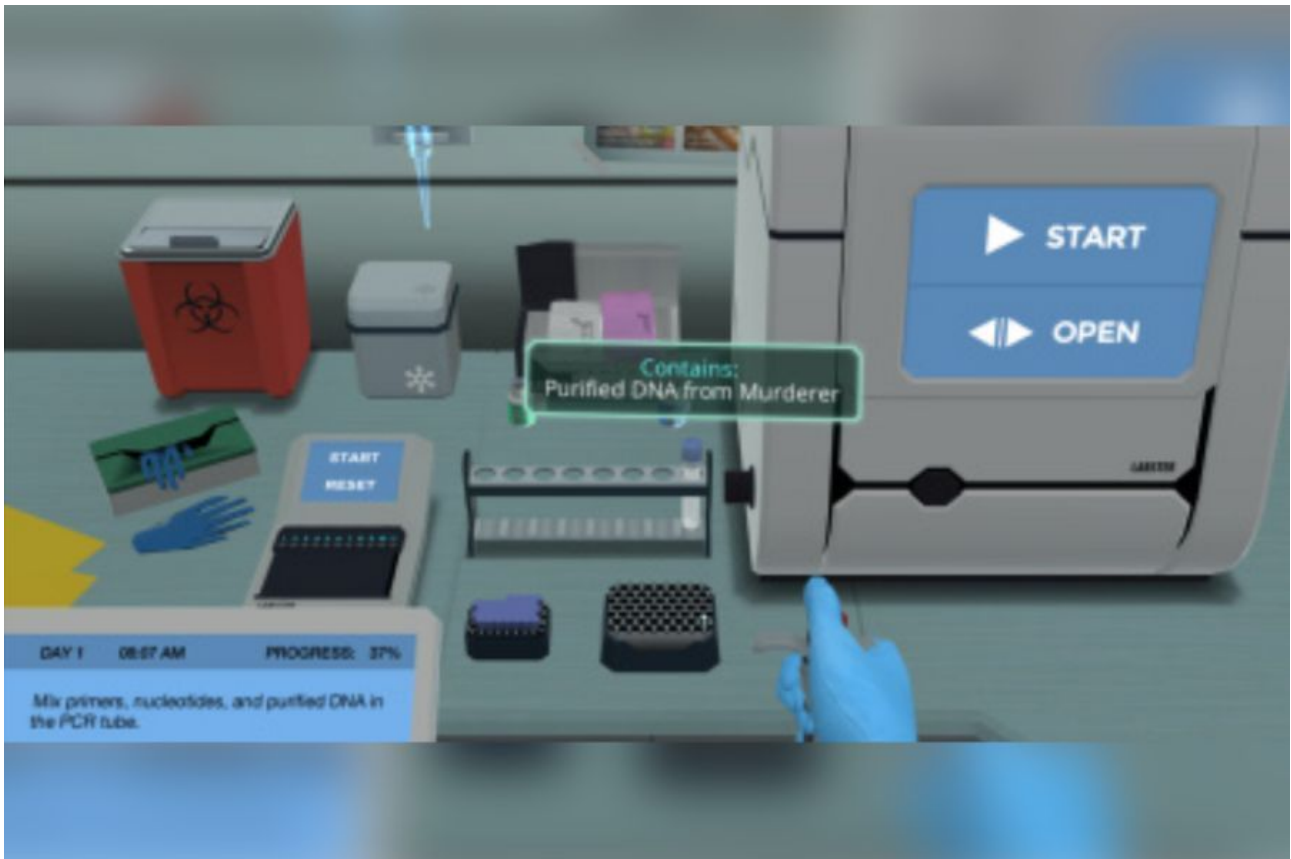
**“These simulations aren’t a substitute for the teaching given by teachers; they’re a complement.” - Lizette Hernández.**

The professor explained that the platform’s simulations can be used in a variety of different ways, from replacing an **entire laboratory** to applying **supplementary learning activities** such as quizzes.

*“I should make it clear that these simulations **aren’t a substitute for the teaching given by teachers**, but rather a **complement** that enables them to transfer and reinforce the material they’re looking at in the classroom,” the doctor said.*

In the success story that led Hernández to winning the **2022 STEM Excellence Award**, around 300 students had the opportunity to use 8 simulations in areas such as **Physiology, Cellular and Molecular Biology, Microbiology, and Biotechnology.**

*“Labster has provided us with a very stimulating environment that combines **gamification and storytelling** elements with the practice and feedback we want students to have,” shared the professor.*



## Transforming the lab through collaboration

In Hernández's opinion, the key to implementing and successfully developing virtual labs is collaboration **between the professors and the students themselves**.

*"These simulations encourage **teamwork**, especially if students have questions about certain concepts or theories from the session,"* she explained.

A further benefit she mentioned about using these platforms is that they make it possible for students to work in a **safe environment** in which they can make mistakes and start all over again, as well as facilitating student-teacher **feedback**.

*"These simulations encourage teamwork, especially if students have questions about concepts."* - Lizette Hernández.

*“Students are giving us very good reports as a result of the experiential learning provided by the simulations,”* said the professor.

What’s more, all these tools are combined with the **institutional platforms** offered by the Tec through [Edutools](#), where Professor Hernández shares her experience so that more Tec academics can incorporate **education technology into their classes**.

*“Don’t be afraid to step out of your comfort zone with these kinds of tools and take advantage of these opportunities because they offer many teaching and life skills,”* the doctor stressed.

## Labster’s 2022 STEM Excellence Awards

The [2022 STEM Excellence Awards](#) seek to recognize the work of **10 educators from across the globe** for blazing a trail of innovation and creativity through the **use of education technology**, known as EdTech.

*“The **STEM Excellence Awards** honor education technology innovators whose **passion for teaching and commitment** to student success are making a measurable impact within their community,”* said Michael Bodekaer Jensen, co-founder and CEO of Labster.

Labster is part of the academic software portfolio used by the School of Engineering and Sciences and the [School of Medicine and Health Sciences](#) at Tec de Monterrey.

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