# 25 Mexican women whose lives are dedicated to science and technology



According to UNESCO, only 28 percent of the world's researchers were women in 2020.

Despite this figure, the UN invites us to celebrate **International Day of Women and Girls in Science** every February 11 to draw attention to the opportunities they have created for themselves and the work they do.

"It's very clear to us that there is interest in these areas and it is these cultural and social barriers and biases that we want to overcome," shares Gabriela Ortíz, leader of the Tec's Women in Engineering and Sciences (MIC) initiative.

"We're very keen to invite young women who are interested in science and we also want successful women at the Tec to be seen," she adds.

At <u>CONECTA</u>, we want to present the profiles of **25 women** who in recent years have collaborated with society thanks to their work and scientific projects:

#### 1. Janet Gutiérrez

With research in the areas of biology, biotechnology, sustainable development, and ecology, Janet's scientific achievements won her the <a href="2020 Research Award">2020 Research Award</a> from the Mexican Academy of Sciences.

The current director of the Regional Department of Bioengineering and Sciences for the Southern Region is also part of the strategic focus group at NutriOmics, where she has led research to find properties in **foods that fight diseases such as cancer**.



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#### 2. Claudia Xóchitl Pérez

A recent graduate in Digital Systems Engineering and Robotics from the Monterrey campus, Claudia was selected to be part of an **academic stay in Japan**.

Her work seeks to **obtain information from the brain directly through electroencephalograms.**Based on that information, different tasks can be performed such as **moving wheelchairs** or **prostheses**.



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#### 3. Rocío Ortiz

Rocio is a specialist in the **molecular study of diseases** that affect the female population, such as **breast cancer**, **cervical cancer**, heart disease, and **pharmacogenomics**.

She is currently a <u>research professor</u> at the School of Medicine and Health Sciences and is also a Level 3 member of the National Research System (SNI).



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#### 4. Luz María Martínez

The Monterrey campus researcher, who is also an <u>associate professor in the Department of Chemistry at Rice University</u>, participated as the **National Leader of Design and Transfer** for two teaching units in the Chemistry area of the **Tec21 Model**.

She coordinates undergraduate research projects on the Nanotechnology and Chemical Sciences degree courses, as well as educational innovation projects. She is also part of the Women in Engineering and Sciences initiative.



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## 5. Celine Rojas Schröter

Celine is currently studying Engineering Physics at the Monterrey campus. She was awarded the **Rómulo Garza Award** for **High School Student Research Projects**.

At just 19 years old, Celine developed a scientific project based on the relationship and reaction between temperature and magnetism.



width="483" loading="lazy"> 6. Carmen Félix

Carmen became the **first Mexican analog astronaut** in a simulation carried out by **NASA** at the **Mars Desert Research Station**.

The Tec graduate has been recognized by Forbes magazine as one of the **100 most powerful women in Mexico** and is currently working on creating opportunities for young people.



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## 7. Grisel Trujillo

The research professor at the School of Engineering and Sciences on Monterrey campus aims to **3D print functional biological tissues and organs for patients who require a transplant**.

In 2019, she was awarded one of the 5 L'Oreal-Unesco-Conacyt-AMC Scholarships for Women in Science thanks to her bioprinting project.

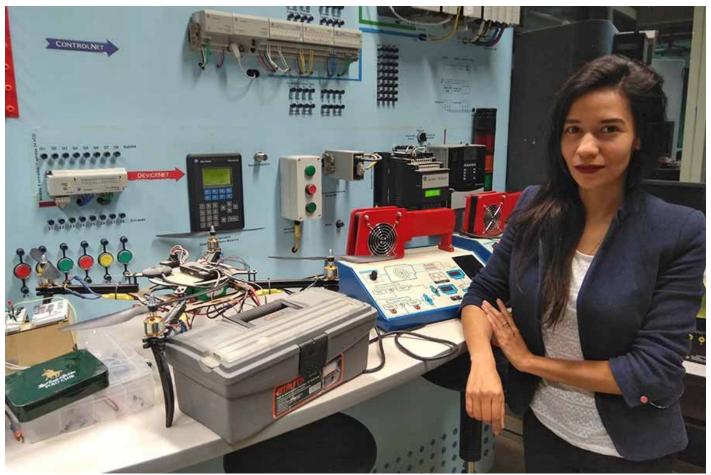


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## 8. Nélida López

A full professor at the San Luis Potosí campus, Nélida has developed a control algorithm to help patients with type 2 diabetes.

She is a graduate of the doctoral program in Control and Dynamic Systems at the Institute for Scientific and Technological Research of San Luis Potosí (IPICyT).



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#### 9. Adriana Prieto

Dr. Prieto, from the **Laguna campus**, holds a medical degree from the Autonomous University of Coahuila and a doctorate in Molecular Biology and Hematology from University College London.

After completing her doctorate, she worked at the Institute of Genomic Science and Medicine as Director of the Molecular Laboratory, with her main focus being on molecular diagnosis.



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## 10. Karla Mayolo

A **chemist by profession**, but whose career is focused on biotechnology, Karla's role in **science** could potentially save thousands of lives.

Holding a doctorate in Engineering Sciences from the Tec Monterrey campus, she has been a professor at the institution since 2017 and is dedicated to the study of antibiotic resistance in many microorganisms.



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## 11-13. Carmen Hernández, Rocío Díaz and Perla Ramos

The researchers at the Monterrey campus won the **National Prize for Food Science and Technology** for leading research on how to **increase the nutritional value of Maradol papaya by up to 5 times.** 

This was a 14-year project that was first started by Dr. Perla Ramos in 2005 for her doctoral thesis.



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#### 14. Ivana Collado

A specialist in robotics, Ivana has taken part in research stays at the **Montreal Polytechnic** and the **Robotics Institute of Carnegie Mellon University**.

**Currently a student at the Monterrey campus**, she has published articles in scientific journals on technology for **face identification**, methods of **obstacle avoidance** for autonomous ships, and characterization of gestures and **pupil tracking for robot assistants**.



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#### 15. Aurea Ramírez

Aurea is a research professor at the Toluca campus in the Bioengineering department and was also the winner of the Alejandrina 2020 award.

The researcher's work has focused on the development of functional confectionery products that will help fight obesity and weight gain.

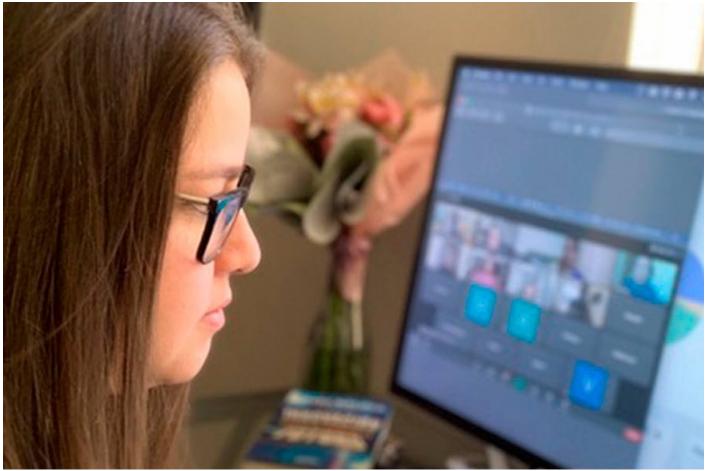


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#### 16. Ana Carolina Zavala

Ana is a professor at the Saltillo campus who is collaborating on a project that uses **endemic plants from Coahuila** to create **cosmetic** products.

The professor has participated in the **NOVUS project**, a Tec de Monterrey initiative that supports the **development of innovative ideas** in the student training process.



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#### 17. Julia Romero

An expert in **biotechnology**, Julia is currently the **CEO of SALI-bar**, which specializes in **molecular diagnosis of bovine pregnancy**, a technological innovation venture funded with 2.7 million pesos in its first round of seed capital.

Also a lecturer and biotechnology graduate from the Chihuahua campus, **Julia won the 2020 Mujer Tec Award** in the entrepreneurship category.

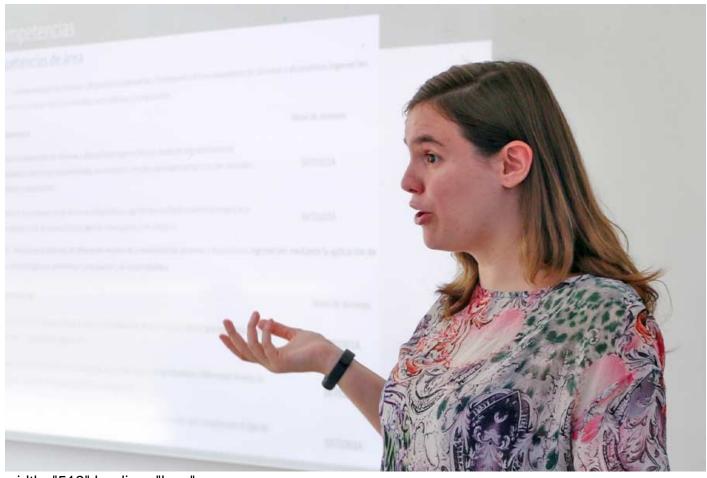


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## 18. Raquel Vidorreta

Vidorreta is the director of the Innovation and Development Engineering degree course at the **San Luis Potosí campus**.

As part of her master's degree thesis in Manufacturing Systems, she worked on the **functional design of a hydrokinetic turbine** capable of providing **renewable energy**.



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## 19. Fabiola Regis

A professor at the San Luis Potosí campus, Fabiola is also a candidate for becoming a Level C researcher in the National Research System (SNI).

Her work addresses areas of social impact such as humanitarian logistics in natural disasters, researching the necessary strategies for food distribution.



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#### 20-21. Gabriela González and Mixara Muñoz

A Saltillo campus student, Gabriela created the company **Yekuali** for **transforming cigarette butts into a bioplastic.** 

Her company aims to **reduce the number of cigarette butts in public places**, as they are a source of pollution.



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## 22. Viridiana Tejada-Ortigoza

Viridiana is a researcher and professor of Biotechnology at the School of Engineering and Sciences on Querétaro campus. She was also the winner of one of the 2020 L'Oreal-Unesco scholarships.

By using **3D food printing for personalized diets**, Viridiana seeks to provide an alternative to people with specific nutritional requirements.



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## 23. Deshiré Alpízar Rodríguez

Deshiré holds a medical degree from the Monterrey campus and is currently the **head** of the **Mexican College of Rheumatology Research Unit.** 

She belongs to various international research working groups such as the European League Against Rheumatism, the Emerging Eular Network, and the COVID-19 Global Rheumatology Alliance.



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#### 24. Adriana Rubio

Adriana is an Engineering Physics student at the Tec's Monterrey campus, forming part of the Leaders of Tomorrow program with the special "Eduardo Villarreal Bell" distinction.

She won the **Mexican Space Agency's 5th National Space Missions Contest in 2018** with the "ImmunoSpace" proposal, which sets forth an alternative for combating cancer and heart failure in astronauts with immunomodulation.



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## 25. Rosa Espiricueta

A researcher at the Monterrey campus, Rosa recently graduated with a degree in Nanotechnology and Chemical Sciences Engineering and was the winner of the National Food Science and Technology Award.

Her project and master's thesis consists of using sorghum as a **substitute for gluten** in baking, by extracting kafirin from sorghum **without causing consumers to have allergic reactions.** 



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