

Mexican researching cancer therapies goes to Swiss laboratory



Mexican **Karla Rodríguez** was one of **more than 300 people selected** for a research stay at [CERN](#) (European Organization for Nuclear Research), in Switzerland.

Every year, the [CERN Summer Student](#) program **brings together students from around the world** to participate in advanced technology research projects, conferences, and classes, among other activities.

*"I'm working on a project using a cyclotron for **medical use, particularly cancer therapies**. We use magnets to accelerate and redirect the particles in the cyclotron. This keeps them in orbit and continual acceleration.*

*"I'll do **simulations of the magnetic field of a dipole**, which uses two different types of magnets. Then, I'll analyze the quality of the field and **make modifications to the design of the dipoles and one of the quadrupoles** to improve the quality of the field," she explained.*

Karla Rodríguez en el CERN. width="900" loading="lazy">

CERN, located in Geneva, is the **world's largest particle physics laboratory**. It focuses on **fundamental physics**: trying to find out **what the universe is made of and how it works**.

This year's CERN Summer Student program **began on June 27**. The stay lasts for about **two months**.

"It gives me lots of confidence to know that these kinds of opportunities exist and are within my reach."

From Mexico to Switzerland

The **Engineering Physics** student explained how she ended up going to CERN.

*"There's a student group at the Tec called **CAPTEC** (Particle Accelerator Community at Tecnológico de Monterrey). When the pandemic started, they gave us some talks via Zoom.*

*"I connected to one of them and the person who was presenting **introduced us to the CERN programs**. I did some research and began to prepare myself," she explained.*

As a result, Karla, who hails from Tamaulipas, decided to apply for the **CERN Summer Student** program in January this year.

In April, the 7th semester student was notified that she had been accepted to for a research stay at CERN, where she would have the **opportunity to participate in a medical project**.

Estudiantes que forman parte del programa CERN Summer Student 2022. width="900" loading="lazy">

*"I don't have the words to express myself. **It's very exciting** and it gives me lots of confidence to know that these kinds of opportunities exist and are within my reach.*

*"I really like **the importance they give to our education**; programs like this one prove it," said the Engineering Physics student from Monterrey campus.*

Karla Rodríguez **will conclude her research stay** at the European Organization for Nuclear Research in Switzerland on **August 19**.

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