

## Tec student to research bringing COVID vaccine to the world in Denmark



Samantha Peña is to carry out a research stay at DTU with her professor, Seyed Soheil Mansouri, in order to help design a methodology that facilitates access to vaccines for the novel coronavirus.

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**Samantha Peña Benavides**, a student at the **Tec School of Engineering and Sciences** (EIC), is to carry out a research stay at the [\*\*Technical University of Denmark\*\*](#) (DTU), where she will take part in a project that attempts to **establish a methodology** for bringing the production of future COVID-19 vaccines to different parts of the world.

The project, led by her professor [\*\*Seyed Soheil Mansouri\*\*](#) of [\*\*DTU\*\*](#), is about **designing a miniaturized bioprocess** that can be adapted to the conditions of each region or population in order to **decentralize production of these vaccines** once the respective phases of clinical trials have concluded.



These manufacturing units can be transported to wherever they are needed according to demand for the drug in question.

The intention is to **make them more affordable to the population** in the context of the SARS-CoV-2 pandemic, which currently stands at 31 million cases worldwide and has claimed the lives of more than 900,000 people, explained this **biotechnology student** from the **Tec's Monterrey campus**.

Samantha added that the research proposal includes **utilizing computer technologies** to help monitor the movement and distribution of doses for each country in order to promote **fairer practice** in each nation.



This feature of decentralized production makes distribution of the vaccine more flexible.

*“We know that there are at least 100 different vaccine proposals worldwide at different stages of testing. The question is: what comes next?”*

*“Through this project, researchers are attempting to generate the conditions for contributing to fair distribution of the vaccines, without them losing their properties in the process,”* **explained the student** from the **EIC**.

This research also extends to developing **mobile manufacturing units** for other pharmaceuticals and insulin to facilitate their distribution, said **Samantha Peña**, who is to begin her 6-month stay at [DTU](#) in **January of 2021**.

It's important to note that Samantha's stay at **DTU** was **processed** through the **Tec Vice-Rector's Office for Internationalization** in **Copenhagen**. The student will also be advised by Professor **Roberto Parra** from the **EIC** and have support from the [Cemex-Tec Center](#).

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