The Tec and ASU are analyzing wastewater in Nuevo León to map COVID-19



Researchers from the <u>Tec</u> intend to develop a project with <u>Arizona State University</u>, the <u>Ministry</u> of <u>Health for Nuevo León</u>, and <u>Monterrey Water and Drainage Services (SADM)</u> to find signs of COVID-19 in wastewater and estimate its progress in the metropolitan area of Monterrey.

Roberto Parra, a teacher from the <u>School of Engineering and Sciences (EIC)</u>, said that regular monitoring of wastewater will provide relevant information for the health authorities when making decisions on health security.

"We can monitor the spread of COVID-19 in very specific sectors through sampling. According to results from the analysis, we can work together with the Ministry of Health for Nuevo León and the SADM to suggest different scenarios depending on the information gathered," explained the researcher from the **Tec**.



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He added that these actions will complement efforts by the health sector in this state regarding identification of those places where there is a higher number of infections, so that very specific preventive actions can be implemented.

In the first stage of the project, staff from <u>Monterrey Water and Drainage Services</u> will take one sample of wastewater every hour from 24 points of clinical control.

Then, <u>Tec</u> scientists will process these samples in order to send them to specialized laboratories at <u>Arizona State University</u> in the first phase and **obtain the number of SARS-CoV-2 nucleotides per milliliter.**



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Through analysis and interpretation of the data, <u>Tec</u> scientists will be able to generate a calibrated model based on epidemiological data from the health sector and information obtained from sampling.

This model will provide information to the authorities so that they can **predict new outbreaks and the recovery process of those infected**, as well as determine the best moment and method for lifting the quarantine in Nuevo León.

This professor from the <u>Tec's Monterrey</u> campus also mentioned that the project seeks to generate data for **analysis of the information through artificial intelligence**, **big data**, and other methods.

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