

Chemicals in wastewater may help track COVID-19

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The last issue of Wiley's Research Headlines highlighted part one of a study in *Environmental Toxicology and Chemistry* that involved analysis of sludge from a wastewater treatment plant in Connecticut, and

revealed trends in levels of chemicals such as pharmaceuticals and drugs during the first wave of the COVID-19 pandemic. In part two of the study, investigators evaluated the relationships among detected chemical features and parallel measurements of COVID-19 metrics, including levels of SARS-CoV-2 RNA in the sludge, COVID-19 case numbers, and hospital admissions.

The investigators found multiple chemical features that relate strongly to COVID-19 metrics and have not previously been studied in relation to wastewater and COVID-19.

"Sewage sludge contains urine and feces samples from an entire population, and we are investigating chemicals in this mixture whose presence is dependent on the amount of COVID-19 infection in the community," said corresponding author Sara L. Nason, Ph.D., of the Connecticut Agricultural Experiment Station. "Research from additional locations is needed to confirm our results, which could lead to new methods for tracking COVID-19."

More information: Sara L. Nason et al, Changes in Sewage Sludge Chemical Signatures During a COVID-19 Community Lockdown, Part 2: Nontargeted Analysis of Sludge and Evaluation with COVID-19 Metrics, *Environmental Toxicology and Chemistry* (2021). [DOI: 10.1002/etc.5226](https://doi.org/10.1002/etc.5226)

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