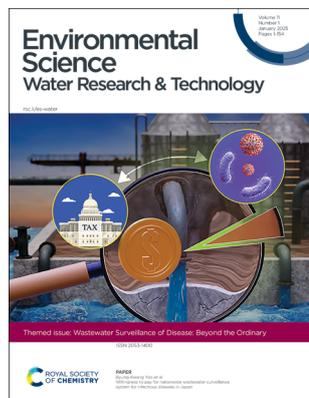# Environmental Science
Water Research & Technology

rsc.li/es-water

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

Cover
See Byung-Kwang Yoo *et al.*,
pp. 29–38.
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Sci.: Water Res. Technol.*, 2025,
11, 29.

EDITORIAL

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Wastewater surveillance for public health: *Quo Vadis?*

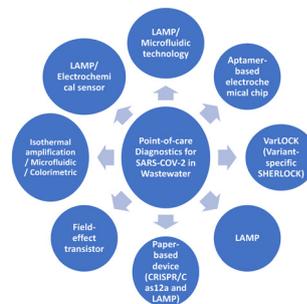Graham Gagnon, Lauren Stadler, Aaron Bivins,
Laurent Moulin and Masaaki Kitajima

CRITICAL REVIEW

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Point-of-care diagnostics for SARS-CoV-2 wastewater-based epidemiology: a big leap toward miniaturization

Ahmed Donia, Nonsikelelo Precios Mthethwa-Hlongwa,
Isaac Dennis Amoah, Sheena Kumari and Faizal Bux*

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Connecting communities and inspiring new ideas

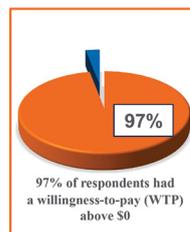rsc.li/submittoEA

Fundamental questions
Elemental answers

Registered charity number: 207890

PAPERS

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Willingness to pay for nationwide wastewater surveillance system for infectious diseases in Japan
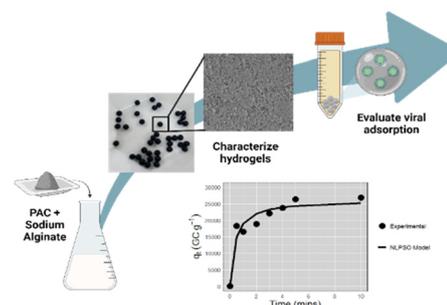
Byung-Kwang Yoo,* Rei Goto, Masaaki Kitajima, Tomoko Sasaki and Sebastian Himmler

97% of respondents had a willingness-to-pay (WTP) above $0

Mean WTP: US$23.47
Median WTP: US$8.83
[per household per year]

National level valuation
($497 million)
> System maintenance cost
($33 million)

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Development of a powdered activated charcoal sodium alginate hydrogel bead concentration method for detecting viruses in wastewater
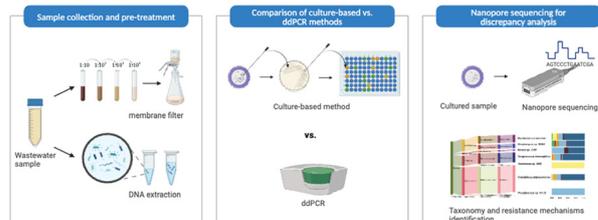
Madison Gouthro, Emalie K. Hayes, Naomi Lewis, Megan Fuller, Jamileh Shojaei, John Frampton, Amina K. Stoddart and Graham A. Gagnon*

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Comparative analysis of culture- and ddPCR-based wastewater surveillance for carbapenem-resistant bacteria
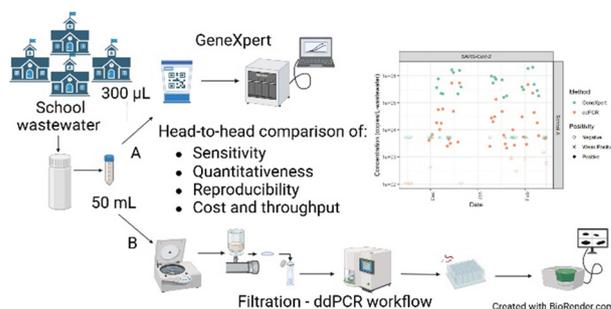
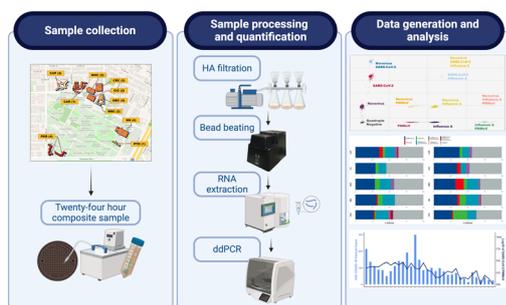Siyi Zhou, Esther G. Lou, Julia Schedler, Katherine B. Ensor, Loren Hopkins and Lauren B. Stadler*

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Assessment and application of GeneXpert rapid testing for respiratory viruses in school wastewater
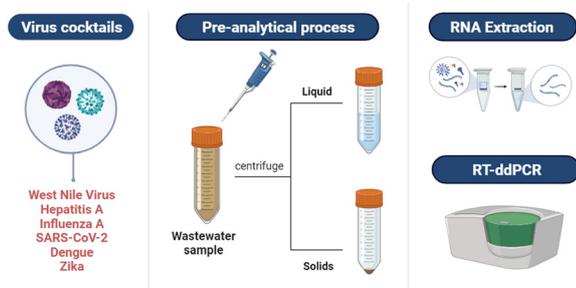
Jingjing Wu, Katherine B. Ensor, Loren Hopkins and Lauren B. Stadler*
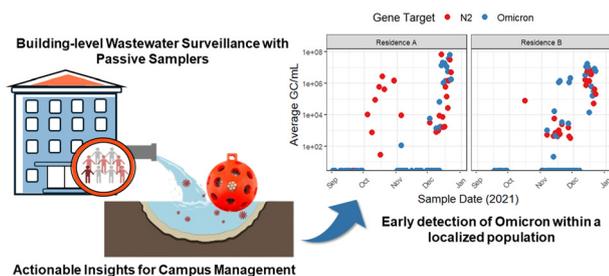
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Amplitude multiplexed wastewater surveillance for campus health: tracking SARS-CoV-2, influenza A, and norovirus

Michael A. Saldana, Jiayu Geng, Litao Shen, Angie Ghanem-Uzqueda, Sarah Van Orman, Kimberly B. Tilley, Dick Sun, Deona Willes and Adam L. Smith*
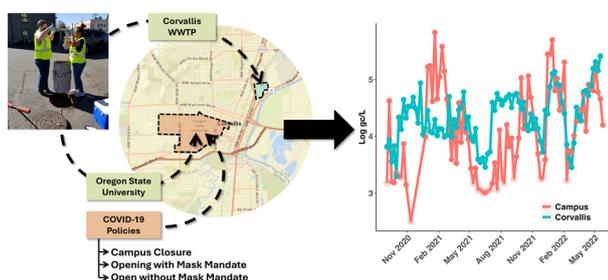
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Solid−liquid partitioning of dengue, West Nile, Zika, hepatitis A, influenza A, and SARS-CoV-2 viruses in wastewater from across the USA

Laura Roldan-Hernandez, Camila Van Oost and Alexandria B. Boehm*

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Detection of Omicron variant in November 2021: a retrospective analysis through wastewater in Halifax, Canada

Emalie K. Hayes, Crystal Sweeney, Amina K. Stoddart and Graham A. Gagnon*

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Beyond campus borders: wastewater surveillance sheds light on university COVID-19 interventions and their community impact
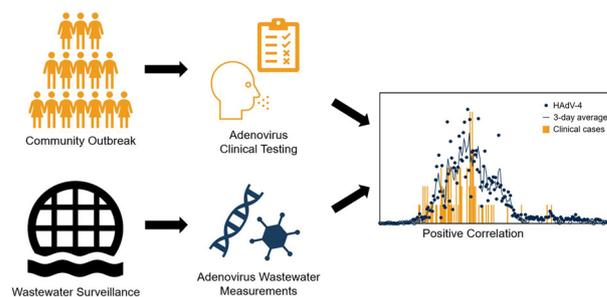
David Lisboa, Devrim Kaya, Michael Harry, Casey Kanalos, Gabriel Davis, Oumaima Hachimi, Shana Jaaf, David Mickle, Dana Alegre, Katherine Carter, Steven Carrell, Mark Dasenko, Nathan Davidson, Justin Elser, Matthew Geniza, Anne-Marie Girard, Brent Kronmiller, Matthew Peterson, Elizabeth Zepeda, Christine Kelly and Tyler S. Radniecki*

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Respiratory human adenovirus outbreak captured in wastewater surveillance

Katherine R. Kazmer, Michelle L. Ammerman, Elizabeth A. Edwards, Julie Gilbert, JoLynn P. Montgomery, Virginia M. Pierce, Jason B. Weinberg, Marisa C. Eisenberg and Krista R. Wigginton*

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Equity-centered adaptive sampling in sub-sewershed wastewater surveillance using census data

Amita Muralidharan, Rachel Olson, C. Winston Bess and Heather N. Bischel*