25 June 2021 (Friday)

7.00pm-8.30pm (SGT) (GMT +8)
Session 5.3 – Wastewater Monitoring and Management

Session Chair(s): Akica Bahri, Tunisia
Panel Moderator: Joan Rose, Michigan State University (USA)
Panellist: Masaaki Kitajima, Hokkaido University (Japan)

The Use Of Wastewater As Information Source In The Current COVID-19 Pandemic

G. Medema. KWR Watercycle Research Institute (The Netherlands)
Presenter is an invited speaker. No executive summary is available

Wastewater Based Epidemiology: Monitoring of SARS-CoV-2 and Related Markers in Singapore

S. Snyder. NEWRI, NTU (Singapore)
Presenter is an invited speaker. No executive summary is available

Global Water Research Coalition Activities to Advance Wastewater Surveillance of COVID-19

S. Rinck-Pfeiffer. GWRC (Australia)
Presenter is an invited speaker.No executive summary is available

Wastewater-based Epidemiology For SARS-CoV-2 Virus In South Korea

LH. Kim, YS. Shim, Z. Yun, SP. Kim. Korea University (Republic of Korea)

This study evaluated severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in wastewater samples at the city of Daegu, South Korea, where the first large outbreak of COVID-19 occurred from February 18th to April 1st, 2020 (over 6,700 cases). After the outbreak of COVID-19, the new cases were going down to zero. We obtained influent and sludge samples from 8 wastewater treatment plants (WWTPs) on May 29th with zero new cases in Daegu. We (i) analyzed RNA concentrations and (ii) characterized wastewater quality regarding chemical (pH, conductivity, COD, TN, TP) and biological (total cell numbers, enteric pathogens) parameters to check relationship with the COVID-19 virus concentration. Results showed that COVID-19 RNA was detected even with no new cases, and higher RNA concentration was observed in the sludge sample than the influent. Besides, correlations between RNA concentration and bacterial cell numbers of wastewater was observed. The results indicate the importance of the COVID-19 virus monitoring in the post-COVID-19 era and risk assessment of the wastewater samples to prevent a new pandemic.