Testing the Waters 5
CONFERENCE 2021

Co-hosted by:

AUSTRALIAN CRIMINAL INTELLIGENCE COMMISSION

THE UNIVERSITY OF QUEENSLAND AUSTRALIA

University of South Australia

PROGRAM

DAY ONE — TUESDAY 28 SEPTEMBER

2:00 - 3:00	**Registration**
3:00 - 3:15	**Welcome** **Kevin Thomas**, Queensland Alliance for Environmental Health Sciences, University of Queensland
3:15 - 3:55	**Keynote** **Zenah Bradford-Hartke**, NSW Health NSW Sewage Surveillance Program
3:55 - 4:35	**Keynote** **Sara Castiglioni**, Istituto di Ricerche Farmacoloiche Mario Negri IRCCS Usefulness of wastewater data for long term monitoring and spatial trends
4:35 - 5:00	**Session Q & A**
5:00 - 7:00	**Networking cocktail event (in person only event)**

8:30 - 9:00	**Registration**
9:00 - 9:45	**Opening** **Kevin Thomas**, Queensland Alliance for Environmental Health Sciences, University of Queensland **Hon Karen Andrews MP**, Minister for Home Affairs, Australia **Michael Phelan APM**, CEO, Australian Criminal Intelligence Commission
9:45 - 10:25	**Keynote** **Katie Willis**, Australian Criminal Intelligence Commission Green shoots – growing applications of wastewater analysis in Australia
10:25 - 10:55	**Morning Tea**
10:55 - 11:10	**Gary Lum**, Australian Government Department of Health The hidden gold in wastewater
11:10 - 11:25	**Blair MacDonald**, New Zealand Police/NDIB Wastewater Data: How to influence decision makers and develop strategies to reduce drug harm
11:25 - 11:40	**Caitlin Hughes**, Flinders University Triangulating wastewater analysis and a prospective survey of drug consumption
11:40 - 11:55	**Jake O'Brien**, Qld Alliance for Environmental Health Sciences, University of Queensland A wastewater-based assessment of the impact of a minimum unit price on population alcohol consumption in the Northern Territory, Australia
11:55 - 12:10	**Marisa Cliff**, New Zealand Police Understanding Regional Illicit Drug Harm - A Data Driven Approach
12:10 - 12:35	**Session Q & A**
12:35 - 1:30	**Lunch**
1:30 - 2:00	**Ben Tscharke**, Qld Alliance for Environmental Health Sciences, University of Queensland Impact of codeine rescheduling in Australia
2:00 - 2:15	**Andrew Chappell**, Institute of Environmental Science and Research Ltd (ESR) Curious cases from the NZ WW monitoring programme
2:15 - 2:30	**Zhu Zhu**, Beijing Normal University Monitoring fentanyl and tramadol use in major Chinese cities through wastewater-based epidemiology
2:30 - 2:45	**Rosario Rodil**, Universidade de Santiago de Compostela The impact of the COVID-19 lockdown on Spanish and Portuguese licit and illicit drugs consumption by wastewater-based epidemiology
2:45 - 3:05	**Session Q & A**
3:05 - 3:35	**Afternoon Tea**
3:35 - 3:50	**José Benito Quintana**, University of Santiago de Compostela ESAR-Net: a Spanish network for monitoring illicit and licit substance addictions in Spain by wastewater-based epidemiology
3:50 - 4:05	**Ruud Steenbeek**, KWR Water Research Institute Spatial and temporal assessment of crack cocaine use in 13 European cities: Case study in 2021 using wastewater-based epidemiology
4:05 - 4:15	**Taja Verovsek**, Jožef Stefan Institute Assessing prevalence of licit drugs, medications of abuse and illicit drugs in educational institutions using wastewater analysis
4:15 - 4:25	**Nicola Ceolotto**, University of Bath Understanding treatment of pain during COVID pandemic ‚Äì a wastewater-based epidemiology approach
4:25 - 4:45	**Session Q & A**
4:45 - 5:00	**Wrap-up: Cobus Gerber**
5:00 - 6:00	**Pre-dinner drinks, Customs House, Brisbane (in-person only event)**
6:00 - 9:00	**Conference Dinner, Customs House, Brisbane (in-person only event)**

DAY THREE
THURSDAY 30 SEPTEMBER

Time	
8:30 - 9:00	**Registration**
9:00 - 9:25	**Keynote** **Mariana Matus** Biobot: a wastewater-based outbreak detection and mitigation platform
9:25 - 9:40	**Rory Verhagen**, Qld Alliance for Environmental Health Sciences, University of Queensland Advancing sampling capabilities of the Australia National Wastewater Drug Monitoring Program using passive sampling techniques
9:40 - 9:55	**Fahad Ahmed**, Qld Alliance for Environmental Health Sciences, University of Queensland Assessing the treated pain burden of a population by wastewater-based epidemiology
9:55 - 10:10	**Richard Bade**, Qld Alliance for Environmental Health Sciences, University of Queensland Monitoring New Psychoactive Substances in 12 countries over the New Year period: Case Studies over 2019-20 and 2020-21
10:10 - 10:30	**Session Q & A**
10:30 - 11:00	**Morning Tea**
11:00 - 11:15	**Jiaying Li**, Qld Alliance for Environmental Health Sciences, University of Queensland Transformation of Illicit Drug and Pharmaceutical Biomarkers in Sewers under Different Environmental Conditions
11:15 - 11:30	**Xiqing Li**, Peking University Transformation of ephedrine/pseudoephedrine into methcathinone in wastewater
11:30 - 11:45	**Katja Shimko**, Qld Alliance for Environmental Health Sciences, University of Queensland Wastewater analysis for the detection of performance- and image-enhancing drugs (PIEDs)
11:45 - 12:00	**Session Q & A**
12:00 - 1:00	**Lunch**
1:00 - 1:40	**Keynote** **Barbara Kasprzyk-Hordern**, University of Bath Wastewater Based Epidemiology and One Health
1:40 - 1:55	**Jianfa Gao**, Shenzhen University Amphetamine/Methamphetamine ratio in wastewater across the globe and its implications for wastewater-based epidemiology
1:55 - 2:10	**Bradley Simpson**, University of South Australia Measuring cannabinoids in wastewater - like dissolves like
2:10 - 2:25	**Iria González-Mariño**, University of Salamanca Determination of 21 plasticizer metabolites in wastewater: development of an analytical method and first application in wastewater-based epidemiology
2:25 - 2:50	**Session Q & A**
2:50 - 3:20	**Afternoon Tea**
3:20 - 3:35	**Noelia Salgueiro Gonzalez**, IRCCS Istituto di Ricerche Farmacologiche "Mario Negri" Spatial variation in the use of fentanyl analogues and other new psychoactive substances in Italy through wastewater analysis
3:35 - 3:50	**Andrea Estévez Danta**, University of Santiago de Compostela Source tracing of amphetamine-like stimulants in Spanish wastewater by enantiomeric analysis and prescription data
3:50 - 4:05	**Maarten Quireyns**, University of Antwerp Occurrence of benzodiazepines in Belgian wastewater: method development, validation and application from a wastewater-based epidemiology perspective
4:05 - 4:20	**Kishore Kumar Jagadeesan**, University of Bath Detection of proteomic biomarkers in the wastewater influent: a tool for the community-wide public health assessment
4:20 - 4:45	**Session Q & A**
4:45 - 5:00	**Wrap-up: Phong Thai,** Queensland Alliance for Environmental Health Sciences, University of Queensland
5:30 - 8:30	**Poster Session, Howard Smith Wharves, Brisbane (in-person only event)**

DAY FOUR
FRIDAY 1 OCTOBER

8:30 - 9:00	**Registration**
9:00 - 9:40	**Keynote** **Amy Pruden**, Virginia Tech Wastewater-based epidemiology for surveillance of antimicrobial resistance: A way forward
9:40 - 10:20	**Keynote** **Paul Bertsch**, CSIRO Wastewater-based epidemiology for early warning surveillance and tracking of SARS-CoV-2 in Queensland, Australia: How local, national, and international collaboration accelerated global innovation in response to the COVID-19 pandemic
10:20 - 10:40	**Session Q & A**
10:40 - 11:10	**Morning Tea**
11:10 - 11:25	**David Larsen**, Syracuse University Incorporating freedom from disease principles into wastewater surveillance to improve health security: a case study of SARS-CoV-2
11:25 - 11:40	**Guangming Jiang**, University of Wollongong Effects of sewer conditions on the survival of coronaviruses in wastewater
11:40 - 11:55	**Brent Gilpin**, Institute of Environmental Science and Research Ltd (ESR) Wastewater analysis for SARS-CoV-2 in New Zealand
11:55 - 12:10	**Tim Boogaerts**, University of Antwerp Development and application of a bioanalytical assay for sewage surveillance for SARS-CoV-2 in Belgium
12:10 - 12:30	**Session Q & A**
12:30 - 1:25	**Lunch**
1:25 - 1:40	**Natalie Sims**, University of Bath Wastewater-Based Epidemiology for Monitoring Community derived Antibiotic and Resistant Genes
1:40 - 1:55	**Silvia Schiarea**, IRCCS Istituto di Ricerche Farmacologiche "Mario Negri" SARS-CoV-2 RNA detection in urban wastewater to assess the spatial and temporal profile of COVID-19 epidemic in Lombardy, Italy
1:55 - 2:10	**Like Xu**, University of Bath AMR in the shadow of COVID-19 pandemic: A wastewater-based epidemiology perspective
2:10 - 2:25	**Edward Archer**, Stellenbosch University Advances made in South Africa on chemical- and molecular biomarker profiling using Wastewater-Based Epidemiology
2:25 - 2:45	**Session Q & A**
2:45 - 3:10	**Afternoon Tea**
3:10 - 3:25	**Vince Bakos**, University of Bath Development of antimicrobial resistome in biological wastewater systems - state-of-the-art, limitations, perspectives
3:25 - 3:40	**James Boxall-Clasby**, University of Bath Wastewater-Based Epidemiology for Spatiotemporal COVID-19 Outbreak Tracking: Disease Surveillance, Quality Assurance and Modelling in the South West UK
3:40 - 3:55	**Rosa de Llanos**, Jaume I University Monitoring the evolution of SARS-CoV-2 on a university campus through wastewater analysis
3:55 - 4:10	**Christoph Ort**, Eawag - Swiss Federal Institute of Aquatic Science and Technology Translating SARS-CoV-2 wastewater data into an epidemiological indicator: estimating the effective reproductive number Re
4:10 - 4:30	**Session Q & A**
4:30 - 4:40	**Award Announcements**
4:40 - 5:00	**Wrap-up**
5:00	**Conference Close**