



APRIL 2022

Pathogen biomarkers in wastewater, stool, and urine: an informal literature survey

Key points

- 94% of pathogens had some scientific study reporting that the pathogen had been detected in wastewater, stool, or urine.
- Gastrointestinal pathogens are the most studied in wastewater, but many other types of pathogens have been detected in wastewater, including respiratory viruses like SARS-CoV-2.
- Polymerase chain reaction (PCR) and metagenomic sequencing are the most commonly-used methods for detecting pathogens in wastewater.

Background

Wastewater-based epidemiology (WBE) is the analysis of wastewater to monitor the prevalence of pathogens and rates of chemical or pharmaceutical exposure. While WBE has been used to monitor pathogen outbreaks (Jiménez-Rodríguez 2022, Kadadou 2022, Olesen 2021b) and opioid use (Been 2015, Blanco 2021), WBE entered mainstream public health practice in the United States during the Covid-19 pandemic. Limited testing capacity and uneven access to testing has made WBE an important complement to Covid-19 case counts based on test results.

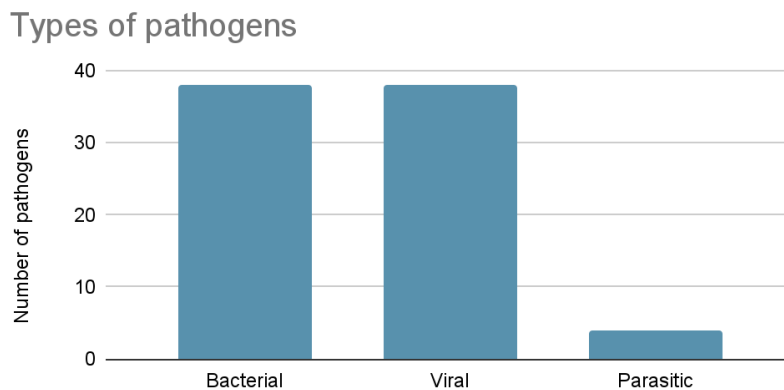
The success of WBE for Covid-19 has led to calls from governments, communities, and public health experts to expand wastewater testing to pathogens beyond SARS-CoV-2 (Dutta 2021, Schmidt 2020, Sun 2022). In a 2022 survey conducted by the Association of Public Health Laboratories, 97% of public health laboratories reported that they planned to expand WBE testing to influenza, norovirus, and antimicrobial resistance.

Pathogens with fecal-oral transmission routes are obvious targets for wastewater-based monitoring, but many other pathogens are also feasible. SARS-CoV-2 is primarily a respiratory pathogen, but infected people shed enough of the virus in their stool, urine, and saliva that wastewater levels of the virus correlate with Covid-19 disease activity (Olesen 2021a, Wu 2022, Xiao 2022).

To help inform decisions about which pathogens to target for expanded WBE testing, we set out to determine which human pathogens had previously been detected or quantified in wastewater, stool, or urine.

Review of the scientific literature

We iteratively generated a list of about 80 pathogens relevant to public health in the US, including individual species, subspecies, or common groupings of pathogens (e.g., the four common coronaviruses).



Types of pathogens included in the search

The search was not systematic or exhaustive. We evaluated only a convenience sample of source publications that we found sufficient for an informal characterization of the existing scientific literature on each pathogen. We devoted more effort to the pathogens on the list with higher morbidity and mortality and those with better established monitoring systems and infrastructure, because we expected they would be the best candidates for wastewater-based monitoring. We furthermore focused our search on the studies that:

- Sample from community wastewater as opposed to industrial or agricultural wastewater
- Include sampling of influent rather than effluent
- Include sampling of the influent liquid fraction rather than sludge or aerosols, as this kind of sampling is the most common sampling methodology
- Use nucleotide-based methods (e.g., qPCR and metagenomics), as these methods are the ones used for wastewater monitoring for SARS-CoV-2 and are the ones most likely to be used in an expansion of WBE.

For each pathogen, we searched for publications using PubMed and the following search terms: “pathogen_name” wastewater, “pathogen_name” stool, and

APRIL 2022

“pathogen_name” urine. For example, for *Streptococcus pneumoniae*, we searched for “*Streptococcus pneumoniae*” wastewater, “*Streptococcus pneumoniae*” stool, etc. When a search term yielded too many hits for convenient manual examination, additional terms were used to narrow results, including shed*, excret*, detect*, and quant*. Because we expected that whole genome sequencing of wastewater might report on multiple pathogens, we also search for papers using search terms wastewater sequencing, wastewater metagenomics, and wastewater covid variant.

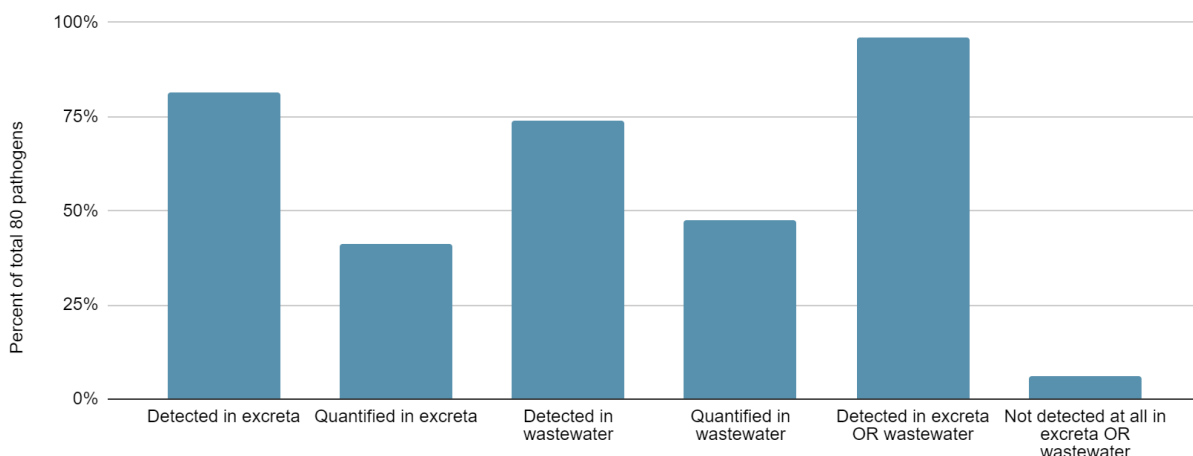
For each relevant publication, we noted whether the pathogen in question had been detected in wastewater, stool, or urine, and whether the pathogen’s concentration had been quantified. Study population, location, methods, and results were also manually extracted from each relevant publication. To facilitate analysis, pathogens were grouped based on disease type (e.g., respiratory, gastrointestinal, nosocomial).

Results

Almost all surveyed pathogens have previously been detected or quantified in excreta or wastewater

In total, 612 publications supporting the detection of these pathogens in wastewater, stool, or urine were identified (see Appendix). Evidence for detection in wastewater, stool, or urine was found for 94% (76 of 80) of the pathogens in the search.

Percent pathogens detected and quantified



Summary of the search results, showing that 94% of pathogens had associated studies showing that the pathogen can be detected in excreta (stool or urine) or in wastewater.

APRIL 2022

More pathogens were detected in excreta (89%; 71 of 80) than in wastewater (72%; 58 of 80), but more of the pathogens detected in wastewater were quantified (71%; 41 of 58) compared to pathogens detected in excreta (41%; 29 of 71).

The actual number of pathogens that could be detected in wastewater is almost certainly underestimated in our search. Because we limited our search to only 80 pathogens, the number of pathogens that can be detected in wastewater is higher than the 76 we found evidence for. In particular, we found that metagenomic studies of wastewater detected many pathogens and pathogen strain variants that we did not actively include in our search.

Pathogen groups most studied in wastewater, stool, and urine

The largest group of pathogens with relevant wastewater, stool, or urine studies was the gastrointestinal (GI) pathogens, consisting of 22 pathogens. Most GI pathogens were detectable in wastewater and had been quantified in stool or urine. We found that a small proportion of other pathogens had associated studies reporting that those pathogens were detectable in wastewater, stool, or urine. For example, the hepatitis viruses (A and E) that are fecal-oral transmitted have been well-studied in wastewater, stool, and urine, but we found fewer scientific studies about the other hepatitis viruses (B, C, and D).

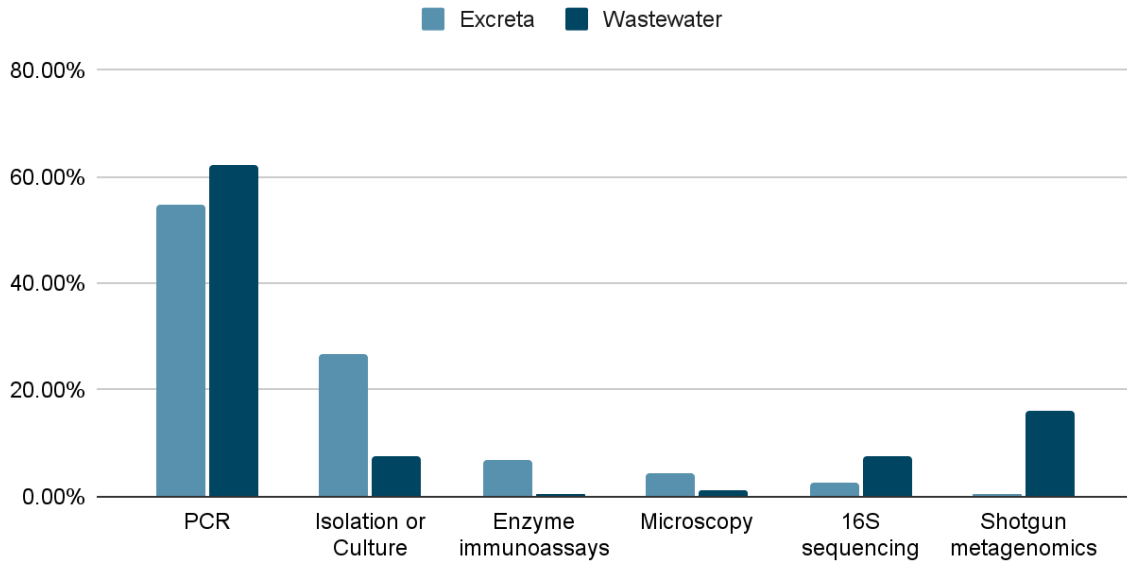
In general, most pathogens were better studied in stool or urine than in wastewater. In particular, sexually transmitted infection (STI) pathogens and vector-borne pathogens were most often detected in urine, rather than stool or wastewater. We expect that urine tests are more common in part because a urine-based diagnostic test is easier to develop and administer in a medical setting, compared to a stool-based test. For some pathogens, especially STI pathogens, we also expect that there may be more significant shedding in urine than in stool.

Our search identified many studies of antibiotic resistance genes (e.g., KPC, ESBLs, vanA) in wastewater, but relatively few studies about STI pathogens and vector-borne pathogens. We speculate that STI pathogens, which are typically transmitted directly from one human to another, and some of which are obligate intracellular pathogens, may not survive well outside the host and so may be more difficult to detect and quantify in wastewater.

Laboratory methods used to detect pathogens in wastewater

We focused our search towards studies using nucleotide-based methods like metagenomics and PCR, but we identified studies using many different methods to detect pathogens in stool, urine, and wastewater. PCR-based methods (e.g., qPCR, RT-PCR, ddPCR, RT-PCR) were by far the most common, for both detection and quantification, in both excreta and wastewater.

Most common methods for identifying pathogens in excreta and wastewater



Publications we identified in the search used different methods for detecting pathogens in excreta (stool or urine) versus wastewater. PCR was commonly used to detect pathogens in both excreta and wastewater, but shotgun metagenomics was almost exclusively used in wastewater studies.

Other common methods include shotgun metagenomics, 16S rRNA sequencing, enzyme immunoassays, culturing and isolation, and microscopy. Culturing and isolation, enzyme immunoassays, and microscopy were more often used with stool or urine, while next-generation sequencing methods were more often used with wastewater. We speculate that most assays for stool and urine are developed for use in a medical context, where detection is often sufficient, quantification is less important, and sensitivity is critical.

Among wastewater studies, the most common methods were PCR-based methods, 16S rRNA sequencing, shotgun metagenomics sequencing, and culture and isolation. We note that PCR-based methods are convenient because they are relatively fast and cheap, can be used for any type of pathogen (e.g., virus or bacteria), and do not require that the pathogen is viable or infectious in order to be detected. By contrast, metagenomic sequencing is relatively expensive, 16S rRNA studies can only detect bacteria, and culture-based methods require a viable pathogen for detection.



APRIL 2022

Conclusion: WBE will not be limited by the number of pathogens that can be detected in wastewater

The selection of pathogens to include in wastewater-based monitoring should be based on many factors, including public health burden, the actionability of wastewater data for each pathogen, and the feasibility of detecting each pathogen in wastewater. Given that 94% of studied pathogens had some report of detection in wastewater, stool, or urine, we expect that detectability in wastewater is the rule rather than the exception. Thus, sensitivity, quantifiability, and actionability, rather than detectability, are more likely to be the limiting factors in expanding WBE applications.

This informal literature review has many limitations. First, it was not exhaustive or systematic, and we expect that a significant body of literature was not included in our results. For example, we did not include the keyword “environmental surveillance,” which has been used in association with wastewater monitoring of poliovirus, in our search terms.

Second, our search focused on studies of influent to wastewater treatment plants because we expected that this type of sampling has the most immediate applications to monitoring the prevalence of pathogen carriage or infection in humans. However, we incidentally identified many studies of pathogens in agricultural wastewater, industrial wastewater, wastewater treatment plant effluent, and natural water systems, and monitoring of these other water systems has important public health applications.

Finally, we note that, during our search, we identified some potential historical trends in wastewater monitoring that could be investigated more deeply. For example, we noticed that the development of a new assay was followed by a bloom of publications using that technique to study pathogens in wastewater. Thus, the relative numbers of publications using different methods, such as enzyme immunoassays, PCR, and next generation sequencing, may be more of a reflection of their waxing and waning novelty rather than their suitability for wastewater-based monitoring.

The acceleration of WBE has been a silver lining of the Covid-19 pandemic. WBE has the potential to monitor many types of pathogens, bacterial or viral, respiratory or gastrointestinal. We hope that expanded applications of WBE will improve human health and aid early detections of future epidemics.

APRIL 2022

Been et al. Data triangulation in the context of opioids monitoring via wastewater analyses. *Drug Alcohol Depend.* 2015. doi: 10.1016/j.drugalcdep.2015.03.022.

Blanco C et al. Data needs and models for the opioid epidemic. *Mol Psychiatry.* 2021. doi: 10.1038/s41380-021-01356-y.

Dutta H et al. Wastewater-based epidemiology: a new frontier for tracking environmental persistence and community transmission of COVID-19. *Environ Sci Pollut Res Int.* 2021. doi: 10.1007/s11356-021-17419-0.

Jiménez-Rodríguez et al. Biosensors for the detection of disease outbreaks through Wastewater-based Epidemiology. *Trends Analyt Chem.* 2022. doi:10.1016/j.trac.2022.116585.

Kadadou et al. Recent advances in the biosensors application for the detection of bacteria and viruses in wastewater. *J Environ Chem Eng.* 2022. doi: 10.1016/j.jece.2021.107070.

Olesen SW et al. Making waves: Defining the lead time of wastewater-based epidemiology for COVID-19. *Water Res.* 2021. doi: 10.1016/j.watres.2021.117433.

Olesen SW. Polio and the early history of wastewater epidemiology. *Biobot Analytics blog.* Oct 2021. Available from: <https://biobotanalytics.medium.com/polio-and-the-early-history-of-wastewater-epidemiology-8f39f984be9f>

Schmidt C. Watcher in the wastewater. *Nat Biotechnol.* 2020. doi: 10.1038/s41587-020-0620-2.

Sun LH. CDC to expand wastewater monitoring to help track coronavirus trends. *Washington Post.* Feb 2022. Available from: <https://www.washingtonpost.com/health/2022/02/04/wastewater-coronavirus-cdc-expanding-system/>

Wu F et al. SARS-CoV-2 RNA concentrations in wastewater foreshadow dynamics and clinical presentation of new COVID-19 cases. *Sci Total Environ.* 2022. doi: 10.1016/j.scitotenv.2021.150121.

Xiao A et al. Metrics to relate COVID-19 wastewater data to clinical testing dynamics. *Water Res.* 2022. doi: 10.1016/j.watres.2022.118070.

Wright S. *Laboratories Community of Practice.* 2022.

Prepared by Marina Santiago, PhD and Scott W. Olesen, PhD

Appendix A: List of citations

AL-Quraan, Nisreen A., Lubna I. Abu-Rub, and Abdel-Kareem Sallal. "Evaluation of Bacterial Contamination and Mutagenic Potential of Treated Wastewater from Al-Samra Wastewater Treatment Plant in Jordan." *Journal of Water and Health* 18, no. 6 (December 1, 2020): 1124–38. <https://doi.org/10.2166/wh.2020.193>.

Abaye, Gizaw E., Tamrat Abebe, Adane Worku, Debela Tolessa, Gobena Ameni, and Adane Mihret. "Detection of Mycobacterium Tuberculosis from the Stool of HIV Sero-Positive Individuals Suspected of Pulmonary Tuberculosis." Edited by Mark Spigelman. *PLOS ONE* 12, no. 5 (May 19, 2017): e0177529. <https://doi.org/10.1371/journal.pone.0177529>.

Abou Tayoun, Ahmad N., Paul R. Burchard, Angela M. Caliendo, Axel Scherer, and Gregory J. Tsongalis. "A Multiplex PCR Assay for the Simultaneous Detection of Chlamydia Trachomatis, Neisseria Gonorrhoeae, and Trichomonas Vaginalis." *Experimental and Molecular Pathology* 98, no. 2 (April 2015): 214–18. <https://doi.org/10.1016/j.yexmp.2015.01.011>.

Aboud, Lily, Yangqi Xu, Eric P. F. Chow, Teodora Wi, Rachel Baggaley, Maeve B. Mello, Christopher K. Fairley, and Jason J. Ong. "Diagnostic Accuracy of Pooling Urine, Anorectal, and Oropharyngeal Specimens for the Detection of Chlamydia Trachomatis and Neisseria Gonorrhoeae: A Systematic Review and Meta-Analysis." *BMC Medicine* 19, no. 1 (December 2021): 285. <https://doi.org/10.1186/s12916-021-02160-9>.

Abravanel, Florence, Audrey Lacipière, Sébastien Lhomme, Martine Dubois, Luce Minier, Jean-Marie Peron, Laurent Alric, Nassim Kamar, and Jacques Izopet. "Performance of a Commercial Assay for Detecting and Quantifying HEV RNA in Faeces." *Journal of Clinical Virology* 109 (December 2018): 1–5. <https://doi.org/10.1016/j.jcv.2018.10.003>.

Abravanel, Florence, Sébastien Lhomme, Sabine Chapuy-Regaud, Jean-Michel Mansuy, Jérôme Boineau, Karine Sauné, and Jacques Izopet. "A Fully Automated System Using Transcription-Mediated Amplification for the Molecular Diagnosis of Hepatitis E Virus in Human Blood and Faeces." *Journal of Clinical Virology* 105 (August 2018): 109–11. <https://doi.org/10.1016/j.jcv.2018.06.013>.

Abshire, Robert L. "Detection of Enteropathogenic Escherichia Coli Strains in Wastewater by Fluorescent Antibody." *Canadian Journal of Microbiology* 22, no. 3 (March 1, 1976): 364–78. <https://doi.org/10.1139/m76-056>.

Adefisoye, Martins A., and Anthony I. Okoh. "Identification and Antimicrobial Resistance Prevalence of Pathogenic Escherichia Coli Strains from Treated Wastewater Effluents in

APRIL 2022

Eastern Cape, South Africa.” *MicrobiologyOpen* 5, no. 1 (February 2016): 143–51.
<https://doi.org/10.1002/mbo3.319>.

Adegoke, Anthony Ayodeji, Chibuzor Ezinne Madu, Olayinka Ayobami Aiyegoro, Thor Axel Stenström, and Anthony Ifeanyi Okoh. “Antibiogram and Beta-Lactamase Genes among Cefotaxime Resistant *E. Coli* from Wastewater Treatment Plant.” *Antimicrobial Resistance & Infection Control* 9, no. 1 (December 2020): 46. <https://doi.org/10.1186/s13756-020-0702-4>.

Agrawal, Shelesh, Laura Orschler, and Susanne Lackner. “Metatranscriptomic Analysis Reveals SARS-CoV-2 Mutations in Wastewater of the Frankfurt Metropolitan Area in Southern Germany.” Edited by Simon Roux. *Microbiology Resource Announcements* 10, no. 15 (April 15, 2021): e00280-21. <https://doi.org/10.1128/MRA.00280-21>.

Agudelo-Hernandez, Arcadio, Yue Chen, Arlene Bullotta, William G. Buchanan, Cynthia R. Klamar-Blain, Luann Borowski, Sharon A. Riddler, Charles R. Rinaldo, and Bernard J.C. Macatangay. “Subclinical Herpesvirus Shedding among HIV-1-Infected Men on Antiretroviral Therapy.” *AIDS* 31, no. 15 (September 24, 2017): 2085–94.
<https://doi.org/10.1097/QAD.0000000000001602>.

Ahmed, Shahira A., and Panagiotis Karanis. “Comparison of Current Methods Used to Detect *Cryptosporidium* Oocysts in Stools.” *International Journal of Hygiene and Environmental Health* 221, no. 5 (June 2018): 743–63. <https://doi.org/10.1016/j.ijheh.2018.04.006>.

Ahmed, W., P. Gyawali, and S. Toze. “Quantitative PCR Measurements of *Escherichia Coli* Including Shiga Toxin-Producing *E. Coli* (STEC) in Animal Feces and Environmental Waters.” *Environmental Science & Technology* 49, no. 5 (March 3, 2015): 3084–90.
<https://doi.org/10.1021/es505477n>.

Ahmed, Warish, Nicola Angel, Janette Edson, Kyle Bibby, Aaron Bivins, Jake W. O’Brien, Phil M. Choi, et al. “First Confirmed Detection of SARS-CoV-2 in Untreated Wastewater in Australia: A Proof of Concept for the Wastewater Surveillance of COVID-19 in the Community.” *Science of The Total Environment* 728 (August 2020): 138764.
<https://doi.org/10.1016/j.scitotenv.2020.138764>.

Ai, Yuehan, Angela Davis, Dan Jones, Stanley Lemeshow, Huolin Tu, Fan He, Peng Ru, Xiaokang Pan, Zuzana Bohrerova, and Jiyoung Lee. “Wastewater SARS-CoV-2 Monitoring as a Community-Level COVID-19 Trend Tracker and Variants in Ohio, United States.” *Science of The Total Environment* 801 (December 2021): 149757.
<https://doi.org/10.1016/j.scitotenv.2021.149757>.

APRIL 2022

Ajonina, Caroline, Christopher Buzie, Rafi Herfini Rubiandini, and Ralf Otterpohl. "Microbial Pathogens in Wastewater Treatment Plants (WWTP) in Hamburg." *Journal of Toxicology and Environmental Health, Part A* 78, no. 6 (March 19, 2015): 381–87.

<https://doi.org/10.1080/15287394.2014.989626>.

Akgun, Sadik, and Tuncay Celik. "Evaluation of Giardia Intestinalis, Entamoeba Histolytica and Cryptosporidium Hominis/Cryptosporidium Parvum in Human Stool Samples by the BD MAX™ Enteric Parasite Panel." *Folia Parasitologica* 67 (August 7, 2020).

<https://doi.org/10.14411/fp.2020.020>.

Al-Jassim, Nada, Mohd Ikram Ansari, Moustapha Harb, and Pei-Ying Hong. "Removal of Bacterial Contaminants and Antibiotic Resistance Genes by Conventional Wastewater Treatment Processes in Saudi Arabia: Is the Treated Wastewater Safe to Reuse for Agricultural Irrigation?" *Water Research* 73 (April 2015): 277–90.

<https://doi.org/10.1016/j.watres.2015.01.036>.

Al-Jebouri, M. M., and Nariman S. Al - Meshhadani. "A Note on Antibiotic-Resistant Escherichia Coli in Adult Man, Raw Sewage and Sewage-Polluted River Tigris in Mosul, Nineva." *Journal of Applied Bacteriology* 59, no. 6 (December 1985): 513–18.

<https://doi.org/10.1111/j.1365-2672.1985.tb03354.x>.

Al-Mohizea, MahaM, and FawziaE Alotaibi. "An Unusual Case of Chronic Prostatitis Caused by Haemophilus Influenzae in an Elderly Saudi Patient: A Case Report and Literature Review." *Journal of Family and Community Medicine* 21, no. 3 (2014): 193.

<https://doi.org/10.4103/2230-8229.142975>.

Al-Shehri, Hajri, B. Joanne Power, John Archer, Alice Cousins, Aaron Atuhaire, Moses Adriko, Moses Arinaitwe, et al. "Non-Invasive Surveillance of Plasmodium Infection by Real-Time PCR Analysis of Ethanol Preserved Faeces from Ugandan School Children with Intestinal Schistosomiasis." *Malaria Journal* 18, no. 1 (December 2019): 109.

<https://doi.org/10.1186/s12936-019-2748-4>.

Albert, M J, A Leach, V Asche, J Hennessy, and J L Penner. "Serotype Distribution of Campylobacter Jejuni and Campylobacter Coli Isolated from Hospitalized Patients with Diarrhea in Central Australia." *Journal of Clinical Microbiology* 30, no. 1 (January 1992): 207–10. <https://doi.org/10.1128/jcm.30.1.207-210.1992>.

Albert, Sandra, Alba Ruíz, Javier Pemán, Miguel Salavert, and Pilar Domingo-Calap. "Lack of Evidence for Infectious SARS-CoV-2 in Feces and Sewage." *European Journal of Clinical Microbiology & Infectious Diseases* 40, no. 12 (December 2021): 2665–67.

<https://doi.org/10.1007/s10096-021-04304-4>.

APRIL 2022

Alnasser, Yossef, Cusi Ferradas, Taryn Clark, Maritza Calderon, Alejandro Gurbillon, Dionicia Gamboa, Uri S. McKakpo, et al. “Colorimetric Detection of Plasmodium Vivax in Urine Using MSP10 Oligonucleotides and Gold Nanoparticles.” Edited by Eric Dumonteil. *PLOS Neglected Tropical Diseases* 10, no. 10 (October 5, 2016): e0005029.

<https://doi.org/10.1371/journal.pntd.0005029>.

Andleeb, Khush Bakht, and Imran Hashmi. “Impact of Meteorological Conditions on the Water Quality of Wastewater Treatment Systems: A Comparative Study of Phytoremediation and Membrane Bioreactor System.” *Water Science and Technology* 2017, no. 3 (July 17, 2018): 718–28. <https://doi.org/10.2166/wst.2018.247>.

Andreo, F., C. Prat, J. Ruiz-Manzano, L. Lores, S. Blanco, M. A. Cuesta, M. Giménez, and J. Domínguez. “Persistence of Streptococcus Pneumoniae Urinary Antigen Excretion after Pneumococcal Pneumonia.” *European Journal of Clinical Microbiology & Infectious Diseases* 28, no. 2 (February 2009): 197–201. <https://doi.org/10.1007/s10096-008-0606-3>.

Aninagyei, Enoch, Joseph Abraham, Paul Atiiga, Shadrach Duodu Antwi, Stephen Bamfo, and Desmond Omane Acheampong. “Evaluating the Potential of Using Urine and Saliva Specimens for Malaria Diagnosis in Suspected Patients in Ghana.” *Malaria Journal* 19, no. 1 (December 2020): 349. <https://doi.org/10.1186/s12936-020-03427-x>.

Ankorn, M.J., S. Ijaz, B. Haywood, J. Neuberger, A.M. Elsharkawy, J. Maggs, and R.S. Tedder. “Confirmation of Specificity of Reactivity in a Solid Phase ELISA for the Detection of Hepatitis E Viral Antigen Improves Utility of the Assay.” *Journal of Virological Methods* 252 (February 2018): 42–48. <https://doi.org/10.1016/j.jviromet.2017.11.007>.

Ansari, Shamim A. “Presence of Human Immunodeficiency Virus Nucleic Acids in Wastewater and Their Detection by Polymerase Chain Reaction.” *APPL. ENVIRON. MICROBIOL.* 58 (1992): 7.

Apinjoh, Tobias O., Veronica N. Ntasin, Phil Collins C. Tataw, Vincent N. Ntui, Dieudonne L. Njimoh, Fidelis Cho-Ngwa, and Eric A. Achidi. “Comparison of Conventional and Non-Invasive Diagnostic Tools for Detecting Plasmodium Falciparum Infection in Southwestern Cameroon: A Cross-Sectional Study.” *Infectious Diseases of Poverty* 10, no. 1 (December 2021): 75. <https://doi.org/10.1186/s40249-021-00859-8>.

Arankalle, V A, K L Sarada Devi, K S Lole, K T Shenoy, V Verma, and M Haneephabi. “Molecular Characterization of Hepatitis A Virus from a Large Outbreak from Kerala, India,” n.d., 2.

APRIL 2022

Araoka, Hideki, Muneyoshi Kimura, Masahiro Abe, Namiko Takahashi, and Akiko Yoneyama. “Appropriate Sampling Sites for the Surveillance of Multidrug-Resistant *Pseudomonas Aeruginosa* Colonization.” *Japanese Journal of Infectious Diseases* 67, no. 2 (2014): 118–19. <https://doi.org/10.7883/yoken.67.118>.

Arthur, James D., Ladaporn Bodhidatta, Peter Echeverria, Surasith Phuphaisan, and Sakti Paul. “Diarrheal Disease in Cambodian Children at a Camp in Thailand.” *American Journal of Epidemiology* 135, no. 5 (March 1, 1992): 541–51. <https://doi.org/10.1093/oxfordjournals.aje.a116321>.

Arvanitidou, M, T C Constantinidis, J Doutsos, K Mandraveli, and V Katsouyannopoulos. “Occupational Hepatitis B Virus Infection in Sewage Workers,” n.d., 1.

Avgeris, Margaritis, Panagiotis G. Adamopoulos, Aikaterini Galani, Marieta Xagorari, Dimitrios Gourgiotis, Ioannis P. Trougakos, Nikolaos Voulgaris, Meletios-Athanasios Dimopoulos, Nikolaos S. Thomaidis, and Andreas Scorilas. “Novel Nested-Seq Approach for SARS-CoV-2 Real-Time Epidemiology and In-Depth Mutational Profiling in Wastewater.” *International Journal of Molecular Sciences* 22, no. 16 (August 7, 2021): 8498. <https://doi.org/10.3390/ijms22168498>.

Aw, T.G., and K.Y.-H. Gin. “Environmental Surveillance and Molecular Characterization of Human Enteric Viruses in Tropical Urban Wastewaters.” *Journal of Applied Microbiology* 109, no. 2 (August 2010): 716–30. <https://doi.org/10.1111/j.1365-2672.2010.04701.x>.

Ayaz, Naim Deniz, Yilmaz Emre Gencay, and Irfan Erol. “Prevalence and Molecular Characterization of Sorbitol Fermenting and Non-Fermenting *Escherichia Coli* O157:H7+/H7– Isolated from Cattle at Slaughterhouse and Slaughterhouse Wastewater.” *International Journal of Food Microbiology* 174 (March 2014): 31–38. <https://doi.org/10.1016/j.ijfoodmicro.2014.01.002>.

Aziz, Muhammad, and Varun S. Yelamanchili. “*Yersinia Enterocolitica*.” In *StatPearls*. Treasure Island (FL): StatPearls Publishing, 2022. <http://www.ncbi.nlm.nih.gov/books/NBK499837/>.

Azuma, Takashi, and Tetsuya Hayashi. “Effects of Natural Sunlight on Antimicrobial-Resistant Bacteria (AMRB) and Antimicrobial-Susceptible Bacteria (AMSB) in Wastewater and River Water.” *Science of The Total Environment* 766 (April 2021): 142568. <https://doi.org/10.1016/j.scitotenv.2020.142568>.

Baaijens, Jasmijn A., Alessandro Zulli, Isabel M. Ott, Mary E. Petrone, Tara Alpert, Joseph R. Fauver, Chaney C. Kalinich, et al. “Variant Abundance Estimation for SARS-CoV-2 in

APRIL 2022

Wastewater Using RNA-Seq Quantification.” Preprint. *Epidemiology*, September 2, 2021. <https://doi.org/10.1101/2021.08.31.21262938>.

Baghal Asghari, Farzaneh, Mohammad Hadi Dehghani, Reza Dehghanzadeh, Davoud Farajzadeh, Kamyar Yaghmaeian, Amir Hossein Mahvi, and Akbar Rajabi. “Antibiotic Resistance and Antibiotic-Resistance Genes of *Pseudomonas* Spp. and *Escherichia Coli* Isolated from Untreated Hospital Wastewater.” *Water Science and Technology* 84, no. 1 (July 1, 2021): 172–81. <https://doi.org/10.2166/wst.2021.207>.

Baj, Andreina, Lorenzo Azzi, Daniela Dalla Gasperina, Angelo Genoni, Antonio Tamborini, Cinzia Gambarini, Giulio Carcano, Paolo Grossi, and Fausto Sessa. “Pilot Study: Long-Term Shedding of SARS-CoV-2 in Urine: A Threat for Dispersal in Wastewater.” *Frontiers in Public Health* 8 (November 23, 2020): 569209. <https://doi.org/10.3389/fpubh.2020.569209>.

Balfour, A., R. Lewis, and S. Ahmed. “Convalescent Excretion of *Salmonella* Enteritidis in Infants.” *The Journal of Infection*, 1999. [https://doi.org/10.1016/S0163-4453\(99\)90024-5](https://doi.org/10.1016/S0163-4453(99)90024-5).

Bandeira, Antonio Carlos, Gubio Soares Campos, Veronica França Diniz Rocha, Bruno Solano de Freitas Souza, Milena Botelho Pereira Soares, Aleksandro Araujo Oliveira, Yara Carvalho de Abreu, Gabriela Sant’Ana Menezes, and Silvia Ines Sardi. “Prolonged Shedding of Chikungunya Virus in Semen and Urine: A New Perspective for Diagnosis and Implications for Transmission.” *IDCases* 6 (2016): 100–103. <https://doi.org/10.1016/j.idcr.2016.10.007>.

Bandeira, Antonio Carlos, Luana Leandro Gois, Gubio Soares Campos, Silvia Sardi, Hans Yssel, Vincent Vieillard, Brigitte Autran, and Maria Fernanda Rios Grassi. “Clinical and Laboratory Findings of Acute Zika Virus Infection in Patients from Salvador during the First Brazilian Epidemic.” *The Brazilian Journal of Infectious Diseases* 24, no. 5 (September 2020): 405–11. <https://doi.org/10.1016/j.bjid.2020.08.005>.

Banting, Graham S., Shannon Braithwaite, Candis Scott, Jinyong Kim, Byeonghwa Jeon, Nicholas Ashbolt, Norma Ruecker, et al. “Evaluation of Various *Campylobacter*-Specific Quantitative PCR (QPCR) Assays for Detection and Enumeration of *Campylobacteraceae* in Irrigation Water and Wastewater via a Miniaturized Most-Probable-Number–QPCR Assay.” Edited by A. J. M. Stams. *Applied and Environmental Microbiology* 82, no. 15 (August 2016): 4743–56. <https://doi.org/10.1128/AEM.00077-16>.

Bar-Or, Itay, Merav Weil, Victoria Indenbaum, Efrat Bucris, Dana Bar-Ilan, Michal Elul, Nofar Levi, et al. “Detection of SARS-CoV-2 Variants by Genomic Analysis of Wastewater Samples in Israel.” *Science of The Total Environment* 789 (October 2021): 148002. <https://doi.org/10.1016/j.scitotenv.2021.148002>.

APRIL 2022

Barrientos-Durán, Antonio, Adolfo de Salazar, Marta Alvarez-Estévez, Ana Fuentes-López, Beatriz Espadafor, and Federico Garcia. “Detection of Sexually Transmitted Disease–Causing Pathogens from Direct Clinical Specimens with the Multiplex PCR-Based STD Direct Flow Chip Kit.” *European Journal of Clinical Microbiology & Infectious Diseases* 39, no. 2 (February 2020): 235–41. <https://doi.org/10.1007/s10096-019-03686-w>.

Barzon, Luisa, Federico Gobbi, Gioia Capelli, Fabrizio Montarsi, Simone Martini, Silvia Riccetti, Alessandro Sinigaglia, et al. “Autochthonous Dengue Outbreak in Italy 2020: Clinical, Virological and Entomological Findings.” *Journal of Travel Medicine* 28, no. 8 (December 29, 2021): taab130. <https://doi.org/10.1093/jtm/taab130>.

Bedenić, Branka, Marko Siroglavić, Mia Slade, Dorotea Šijak, Svjetlana Dekić, Martina Šeruga Musić, Ana Godan-Hauptman, and Jasna Hrenović. “Comparison of Clinical and Sewage Isolates of *Acinetobacter Baumannii* from Two Long-Term Care Facilities in Zagreb; Mechanisms and Routes of Spread.” *Archives of Microbiology* 202, no. 2 (March 2020): 361–68. <https://doi.org/10.1007/s00203-019-01750-9>.

Belhaouari, Djamal Brahim, Nathalie Wurtz, Clio Grimaldier, and Alexandre Lacoste. “Microscopic Observation of SARS-Like Particles in RT-QPCR SARS-CoV-2 Positive Sewage Samples,” 2021, 12.

Bengtsson-Palme, Johan, Martin Angelin, Mikael Huss, Sanela Kjellqvist, Erik Kristiansson, Helena Palmgren, D. G. Joakim Larsson, and Anders Johansson. “The Human Gut Microbiome as a Transporter of Antibiotic Resistance Genes between Continents.” *Antimicrobial Agents and Chemotherapy* 59, no. 10 (October 2015): 6551–60. <https://doi.org/10.1128/AAC.00933-15>.

Benschop, Kimberley S. M., Harrie G. van der Avoort, Edin Jusic, Harry Vennema, Rob van Binnendijk, and Erwin Duizer. “Polio and Measles Down the Drain: Environmental Enterovirus Surveillance in the Netherlands, 2005 to 2015.” Edited by Donald W. Schaffner. *Applied and Environmental Microbiology* 83, no. 13 (July 2017): e00558-17. <https://doi.org/10.1128/AEM.00558-17>.

Berge, A.C.B., E.L. Dueger, and W.M. Sisco. “Comparison of *Salmonella Enterica* Serovar Distribution and Antibiotic Resistance Patterns in Wastewater at Municipal Water Treatment Plants in Two California Cities.” *Journal of Applied Microbiology* 101, no. 6 (December 2006): 1309–16. <https://doi.org/10.1111/j.1365-2672.2006.03031.x>.

Bergmann, A. R., B. L. Schmidt, A.-M. Derler, and E. Aberer. “Importance of Sample Preparation for Molecular Diagnosis of Lyme Borreliosis from Urine.” *Journal of Clinical*

APRIL 2022

Microbiology 40, no. 12 (December 2002): 4581–84.
<https://doi.org/10.1128/JCM.40.12.4581-4584.2002>.

Berthoux, F C, O G Gaudin, O Sterczinski, R Granouillet, C Genin, B Pozetto, B Laurent, J C Sabatier, and R Gonthier. “Human Glomerulonephritis and Persistent Non-Polio Enterovirus Infection,” n.d., 1.

Beyer, Sophia, Regine Szewzyk, Regina Gnirss, Reimar Johne, and Hans-Christoph Selinka. “Detection and Characterization of Hepatitis E Virus Genotype 3 in Wastewater and Urban Surface Waters in Germany.” Food and Environmental Virology 12, no. 2 (June 2020): 137–47.
<https://doi.org/10.1007/s12560-020-09424-2>.

Beyhan, Yunus Emre, and Hasan Yılmaz. “Investigation of Cryptosporidium spp. Antigen By ELISA in Stool Specimens Sent to Our Laboratory between 2010 and 2018.” Turkish Journal of Parasitology 44, no. 2 (June 1, 2020): 68–71.
<https://doi.org/10.4274/tpd.galenos.2020.6318>.

Bhan, M. K., P. Raj, N. Bhandari, L. Svensson, G. Stintzing, A. K. Prasad, S. Jayashree, and R. Srivastava. “Role of Enteric Adenoviruses and Rotaviruses in Mild and Severe Acute Enteritis.” The Pediatric Infectious Disease Journal 7, no. 5 (May 1988): 320–22.
<https://doi.org/10.1097/00006454-198805000-00005>.

Bhatia, Akansha, Nitin Kumar Singh, Timsi Bhandu, Ranjana Pathania, and Absar Ahmad Kazmi. “Effect of Intermittent Aeration on Microbial Diversity in an Intermittently Aerated IFAS Reactor Treating Municipal Wastewater: A Field Study.” Journal of Environmental Science and Health, Part A 52, no. 5 (April 16, 2017): 440–48.
<https://doi.org/10.1080/10934529.2016.1271665>.

Bi, Chongwei, Gerardo Ramos-Mandujano, Yeteng Tian, Sharif Hala, Jinna Xu, Sara Mfarrej, Concepcion Rodriguez Esteban, et al. “Simultaneous Detection and Mutation Surveillance of SARS-CoV-2 and Multiple Respiratory Viruses by Rapid Field-Deployable Sequencing.” Med 2, no. 6 (June 2021): 689-700.e4. <https://doi.org/10.1016/j.medj.2021.03.015>.

Bibbal, Delphine, Maryse Michèle Um, Alpha Amadou Diallo, Monique Kérourédan, Véronique Dupouy, Pierre-Louis Toutain, Alain Bousquet-Mélou, Eric Oswald, and Hubert Brugère. “Mixing of Shiga Toxin-Producing and Enteropathogenic Escherichia Coli in a Wastewater Treatment Plant Receiving City and Slaughterhouse Wastewater.” International Journal of Hygiene and Environmental Health 221, no. 2 (March 2018): 355–63.
<https://doi.org/10.1016/j.ijheh.2017.12.009>.

APRIL 2022

Bibby, Kyle, and Jordan Peccia. "Identification of Viral Pathogen Diversity in Sewage Sludge by Metagenome Analysis." *Environmental Science & Technology* 47, no. 4 (February 19, 2013): 1945–51. <https://doi.org/10.1021/es305181x>.

Bisseux, Maxime, Jonathan Colombet, Audrey Mirand, Anne-Marie Roque-Afonso, Florence Abravanel, Jacques Izopet, Christine Archimbaud, et al. "Monitoring Human Enteric Viruses in Wastewater and Relevance to Infections Encountered in the Clinical Setting: A One-Year Experiment in Central France, 2014 to 2015." *Eurosurveillance* 23, no. 7 (February 15, 2018). <https://doi.org/10.2807/1560-7917.ES.2018.23.7.17-00237>.

Boehm, Alexandria B., Katherine E. Graham, and Wiley C. Jennings. "Can We Swim Yet? Systematic Review, Meta-Analysis, and Risk Assessment of Aging Sewage in Surface Waters." *Environmental Science & Technology* 52, no. 17 (September 4, 2018): 9634–45. <https://doi.org/10.1021/acs.est.8b01948>.

Bolukaoto, John Y., Marleen M. Kock, Kathy-Anne Strydom, Nontombi M. Mbelle, and Marthie M. Ehlers. "Molecular Characteristics and Genotypic Diversity of Enterohaemorrhagic Escherichia Coli O157:H7 Isolates in Gauteng Region, South Africa." *Science of The Total Environment* 692 (November 2019): 297–304. <https://doi.org/10.1016/j.scitotenv.2019.07.119>.

Bonetta, Si., C. Pignata, E. Lorenzi, M. De Ceglia, L. Meucci, Sa. Bonetta, G. Gilli, and E. Carraro. "Detection of Pathogenic Campylobacter, E. Coli O157:H7 and Salmonella Spp. in Wastewater by PCR Assay." *Environmental Science and Pollution Research* 23, no. 15 (August 2016): 15302–9. <https://doi.org/10.1007/s11356-016-6682-5>.

Borriello, S.P., A.R. Welch, H.E. Larson, and Fiona Barclay. "DIARRHOEA AND SIMULTANEOUS EXCRETION OF CLOSTRIDIUM DIFFICILE CYTOTOXIN AND C PERFRINGENS ENTEROTOXIN." *The Lancet* 324, no. 8413 (November 1984): 1218. [https://doi.org/10.1016/S0140-6736\(84\)92778-8](https://doi.org/10.1016/S0140-6736(84)92778-8).

Bottone, Edward J, Brent Chester, Moises S Malowany, and Jona Allerhand. "Unusual Yersinia Enterocolitica Isolates Not Associated with Mesenteric Lymphadenitis" 27 (1974): 4.

Bovee-Oudenhoven, Ingeborg M.J, Mischa L.G Lettink-Wissink, Wim Van Doesburg, Ben J.M Witteman, and Roelof Van Der Meer. "Diarrhea Caused by Enterotoxigenic Escherichia Coli Infection of Humans Is Inhibited by Dietary Calcium." *Gastroenterology* 125, no. 2 (August 2003): 469–76. [https://doi.org/10.1016/S0016-5085\(03\)00884-9](https://doi.org/10.1016/S0016-5085(03)00884-9).

Brinkman, Nichole E., G. Shay Fout, and Scott P. Keely. "Retrospective Surveillance of Wastewater To Examine Seasonal Dynamics of Enterovirus Infections." Edited by Timothy M.

APRIL 2022

LaPara. *MSphere* 2, no. 3 (June 28, 2017): e00099-17.
<https://doi.org/10.1128/mSphere.00099-17>.

Brisebois, Evelyne, Marc Veillette, Vanessa Dion-Dupont, Jacques Lavoie, Jacques Corbeil, Alexander Culley, and Caroline Duchaine. “Human Viral Pathogens Are Pervasive in Wastewater Treatment Center Aerosols.” *Journal of Environmental Sciences* 67 (May 2018): 45–53. <https://doi.org/10.1016/j.jes.2017.07.015>.

Brooke, M M, G R Healy, Paul Levy, R L Kaiser, and W L Bunch. “A Sample Survey of Selected Areas In and Near Little Rock, Arkansas, to Assess the Prevalence of *Entamoeba Histolytica*,” n.d., 10.

Busch, Ulrich, Stefan Hörmansdorfer, Stephan Schraner, Ingrid Huber, Karl-Heinz Bogner, and Andreas Sing. “Enterohemorrhagic *Escherichia Coli* Excretion by Child and Her Cat.” *Emerging Infectious Diseases* 13, no. 2 (February 2007): 348–49.
<https://doi.org/10.3201/eid1302.061106>.

Butiuc-Keul, Anca, Rahela Carpa, Dorina Podar, Edina Szekeres, Vasile Muntean, Dumitrana Iordache, and Anca Farkas. “Antibiotic Resistance in *Pseudomonas* Spp. Through the Urban Water Cycle.” *Current Microbiology* 78, no. 4 (April 2021): 1227–37.
<https://doi.org/10.1007/s00284-021-02389-w>.

Béji-Hamza, A., H. Khélifi-Gharbi, M. Hassine-Zaafraane, S. Della Libera, M. Iaconelli, M. Muscillo, S. Petricca, et al. “Qualitative and Quantitative Assessment of Hepatitis A Virus in Wastewaters in Tunisia.” *Food and Environmental Virology* 6, no. 4 (December 2014): 246–52. <https://doi.org/10.1007/s12560-014-9163-3>.

Béji-Hamza, A., M. Hassine-Zaafraane, H. Khélifi-Gharbi, S. Della Libera, M. Iaconelli, M. Muscillo, S. Petricca, et al. “Hepatitis E Virus Genotypes 1 and 3 in Wastewater Samples in Tunisia.” *Archives of Virology* 160, no. 1 (January 2015): 183–89.
<https://doi.org/10.1007/s00705-014-2251-8>.

Börjesson, S., A. Matussek, S. Melin, S. Löfgren, and P.E. Lindgren. “Methicillin-Resistant *Staphylococcus Aureus* (MRSA) in Municipal Wastewater: An Uncharted Threat?” *Journal of Applied Microbiology* 108, no. 4 (April 2010): 1244–51.
<https://doi.org/10.1111/j.1365-2672.2009.04515.x>.

Börjesson, Stefan, Sara Melin, Andreas Matussek, and Per-Eric Lindgren. “A Seasonal Study of the *MecA* Gene and *Staphylococcus Aureus* Including Methicillin-Resistant *S. Aureus* in a Municipal Wastewater Treatment Plant.” *Water Research* 43, no. 4 (March 2009): 925–32.
<https://doi.org/10.1016/j.watres.2008.11.036>.

APRIL 2022

Caballero, Santiago, Susana Guix, Waled Morsy El-Senousy, Ignasi Calicó, Rosa M. Pintó, and Albert Bosch. “Persistent Gastroenteritis in Children Infected with Astrovirus: Association with Serotype-3 Strains: Persistent Astrovirus Gastroenteritis.” *Journal of Medical Virology* 71, no. 2 (October 2003): 245–50. <https://doi.org/10.1002/jmv.10476>.

Cabot, Gabriel, Paula Lara-Esbrí, Xavier Mulet, and Antonio Oliver. “Whole-Genome Sequence-Guided PCR for the Rapid Identification of the *Pseudomonas Aeruginosa* ST175 High-Risk Clone Directly from Clinical Samples.” *Journal of Antimicrobial Chemotherapy* 76, no. 4 (March 12, 2021): 945–49. <https://doi.org/10.1093/jac/dkaa528>.

Caceci, Thomas, Itzhak Brook, and Amiram Daniel. “Quantitative Nephelometric Determination of Haemophilus Influenza Antigen in Body Fluids.” *J. CLIN. MICROBIOL.* 13 (1981): 8.

Cai, Lin, and Tong Zhang. “Detecting Human Bacterial Pathogens in Wastewater Treatment Plants by a High-Throughput Shotgun Sequencing Technique.” *Environmental Science & Technology* 47, no. 10 (May 21, 2013): 5433–41. <https://doi.org/10.1021/es400275r>.

Caicedo, C., K.-H. Rosenwinkel, M. Exner, W. Verstraete, R. Suchenwirth, P. Hartemann, and R. Nogueira. “Legionella Occurrence in Municipal and Industrial Wastewater Treatment Plants and Risks of Reclaimed Wastewater Reuse: Review.” *Water Research* 149 (February 2019): 21–34. <https://doi.org/10.1016/j.watres.2018.10.080>.

Caldwell, Stephen H., Michael Sue, James H. Bowden, Rolland C. Dickson, Carolyn J. Driscoll, Paul Yeaton, William C. Stevenson, et al. “Hepatitis C Virus in Body Fluids after Liver Transplantation.” *Liver Transplantation and Surgery* 2, no. 2 (March 1996): 124–29. <https://doi.org/10.1002/lt.500020207>.

Cameron, Andrew, Rahat Zaheer, Emelia H. Adator, Ruth Barbieri, Tim Reuter, and Tim A. McAllister. “Bacteriocin Occurrence and Activity in *Escherichia Coli* Isolated from Bovines and Wastewater.” *Toxins* 11, no. 8 (August 15, 2019): 475. <https://doi.org/10.3390/toxins11080475>.

Cannas, A, D Goletti, E Girardi, T Chiacchio, L Calvo, G Cuzzi, M Piacentini, et al. “Mycobacterium Tuberculosis DNA Detection in Soluble Fraction of Urine from Pulmonary Tuberculosis Patients,” n.d., 2.

Carcereny, Albert, Adán Martínez-Velázquez, Albert Bosch, Ana Allende, Pilar Truchado, Jenifer Cascales, Jesús L Romalde, et al. “Monitoring Emergence of the SARS-CoV-2 B.1.1.7 Variant through the Spanish National SARS-CoV-2 Wastewater Surveillance System (VATar COVID-19).” *Environmental Science & Technology* 55, no. 17 (September 7, 2021): 11756–66. <https://doi.org/10.1021/acs.est.1c03589>.

APRIL 2022

Cevenini, R. et al. “Chlamydia Trachomatis Is Not a Cause of Acute Gastroenteritis in Young Children - PubMed.” Accessed March 17, 2022. <https://pubmed.ncbi.nlm.nih.gov/7119124/>.

Chaicumpa, W, Y Ruangkunaporn, D Burr, M Chongsa-Nguan, and P Echeverria. “Diagnosis of Typhoid Fever by Detection of Salmonella Typhi Antigen in Urine.” *Journal of Clinical Microbiology* 30, no. 9 (September 1992): 2513–15. <https://doi.org/10.1128/jcm.30.9.2513-2515.1992>.

Chan, K N, A D Phillips, S Knutton, H R Smith, and J A Walker-Smith. “Enteraggregative Escherichia Coli: Another Cause of Acute and Chronic Diarrhoea in England?,” n.d., 1.

Chan, K.C. Allen, Sing F. Leung, Sze W. Yeung, Anthony T.C. Chan, and Y.M. Dennis Lo. “Quantitative Analysis of the Transrenal Excretion of Circulating EBV DNA in Nasopharyngeal Carcinoma Patients.” *Clinical Cancer Research* 14, no. 15 (August 1, 2008): 4809–13. <https://doi.org/10.1158/1078-0432.CCR-08-1112>.

Chan, Martin C.W., Nelson Lee, Paul K.S. Chan, T.F. Leung, and Joseph J.Y. Sung. “Fecal Detection of Influenza A Virus in Patients with Concurrent Respiratory and Gastrointestinal Symptoms.” *Journal of Clinical Virology* 45, no. 3 (July 2009): 208–11. <https://doi.org/10.1016/j.jcv.2009.06.011>.

Chapman, P. A., C. A. Siddons, J. Manning, and C. Cheetham. “An Outbreak of Infection Due to Verocytotoxin-Producing Escherichia Coli O157 in Four Families: The Influence of Laboratory Methods on the Outcome of the Investigation.” *Epidemiology and Infection* 119, no. 2 (October 1997): 113–19. <https://doi.org/10.1017/S0950268897007991>.

Cherak, Zineb, Lotfi Loucif, Abdelhamid Moussi, Esma Bendjama, Amel Benbouza, and Jean-Marc Rolain. “Emergence of Metallo- β -Lactamases and OXA-48 Carbapenemase Producing Gram-Negative Bacteria in Hospital Wastewater in Algeria: A Potential Dissemination Pathway Into the Environment.” *Microbial Drug Resistance* 28, no. 1 (January 1, 2022): 23–30. <https://doi.org/10.1089/mdr.2020.0617>.

Chern, Eunice C., Yu-Li Tsai, and Betty H. Olson. “Occurrence of Genes Associated with Enterotoxigenic and Enterohemorrhagic Escherichia Coli in Agricultural Waste Lagoons.” *Applied and Environmental Microbiology* 70, no. 1 (January 2004): 356–62. <https://doi.org/10.1128/AEM.70.1.356-362.2004>.

Choe, Hyun-Sop, Dong Sup Lee, Seung-Ju Lee, Sung-Hoo Hong, Dong Choon Park, Mi-Kyung Lee, Tae-Hyoung Kim, and Yong-Hyun Cho. “Performance of Anyplex™ II Multiplex Real-Time PCR for the Diagnosis of Seven Sexually Transmitted Infections: Comparison with

APRIL 2022

Currently Available Methods.” *International Journal of Infectious Diseases* 17, no. 12 (December 2013): e1134–40. <https://doi.org/10.1016/j.ijid.2013.07.011>.

Choudhury, Saugata, Raymond Tellier, Kevin Fonseca, and Byron M. Berenger. “Experience with a Triplex Arbovirus Nucleic Acid Test (NAT) at a Canadian Public Health Laboratory.” *BMC Infectious Diseases* 21, no. 1 (December 2021): 1147. <https://doi.org/10.1186/s12879-021-06842-w>.

Chua, Kyra Y.L., Kiran Thapa, Chaturangi M. Yapa, Lucy K. Somerville, Sharon C.-A. Chen, Dominic E. Dwyer, Vicky Sheppard, and Jen Kok. “What Assay Is Optimal for the Diagnosis of Measles Virus Infection? An Evaluation of the Performance of a Measles Virus Real-Time Reverse Transcriptase PCR Using the Cepheid SmartCycler[®] and Antigen Detection by Immunofluorescence.” *Journal of Clinical Virology* 70 (September 2015): 46–52. <https://doi.org/10.1016/j.jcv.2015.07.004>.

Clark, A, S Morton, P Wright, J Corkish, F J Bolton, and J Russell. “A Community Outbreak of Vero Cytotoxin Producing Escherichia Coli O157 Infection Linked to a Small Farm Dairy,” n.d., 1.

Collingro, Astrid, Sven Poppert, Eva Heinz, Stephan Schmitz-Esser, Andreas Essig, Michael Schweikert, Michael Wagner, and Matthias Horn. “Recovery of an Environmental Chlamydia Strain from Activated Sludge by Co-Cultivation with Acanthamoeba Sp.” *Microbiology* 151, no. 1 (January 1, 2005): 301–9. <https://doi.org/10.1099/mic.0.27406-0>.

Collivignarelli, Maria Cristina, Carlo Collivignarelli, Marco Carnevale Miino, Alessandro Abbà, Roberta Pedrazzani, and Giorgio Bertanza. “SARS-CoV-2 in Sewer Systems and Connected Facilities.” *Process Safety and Environmental Protection* 143 (November 2020): 196–203. <https://doi.org/10.1016/j.psep.2020.06.049>.

Corbella, X., M. Pujol, J. Ayats, M. Sendra, C. Ardanuy, M. A. Domínguez, J. Liñares, J. Ariza, and F. Gudiol. “Relevance of Digestive Tract Colonization in the Epidemiology of Nosocomial Infections Due to Multiresistant *Acinetobacter Baumannii*.” *Clinical Infectious Diseases: An Official Publication of the Infectious Diseases Society of America* 23, no. 2 (August 1996): 329–34. <https://doi.org/10.1093/clinids/23.2.329>.

Cordova, Julianna, Ron Shiloh, Robert H. Gilman, Patricia Sheen, Laura Martin, Fanny Arenas, Luz Caviedes, et al. “Evaluation of Molecular Tools for Detection and Drug Susceptibility Testing of *Mycobacterium Tuberculosis* in Stool Specimens from Patients with Pulmonary Tuberculosis.” *Journal of Clinical Microbiology* 48, no. 5 (May 2010): 1820–26. <https://doi.org/10.1128/JCM.01161-09>.

APRIL 2022

Costa-Lima, Juliana Figueirêdo da, Lílian Maria Lapa Montenegro Pimentel, Fabiana Cristina Fulco Santos, Marcela Pereira Salazar, Rafael Silva Duarte, Fernanda Carvalho de Queiroz Mello, and Haiana Charifker Schindler. “Rapid Detection of Mycobacterium Tuberculosis in Children Using Blood and Urine Specimens.” *Revista Da Sociedade Brasileira de Medicina Tropical* 53 (2020): e20200051. <https://doi.org/10.1590/0037-8682-0051-2020>.

Coulepis, A. G., S. A. Locarnini, N. I. Lehmann, and I. D. Gust. “Detection of Hepatitis A Virus in the Feces of Patients with Naturally Acquired Infections.” *Journal of Infectious Diseases* 141, no. 2 (February 1, 1980): 151–56. <https://doi.org/10.1093/infdis/141.2.151>.

Couturier, Marc Roger, Erin H. Graf, and Allen T. Griffin. “Urine Antigen Tests for the Diagnosis of Respiratory Infections.” *Clinics in Laboratory Medicine* 34, no. 2 (June 2014): 219–36. <https://doi.org/10.1016/j.cll.2014.02.002>.

Cowley, Giovanna, Gregory Milne, Eunice Teixeira da Silva, Jose Nakutum, Amabelia Rodrigues, Hristina Vasileva, David Mabey, Bart Versteeg, and Anna Last. “Prevalence of and Risk Factors for Curable Sexually Transmitted Infections on Bubaque Island, Guinea Bissau.” *Sexually Transmitted Infections* 97, no. 1 (February 2021): 51–55. <https://doi.org/10.1136/sextrans-2019-054351>.

Crits-Christoph, Alexander, Rose S Kantor, Matthew R Olm, Oscar N Whitney, Basem Al-Shayeb, Yue Clare Lou, Avi Flamholz, et al. “Genome Sequencing of Sewage Detects Regionally Prevalent SARS-CoV-2 Variants” 12, no. 1 (2021): 9.

Cruz, J. R. et al. “Fecal Excretion of Leukotriene C4 during Human Disease Due to *Shigella Dysenteriae* - PubMed.” Accessed March 16, 2022. <https://pubmed.ncbi.nlm.nih.gov/7714683/>.

Cuevas-Ferrando, Enric, Walter Randazzo, Alba Pérez-Cataluña, and Gloria Sánchez. “HEV Occurrence in Waste and Drinking Water Treatment Plants.” *Frontiers in Microbiology* 10 (January 14, 2020): 2937. <https://doi.org/10.3389/fmicb.2019.02937>.

Cygankiewicz, M, and W Siennicki. “[*Corynebacterium Diphtheriae* in Urine and Blood in Diphtheria],” n.d., 1.

Cyprowski, Marcin, Agata Stobnicka-Kupiec, Anna Ławniczek-Wałczyk, Aleksandra Bakal-Kijek, Małgorzata Gołofit-Szymczak, and Rafał L. Górny. “Anaerobic Bacteria in Wastewater Treatment Plant.” *International Archives of Occupational and Environmental Health* 91, no. 5 (July 2018): 571–79. <https://doi.org/10.1007/s00420-018-1307-6>.

Czepiel, Jacek, Mirosław Drózdź, Hanna Pituch, Ed J. Kuijper, William Perucki, Aleksandra Mielimonka, Sarah Goldman, Dorota Wultańska, Aleksander Garlicki, and Grażyna Biesiada.

APRIL 2022

“Clostridium Difficile Infection: Review.” *European Journal of Clinical Microbiology & Infectious Diseases* 38, no. 7 (July 2019): 1211–21. <https://doi.org/10.1007/s10096-019-03539-6>.

César Pereira Santos, Hugo, Tâmera Nunes Vieira Almeida, Fabíola Souza Fiaccadori, Divina das Dôres de Paula Cardoso, Adriano de Moraes Arantes, Hugo Delleon da Silva, Patricia Resende Alo Nagib, and Menira Souza. “Adenovirus Infection among Allogeneic Stem Cell Transplant Recipients.” *Journal of Medical Virology* 89, no. 2 (February 2017): 298–303. <https://doi.org/10.1002/jmv.24579>.

Davis, Gordon, Barry Smithurst, Alan Talbot, Esther Townsend, and Anne Parry. “MICROBIOLOGICAL STUDIES ON NON-GONOCOCCAL URETHRITIS IN BRISBANE.” *Medical Journal of Australia* 2, no. 6 (August 1973): 268–71. <https://doi.org/10.5694/j.1326-5377.1973.tb128823.x>.

De Puyseleyn, Kristien, Leentje De Puyseleyn, Julie Geldhof, Eric Cox, and Daisy Vanrompay. “Development and Validation of a Real-Time PCR for Chlamydia Suis Diagnosis in Swine and Humans.” Edited by Gilbert Greub. *PLoS ONE* 9, no. 5 (May 9, 2014): e96704. <https://doi.org/10.1371/journal.pone.0096704>.

Deguchi, Takashi, Yasushi Shimada, Kengo Horie, Kohsuke Mizutani, Kensaku Seike, Tomohiro Tsuchiya, Shigeaki Yokoi, Mitsuru Yasuda, and Shin Ito. “Bacterial Loads of Ureaplasma Parvum Contribute to the Development of Inflammatory Responses in the Male Urethra.” *International Journal of STD & AIDS* 26, no. 14 (December 2015): 1035–39. <https://doi.org/10.1177/0956462414565796>.

Deng, Jie, Yuan Qian, Ru-Nan Zhu, Lin-Qing Zhao, Li Deng, and Li-Ying Jia. “[Evaluation of early and rapid etiological diagnosis of measles by detection of measles virus RNA using nested RT-PCR].” *Zhonghua Er Ke Za Zhi = Chinese Journal of Pediatrics* 42, no. 8 (August 2004): 625–28.

Dergham, Julie, Jeremy Delerce, Marielle Bedotto, Bernard La Scola, and Valérie Moal. “Isolation of Viable SARS-CoV-2 Virus from Feces of an Immunocompromised Patient Suggesting a Possible Fecal Mode of Transmission.” *Journal of Clinical Medicine* 10, no. 12 (June 18, 2021): 2696. <https://doi.org/10.3390/jcm10122696>.

Dharmadhikari, Tanmay, Vinay Rajput, Rakeshkumar Yadav, Radhika Boargaonkar, Dhawal Patil, Saurabh Kale, Sanjay P. Kamble, Syed G. Dastager, and Mahesh S. Dharne. “High Throughput Sequencing Based Direct Detection of SARS-CoV-2 Fragments in Wastewater of Pune, West India.” *Science of The Total Environment* 807 (February 2022): 151038. <https://doi.org/10.1016/j.scitotenv.2021.151038>.

APRIL 2022

Di Bonito, Paola, Simonetta Della Libera, Sabrina Petricca, Marcello Iaconelli, Maurizio Sanguinetti, Rosalia Graffeo, Luisa Accardi, and Giuseppina La Rosa. “A Large Spectrum of Alpha and Beta Papillomaviruses Are Detected in Human Stool Samples.” *Journal of General Virology* 96, no. 3 (March 1, 2015): 607–13. <https://doi.org/10.1099/vir.0.071787-0>.

Diallo, Alpha Amadou, Hubert Brugère, Monique Kérourédan, Véronique Dupouy, Pierre-Louis Toutain, Alain Bousquet-Mélou, Eric Oswald, and Delphine Bibbal. “Persistence and Prevalence of Pathogenic and Extended-Spectrum Beta-Lactamase-Producing *Escherichia Coli* in Municipal Wastewater Treatment Plant Receiving Slaughterhouse Wastewater.” *Water Research* 47, no. 13 (September 2013): 4719–29. <https://doi.org/10.1016/j.watres.2013.04.047>.

Dionne, Léa-Laurence, Frédéric Raymond, Jacques Corbeil, Jean Longtin, Philippe Gervais, and Yves Longtin. “Correlation between *Clostridium Difficile* Bacterial Load, Commercial Real-Time PCR Cycle Thresholds, and Results of Diagnostic Tests Based on Enzyme Immunoassay and Cell Culture Cytotoxicity Assay.” *Journal of Clinical Microbiology* 51, no. 11 (November 2013): 3624–30. <https://doi.org/10.1128/JCM.01444-13>.

Dirks, J. A. M. C., G. A. F. S. van Liere, S. Bogers, N. H. T. M. Dukers-Muijers, P. F. G. Wolffs, and C. J. P. A. Hoebe. “Natural Course of *Chlamydia Trachomatis* Bacterial Load in the Time Interval between Screening and Treatment in Anogenital Samples.” Edited by J. Seshu. *PLOS ONE* 10, no. 12 (December 29, 2015): e0145693. <https://doi.org/10.1371/journal.pone.0145693>.

Divya, Sukumaran P., and A.A. Mohamed Hatha. “Screening of Tropical Estuarine Water in South-West Coast of India Reveals Emergence of ARGs-Harboring Hypervirulent *Escherichia Coli* of Global Significance.” *International Journal of Hygiene and Environmental Health* 222, no. 2 (March 2019): 235–48. <https://doi.org/10.1016/j.ijheh.2018.11.002>.

Do, Thi Thuy, Javier Tamames, Robert D. Stedtfeld, Xueping Guo, Sinead Murphy, James M. Tiedje, and Fiona Walsh. “Antibiotic Resistance Gene Detection in the Microbiome Context.” *Microbial Drug Resistance* 24, no. 5 (June 2018): 542–46. <https://doi.org/10.1089/mdr.2017.0199>.

Drancourt, Michel. “Culturing Stools To Detect *Mycobacterium Tuberculosis*.” Edited by Alexander J. McAdam. *Journal of Clinical Microbiology* 56, no. 5 (May 2018): e02033-17. <https://doi.org/10.1128/JCM.02033-17>.

Drigo, Barbara, Gianluca Brunetti, Samuel C. Aleer, Jan M. Bell, Michael D. Short, Sotirios Vasileiadis, John Turnidge, Paul Monis, David Cunliffe, and Erica Donner. “Inactivation, Removal, and Regrowth Potential of Opportunistic Pathogens and Antimicrobial Resistance

APRIL 2022

Genes in Recycled Water Systems.” *Water Research* 201 (August 2021): 117324.
<https://doi.org/10.1016/j.watres.2021.117324>.

Driss, Nadia, Imen Ben-Mustapha, Fethi Mellouli, Ahlem Ben Yahia, Henda Touzi, Mohamed Bejaoui, Mohamed Ben Ghorbel, Henda Triki, and Mohamed-Ridha Barbouche. “High Susceptibility for Enterovirus Infection and Virus Excretion Features in Tunisian Patients with Primary Immunodeficiencies.” *Clinical and Vaccine Immunology* 19, no. 10 (October 2012): 1684–89. <https://doi.org/10.1128/CVI.00293-12>.

Du, Cong, Chongwei Cui, Shan Qiu, Shanwen Xu, Shengnan Shi, Thangavel Sangeetha, and Fang Ma. “Microbial Community Shift in a Suspended Stuffing Biological Reactor with Pre-Attached Aerobic Denitrifier.” *World Journal of Microbiology and Biotechnology* 33, no. 7 (July 2017): 148. <https://doi.org/10.1007/s11274-017-2288-4>.

Du, Q., K. Hong, and B. C. Pan. “[Comparison of two methods for detection of *Chlamydia trachomatis* and *Ureaplasma urealyticum* in male reproductive tract].” *Beijing Da Xue Xue Bao. Yi Xue Ban = Journal of Peking University. Health Sciences* 53, no. 4 (August 18, 2021): 785–88.

Dubourg, Grégory, Sophie Edouard, Elsa Prudent, Pierre-Edouard Fournier, and Didier Raoult. “Incidental Syphilis Diagnosed by Real-Time PCR Screening of Urine Samples.” Edited by E. Munson. *Journal of Clinical Microbiology* 53, no. 11 (November 2015): 3707–8. <https://doi.org/10.1128/JCM.01026-15>.

Duraisingham, S S, A Manson, S Grigoriadou, M Buckland, C Y W Tong, and H J Longhurst. “Immune Deficiency: Changing Spectrum of Pathogens.” *Clinical and Experimental Immunology* 181, no. 2 (July 14, 2015): 267–74. <https://doi.org/10.1111/cei.12600>.

Ebomah, Kingsley Ehi, and Anthony Ifeanyi Okoh. “Detection of Carbapenem-Resistance Genes in *Klebsiella* Species Recovered from Selected Environmental Niches in the Eastern Cape Province, South Africa.” *Antibiotics* 9, no. 7 (July 21, 2020): 425. <https://doi.org/10.3390/antibiotics9070425>.

Echeverria, Peter, David N. Taylor, Udom Leksomboon, Neil R. Blacklow, Sajee Pinnoi, James P. Nataro, James Kaper, and Bernard Rowe. “Identification of Enteric Pathogens in the Small and Large Intestine of Children with Diarrhea.” *Diagnostic Microbiology and Infectious Disease* 4, no. 4 (April 1986): 277–84. [https://doi.org/10.1016/0732-8893\(86\)90067-2](https://doi.org/10.1016/0732-8893(86)90067-2).

Ekwanzala, Mutshiene Deogratias, John Barr Dewar, and Maggy Ndombo Benteke Momba. “Environmental Resistome Risks of Wastewaters and Aquatic Environments Deciphered by

APRIL 2022

Shotgun Metagenomic Assembly.” *Ecotoxicology and Environmental Safety* 197 (July 2020): 110612. <https://doi.org/10.1016/j.ecoenv.2020.110612>.

El-Senousy, Waled Morsy, and Mohamed Shouman. “Human Coronavirus NL63 Among Other Respiratory Viruses in Clinical Specimens of Egyptian Children and Raw Sewage Samples.” *Food and Environmental Virology* 13, no. 3 (September 2021): 322–28. <https://doi.org/10.1007/s12560-021-09479-9>.

Enouf, V., G. Dos Reis, J.P. Guthmann, P.J. Guerin, M. Caron, V. Marechal, and E. Nicand. “Validation of Single Real-Time TaqMan® PCR Assay for the Detection and Quantitation of Four Major Genotypes of Hepatitis E Virus in Clinical Specimens.” *Journal of Medical Virology* 78, no. 8 (August 2006): 1076–82. <https://doi.org/10.1002/jmv.20665>.

Escudero, R., M. Elía, J.A. Sáez-Nieto, V. Menéndez, A. Toledo, G. Royo, M. Rodríguez-Vargas, et al. “A Possible Novel Francisellagenomic Species Isolated from Blood and Urine of a Patient with Severe Illness.” *Clinical Microbiology and Infection* 16, no. 7 (July 2010): 1026–30. <https://doi.org/10.1111/j.1469-0691.2009.03029.x>.

Estepa, Vanesa, Beatriz Rojo-Bezares, Carmen Torres, and Yolanda Sáenz. “Faecal Carriage of *Pseudomonas Aeruginosa* in Healthy Humans: Antimicrobial Susceptibility and Global Genetic Lineages.” *FEMS Microbiology Ecology* 89, no. 1 (July 2014): 15–19. <https://doi.org/10.1111/1574-6941.12301>.

Eze, Emmanuel C., Mohamed E. El Zowalaty, and Manormoney Pillay. “Antibiotic Resistance and Biofilm Formation of *Acinetobacter Baumannii* Isolated from High-Risk Effluent Water in Tertiary Hospitals in South Africa.” *Journal of Global Antimicrobial Resistance* 27 (December 2021): 82–90. <https://doi.org/10.1016/j.jgar.2021.08.004>.

Faden, Howard, Michael Heimerl, Chelikani Varma, Gail Goodman, and Peter Winkelstein. “Urinary Excretion of Pneumococcal Cell Wall Polysaccharide in Children.” *The Pediatric Infectious Disease Journal* 21, no. 8 (August 2002): 791–93. <https://doi.org/10.1097/00006454-200208000-00020>.

Fakhkhari, Parisa, Elahe Tajeddin, Masoumeh Azimirad, Siavosh Salmanzadeh-Ahrabi, Ahya Abdi-Ali, Bahram Nikmanesh, Babak Eshrati, et al. “Involvement of *Pseudomonas Aeruginosa* in the Occurrence of Community and Hospital Acquired Diarrhea, and Its Virulence Diversity among the Stool and the Environmental Samples.” *International Journal of Environmental Health Research* 32, no. 1 (January 2, 2022): 61–71. <https://doi.org/10.1080/09603123.2020.1726300>.

APRIL 2022

Falcao, J.P., M. Brocchi, J.L. Proenca-Modena, G.O. Acrani, E.F. Correa, and D.P. Falcao. "Virulence Characteristics and Epidemiology of *Yersinia Enterocolitica* and *Yersinia* Other than *Y. Pseudotuberculosis* and *Y. Pestis* Isolated from Water and Sewage." *Journal of Applied Microbiology* 96, no. 6 (June 2004): 1230–36. <https://doi.org/10.1111/j.1365-2672.2004.02268.x>.

Farkas, Kata, Miles Marshall, David Cooper, James E. McDonald, Shelagh K. Malham, Dafydd E. Peters, John D. Maloney, and Davey L. Jones. "Seasonal and Diurnal Surveillance of Treated and Untreated Wastewater for Human Enteric Viruses." *Environmental Science and Pollution Research* 25, no. 33 (November 2018): 33391–401. <https://doi.org/10.1007/s11356-018-3261-y>.

Fekadu, Sintayehu, Yared Merid, Hunachew Beyene, Wondu Teshome, and Solomon Gebre-Selassie. "Assessment of Antibiotic- and Disinfectant-Resistant Bacteria in Hospital Wastewater, South Ethiopia: A Cross-Sectional Study." *Journal of Infection in Developing Countries* 9, no. 2 (February 19, 2015): 149–56. <https://doi.org/10.3855/jidc.4808>.

Fenaux, H., M. Chassaing, S. Berger, H. Jeulin, A. Gentilhomme, M. Bensenane, J.P. Bronowicki, C. Gantzer, I. Bertrand, and E. Schvoerer. "Molecular Features of Hepatitis E Virus Circulation in Environmental and Human Samples." *Journal of Clinical Virology* 103 (June 2018): 63–70. <https://doi.org/10.1016/j.jcv.2018.04.003>.

Ferreira, Alessandra E., Desirée P. Marchetti, Lyvia M. De Oliveira, Carolina S. Gusatti, Daiane B. Fuentefria, and Gertrudes Corção. "Presence of OXA-23-Producing Isolates of *Acinetobacter Baumannii* in Wastewater from Hospitals in Southern Brazil." *Microbial Drug Resistance* 17, no. 2 (June 2011): 221–27. <https://doi.org/10.1089/mdr.2010.0013>.

Ferreira, Ines, Sarah Lepuschitz, Stephan Beisken, Giuseppe Fiume, Katharina Mrazek, Bernhard J. H. Frank, Silke Huber, et al. "Culture-Free Detection of Antibiotic Resistance Markers from Native Patient Samples by Hybridization Capture Sequencing." *Microorganisms* 9, no. 8 (August 5, 2021): 1672. <https://doi.org/10.3390/microorganisms9081672>.

Figueiredo, C.A., M.I. Oliveira, S.P. Curti, A.M.S. Afonso, A.L. Frugis YU, J. Araújo, D.B. Oliveira, and E.L. Durigon. "Epidemiological and Molecular Characterization of Rubella Virus Isolated in São Paulo, Brazil during 1997-2004." *Journal of Medical Virology* 84, no. 11 (November 2012): 1831–38. <https://doi.org/10.1002/jmv.23393>.

Figueroa-González, Ivonne, Guillermo Quijano, Inés Laguna, Raúl Muñoz, and Pedro A. García-Encina. "A Fundamental Study on Biological Removal of N₂O in the Presence of Oxygen." *Chemosphere* 158 (September 2016): 9–16. <https://doi.org/10.1016/j.chemosphere.2016.05.046>.

APRIL 2022

Figura, N, and A Rossolini. “A Prospective Etiological and Clinical Study on Gastroenteritis in Italian Children,” n.d., 1.

Finkelstein, R A, M L Vasil, J R Jones, R A Anderson, and T Barnard. “Clinical Cholera Caused by Enterotoxigenic Escherichia Coli.” *Journal of Clinical Microbiology* 3, no. 3 (March 1976): 382–84. <https://doi.org/10.1128/jcm.3.3.382-384.1976>.

Fioretti, J.M., M.S. Rocha, T.M. Fumian, A. Ginuino, T.P. da Silva, M.R. de Assis, J.de.S. Rodrigues, F.A. Carvalho-Costa, and M.P. Miagostovich. “Occurrence of Human Sapoviruses in Wastewater and Stool Samples in Rio De Janeiro, Brazil.” *Journal of Applied Microbiology* 121, no. 3 (September 2016): 855–62. <https://doi.org/10.1111/jam.13205>.

Fong, Theng-Theng, Mantha S. Phanikumar, Irene Xagorarakis, and Joan B. Rose. “Quantitative Detection of Human Adenoviruses in Wastewater and Combined Sewer Overflows Influencing a Michigan River.” *Applied and Environmental Microbiology* 76, no. 3 (February 2010): 715–23. <https://doi.org/10.1128/AEM.01316-09>.

Fontenele, Rafaela S., Simona Kraberger, James Hadfield, Erin M. Driver, Devin Bowes, LaRinda A. Holland, Temitope O.C. Faleye, et al. “High-Throughput Sequencing of SARS-CoV-2 in Wastewater Provides Insights into Circulating Variants.” *Water Research* 205 (October 2021): 117710. <https://doi.org/10.1016/j.watres.2021.117710>.

Fraiture, Marie-Alice, Wim Coucke, Morgane Pol, Dominique Rousset, Ann-Claire Gourinat, Antoine Biron, Sylvia Broeders, Els Vandermassen, Myrielle Dupont-Rouzeyrol, and Nancy H. C. Roosens. “Non-Invasive versus Invasive Samples for Zika Virus Surveillance: A Comparative Study in New Caledonia and French Guiana in 2015–2016.” *Microorganisms* 9, no. 6 (June 16, 2021): 1312. <https://doi.org/10.3390/microorganisms9061312>.

Franz, Eelco, Christiaan Veenman, Angela H. A. M. van Hoek, Ana de Roda Husman, and Hetty Blaak. “Pathogenic Escherichia Coli Producing Extended-Spectrum β -Lactamases Isolated from Surface Water and Wastewater.” *Scientific Reports* 5, no. 1 (November 2015): 14372. <https://doi.org/10.1038/srep14372>.

Frølund, M, P Lidbrink, A Wikström, S Cowan, P Ahrens, and J Jensen. “Urethritis-Associated Pathogens in Urine from Men with Non-Gonococcal Urethritis: A Case-Control Study.” *Acta Dermato Venereologica* 96, no. 5 (2016): 689–94. <https://doi.org/10.2340/00015555-2314>.

Garcia-Aljaro, C. et al. “Characterization of Shiga Toxin-Producing Escherichia Coli Isolated from Aquatic Environments | FEMS Microbiology Letters | Oxford Academic.” Accessed March 17, 2022. <https://academic.oup.com/femsle/article/246/1/55/546251>.

APRIL 2022

Gaudin, O. G. et al. “[Persistent Non Polio Enterovirus Infections Associated with Glomerulonephritis. 9 Cases (Author’s Transl)] - PubMed.” Accessed March 17, 2022. <https://pubmed.ncbi.nlm.nih.gov/231760/>.

Gayet-Ageron, A, B Ninet, L Toutous-Trellu, S Lautenschlager, H Furrer, V Piguet, J Schrenzel, and B Hirschel. “Assessment of a Real-Time PCR Test to Diagnose Syphilis from Diverse Biological Samples.” *Sexually Transmitted Infections* 85, no. 4 (August 1, 2009): 264–69. <https://doi.org/10.1136/sti.2008.034314>.

Gbakima, Aiah A. “Intestinal Parasitic Infections and Swamp Development in Sierra Leone,” n.d., 1.

Geng, Yansheng, Chenyan Zhao, Weijin Huang, Tim J. Harrison, Hongxin Zhang, Kunjing Geng, and Youchun Wang. “Detection and Assessment of Infectivity of Hepatitis E Virus in Urine.” *Journal of Hepatology* 64, no. 1 (January 2016): 37–43. <https://doi.org/10.1016/j.jhep.2015.08.034>.

Gerna, G, N Passarani, M Battaglia, M G Revello, D Torre, and P M Cereda. “Coronaviruses and Gastroenteritis: Evidence of Antigenic Relatedness between Human Enteric Coronavirus Strains and Human Coronavirus OC43,” n.d., 1.

Geuenich, H. H., and H. E. Müller. “[Isolation and germ count of *Listeria monocytogenes* in raw and biologically treated waste water].” *Zentralblatt Fur Bakteriologie, Mikrobiologie Und Hygiene. 1. Abt. Originale B, Hygiene* 179, no. 3 (June 1984): 266–73.

Ghayour Najafabadi, Z., H. Oormazdi, L. Akhlaghi, A. R. Meamar, A. Raeisi, Z. Rampisheh, M. Nateghpour, and E. Razmjou. “Mitochondrial PCR-Based Malaria Detection in Saliva and Urine of Symptomatic Patients.” *Transactions of the Royal Society of Tropical Medicine and Hygiene* 108, no. 6 (June 1, 2014): 358–62. <https://doi.org/10.1093/trstmh/tru061>.

Ghayour Najafabadi, Zahra, Hormozd Oormazdi, Lame Akhlaghi, Ahmad Reza Meamar, Mehdi Nateghpour, Leila Farivar, and Elham Razmjou. “Detection of *Plasmodium Vivax* and *Plasmodium Falciparum* DNA in Human Saliva and Urine: Loop-Mediated Isothermal Amplification for Malaria Diagnosis.” *Acta Tropica* 136 (August 2014): 44–49. <https://doi.org/10.1016/j.actatropica.2014.03.029>.

Gil-Campesino, Helena, Laura Sante, Enrique Callejas Castro, María Lecuona, and Department of Microbiology and Infection Control, University Hospital of the Canary Islands, Santa Cruz de Tenerife, Spain. “Introduction of a Complementary Screening System for the Detection of Sexually Transmitted Infections in Patients with Sterile Pyuria.” *Revista Española de Quimioterapia* 34, no. 3 (May 25, 2021): 245–48. <https://doi.org/10.37201/req/145.2020>.

APRIL 2022

Gionchetti, P., F. Rizzello, A. Venturi, F. Ugolini, M. Rossi, P. Brigidi, R. Johansson, A. Ferrieri, G. Poggioli, and M. Campieri. "Antibiotic Combination Therapy in Patients with Chronic, Treatment-Resistant Pouchitis: ANTIBIOTIC COMBINATION FOR REFRACTORY POUCHITIS." *Alimentary Pharmacology & Therapeutics* 13, no. 6 (June 1999): 713–18. <https://doi.org/10.1046/j.1365-2036.1999.00553.x>.

Girija A.S., Smiline, and Vijayashree Priyadharsini J. "CLSI Based Antibioqram Profile and the Detection of MDR and XDR Strains of *Acinetobacter Baumannii* Isolated from Urine Samples." *Medical Journal of The Islamic Republic of Iran*, October 30, 2019. <https://doi.org/10.47176/mjiri.33.3>.

Godini, Hatam, Edris Hoseinzadeh, and Hooshyar Hossini. "Water and Wastewater as Potential Sources of SARS-CoV-2 Transmission: A Systematic Review." *Reviews on Environmental Health* 36, no. 3 (September 27, 2021): 309–17. <https://doi.org/10.1515/reveh-2020-0148>.

Goldstein, Rachel E. Rosenberg, Shirley A. Micallef, Shawn G. Gibbs, Johnnie A. Davis, Xin He, Ashish George, Lara M. Kleinfelter, et al. "Methicillin-Resistant *Staphylococcus Aureus* (MRSA) Detected at Four U.S. Wastewater Treatment Plants." *Environmental Health Perspectives* 120, no. 11 (November 2012): 1551–58. <https://doi.org/10.1289/ehp.1205436>.

Gomes, João P., Maria J. Borrego, Berna Atik, Irene Santo, Jacinta Azevedo, Armando Brito de Sá, Paulo Nogueira, and Deborah Dean. "Correlating *Chlamydia Trachomatis* Infectious Load with Urogenital Ecological Success and Disease Pathogenesis." *Microbes and Infection* 8, no. 1 (January 2006): 16–26. <https://doi.org/10.1016/j.micinf.2005.05.014>.

Gomi, R. et al. "Occurrence of Clinically Important Lineages, Including the Sequence Type 131 C1-M27 Subclone, among Extended-Spectrum- β -Lactamase-Producing *Escherichia Coli* in Wastewater - PubMed." Accessed March 17, 2022. <https://pubmed.ncbi.nlm.nih.gov/28630184/>.

Goodman, J L, P Jurkovich, J M Kramber, and R C Johnson. "Molecular Detection of Persistent *Borrelia Burgdorferi* in the Urine of Patients with Active Lyme Disease." *Infection and Immunity* 59, no. 1 (January 1991): 269–78. <https://doi.org/10.1128/iai.59.1.269-278.1991>.

Gordon, N. C., and D. W. Wareham. "Evaluation of CHROMagar *Acinetobacter* for Detection of Enteric Carriage of Multidrug-Resistant *Acinetobacter Baumannii* in Samples from Critically Ill Patients." *Journal of Clinical Microbiology* 47, no. 7 (July 2009): 2249–51. <https://doi.org/10.1128/JCM.00634-09>.

APRIL 2022

Gouma, Sigrid, Susan J.M. Hahné, Daphne B. Gijsselaar, Marion P.G. Koopmans, and Rob S. van Binnendijk. “Severity of Mumps Disease Is Related to MMR Vaccination Status and Viral Shedding.” *Vaccine* 34, no. 16 (April 2016): 1868–73.

<https://doi.org/10.1016/j.vaccine.2016.02.070>.

Grabow, W. O. K., O. W. Prozesky, P. C. Appelbaum, and G. Lecatsas. “Absence of Hepatitis B Antigens from Feces and Sewage as a Result of Enzymatic Destruction.” *Journal of Infectious Diseases* 131, no. 6 (June 1, 1975): 658–64. <https://doi.org/10.1093/infdis/131.6.658>.

Grad, Alecsandra Iulia, Mihaela Laura Vica, Loredana Ungureanu, Costel Vasile Siserman, Alexandru Dumitru Tătaru, and Horea Vladi Matei. “Assessment of STI Screening in Romania Using a Multiplex PCR Technique.” *The Journal of Infection in Developing Countries* 14, no. 04 (April 30, 2020): 341–48. <https://doi.org/10.3855/jidc.11989>.

Graham, S. M., J. N. Krieger, P. L. M. Githua, L. W. Wamuyu, S. Wale, K. M. Ramko, J. A. Dragavon, et al. “Post-Prostatic Massage Fluid/Urine as an Alternative to Semen for Studying Male Genitourinary HIV-1 Shedding.” *Sexually Transmitted Infections* 87, no. 3 (April 1, 2011): 232–37. <https://doi.org/10.1136/sti.2010.047118>.

Greay, Telleasha L., Alexander W. Gofton, Alireza Zahedi, Andrea Papparini, Kathryn L. Linge, Cynthia A. Joll, and Una M. Ryan. “Evaluation of 16S Next-Generation Sequencing of Hypervariable Region 4 in Wastewater Samples: An Unsuitable Approach for Bacterial Enteric Pathogen Identification.” *Science of The Total Environment* 670 (June 2019): 1111–24. <https://doi.org/10.1016/j.scitotenv.2019.03.278>.

Green, Clare, Jim F Huggett, Elizabeth Talbot, Peter Mwaba, Klaus Reither, and Alimuddin I Zumla. “Rapid Diagnosis of Tuberculosis through the Detection of Mycobacterial DNA in Urine by Nucleic Acid Amplification Methods.” *The Lancet Infectious Diseases* 9, no. 8 (August 2009): 505–11. [https://doi.org/10.1016/S1473-3099\(09\)70149-5](https://doi.org/10.1016/S1473-3099(09)70149-5).

Gregory, Devon A., Chris G. Wieberg, Jeff Wenzel, Chung-Ho Lin, and Marc C. Johnson. “Monitoring SARS-CoV-2 Populations in Wastewater by Amplicon Sequencing and Using the Novel Program SAM Refiner.” *Viruses* 13, no. 8 (August 19, 2021): 1647. <https://doi.org/10.3390/v13081647>.

Grevskott, Didrik H., Fatemeh Z. Ghavidel, Cecilie S. Svanevik, and Nachiket P. Marathe. “Resistance Profiles and Diversity of β -Lactamases in *Escherichia Coli* Strains Isolated from City-Scale Sewage Surveillance in Bergen, Norway Mimic Clinical Prevalence.” *Ecotoxicology and Environmental Safety* 226 (December 2021): 112788. <https://doi.org/10.1016/j.ecoenv.2021.112788>.

APRIL 2022

Guerrero-Latorre, Laura, Isabel Ballesteros, Irina Villacrés-Granda, M. Genoveva Granda, Byron Freire-Paspuel, and Blanca Ríos-Touma. “SARS-CoV-2 in River Water: Implications in Low Sanitation Countries.” *Science of The Total Environment* 743 (November 2020): 140832. <https://doi.org/10.1016/j.scitotenv.2020.140832>.

Gustafson, A A, and J B Hundley. “Enteropathogenic Escherichia Coli Serotypes Found in Sewage Lagoons (Waste Stabilization Ponds) in North Dakota,” n.d., 1.

Hamza, Hazem, and Ibrahim Ahmed Hamza. “Oncogenic Papillomavirus and Polyomavirus in Urban Sewage in Egypt.” *Science of The Total Environment* 610–611 (January 2018): 1413–20. <https://doi.org/10.1016/j.scitotenv.2017.08.218>.

Hanaoka, Nozomu, Shin Ito, Masami Konagaya, Naomi Nojiri, Mitsuru Yasuda, Tsuguto Fujimoto, and Takashi Deguchi. “Infectious Human Adenoviruses Are Shed in Urine Even after Disappearance of Urethral Symptoms.” Edited by Ilya Ulasov. *PLOS ONE* 14, no. 3 (March 6, 2019): e0212434. <https://doi.org/10.1371/journal.pone.0212434>.

Hansen, Wendy L. J., Christina F. M. van der Donk, Cathrien A. Bruggeman, Ellen E. Stobberingh, and Petra F. G. Wolffs. “A Real-Time PCR-Based Semi-Quantitative Breakpoint to Aid in Molecular Identification of Urinary Tract Infections.” Edited by Herman Tse. *PLoS ONE* 8, no. 4 (April 23, 2013): e61439. <https://doi.org/10.1371/journal.pone.0061439>.

Haramoto, E., H. Katayama, C. Phanuwat, and S. Ohgaki. “Quantitative Detection of Sapoviruses in Wastewater and River Water in Japan.” *Letters in Applied Microbiology* 46, no. 3 (March 2008): 408–13. <https://doi.org/10.1111/j.1472-765X.2008.02330.x>.

Harries, M., J. Dreesman, S. Rettenbacher-Riefler, and E. Mertens. “Faecal Carriage of Extended-Spectrum β -Lactamase-Producing Enterobacteriaceae and Shiga Toxin-Producing Escherichia Coli in Asymptomatic Nursery Children in Lower Saxony (Germany), 2014.” *Epidemiology & Infection* 144, no. 16 (December 2016): 3540–48. <https://doi.org/10.1017/S0950268816001837>.

Hatchette, Tf, R Davidson, S Clay, J Pettipas, J LeBlanc, S Sarwal, M Smieja, and Kr Forward. “Laboratory Diagnosis of Mumps in a Partially Immunized Population: The Nova Scotia Experience.” *Canadian Journal of Infectious Diseases and Medical Microbiology* 20, no. 4 (2009): e157–62. <https://doi.org/10.1155/2009/493275>.

Havill, Nancy L., and John M. Boyce. “Evaluation of a New Selective Medium, BD BBL CHROMagar MRSA II, for Detection of Methicillin-Resistant Staphylococcus Aureus in Stool Specimens.” *Journal of Clinical Microbiology* 48, no. 6 (June 2010): 2228–30. <https://doi.org/10.1128/JCM.02376-09>.

APRIL 2022

Haymaker, Joseph, Manan Sharma, Salina Parveen, Fawzy Hashem, Eric B. May, Eric T. Handy, Chanelle White, et al. “Prevalence of Shiga-Toxigenic and Atypical Enteropathogenic Escherichia Coli in Untreated Surface Water and Reclaimed Water in the Mid-Atlantic U.S.” *Environmental Research* 172 (May 2019): 630–36. <https://doi.org/10.1016/j.envres.2019.02.019>.

Heidrich, Benjamin, Eike Steinmann, Iris Plumeier, Janina Kirschner, Lisa Sollik, Szilvia Ziegert, Michael Engelmann, et al. “Frequent Detection of HCV RNA and HCVcoreAg in Stool of Patients with Chronic Hepatitis C.” *Journal of Clinical Virology* 80 (July 2016): 1–7. <https://doi.org/10.1016/j.jcv.2016.04.006>.

Heijnen, Leo, and Gertjan Medema. “Quantitative Detection of E. Coli, E. Coli O157 and Other Shiga Toxin Producing E. Coli in Water Samples Using a Culture Method Combined with Real-Time PCR.” *Journal of Water and Health* 4, no. 4 (December 1, 2006): 487–98. <https://doi.org/10.2166/wh.2006.0032>.

Heijnen, Leo, and Gertjan Medema. “Surveillance of Influenza A and the Pandemic Influenza A (H1N1) 2009 in Sewage and Surface Water in the Netherlands.” *Journal of Water and Health* 9, no. 3 (September 1, 2011): 434–42. <https://doi.org/10.2166/wh.2011.019>.

Hembach, Norman, Ferdinand Schmid, Johannes Alexander, Christian Hiller, Eike T. Rogall, and Thomas Schwartz. “Occurrence of the Mcr-1 Colistin Resistance Gene and Other Clinically Relevant Antibiotic Resistance Genes in Microbial Populations at Different Municipal Wastewater Treatment Plants in Germany.” *Frontiers in Microbiology* 8 (July 11, 2017): 1282. <https://doi.org/10.3389/fmicb.2017.01282>.

Hien, Bui Thi Thu, Do Thuy Trang, Flemming Scheutz, Phung Dac Cam, Kåre Mølbak, and Anders Dalsgaard. “Diarrhoeagenic Escherichia Coli and Other Causes of Childhood Diarrhoea: A Case–Control Study in Children Living in a Wastewater-Use Area in Hanoi, Vietnam.” *Journal of Medical Microbiology* 56, no. 8 (August 1, 2007): 1086–96. <https://doi.org/10.1099/jmm.0.47093-0>.

Higgins, Paul G., Jasna Hrenovic, Harald Seifert, and Svjetlana Dekic. “Characterization of Acinetobacter Baumannii from Water and Sludge Line of Secondary Wastewater Treatment Plant.” *Water Research* 140 (September 2018): 261–67. <https://doi.org/10.1016/j.watres.2018.04.057>.

Highsmith, Anita K, and Robert L Abshire. “Evaluation of a Most-Probable-Number Technique for the Enumeration of Pseudomonas Aeruginosa.” *APPL. MICROBIOL.* 30 (1975): 6.

Hillary, Luke S., Kata Farkas, Kathryn H. Maher, Anita Lucaci, Jamie Thorpe, Marco A. Distaso, William H. Gaze, et al. “Monitoring SARS-CoV-2 in Municipal Wastewater to Evaluate the

APRIL 2022

Success of Lockdown Measures for Controlling COVID-19 in the UK.” *Water Research* 200 (July 2021): 117214. <https://doi.org/10.1016/j.watres.2021.117214>.

Hoque, Sheikh Ariful, Aksara Thongprachum, Sayaka Takanashi, Salwa Mohd Mostafa, Hiroyuki Saito, Kazi Selim Anwar, Akiko Nomura, et al. “Alarming Situation of Spreading Enteric Viruses Through Sewage Water in Dhaka City: Molecular Epidemiological Evidences.” *Food and Environmental Virology* 11, no. 1 (March 2019): 65–75. <https://doi.org/10.1007/s12560-018-09363-z>.

Horn, Matthias, and Michael Wagner. “Evidence for Additional Genus-Level Diversity of Chlamydiales in the Environment.” *FEMS Microbiology Letters* 204, no. 1 (October 2001): 71–74. <https://doi.org/10.1111/j.1574-6968.2001.tb10865.x>.

Horst, H. “[Isolation of hepatitis-B-antigen from water and sewage by means of immuno-adsorption in a continuous flow procedure (author’s transl)].” *Zentralblatt Fur Bakteriologie, Parasitenkunde, Infektionskrankheiten Und Hygiene. Erste Abteilung Originale. Reihe B: Hygiene, Praventive Medizin* 158, no. 6 (April 1974): 578–82.

Hou, Chenzhi, Zhendong Hua, Peng Xu, Hui Xu, Youmei Wang, Jun Liao, and Bin Di. “Estimating the Prevalence of Hepatitis B by Wastewater-Based Epidemiology in 19 Cities in China.” *Science of The Total Environment* 740 (October 2020): 139696. <https://doi.org/10.1016/j.scitotenv.2020.139696>.

Hrenovic, Jasna, Ivana Goic-Barisic, Snjezana Kazazic, Ana Kovacic, Marin Ganjto, and Marija Tonkic. “Carbapenem-Resistant Isolates of *Acinetobacter Baumannii* in a Municipal Wastewater Treatment Plant, Croatia, 2014.” *Eurosurveillance* 21, no. 15 (April 14, 2016). <https://doi.org/10.2807/1560-7917.ES.2016.21.15.30195>.

Hua, Chun-Zhen, Zi-Ping Miao, Ji-Shan Zheng, Qian Huang, Qing-Feng Sun, Hong-Ping Lu, Fei-Fei Su, et al. “Epidemiological Features and Viral Shedding in Children with SARS-CoV-2 Infection.” *Journal of Medical Virology* 92, no. 11 (November 2020): 2804–12. <https://doi.org/10.1002/jmv.26180>.

Huang, Shih-Wei, Bing-Mu Hsu, Yen-Jui Su, Dar-Der Ji, Wei-Chen Lin, Jyh-Larng Chen, Feng-Cheng Shih, Po-Min Kao, and Yi-Chou Chiu. “Occurrence of Diarrheagenic *Escherichia Coli* Genes in Raw Water of Water Treatment Plants.” *Environmental Science and Pollution Research* 19, no. 7 (August 2012): 2776–83. <https://doi.org/10.1007/s11356-012-0777-4>.

Huang, Shih-Wei, Bing-Mu Hsu, Yen-Jui Su, Dar-Der Ji, Wei-Chen Lin, Jyh-Larng Chen, Feng-Cheng Shih, Po-Min Kao, and Yi-Chou Chiu. “Occurrence of Diarrheagenic *Escherichia*

APRIL 2022

Coli Genes in Raw Water of Water Treatment Plants.” *Environmental Science and Pollution Research* 19, no. 7 (August 2012): 2776–83. <https://doi.org/10.1007/s11356-012-0777-4>.

Hughes, Bridgette, Dorothea Duong, Bradley J. White, Krista R. Wigginton, Elana M. G. Chan, Marlene K. Wolfe, and Alexandria B. Boehm. “Respiratory Syncytial Virus (RSV) RNA in Wastewater Settled Solids Reflects RSV Clinical Positivity Rates.” *Environmental Science & Technology Letters* 9, no. 2 (February 8, 2022): 173–78. <https://doi.org/10.1021/acs.estlett.1c00963>.

Huh, Hee Jae, Chang-Seok Ki, Sun Ae Yun, Jungsoo Lee, Gwi Young Oh, Nam-Sihk Lee, Young Ho Yoon, and Nam Yong Lee. “Comparison between DiaPlexQTM STI6 and GeneFinderTM STD I/STD II Multiplex Real-time PCR Kits in the Detection of Six Sexually Transmitted Disease Pathogens.” *Journal of Clinical Laboratory Analysis* 33, no. 3 (March 2019): e22703. <https://doi.org/10.1002/jcla.22703>.

Humaidi, Mahathir, Wei Ping Tien, Grace Yap, Choon Rong Chua, and Lee Ching Ng. “Non-Invasive Dengue Diagnostics—The Use of Saliva and Urine for Different Stages of the Illness.” *Diagnostics* 11, no. 8 (July 26, 2021): 1345. <https://doi.org/10.3390/diagnostics11081345>.

Huppertz, H. -I., H. Schmidt, and H. Karch. “Detection Of *Borrelia Burgdorferi* by Nested Polymerase Chain Reaction in Cerebrospinal Fluid and Urine of Children with Neuroborreliosis.” *European Journal of Pediatrics* 152, no. 5 (May 1993): 414–17. <https://doi.org/10.1007/BF01955900>.

Hyde, F W, R C Johnson, T J White, and C E Shelburne. “Detection of Antigens in Urine of Mice and Humans Infected with *Borrelia Burgdorferi*, Etiologic Agent of Lyme Disease.” *Journal of Clinical Microbiology* 27, no. 1 (January 1989): 58–61. <https://doi.org/10.1128/jcm.27.1.58-61.1989>.

Håkansson, Charles, Kjell Thorén, Gunnar Norkrans, and Gunnar Johannisson. “Intestinal Parasitic Infection and Other Sexually Transmitted Diseases in Asymptomatic Homosexual Men,” n.d., 4.

Iaconelli, M., M. Muscillo, S. Della Libera, M. Fratini, L. Meucci, M. De Ceglia, D. Giacosa, and G. La Rosa. “One-Year Surveillance of Human Enteric Viruses in Raw and Treated Wastewaters, Downstream River Waters, and Drinking Waters.” *Food and Environmental Virology* 9, no. 1 (March 2017): 79–88. <https://doi.org/10.1007/s12560-016-9263-3>.

Iaconelli, M., M. Muscillo, S. Della Libera, M. Fratini, L. Meucci, M. De Ceglia, D. Giacosa, and G. La Rosa. “One-Year Surveillance of Human Enteric Viruses in Raw and Treated

APRIL 2022

Wastewaters, Downstream River Waters, and Drinking Waters.” *Food and Environmental Virology* 9, no. 1 (March 2017): 79–88. <https://doi.org/10.1007/s12560-016-9263-3>.

Ibekwe, A. Mark, Pamela M. Watt, Catherine M. Grieve, Vijay K. Sharma, and Steven R. Lyons. “Multiplex Fluorogenic Real-Time PCR for Detection and Quantification of *Escherichia Coli* O157:H7 in Dairy Wastewater Wetlands.” *Applied and Environmental Microbiology* 68, no. 10 (October 2002): 4853–62. <https://doi.org/10.1128/AEM.68.10.4853-4862.2002>.

Ibrahim, Sabah A.E., Sofia B. Mohamed, Sumaya Kambal, Aya Diya-Aldeen, Sara Ahmed, Batool Faisal, Fatima Ismail, Amel Ibrahim, Amel Sabawe, and Osama Mohamed. “Molecular Detection of Occult Hepatitis B Virus in Plasma and Urine of Renal Transplant Patients in Khartoum State Sudan.” *International Journal of Infectious Diseases* 97 (August 2020): 126–30. <https://doi.org/10.1016/j.ijid.2020.05.101>.

Igwaran, Aboi, Benson Iweriebor, and Anthony Okoh. “Molecular Characterization and Antimicrobial Resistance Pattern of *Escherichia Coli* Recovered from Wastewater Treatment Plants in Eastern Cape South Africa.” *International Journal of Environmental Research and Public Health* 15, no. 6 (June 12, 2018): 1237. <https://doi.org/10.3390/ijerph15061237>.

Irwin, G R, A M Allen, W H Bancroft, J J Karwacki, H L Brown, R H Pinkerton, M Willhight, and F H Top. “Hepatitis B Antigen in Saliva, Urine, and Stool.” *Infection and Immunity* 11, no. 1 (January 1975): 142–45. <https://doi.org/10.1128/iai.11.1.142-145.1975>.

Ishizaka, Aya, Michiko Koga, Taketoshi Mizutani, Lay Ahyoung Lim, Eisuke Adachi, Kazuhiko Ikeuchi, Ryuta Ueda, et al. “Prolonged Gut Dysbiosis and Fecal Excretion of Hepatitis A Virus in Patients Infected with Human Immunodeficiency Virus.” *Viruses* 13, no. 10 (October 18, 2021): 2101. <https://doi.org/10.3390/v13102101>.

Iwakiri, Akira, Hidenari Ganmyo, Seigo Yamamoto, Kayoko Otao, Mieko Mikasa, Sigeko Kizoe, Kazuhiko Katayama, Takaji Wakita, Naokazu Takeda, and Tomoichiro Oka. “Quantitative Analysis of Fecal Sapovirus Shedding: Identification of Nucleotide Substitutions in the Capsid Protein during Prolonged Excretion.” *Archives of Virology* 154, no. 4 (April 2009): 689–93. <https://doi.org/10.1007/s00705-009-0358-0>.

Izquierdo-Lara, Ray, Goffe Elsinga, Leo Heijnen, Bas B. Oude Munnink, Claudia M.E. Schapendonk, David Nieuwenhuijse, Matthijs Kon, et al. “Monitoring SARS-CoV-2 Circulation and Diversity through Community Wastewater Sequencing, the Netherlands and Belgium.” *Emerging Infectious Diseases* 27, no. 5 (May 2021): 1405–15. <https://doi.org/10.3201/eid2705.204410>.

APRIL 2022

Izumi, Yuishin, Katsuhiko Sakaguchi, Kouichi Yoshikawa, Motoko Miki, Hisako Fushimi, and Masakuni Kameyama. "Enterohemorrhagic Escherichia Coli O157 Infection in an Elderly Patient with Secondary Hemolytic Uremic Syndrome Who Developed Recurrent Acute Exacerbation of Chronic Cholecystitis." *Nippon Ronen Igakkai Zasshi. Japanese Journal of Geriatrics* 35, no. 7 (1998): 559–65. <https://doi.org/10.3143/geriatrics.35.559>.

Jacob, J, U Bindemann, and W Stelzer. "Identification of Campylobacter Jejuni and Campylobacter Coli from Waste Water by SDS-Disc- Page of Whole Cell Protein," n.d., 1.

Jacob, J., and W. Stelzer. "Comparison of Two Media for the Isolation of Thermophilic Campylobacters from Waste Waters of Different Quality." *Zentralblatt Für Mikrobiologie* 147, no. 1–2 (February 1992): 41–44. [https://doi.org/10.1016/S0232-4393\(11\)80361-6](https://doi.org/10.1016/S0232-4393(11)80361-6).

Jain, Surbhi, Ying-Hsiu Su, Yih-Ping Su, Sierra McCloud, Ruixia Xue, Tai-Jung Lee, Shu-Chuan Lin, et al. "Characterization of the Hepatitis B Virus DNA Detected in Urine of Chronic Hepatitis B Patients." *BMC Gastroenterology* 18, no. 1 (December 2018): 40. <https://doi.org/10.1186/s12876-018-0767-1>.

Janahi, Essam M., Sakina Mustafa, Saba F. D. Parkar, Humood A. Naser, and Zaki M. Eisa. "Detection of Enteric Viruses and Bacterial Indicators in a Sewage Treatment Center and Shallow Water Bay." *International Journal of Environmental Research and Public Health* 17, no. 18 (September 6, 2020): E6483. <https://doi.org/10.3390/ijerph17186483>.

Jensen, Jørgen Skov, Eva Bjornelius, Birthe Dohn, and Peter Lidbrink. "Use of TaqMan 5J Nuclease Real-Time PCR for Quantitative Detection of Mycoplasma Genitalium DNA in Males with and without Urethritis Who Were Attendees at a Sexually Transmitted Disease Clinic." *J. CLIN. MICROBIOL.* 42 (2004): 10.

Jensen, K Erik. "PRESENCE AND DESTRUCTION OF TUBERCLE BACILLI IN SEWAGE," n.d., 9.

Jin, Longyang, Ruobing Wang, Xiaojuan Wang, Qi Wang, Yawei Zhang, Yuyao Yin, and Hui Wang. "Emergence of Mcr-1 and Carbapenemase Genes in Hospital Sewage Water in Beijing, China." *Journal of Antimicrobial Chemotherapy* 73, no. 1 (January 1, 2018): 84–87. <https://doi.org/10.1093/jac/dkx355>.

Johansson, Niclas, Mats Kalin, Annika Tiveljung-Lindell, Christian G. Giske, and Jonas Hedlund. "Etiology of Community-Acquired Pneumonia: Increased Microbiological Yield with New Diagnostic Methods." *Clinical Infectious Diseases* 50, no. 2 (January 15, 2010): 202–9. <https://doi.org/10.1086/648678>.

Johansson, Niclas, Mats Kalin, and Jonas Hedlund. "Clinical Impact of Combined Viral and Bacterial Infection in Patients with Community-Acquired Pneumonia." *Scandinavian Journal of*

APRIL 2022

Infectious Diseases 43, no. 8 (August 2011): 609–15.
<https://doi.org/10.3109/00365548.2011.570785>.

Jones, P W, Lynne M Rennison, P R J Matthews, P Collins, and Anne Brown. “The Occurrence and Significance to Animal Health of Leptospira, Mycobacterium, Escherichia Coli, Iruccella Abortus and Bacillus Anthracis in Sewage and Sewage Sludges,” n.d., 9.

Joshi, Madhuri S., Shilpa Bhalla, Vijay R. Kalrao, Ramchandra K. Dhongade, and Shobha D. Chitambar. “Exploring the Concurrent Presence of Hepatitis A Virus Genome in Serum, Stool, Saliva, and Urine Samples of Hepatitis A Patients.” *Diagnostic Microbiology and Infectious Disease* 78, no. 4 (April 2014): 379–82. <https://doi.org/10.1016/j.diagmicrobio.2013.12.013>.

Jovcic, Branko, Katarina Novovic, Svjetlana Dekic, and Jasna Hrenovic. “Colistin Resistance in Environmental Isolates of Acinetobacter Baumanni.” *Microbial Drug Resistance* 27, no. 3 (March 1, 2021): 328–36. <https://doi.org/10.1089/mdr.2020.0188>.

Judson, F N. “Epidemiology of Sexually Transmitted Hepatitis B Infections in Heterosexuals: A Review,” n.d., 1.

Kaas, Laetitia, Ann-Claire Gourinat, Florence Urbès, and Jérémie Langlet. “A 1-Year Study on the Detection of Human Enteric Viruses in New Caledonia.” *Food and Environmental Virology* 8, no. 1 (March 2016): 46–56. <https://doi.org/10.1007/s12560-015-9224-2>.

Kaas, Laetitia, Leslie Ogorzaly, Gaël Lecellier, Véronique Berteaux-Lecellier, Henry-Michel Cauchie, and Jérémie Langlet. “Detection of Human Enteric Viruses in French Polynesian Wastewaters, Environmental Waters and Giant Clams.” *Food and Environmental Virology* 11, no. 1 (March 2019): 52–64. <https://doi.org/10.1007/s12560-018-9358-0>.

Kaldor, Jakov, Richard Asznovicz, and David G. P. Buist. “Latex Agglutination in Diagnosis of Bacterial Infections, with Special Reference to Patients with Meningitis and Septicemia.” *American Journal of Clinical Pathology* 68, no. 2 (August 1, 1977): 284–89. <https://doi.org/10.1093/ajcp/68.2.284>.

Kamarashev, Jivko, Christoph E Riess, Josephine Mosimann, and Severin Läuchli. “Lymphogranuloma Venereum in Zurich Switzerland: Chlamydia Trachomatis Serovar L2 Proctitis among Men Who Have Sex with Men.” *S W I S S M E D W K L Y*, n.d., 5.

Kane, Mark A. “Epidemic Non-A, Non-B Hepatitis in Nepal,” n.d., 6.

Kang, G., B. S. Ramakrishna, J. Daniel, M. Mathan, and V. I. Mathan. “Epidemiological and Laboratory Investigations of Outbreaks of Diarrhoea in Rural South India: Implications for

APRIL 2022

Control of Disease.” *Epidemiology and Infection* 127, no. 01 (April 2001).
<https://doi.org/10.1017/S0950268801005799>.

Karch, H et al. “Long-Term Shedding and Clonal Turnover of Enterohemorrhagic *Escherichia Coli* O157 in Diarrheal Diseases - PubMed.” Accessed March 17, 2022.
<https://pubmed.ncbi.nlm.nih.gov/7650195/>.

Karrasch, Matthias, Ulrich Pein, Annekathrin Fritz, Danica Lange, Stefan Moritz, Kerstin Amann, Jonas Schmidt-Chanasit, Daniel Cadar, Dennis Tappe, and Martin Gabriel. “In Deutschland erworbene West-Nil-Virusinfektion bei einem nierentransplantierten Patienten.” *DMW - Deutsche Medizinische Wochenschrift* 146, no. 07 (April 2021): 482–86.
<https://doi.org/10.1055/a-1218-9096>.

Kauppinen, Ari, Tarja Pitkänen, Haider Al-Hello, Leena Maunula, Anna-Maria Hokajärvi, Ruska Rimhanen-Finne, and Ilkka T. Miettinen. “Two Drinking Water Outbreaks Caused by Wastewater Intrusion Including Sapovirus in Finland.” *International Journal of Environmental Research and Public Health* 16, no. 22 (November 9, 2019): 4376.
<https://doi.org/10.3390/ijerph16224376>.

Keita, Alpha Kabinet, Florence Fenollar, Cristina Socolovschi, Pavel Ratmanov, Hubert Bassene, Cheikh Sokhna, Adama Tall, Oleg Mediannikov, and Didier Raoult. “The Detection of Vector-Borne-Disease-Related DNA in Human Stool Paves the Way to Large Epidemiological Studies.” *European Journal of Epidemiology* 30, no. 9 (September 2015): 1021–26. <https://doi.org/10.1007/s10654-015-0022-9>.

Kern, P., G. Müller, H. Schmitz, P. Rácz, W. Meigel, G. Riethmüller, and M. Dietrich. “Detection of Coronavirus-like Particles in Homosexual Men with Acquired Immunodeficiency and Related Lymphadenopathy Syndrome.” *Klinische Wochenschrift* 63, no. 2 (January 1985): 68–72. <https://doi.org/10.1007/BF01733070>.

Keum, Ki Chang, Seung Min Yoo, Sang Yup Lee, Kyung Hee Chang, Nae Choon Yoo, Won Min Yoo, June Myung Kim, Jun Yong Choi, Jong Seok Kim, and Gene Lee. “DNA Microarray-Based Detection of Nosocomial Pathogenic *Pseudomonas Aeruginosa* and *Acinetobacter Baumannii*.” *Molecular and Cellular Probes* 20, no. 1 (February 2006): 42–50.
<https://doi.org/10.1016/j.mcp.2005.09.001>.

Khan, Izhar U. H., Stephen Hill, Eva Nowak, and Thomas A. Edge. “Effect of Incubation Temperature on the Detection of Thermophilic *Campylobacter* Species from Freshwater Beaches, Nearby Wastewater Effluents, and Bird Fecal Droppings.” *Applied and Environmental Microbiology* 79, no. 24 (December 15, 2013): 7639–45.
<https://doi.org/10.1128/AEM.02324-13>.

APRIL 2022

Khouadja, Sadok, Elisabetta Suffredini, Bisma Baccouche, Luciana Croci, and Amina Bakhrouf. “Occurrence of Virulence Genes among *Vibrio Cholerae* and *Vibrio Parahaemolyticus* Strains from Treated Wastewaters.” *Environmental Monitoring and Assessment* 186, no. 10 (October 2014): 6935–45. <https://doi.org/10.1007/s10661-014-3900-9>.

Kim, K H, J M Yang, S I Joo, Y G Cho, R I Glass, and Y J Cho. “Importance of Rotavirus and Adenovirus Types 40 and 41 in Acute Gastroenteritis in Korean Children.” *Journal of Clinical Microbiology* 28, no. 10 (October 1990): 2279–84. <https://doi.org/10.1128/jcm.28.10.2279-2284.1990>.

Kinde, H., M. Adelson, A. Ardans, E. H. Little, D. Willoughby, D. Berchtold, D. H. Read, et al. “Prevalence of Salmonella in Municipal Sewage Treatment Plant Effluents in Southern California.” *Avian Diseases* 41, no. 2 (April 1997): 392. <https://doi.org/10.2307/1592195>.

Kitajima, M., A.T. Rachmadi, B.C. Iker, E. Haramoto, and C.P. Gerba. “Temporal Variations in Genotype Distribution of Human Sapoviruses and Aichi Virus 1 in Wastewater in Southern Arizona, United States.” *Journal of Applied Microbiology* 124, no. 5 (May 2018): 1324–32. <https://doi.org/10.1111/jam.13712>.

Kitajima, Masaaki, Warish Ahmed, Kyle Bibby, Annalaura Carducci, Charles P. Gerba, Kerry A. Hamilton, Eiji Haramoto, and Joan B. Rose. “SARS-CoV-2 in Wastewater: State of the Knowledge and Research Needs.” *Science of The Total Environment* 739 (October 2020): 139076. <https://doi.org/10.1016/j.scitotenv.2020.139076>.

Kiulia, Nicholas M., Raul Gonzalez, Hannah Thompson, Tiong Gim Aw, and Joan B. Rose. “Quantification and Trends of Rotavirus and Enterovirus in Untreated Sewage Using Reverse Transcription Droplet Digital PCR.” *Food and Environmental Virology* 13, no. 2 (June 2021): 154–69. <https://doi.org/10.1007/s12560-020-09455-9>.

Knutsson, Mikael, and Karin Kidd-Ljunggren. “Urine from Chronic Hepatitis B Virus Carriers: Implications for Infectivity.” *Journal of Medical Virology* 60, no. 1 (January 2000): 17–20. [https://doi.org/10.1002/\(SICI\)1096-9071\(200001\)60:1<17::AID-JMV3>3.0.CO;2-1](https://doi.org/10.1002/(SICI)1096-9071(200001)60:1<17::AID-JMV3>3.0.CO;2-1).

Kondo, Makoto, Shigehiro Akachi, Katsuhiko Ando, Tatsuma Nomura, Keiichi Yamanaka, and Hitoshi Mizutani. “Two Japanese Siblings Affected with Chikungunya Fever with Different Clinical Courses: Imported Infections from the Cook Islands.” *The Journal of Dermatology* 43, no. 6 (June 2016): 697–700. <https://doi.org/10.1111/1346-8138.13253>.

Kourí, Vivian, Consuelo Correa, Pedro A Martínez, Lizet Sanchez, Alina Alvarez, Grehete González, César E Silverio, et al. “Prospective, Comprehensive, and Effective Viral Monitoring

APRIL 2022

in Cuban Children Undergoing Solid Organ Transplantation.” SpringerPlus 3, no. 1 (December 2014): 247. <https://doi.org/10.1186/2193-1801-3-247>.

Krause, Claudia H., Kirstine Eastick, and Marie M. Ogilvie. “Real-Time PCR for Mumps Diagnosis on Clinical Specimens—Comparison with Results of Conventional Methods of Virus Detection and Nested PCR.” *Journal of Clinical Virology* 37, no. 3 (November 2006): 184–89. <https://doi.org/10.1016/j.jcv.2006.07.009>.

Kriesel, John D, Amiteshwar S Bhatia, Cammie Barrus, Mike Vaughn, Jordan Gardner, and Robert J Crisp. “Multiplex PCR Testing for Nine Different Sexually Transmitted Infections.” *International Journal of STD & AIDS* 27, no. 14 (December 2016): 1275–82. <https://doi.org/10.1177/0956462415615775>.

Kroes, Aloys C.M., Erik P.A. de Klerk, Arjan C. Lankester, Corry Malipaard, Caroline S. de Brouwer, Eric C.J. Claas, Els C. Jol-van der Zijde, and Maarten J.D. van Tol. “Sequential Emergence of Multiple Adenovirus Serotypes after Pediatric Stem Cell Transplantation.” *Journal of Clinical Virology* 38, no. 4 (April 2007): 341–47. <https://doi.org/10.1016/j.jcv.2007.01.001>.

Kuhn, Katrin Gaardbo, Jane Jarshaw, Erin Jeffries, Kunle Adesigbin, Phil Maytubby, Nicole Dundas, A. Caitlin Miller, et al. “Predicting COVID-19 Cases in Diverse Population Groups Using SARS-CoV-2 Wastewater Monitoring across Oklahoma City.” *Science of The Total Environment* 812 (March 2022): 151431. <https://doi.org/10.1016/j.scitotenv.2021.151431>.

Kurata, Takako, Seiji P. Yamamoto, Hiroshi Nishimura, Takahiro Yumisashi, Kazushi Motomura, and Masaru Kinoshita. “A Measles Outbreak in Kansai International Airport, Japan, 2016: Analysis of the Quantitative Difference and Infectivity of Measles Virus between Patients Who Are Immunologically Naive versus Those with Secondary Vaccine Failure.” *Journal of Medical Virology* 93, no. 6 (June 2021): 3446–54. <https://doi.org/10.1002/jmv.26733>.

La Rosa, G, P. Mancini, G. Bonanno Ferraro, C. Veneri, M. Iaconelli, L. Lucentini, L. Bonadonna, et al. “Rapid Screening for SARS-CoV-2 Variants of Concern in Clinical and Environmental Samples Using Nested RT-PCR Assays Targeting Key Mutations of the Spike Protein.” *Water Research* 197 (June 2021): 117104. <https://doi.org/10.1016/j.watres.2021.117104>.

Lacout, Alexis, Marie Mas, Julie Pajaud, Véronique Perronne, Yannick Lequette, Michel Franck, and Christian Perronne. “Real Time Micro-Organisms PCR in 104 Patients with Polymorphic Signs and Symptoms That May Be Related to a Tick Bite.” *European Journal of Microbiology and Immunology* 11, no. 3 (November 12, 2021): 62–75. <https://doi.org/10.1556/1886.2021.00011>.

APRIL 2022

Laffite, Amandine, Pitchouna I. Kilunga, John M. Kayembe, Naresh Devarajan, Crispin K. Mulaji, Gregory Giuliani, Vera I. Slaveykova, and John Poté. “Hospital Effluents Are One of Several Sources of Metal, Antibiotic Resistance Genes, and Bacterial Markers Disseminated in Sub-Saharan Urban Rivers.” *Frontiers in Microbiology* 7 (July 22, 2016).
<https://doi.org/10.3389/fmicb.2016.01128>.

Lai, Chao-Chih, Ying-Hsueh Wang, Ching-Yi Wu, Ching-Hsiang Hung, Donald Dah-Shyong Jiang, and Fang-Tzy Wu. “A Norovirus Outbreak in a Nursing Home: Norovirus Shedding Time Associated with Age.” *Journal of Clinical Virology* 56, no. 2 (February 2013): 96–101.
<https://doi.org/10.1016/j.jcv.2012.10.011>.

Lamba, Manisha, and Shaikh Ziauddin Ahammad. “Sewage Treatment Effluents in Delhi: A Key Contributor of β -Lactam Resistant Bacteria and Genes to the Environment.” *Chemosphere* 188 (December 2017): 249–56.
<https://doi.org/10.1016/j.chemosphere.2017.08.133>.

Langeland, Gunnar. “YERSINIA ENTEROCOLITICA AND YERSINIA ENTEROCOLITICA-LIKE BACTERIA IN DRINKING WATER AND SEWAGE SLUDGE.” *Acta Pathologica Microbiologica Scandinavica Series B: Microbiology* 91B, no. 1–6 (August 15, 2009): 179–85.
<https://doi.org/10.1111/j.1699-0463.1983.tb00030.x>.

Laube, Guido F., Andrea Superti-Furga, Michele Losa, Vera Büttiker, Christoph Berger, and Thomas J. Neuhaus. “Hyperammonaemic Encephalopathy in a 13-Year-Old Boy.” *European Journal of Pediatrics* 161, no. 3 (March 2002): 163–64.
<https://doi.org/10.1007/s00431-001-0887-3>.

Laude, A., S. Valot, G. Desoubeaux, N. Argy, C. Nourrisson, C. Pomares, M. Machouart, et al. “Is Real-Time PCR-Based Diagnosis Similar in Performance to Routine Parasitological Examination for the Identification of *Giardia Intestinalis*, *Cryptosporidium Parvum* / *Cryptosporidium Hominis* and *Entamoeba Histolytica* from Stool Samples? Evaluation of a New Commercial Multiplex PCR Assay and Literature Review.” *Clinical Microbiology and Infection* 22, no. 2 (February 2016): 190.e1-190.e8. <https://doi.org/10.1016/j.cmi.2015.10.019>.

Lebedeff, Denis A. “Rectal Gonorrhoea in Men: Diagnosis and Treatment.” *Annals of Internal Medicine* 92, no. 4 (April 1, 1980): 463. <https://doi.org/10.7326/0003-4819-92-4-463>.

Ledbetter, Joe O., Larry M. Hauck, and Rodney Reynolds. “Health Hazards from Wastewater Treatment Practices.” *Environmental Letters* 4, no. 3 (January 1973): 225–32.
<https://doi.org/10.1080/00139307309436599>.

APRIL 2022

Leechanachai, P, C Yoosook, and P Matangkasombut. “Epidemiological Study of Enteric Coronavirus Excretion by an Enzyme-Linked Immunosorbent Assay,” n.d., 1.

Lemes, Lucianna Gonçalves Nepomuceno, Thais Santos Corrêa, Fabíola Souza Fiaccadori, Divina das Dôres de Paula Cardoso, Adriano de Moraes Arantes, Keili Maria Cardoso Souza, and Menira Souza. “Prospective Study on Norovirus Infection among Allogeneic Stem Cell Transplant Recipients: Prolonged Viral Excretion and Viral RNA in the Blood.” *Journal of Clinical Virology* 61, no. 3 (November 2014): 329–33. <https://doi.org/10.1016/j.jcv.2014.08.004>.

Levantesi, Caterina, Rosanna La Mantia, Costantino Masciopinto, Uta Böckelmann, M. Neus Ayuso-Gabella, Miquel Salgot, Valter Tandoi, Emmanuel Van Houtte, Thomas Wintgens, and Elisabeth Grohmann. “Quantification of Pathogenic Microorganisms and Microbial Indicators in Three Wastewater Reclamation and Managed Aquifer Recharge Facilities in Europe.” *Science of The Total Environment* 408, no. 21 (October 1, 2010): 4923–30. <https://doi.org/10.1016/j.scitotenv.2010.07.042>.

Levine, Myron M., and Roy M. Robins-Browne. “Factors That Explain Excretion of Enteric Pathogens by Persons Without Diarrhea.” *Clinical Infectious Diseases* 55, no. suppl_4 (December 15, 2012): S303–11. <https://doi.org/10.1093/cid/cis789>.

Li, Dong-xun, Gao-lin Shu, Wei-jun Wang, Yang Wu, and Huan-cai Niu. “Simple, Rapid and Sensitive Detection of *Pseudomonas Aeruginosa* by Colorimetric Multiple Cross Displacement Amplification.” *Current Medical Science* 40, no. 2 (April 2020): 372–79. <https://doi.org/10.1007/s11596-020-2169-1>.

Li, Jie, Changying Lin, Mei Qu, Xinyu Li, Zhiyong Gao, Xin Zhang, Yuan Liu, et al. “Excretion of Enterovirus 71 in Persons Infected with Hand, Foot and Mouth Disease.” *Virology Journal* 10, no. 1 (December 2013): 31. <https://doi.org/10.1186/1743-422X-10-31>.

Li, Pengyu, Lin Li, Kaixiong Yang, Tianlong Zheng, Junxin Liu, and Yanjie Wang. “Characteristics of Microbial Aerosol Particles Dispersed Downwind from Rural Sanitation Facilities: Size Distribution, Source Tracking and Exposure Risk.” *Environmental Research* 195 (April 2021): 110798. <https://doi.org/10.1016/j.envres.2021.110798>.

Li, Si, Xiaonv Duan, Yuan Peng, and Yongyu Rui. “Molecular Characteristics of Carbapenem-Resistant *Acinetobacter* Spp. from Clinical Infection Samples and Fecal Survey Samples in Southern China.” *BMC Infectious Diseases* 19, no. 1 (December 2019): 900. <https://doi.org/10.1186/s12879-019-4423-3>.

Lienemann, Taru, Tarja Pitkänen, Jenni Antikainen, Elina Mölsä, Ilkka Miettinen, Kaisa Haukka, Martti Vaara, and Anja Siitonen. “Shiga Toxin-Producing *Escherichia Coli* O100:H–: Stx 2e in

APRIL 2022

Drinking Water Contaminated by Waste Water in Finland.” *Current Microbiology* 62, no. 4 (April 2011): 1239–44. <https://doi.org/10.1007/s00284-010-9832-x>.

Lima, Yanna Andressa Ramos de, Marília Dalva Turchi, Zulmirene Cardoso Fonseca, Fernanda Lopes Brito Garcia, Fernanda Alves de Brito e Cardoso, Mônica Nogueira da Guarda Reis, Eleuse Machado de Britto Guimarães, Rosane Ribeiro Figueiredo Alves, Nígela Rodrigues Carvalho, and Maria de Fátima Costa Alves. “Sexually Transmitted Bacterial Infections among Young Women in Central Western Brazil.” *International Journal of Infectious Diseases* 25 (August 2014): 16–21. <https://doi.org/10.1016/j.ijid.2014.03.1389>.

Limayem, Alya, Sarah Wasson, Mausam Mehta, Anaya Raj Pokhrel, Shrushti Patil, Minh Nguyen, Jing Chen, and Bina Nayak. “High-Throughput Detection of Bacterial Community and Its Drug-Resistance Profiling From Local Reclaimed Wastewater Plants.” *Frontiers in Cellular and Infection Microbiology* 9 (October 4, 2019): 303. <https://doi.org/10.3389/fcimb.2019.00303>.

Lin, Xuan, Melissa Glier, Kevin Kuchinski, Tenysha Ross-Van Mierlo, David McVea, John R. Tyson, Natalie Prystajeky, and Ryan M. Ziels. “Assessing Multiplex Tiling PCR Sequencing Approaches for Detecting Genomic Variants of SARS-CoV-2 in Municipal Wastewater.” Edited by Ileana M. Cristea. *MSystems* 6, no. 5 (October 26, 2021): e01068-21. <https://doi.org/10.1128/mSystems.01068-21>.

Linstow, M.-L. von, J. Eugen-Olsen, A. Koch, T. N. Winther, H. Westh, and B. Hogh. “Excretion Patterns of Human Metapneumovirus and Respiratory Syncytial Virus among Young Children.” *European Journal of Medical Research* 11, no. 8 (August 30, 2006): 329–35.

Liou, Tai-Cherng, Ting-Tsung Chang, Kung-Chia Young, Xi-Zhang Lin, Ching-Yih Lin, and Hua-Lin Wu. “Detection of HCV RNA in Saliva, Urine, Seminal Fluid, and Ascites.” *Journal of Medical Virology* 37, no. 3 (July 1992): 197–202. <https://doi.org/10.1002/jmv.1890370309>.

Liste, Mary B., Ivelisse Natera, José A. Suarez, Flor H. Pujol, Ferdinando Liprandi, and Juan E. Ludert. “Enteric Virus Infections and Diarrhea in Healthy and Human Immunodeficiency Virus-Infected Children.” *Journal of Clinical Microbiology* 38, no. 8 (August 2000): 2873–77. <https://doi.org/10.1128/JCM.38.8.2873-2877.2000>.

Liu, P., O. Herzegh, M. Fernandez, S. Hooper, W. Shu, J. Sobolik, R. Porter, N. Spivey, and C. Moe. “Assessment of Human Adenovirus Removal by QPCR in an Advanced Water Reclamation Plant in Georgia, USA.” *Journal of Applied Microbiology* 115, no. 1 (July 2013): 310–18. <https://doi.org/10.1111/jam.12237>.

APRIL 2022

Lizasoain, A., D. Mir, M. Victoria, M. E. Barrios, M. D. Blanco-Fernández, N. Rodríguez-Osorio, S. Nates, D. Cisterna, V. A. Mbayed, and R. Colina. “Human Enterovirus Diversity by Next-Generation Sequencing Analysis in Urban Sewage Samples From Buenos Aires Metropolitan Area, Argentina: A Retrospective Study.” *Food and Environmental Virology* 13, no. 2 (June 2021): 259–69. <https://doi.org/10.1007/s12560-021-09468-y>.

Lizasoain, A., L.F.L. Tort, M. García, L. Gillman, A. Alberti, J.P.G. Leite, M.P. Miagostovich, et al. “Human Enteric Viruses in a Wastewater Treatment Plant: Evaluation of Activated Sludge Combined with UV Disinfection Process Reveals Different Removal Performances for Viruses with Different Features.” *Letters in Applied Microbiology* 66, no. 3 (March 2018): 215–21. <https://doi.org/10.1111/lam.12839>.

Lopez, Anna Lena, Josephine G. Aldaba, Merylle Morales-Dizon, Jesus N. Sarol, Jeda Veronica Daag, Ma. Cecilia Ama, Patrick Sylim, Aida Salonga, and Karin Nielsen-Saines. “Urine Xpert MTB/RIF for the Diagnosis of Childhood Tuberculosis.” *International Journal of Infectious Diseases* 79 (February 2019): 44–46. <https://doi.org/10.1016/j.ijid.2018.11.013>.

Loukiadis, Estelle, Monique Kérourédan, Lothar Beutin, Eric Oswald, and Hubert Brugère. “Characterization of Shiga Toxin Gene (Stx)-Positive and Intimin Gene (Eae)-Positive Escherichia Coli Isolates from Wastewater of Slaughterhouses in France.” *Applied and Environmental Microbiology* 72, no. 5 (May 2006): 3245–51. <https://doi.org/10.1128/AEM.72.5.3245-3251.2006>.

Lowe, Brian, Stephen E. Goldstone, Szymon Rus, Hiam Salim, Guorong Chen, Thomas Rothmann, and Irina Nazarenko. “Detection of Human Papillomavirus in Anal Specimens Using the Hybrid Capture 2 Assay.” *Diagnostic Molecular Pathology* 21, no. 3 (September 2012): 150–56. <https://doi.org/10.1097/PDM.0b013e318249fd6b>.

Lu, Tian, Yanxi Han, Rui Zhang, Kuo Zhang, Guigao Lin, and Jinming Li. “Quantitative Detection of Hepatitis C Virus RNA in Urine of Patients with Chronic Hepatitis C Using a Novel Real-time PCR Assay.” *Journal of Medical Virology* 91, no. 1 (January 2019): 115–23. <https://doi.org/10.1002/jmv.25280>.

Lu, Xiao-Ming, and Peng-Zhen Lu. “Characterization of Bacterial Communities in Sediments Receiving Various Wastewater Effluents with High-Throughput Sequencing Analysis.” *Microbial Ecology* 67, no. 3 (April 2014): 612–23. <https://doi.org/10.1007/s00248-014-0370-0>.

Luo, Robert F., and Niaz Banaei. “Molecular Approaches and Biomarkers for Detection of Mycobacterium Tuberculosis.” *Clinics in Laboratory Medicine* 33, no. 3 (September 2013): 553–66. <https://doi.org/10.1016/j.cll.2013.03.012>.

APRIL 2022

Maamar, Elaa, Carla Andrea Alonso, Sana Ferjani, Ali Jendoubi, Zaineb Hamzaoui, Alia Jebri, Mabrouka Saidani, Salma Ghedira, Carmen Torres, and Ilhem Boutiba-Ben Boubaker. “NDM-1 and OXA-23-Producing *Acinetobacter Baumannii* Isolated from Intensive Care Unit Patients in Tunisia.” *International Journal of Antimicrobial Agents* 52, no. 6 (December 2018): 910–15. <https://doi.org/10.1016/j.ijantimicag.2018.04.008>.

Macaluso, Giusi, Francesca Gucciardi, Annalisa Guercio, Valeria Blanda, Francesco La Russa, Alessandra Torina, Francesco Mira, et al. “First Neuroinvasive Human Case of West Nile Disease in Southern Italy: Results of the ‘One Health’ Approach.” *Veterinary Medicine and Science* 7, no. 6 (November 2021): 2463–72. <https://doi.org/10.1002/vms3.591>.

Magalhães, Gleiciene Félix, Paulo Afonso Nogueira, Andréa Fagundes Grava, Marilene Penati, Luiz Hildebrando Pereira da Silva, and Patricia Puccinelli Orlandi. “Rotavirus and Adenovirus in Rondônia.” *Memórias Do Instituto Oswaldo Cruz* 102, no. 5 (July 12, 2007): 555–57. <https://doi.org/10.1590/S0074-02762007005000067>.

Magni, Ruben, Raghad Almofoe, Sameen Yusuf, Claudius Mueller, Ngoc Vuong, Mahmood Almosuli, Minh Thu Hoang, et al. “Evaluation of Pathogen Specific Urinary Peptides in Tick-Borne Illnesses.” *Scientific Reports* 10, no. 1 (December 2020): 19340. <https://doi.org/10.1038/s41598-020-75051-3>.

Mahony, J, D Jang, S Chong, K Luinstra, J Sellors, M Tyndall, and M Chernesky. “Detection of *Chlamydia Trachomatis*, *Neisseria Gonorrhoeae*, *Ureaplasma Urealyticum*, and *Mycoplasma Genitalium* in First-Void Urine Specimens by Multiplex Polymerase Chain Reaction.” *Molecular Diagnosis* 2, no. 3 (September 1997): 161–68. [https://doi.org/10.1016/S1084-8592\(97\)80024-0](https://doi.org/10.1016/S1084-8592(97)80024-0).

Maiwald, M., M. Schill, C. Stockinger, J. H. Helbig, P. C. Lück, W. Witzleb, and H.-G. Sonntag. “Detection Of *Legionella* DNA in Human and Guinea Pig Urine Samples by the Polymerase Chain Reaction.” *European Journal of Clinical Microbiology & Infectious Diseases* 14, no. 1 (January 1995): 25–33. <https://doi.org/10.1007/BF02112614>.

Manary, Mark J., Deborah Lehmann, Audrey Michael, Keith Coakley, John Taime, Janet Montgomery, and Dan M. Granoff. “Antigenuria in Healthy Papua New Guinean Children with Nasal *Haemophilus Influenzae* Type b Carriage.” *Annals of Tropical Paediatrics* 13, no. 4 (January 1993): 385–89. <https://doi.org/10.1080/02724936.1993.11747676>.

Mapipa, Q., T. O. Digban, N. E. Nnolim, and U. U. Nwodo. “Antibiogram Profile and Virulence Signatures of *Pseudomonas Aeruginosa* Isolates Recovered from Selected Agrestic Hospital Effluents.” *Scientific Reports* 11, no. 1 (December 2021): 11800. <https://doi.org/10.1038/s41598-021-91280-6>.

APRIL 2022

Marion, Olivier, Nicolas Capelli, Sebastien Lhomme, Martine Dubois, Mélanie Pucelle, Florence Abravanel, Nassim Kamar, and Jacques Izopet. “Hepatitis E Virus Genotype 3 and Capsid Protein in the Blood and Urine of Immunocompromised Patients.” *Journal of Infection* 78, no. 3 (March 2019): 232–40. <https://doi.org/10.1016/j.jinf.2019.01.004>.

Marques Mendanha de Oliveira, Denisy, Menira Souza, Fabíola Souza Fiaccadori, Hugo César Pereira Santos, and Divina das Dôres de Paula Cardoso. “Monitoring of Calicivirus among Day-Care Children: Evidence of Asymptomatic Viral Excretion and First Report of GI.7 Norovirus and GI.3 Sapovirus in Brazil.” *Journal of Medical Virology* 86, no. 9 (September 2014): 1569–75. <https://doi.org/10.1002/jmv.23791>.

Martin, Javier, Dimitra Klapsa, Thomas Wilton, Maria Zambon, Emma Bentley, Erika Bujaki, Martin Fritzsche, Ryan Mate, and Manasi Majumdar. “Tracking SARS-CoV-2 in Sewage: Evidence of Changes in Virus Variant Predominance during COVID-19 Pandemic.” *Viruses* 12, no. 10 (October 9, 2020): 1144. <https://doi.org/10.3390/v12101144>.

Martinez-Castillo, Alexandre, Pablo Quirós, Ferran Navarro, Elisenda Miró, and Maite Muniesa. “Shiga Toxin 2-Encoding Bacteriophages in Human Fecal Samples from Healthy Individuals.” *Applied and Environmental Microbiology* 79, no. 16 (August 2013): 4862–68. <https://doi.org/10.1128/AEM.01158-13>.

Mary, C., E. Chapey, E. Dutoit, K. Guyot, L. Hasseine, F. Jeddi, J. Menotti, et al. “Multicentric Evaluation of a New Real-Time PCR Assay for Quantification of *Cryptosporidium* Spp. and Identification of *Cryptosporidium Parvum* and *Cryptosporidium Hominis*.” *Journal of Clinical Microbiology* 51, no. 8 (August 2013): 2556–63. <https://doi.org/10.1128/JCM.03458-12>.

Masclaux, Frédéric G., Philipp Hotz, Drita Gashi, Dessislava Savova-Bianchi, and Anne Oppliger. “Assessment of Airborne Virus Contamination in Wastewater Treatment Plants.” *Environmental Research* 133 (August 2014): 260–65. <https://doi.org/10.1016/j.envres.2014.06.002>.

Mawer, S. L. “The Pathogenicity of Environmental *Campylobacters*-a Human Volunteer Experiment.” *Epidemiology and Infection* 101, no. 2 (October 1988): 295–300. <https://doi.org/10.1017/S0950268800054212>.

Mayer, R.E., S. Bofill-Mas, L. Egle, G.H. Reischer, M. Schade, X. Fernandez-Cassi, W. Fuchs, et al. “Occurrence of Human-Associated Bacteroidetes Genetic Source Tracking Markers in Raw and Treated Wastewater of Municipal and Domestic Origin and Comparison to Standard and Alternative Indicators of Faecal Pollution.” *Water Research* 90 (March 2016): 265–76. <https://doi.org/10.1016/j.watres.2015.12.031>.

APRIL 2022

McCall, C., H. Wu, E. O'Brien, and I. Xagorarakis. "Assessment of Enteric Viruses during a Hepatitis Outbreak in Detroit MI Using Wastewater Surveillance and Metagenomic Analysis." *Journal of Applied Microbiology* 131, no. 3 (September 2021): 1539–54.

<https://doi.org/10.1111/jam.15027>.

McCall, Camille, Huiyun Wu, Brijen Miyani, and Irene Xagorarakis. "Identification of Multiple Potential Viral Diseases in a Large Urban Center Using Wastewater Surveillance." *Water Research* 184 (October 2020): 116160. <https://doi.org/10.1016/j.watres.2020.116160>.

McCall, Camille, Huiyun Wu, Brijen Miyani, and Irene Xagorarakis. "Identification of Multiple Potential Viral Diseases in a Large Urban Center Using Wastewater Surveillance." *Water Research* 184 (October 2020): 116160. <https://doi.org/10.1016/j.watres.2020.116160>.

Mecha, Achisa C., Maurice S. Onyango, Aoyi Ochieng, and Maggy N.B. Momba. "Evaluation of Synergy and Bacterial Regrowth in Photocatalytic Ozonation Disinfection of Municipal Wastewater." *Science of The Total Environment* 601–602 (December 2017): 626–35.

<https://doi.org/10.1016/j.scitotenv.2017.05.204>.

Medeiros, Raphael Corrêa, Luiz Antonio Daniel, Gabriela Laila de Oliveira, and Maria Teresa Hoffmann. "Performance of a Small-Scale Wastewater Treatment Plant for Removal of Pathogenic Protozoa (Oo)Cysts and Indicator Microorganisms." *Environmental Technology* 40, no. 26 (November 23, 2019): 3492–3501.

<https://doi.org/10.1080/09593330.2018.1480063>.

Mehta, Ravi, Cristiane Nascimento Soares, Raquel Medialdea-Carrera, Mark Ellul, Marcus Tullius Texeira da Silva, Anna Rosala-Hallas, Marcia Rodrigues Jardim, et al. "The Spectrum of Neurological Disease Associated with Zika and Chikungunya Viruses in Adults in Rio de Janeiro, Brazil: A Case Series." Edited by David W. C. Beasley. *PLOS Neglected Tropical Diseases* 12, no. 2 (February 12, 2018): e0006212.

<https://doi.org/10.1371/journal.pntd.0006212>.

Melamed, Izic. "Campylobacter Enteritis in Normal and Immunodeficient Children." *Archives of Pediatrics & Adolescent Medicine* 137, no. 8 (August 1, 1983): 752.

<https://doi.org/10.1001/archpedi.1983.02140340036009>.

Mellmann, A., M. Bielaszewska, L. B. Zimmerhackl, R. Prager, D. Harmsen, H. Tschape, and H. Karch. "Enterohemorrhagic Escherichia Coli in Human Infection: In Vivo Evolution of a Bacterial Pathogen." *Clinical Infectious Diseases* 41, no. 6 (September 15, 2005): 785–92.

<https://doi.org/10.1086/432722>.

APRIL 2022

Men, B Y, H W Xu, and X L Wang. “Hepatitis B Surface Antigen (HBsAg) in Feces of Convalescent Hepatitis B Patients,” n.d., 1.

Mergen, Kimberly, Noel Espina, Allen Teal, and Susan Madison-Antenucci. “Detecting Cryptosporidium in Stool Samples Submitted to a Reference Laboratory.” *The American Journal of Tropical Medicine and Hygiene* 103, no. 1 (July 8, 2020): 421–27. <https://doi.org/10.4269/ajtmh.19-0792>.

Mesman, Annelies W., Carly Rodriguez, Emily Ager, Julia Coit, Letizia Trevisi, and Molly F. Franke. “Diagnostic Accuracy of Molecular Detection of Mycobacterium Tuberculosis in Pediatric Stool Samples: A Systematic Review and Meta-Analysis.” *Tuberculosis* 119 (December 2019): 101878. <https://doi.org/10.1016/j.tube.2019.101878>.

Mesman, Annelies W., Martin Soto, Julia Coit, Roger Calderon, Juan Aliaga, Nira R. Pollock, Milagros Mendoza, et al. “Detection of Mycobacterium Tuberculosis in Pediatric Stool Samples Using TruTip Technology.” *BMC Infectious Diseases* 19, no. 1 (December 2019): 563. <https://doi.org/10.1186/s12879-019-4188-8>.

Messina, Nicole L., Deborah A. Williamson, Roy Robins-Browne, Penelope A. Bryant, and Nigel Curtis. “Risk Factors for Carriage of Antibiotic-Resistant Bacteria in Healthy Children in the Community: A Systematic Review.” *Pediatric Infectious Disease Journal* 39, no. 5 (May 2020): 397–405. <https://doi.org/10.1097/INF.0000000000002532>.

Mishra, Nischay, James Ng, Jennifer L. Rakeman, Michael J. Perry, Dominick A. Centurioni, Amy B. Dean, Adam Price, et al. “One-Step Pentaplex Real-Time Polymerase Chain Reaction Assay for Detection of Zika, Dengue, Chikungunya, West Nile Viruses and a Human Housekeeping Gene.” *Journal of Clinical Virology* 120 (November 2019): 44–50. <https://doi.org/10.1016/j.jcv.2019.08.011>.

Mitchell, D. K., S. S. Monroe, X. Jiang, D. O. Matson, R. I. Glass, and L. K. Pickering. “Virologic Features of an Astrovirus Diarrhea Outbreak in a Day Care Center Revealed by Reverse Transcriptase-Polymerase Chain Reaction.” *Journal of Infectious Diseases* 172, no. 6 (December 1, 1995): 1437–44. <https://doi.org/10.1093/infdis/172.6.1437>.

Miyamura, K, K Takeyama, S Kojima, S Minami, K Matsuyama, Y Morishima, and Y Kodera. “Hemorrhagic Cystitis Associated with Urinary Excretion of Adenovirus Type 11 Following Allogeneic Bone Marrow Transplantation,” n.d., 1.

Miyani, B., C. McCall, and I. Xagorarakis. “High Abundance of Human Herpesvirus 8 in Wastewater from a Large Urban Area.” *Journal of Applied Microbiology* 130, no. 5 (May 2021): 1402–11. <https://doi.org/10.1111/jam.14895>.

APRIL 2022

Mohanty, Srujana, Bijayini Behera, Subhrajyoti Sahu, and Ashok Kumar Praharaj. “Recent Pattern of Antibiotic Resistance in Staphylococcus Aureus Clinical Isolates in Eastern India and the Emergence of Reduced Susceptibility to Vancomycin.” *Journal of Laboratory Physicians* 11, no. 04 (October 2019): 340–45. https://doi.org/10.4103/JLP.JLP_39_19.

Moller, J. K., B. Andersen, F. Olesen, T. Lignell, and L. Ostergaard. “Impact of Menstrual Cycle on the Diagnostic Performance of LCR, TMA, and PCE for Detection of Chlamydia Trachomatis in Home Obtained and Mailed Vaginal Flush and Urine Samples.” *Sexually Transmitted Infections* 75, no. 4 (August 1, 1999): 228–30. <https://doi.org/10.1136/sti.75.4.228>.

Mondal, Subhanjan, Nathan Feirer, Michael Brockman, Melanie A. Preston, Sarah J. Teter, Dongping Ma, Said A. Goueli, Sameer Moorji, Brigitta Saul, and James J. Cali. “A Direct Capture Method for Purification and Detection of Viral Nucleic Acid Enables Epidemiological Surveillance of SARS-CoV-2.” *Science of The Total Environment* 795 (November 2021): 148834. <https://doi.org/10.1016/j.scitotenv.2021.148834>.

Monrroy, Hugo, Jenniffer Angulo, Karla Pino, Pilar Labbé, Juan Francisco Miquel, Marcelo López-Lastra, and Alejandro Soza. “Detection of High Biliary and Fecal Viral Loads in Patients with Chronic Hepatitis C Virus Infection.” *Gastroenterología y Hepatología* 40, no. 5 (May 2017): 339–47. <https://doi.org/10.1016/j.gastrohep.2017.01.004>.

Moradigaravand, Danesh, Theodore Gouliouris, Catherine Ludden, Sandra Reuter, Dorota Jamroz, Beth Blane, Plamena Naydenova, et al. “Genomic Survey of Clostridium Difficile Reservoirs in the East of England Implicates Environmental Contamination of Wastewater Treatment Plants by Clinical Lineages.” *Microbial Genomics* 4, no. 3 (March 1, 2018). <https://doi.org/10.1099/mgen.0.000162>.

Moreira, C. R., and U. Fagundes-Neto. “[Lactose intolerance in hospitalized infants with acute diarrhea due to classic enteropathogenic Escherichia coil (EPEC)].” *Arquivos De Gastroenterologia* 34, no. 4 (December 1997): 262–69.

Moreno, Yolanda, Lorena Ballesteros, Jorge García-Hernández, Paula Santiago, Ana González, and M. Antonia Ferrús. “Specific Detection of Viable Listeria Monocytogenes in Spanish Wastewater Treatment Plants by Fluorescent In Situ Hybridization and PCR.” *Water Research* 45, no. 15 (October 2011): 4634–40. <https://doi.org/10.1016/j.watres.2011.06.015>.

Moreno, Yolanda, Salut Botella, José Luis Alonso, María A. Ferrús, Manuel Hernández, and Javier Hernández. “Specific Detection of Arcobacter and Campylobacter Strains in Water and Sewage by PCR and Fluorescent In Situ Hybridization.” *Applied and Environmental Microbiology* 69, no. 2 (February 2003): 1181–86. <https://doi.org/10.1128/AEM.69.2.1181-1186.2003>.

APRIL 2022

Morillo, Simone G., Adriana Luchs, Audrey Cilli, Rita C.C. Carmona, Suzel N. Neme, and Maria C.S.T. Timenetsky. "Rotavirus Genotype G4P[8] and Enteric Adenovirus in HIV-Positive Patients with and without Diarrhoea in São Paulo State, Brazil." *Transactions of the Royal Society of Tropical Medicine and Hygiene* 104, no. 2 (February 2010): 165–67. <https://doi.org/10.1016/j.trstmh.2009.07.023>.

Morton, Harry E. "Mycoplasma -Latex Agglutination Reaction." *Journal of Bacteriology* 92, no. 4 (October 1966): 1196–1205. <https://doi.org/10.1128/jb.92.4.1196-1205.1966>.

Mosquera, María del Mar, Fernando de Ory, Mónica Moreno, and Juan E. Echevarría. "Simultaneous Detection of Measles Virus, Rubella Virus, and Parvovirus B19 by Using Multiplex PCR." *Journal of Clinical Microbiology* 40, no. 1 (January 2002): 111–16. <https://doi.org/10.1128/JCM.40.1.111-116.2002>.

Mueller, Nt, Mk Differding, T Østbye, C Hoyo, and Se Benjamin-Neelon. "Association of Birth Mode of Delivery with Infant Faecal Microbiota, Potential Pathobionts, and Short Chain Fatty Acids: A Longitudinal Study over the First Year of Life." *BJOG: An International Journal of Obstetrics & Gynaecology* 128, no. 8 (July 2021): 1293–1303. <https://doi.org/10.1111/1471-0528.16633>.

Munday, P. E., A. P. Johnson, B. J. Thomas, D. J. Jeffries, S. G. Dawson, M. J. Osborn, S. Philip, J. R. W. Harris, and D. Taylor-Robinson. "A Microbiological Study of Non-Gonococcal Proctitis in Passive Male Homosexuals." *Postgraduate Medical Journal* 57, no. 673 (November 1, 1981): 705–11. <https://doi.org/10.1136/pgmj.57.673.705>.

Murase, Toshiyuki, Mikiko Yamada, Tetsunori Muto, Akiyoshi Matsushima, and Shiro Yamai. "Fecal Excretion of Salmonella Enterica Serovar Typhimurium Following a Food-Borne Outbreak." *Journal of Clinical Microbiology* 38, no. 9 (2000): 3495–97. <https://doi.org/10.1128/JCM.38.9.3495-3497.2000>.

Murphy, T. V., J. F. Clements, and D. M. Granoff. "Excretion of Haemophilus Influenzae Type b Polysaccharide Antigen in Urine of Healthy Nasopharyngeal Carriers." *Pediatric Research* 26, no. 5 (November 1989): 491–95. <https://doi.org/10.1203/00006450-198911000-00026>.

Murray, Kristy O., Steven Kolodziej, Shannon E. Ronca, Rodion Gorchakov, Patricia Navarro, Melissa S. Nolan, Amber Podoll, Kevin Finkel, and Sreedhar Mandayam. "Visualization of West Nile Virus in Urine Sediment Using Electron Microscopy and Immunogold up to Nine Years Postinfection." *The American Journal of Tropical Medicine and Hygiene* 97, no. 6 (December 6, 2017): 1913–19. <https://doi.org/10.4269/ajtmh.17-0405>.

APRIL 2022

Musso, Didier, Anita Teissier, Eline Rouault, Sylviane Teururai, Jean-Jacques de Pina, and Tu-Xuan Nhan. "Detection of Chikungunya Virus in Saliva and Urine." *Virology Journal* 13, no. 1 (December 2016): 102. <https://doi.org/10.1186/s12985-016-0556-9>.

Muzammil, Muhammad, Muhammad Adnan, Sheikh Muhammad Sikandar, Muhammad Umar Waheed, Naseem Javed, and Muhammad Fazal Ur Rehman. "Study of Culture and Sensitivity Patterns of Urinary Tract Infections in Patients Presenting with Urinary Symptoms in a Tertiary Care Hospital." *Cureus*, February 16, 2020. <https://doi.org/10.7759/cureus.7013>.

Nagasawa, Koo, Naruhiko Ishiwada, Atsushi Ogura, Tomoko Ogawa, Noriko Takeuchi, Haruka Hishiki, and Naoki Shimojo. "Congenital Rubella Syndrome: A Case Report on Changes in Viral Load and Rubella Antibody Titers." *Pediatrics* 137, no. 5 (May 1, 2016): e20153333. <https://doi.org/10.1542/peds.2015-3333>.

Nagy, A. et al. "Detection and Sequencing of West Nile Virus RNA from Human Urine and Serum Samples during the 2014 Seasonal Period - PubMed." Accessed March 17, 2022. <https://pubmed.ncbi.nlm.nih.gov/27038827/>.

Nascimento, Altina Lacerda, Adijailton Jose Souza, Pedro Avelino Maia Andrade, Fernando Dini Andreote, Aline Renée Coscione, Fernando Carvalho Oliveira, and Jussara Borges Regitano. "Sewage Sludge Microbial Structures and Relations to Their Sources, Treatments, and Chemical Attributes." *Frontiers in Microbiology* 9 (July 3, 2018): 1462. <https://doi.org/10.3389/fmicb.2018.01462>.

Nasser, Abidelfatah M. "Removal of Cryptosporidium by Wastewater Treatment Processes: A Review." *Journal of Water and Health* 14, no. 1 (February 1, 2016): 1–13. <https://doi.org/10.2166/wh.2015.131>.

Nathaniel, B.R., M. Ghai, M. Druce, I. Maharaj, and A.O. Olaniran. "Development of a Loop-mediated Isothermal Amplification Assay Targeting Lmo 0753 Gene for Detection of *Listeria Monocytogenes* in Wastewater." *Letters in Applied Microbiology* 69, no. 4 (October 2019): 264–70. <https://doi.org/10.1111/lam.13200>.

Nelson, David E., Qunfeng Dong, Barbara Van der Pol, Evelyn Toh, Baochang Fan, Barry P. Katz, Deming Mi, et al. "Bacterial Communities of the Coronal Sulcus and Distal Urethra of Adolescent Males." *PloS One* 7, no. 5 (2012): e36298. <https://doi.org/10.1371/journal.pone.0036298>.

Nemudryi, Artem, Anna Nemudraia, Tanner Wiegand, Kevin Surya, Murat Buyukyoruk, Calvin Cicha, Karl K. Vanderwood, Royce Wilkinson, and Blake Wiedenheft. "Temporal Detection

APRIL 2022

and Phylogenetic Assessment of SARS-CoV-2 in Municipal Wastewater.” *Cell Reports Medicine* 1, no. 6 (September 2020): 100098. <https://doi.org/10.1016/j.xcrm.2020.100098>.

Neri, Benedetto, Christof Stingone, Samanta Romeo, Giorgia Sena, Cristina Gesuale, Mirko Compagno, Elena De Cristofaro, et al. “Inflammatory Bowel Disease versus Chlamydia Trachomatis Infection: A Case Report and Revision of the Literature.” *European Journal of Gastroenterology & Hepatology* 32, no. 3 (March 2020): 454–57. <https://doi.org/10.1097/MEG.0000000000001605>.

Ng, Charmaine, Martin Tay, Boonfei Tan, Thai-Hoang Le, Laurence Haller, Hongjie Chen, Tse H. Koh, Timothy M. S. Barkham, Janelle R. Thompson, and Karina Y.-H. Gin. “Characterization of Metagenomes in Urban Aquatic Compartments Reveals High Prevalence of Clinically Relevant Antibiotic Resistance Genes in Wastewaters.” *Frontiers in Microbiology* 8 (November 16, 2017): 2200. <https://doi.org/10.3389/fmicb.2017.02200>.

Nikaeen, Mahnaz, Hajar Aghili Dehnavi, Akbar Hssanzadeh, and Mohammad Jalali. “Occurrence of Clostridium Difficile in Two Types of Wastewater Treatment Plants.” *Journal of the Formosan Medical Association* 114, no. 7 (July 2015): 663–65. <https://doi.org/10.1016/j.jfma.2014.12.005>.

Nikovskaia, M. I., Iu N. Mastiukova, L. A. Potashova, M. P. Korzhenkova, and M. O. Birger. “[Clinico-laboratory analysis of the diarrhea syndrome in young children excreting rotaviruses with feces].” *Pediatrics*, no. 7 (1989): 32–35.

Nkansah, Marian A., Francis Opoku, James H. Ephraim, David D. Wemegah, and Luke P.M. Tetteh. “Characterization of Beauty Salon Wastewater from Kwame Nkrumah University of Science and Technology, Kumasi, Ghana, and Its Surrounding Communities.” *Environmental Health Insights* 10 (January 2016): EHI.S40360. <https://doi.org/10.4137/EHI.S40360>.

Nongogo, Vuyokazi, and Anthony Okoh. “Occurrence of Vibrio Pathotypes in the Final Effluents of Five Wastewater Treatment Plants in Amathole and Chris Hani District Municipalities in South Africa.” *International Journal of Environmental Research and Public Health* 11, no. 8 (August 4, 2014): 7755–66. <https://doi.org/10.3390/ijerph110807755>.

Nordahl Petersen, Thomas, Simon Rasmussen, Henrik Hasman, Christian Carøe, Jacob Bælum, Anna Charlotte Schultz, Lasse Bergmark, et al. “Meta-Genomic Analysis of Toilet Waste from Long Distance Flights; a Step towards Global Surveillance of Infectious Diseases and Antimicrobial Resistance.” *Scientific Reports* 5, no. 1 (September 2015): 11444. <https://doi.org/10.1038/srep11444>.

APRIL 2022

Numata, Noboru, Hitoshi Ohori, Yasuhiko Hayakawa, Yukie Saitoh, Akira Tsunoda, and Atsushi Kanno. “Demonstration of Hepatitis C Virus Genome in Saliva and Urine of Patients with Type C Hepatitis: Usefulness of the Single Round Polymerase Chain Reaction Method for Detection of the HCV Genome.” *Journal of Medical Virology* 41, no. 2 (October 1993): 120–28. <https://doi.org/10.1002/jmv.1890410207>.

Nunn, Alexandra, Shazia Masud, Mel Krajden, Monika Naus, and Agatha N. Jassem. “Diagnostic Yield of Laboratory Methods and Value of Viral Genotyping during an Outbreak of Mumps in a Partially Vaccinated Population in British Columbia, Canada.” Edited by Yi-Wei Tang. *Journal of Clinical Microbiology* 56, no. 5 (May 2018): e01954-17. <https://doi.org/10.1128/JCM.01954-17>.

Nurminen, Noora, Rosa Juuti, Sami Oikarinen, Yue-Mei Fan, Kirsi-Maarit Lehto, Charles Mangani, Kenneth Maleta, Per Ashorn, and Heikki Hyöty. “High-Throughput Multiplex Quantitative Polymerase Chain Reaction Method for *Giardia Lamblia* and *Cryptosporidium* Species Detection in Stool Samples.” *The American Journal of Tropical Medicine and Hygiene* 92, no. 6 (June 2015): 1222–26. <https://doi.org/10.4269/ajtmh.15-0054>.

Ogata, Manabu, Hisae Atobe, Harumi Kushida, and Koshi Yamamoto. “IN VITRO SENSITIVITY OF MYCOPLASMAS ISOLATED FROM VARIOUS ANIMALS AND SEWAGE TO ANTIBIOTICS AND NITROFURANS.” *The Journal of Antibiotics* 24, no. 7 (1971): 443–51. <https://doi.org/10.7164/antibiotics.24.443>.

Oie, Shigeharu, Shigeyuki Suenaga, Akihiro Sawa, and Akira Kamiya. “Association between Isolation Sites of Methicillin- Resistant *Staphylococcus Aureus* (MRSA) in Patients with MRSA-Positive Body Sites and MRSA Contamination in Their Surrounding Environmental Surfaces,” n.d., 2.

Okamoto, Kiyoko, Yoshio Mori, Rika Komagome, Hideki Nagano, Masahiro Miyoshi, Motohiko Okano, Yoko Aoki, et al. “Evaluation of Sensitivity of TaqMan RT-PCR for Rubella Virus Detection in Clinical Specimens.” *Journal of Clinical Virology* 80 (July 2016): 98–101. <https://doi.org/10.1016/j.jcv.2016.05.005>.

Oliveira, Leonardo Camilo de, Andrés Felipe Torres-Franco, Bruna Coelho Lopes, Beatriz Senra Álvares da Silva Santos, Erica Azevedo Costa, Michelle S. Costa, Marcus Tullius P. Reis, et al. “Viability of SARS-CoV-2 in River Water and Wastewater at Different Temperatures and Solids Content.” *Water Research* 195 (May 2021): 117002. <https://doi.org/10.1016/j.watres.2021.117002>.

APRIL 2022

Olusola, Ba, and Ja Adeniji. “Molecular Detection of Measles Virus from Children during a Sporadic Outbreak in Two Semi-Urban Areas in Nigeria.” *African Journal of Infectious Diseases* 8, no. 2 (May 23, 2014): 44. <https://doi.org/10.4314/ajid.v8i2.6>.

Omura, Yoshiaki. “Clinical Significance of Human Papillomavirus Type 16 for Breast Cancer & Adenocarcinomas of Various Internal Organs and Alzheimer’s Brain with Increased β -Amyloid (1-42); Combined Use of Optimal Doses of Vitamin D 3 and Taurine 3 Times/Day Has Significant Beneficial Effects of Anti-Cancer, Anti-Ischemic Heart, and Memory & Other Brain Problems By Significant Urinary Excretion of Viruses, Bacteria, and Toxic Metals & Substances.” *Acupuncture & Electro-Therapeutics Research* 41, no. 2 (July 8, 2016): 127–34. <https://doi.org/10.3727/036012916X14666839504677>.

Orrù, Germano, Giuseppina Masia, Ginevra Orrù, Luisa Romanò, Vincenzo Piras, and Rosa Cristina Coppola. “Detection and Quantitation of Hepatitis E Virus in Human Faeces by Real-Time Quantitative PCR.” *Journal of Virological Methods* 118, no. 2 (June 2004): 77–82. <https://doi.org/10.1016/j.jviromet.2004.01.025>.

Ortel, S. “[Excretion of *Listeria monocytogenes* in the stools of healthy persons].” *Zentralblatt Fur Bakteriologie, Parasitenkunde, Infektionskrankheiten Und Hygiene. Erste Abteilung Originale. Reihe A: Medizinische Mikrobiologie Und Parasitologie* 217, no. 1 (May 1971): 41–46.

Ortel, S. “[*Listeria* excretors and their epidemiological significance (author’s transl)].” *MMW, Munchener medizinische Wochenschrift* 117, no. 27 (July 4, 1975): 1145–48.

Ortel, S. “[Listeriosis during pregnancy and excretion of listeria by laboratory workers (author’s transl)].” *Zentralblatt Fur Bakteriologie, Parasitenkunde, Infektionskrankheiten Und Hygiene. Erste Abteilung Originale. Reihe A: Medizinische Mikrobiologie Und Parasitologie* 231, no. 4 (May 1975): 491–502.

Osbak, Kara K, Geert A Van Raemdonck, Martin Dom, Caroline E Cameron, Conor J Meehan, Dieter Deforce, Xaveer Van Ostade, Chris R Kenyon, and Maarten Dhaenens. “Candidate *Treponema Pallidum* Biomarkers Uncovered in Urine from Individuals with Syphilis Using Mass Spectrometry.” *Future Microbiology* 13, no. 13 (October 2018): 1497–1510. <https://doi.org/10.2217/fmb-2018-0182>.

Osuolale, Olayinka, and Anthony Okoh. “Incidence of Human Adenoviruses and Hepatitis A Virus in the Final Effluent of Selected Wastewater Treatment Plants in Eastern Cape Province, South Africa.” *Virology Journal* 12, no. 1 (December 2015): 98. <https://doi.org/10.1186/s12985-015-0327-z>.

APRIL 2022

Oude Munnink, Bas B, Marta Canuti, Martin Deijs, Michel de Vries, Maarten F Jebbink, Sjoerd Rebers, Richard Molenkamp, et al. “Unexplained Diarrhoea in HIV-1 Infected Individuals.” *BMC Infectious Diseases* 14, no. 1 (December 2014): 22.

<https://doi.org/10.1186/1471-2334-14-22>.

Ozbil, M. “[Excretion of Rickettsia in the Urine] - PubMed.” Accessed March 17, 2022.

<https://pubmed.ncbi.nlm.nih.gov/13300636/>.

O’Brien, Evan, Mariya Munir, Terence Marsh, Marc Heran, Geoffroy Lesage, Volodymyr V. Tarabara, and Irene Xagorarakis. “Diversity of DNA Viruses in Effluents of Membrane Bioreactors in Traverse City, MI (USA) and La Grande Motte (France).” *Water Research* 111 (March 2017): 338–45. <https://doi.org/10.1016/j.watres.2017.01.014>.

O’Donnell, J M, L Thornton, E B McNamara, T Prendergast, D Igoe, and C Cosgrove. “Outbreak of Vero Cytotoxin-Producing Escherichia Coli O157 in a Child Day Care Facility,” n.d., 1.

Pabbaraju, Kanti, Sallene Wong, Kara Gill, Kevin Fonseca, Graham A. Tipples, and Raymond Tellier. “Simultaneous Detection of Zika, Chikungunya and Dengue Viruses by a Multiplex Real-Time RT-PCR Assay.” *Journal of Clinical Virology* 83 (October 2016): 66–71.

<https://doi.org/10.1016/j.jcv.2016.09.001>.

Pacienti, Monia, Alessandro Sinigaglia, Elisa Franchin, Silvana Pagni, Enrico Lavezzo, Fabrizio Montarsi, Gioia Capelli, and Luisa Barzon. “Human West Nile Virus Lineage 2 Infection: Epidemiological, Clinical, and Virological Findings.” *Viruses* 12, no. 4 (April 18, 2020): 458.

<https://doi.org/10.3390/v12040458>.

Palmer, Carol J., G. Fred Bonilla, Yu-Li Tsai, Moon H. Lee, Brenda J. Javier, and Edward B. Siwak. “Analysis of Sewage Effluent for Human Immunodeficiency Virus (HIV) Using Infectivity Assay and Reverse Transcriptase Polymerase Chain Reaction.” *Canadian Journal of Microbiology* 41, no. 9 (September 1, 1995): 809–15. <https://doi.org/10.1139/m95-111>.

Park, E., K.M. Mancl, O.H. Tuovinen, M.S. Bisesi, and J. Lee. “Ensuring Safe Reuse of Residential Wastewater: Reduction of Microbes and Genes Using Peat Biofilter and Batch Chlorination in an on-Site Treatment System.” *Journal of Applied Microbiology* 121, no. 6 (December 2016): 1777–88. <https://doi.org/10.1111/jam.13288>.

Park, Hyeonjin, Keunhwa Lee, Misoon Kim, Jungeun Lee, Seung-Yong Seong, and Gwangpyo Ko. “Detection and Hazard Assessment of Pathogenic Microorganisms in Medical Wastes.” *Journal of Environmental Science and Health, Part A* 44, no. 10 (August 3, 2009): 995–1003. <https://doi.org/10.1080/10934520902996898>.

APRIL 2022

Park, Sungchan, Sang Hoon Song, Chunwoo Lee, Jong Won Kim, and Kun Suk Kim. “Bacterial Pathogens in First Febrile Urinary Tract Infection Affect Breakthrough Infections in Infants With Vesicoureteral Reflux Treated With Prophylactic Antibiotics.” *Urology* 81, no. 6 (June 2013): 1342–45. <https://doi.org/10.1016/j.urology.2012.11.014>.

Partridge, D.G., C.M. Evans, M. Raza, G. Kudesia, and H.K. Parsons. “Lessons from a Large Norovirus Outbreak: Impact of Viral Load, Patient Age and Ward Design on Duration of Symptoms and Shedding and Likelihood of Transmission.” *Journal of Hospital Infection* 81, no. 1 (May 2012): 25–30. <https://doi.org/10.1016/j.jhin.2012.02.002>.

Parvez, Shadab, and Asad U. Khan. “Hospital Sewage Water: A Reservoir for Variants of New Delhi Metallo- β -Lactamase (NDM)- and Extended-Spectrum β -Lactamase (ESBL)-Producing Enterobacteriaceae.” *International Journal of Antimicrobial Agents* 51, no. 1 (January 2018): 82–88. <https://doi.org/10.1016/j.ijantimicag.2017.08.032>.

Pereyre, Sabine, François Caméléna, Nadège Hénin, Béatrice Berçot, and Cécile Bébéar. “Clinical Performance of Four Multiplex Real-Time PCR Kits Detecting Urogenital and Sexually Transmitted Pathogens.” *Clinical Microbiology and Infection*, October 2021, S1198743X21005577. <https://doi.org/10.1016/j.cmi.2021.09.028>.

Perilli, M., C. Pellegrini, G. Celenza, P. Bellio, B. Segatore, and G. Amicosante. “First Report from Italy of Bla VIM-1 and Bla TEM-1 Genes in *Pseudomonas Putida* and *Acinetobacter Baumannii* Isolated from Wastewater.” *Journal of Chemotherapy* 23, no. 3 (June 2011): 181–82. <https://doi.org/10.1179/joc.2011.23.3.181>.

Permar, Sallie R., William J. Moss, Judith J. Ryon, Mwaka Monze, Felicity Cutts, Thomas C. Quinn, and Diane E. Griffin. “Prolonged Measles Virus Shedding in Human Immunodeficiency Virus–Infected Children, Detected by Reverse Transcriptase–Polymerase Chain Reaction.” *The Journal of Infectious Diseases* 183, no. 4 (February 15, 2001): 532–38. <https://doi.org/10.1086/318533>.

Peruski, Anne Harwood, Linwood Hill Johnson, and Leonard Francis Peruski. “Rapid and Sensitive Detection of Biological Warfare Agents Using Time-Resolved Fluorescence Assays.” *Journal of Immunological Methods* 263, no. 1–2 (May 2002): 35–41. [https://doi.org/10.1016/S0022-1759\(02\)00030-3](https://doi.org/10.1016/S0022-1759(02)00030-3).

Peter, Jonathan, Clare Green, Michael Hoelscher, Peter Mwaba, Alimuddin Zumla, and Keertan Dheda. “Urine for the Diagnosis of Tuberculosis: Current Approaches, Clinical Applicability, and New Developments.” *Current Opinion in Pulmonary Medicine* 16, no. 3 (May 2010): 262–70. <https://doi.org/10.1097/MCP.0b013e328337f23a>.

APRIL 2022

Petit, Stéphanie M.-C., Raphaël Lavenir, Céline Colinon-Dupuich, Amine M. Boukerb, Pascal Cholley, Xavier Bertrand, Jean Freney, et al. “Lagooning of Wastewaters Favors Dissemination of Clinically Relevant *Pseudomonas Aeruginosa*.” *Research in Microbiology* 164, no. 8 (October 2013): 856–66. <https://doi.org/10.1016/j.resmic.2013.06.007>.

Phattanawiboon, Benjarat, Nutthawan Nonthabenjawan, Patcharaporn Boonyos, Chanya Jetsukontorn, Worakarn Towayunanta, Kobkool Chuntrakool, Karn Ngaopravet, et al. “Norovirus Transmission Mediated by Asymptomatic Family Members in Households.” Edited by Adriana Calderaro. *PLOS ONE* 15, no. 7 (July 23, 2020): e0236502. <https://doi.org/10.1371/journal.pone.0236502>.

Pirkani, Ghulam Sarwar, Mohammad Arif Awan, Ferhat Abbas, and Mohammad Din. “Culture and PCR Based Detection of Bacteria Causing Urinary Tract Infection in Urine Specimen: Detection of Bacteria Causing UTI.” *Pakistan Journal of Medical Sciences* 36, no. 3 (March 3, 2020). <https://doi.org/10.12669/pjms.36.3.1577>.

Pitkääjärvi, Timo, Eija Kujanen, Irmeli Sillantaka, and Jukka Lumio. “Norfloxacin and Salmonella Excretion in Acute Gastroenteritis – a 6-Month Follow-up Study.” *Scandinavian Journal of Infectious Diseases* 28, no. 2 (January 1996): 177–80. <https://doi.org/10.3109/00365549609049071>.

Plecko, V., L. Zele-Starcevic, V. Tripkovic, M. Skerlev, S. Ljubojevic, S. Plesko, I. Marekovic, and J. S. Jensen. “Unusually Low Prevalence of *Mycoplasma Genitalium* in Urine Samples from Infertile Men and Healthy Controls: A Prevalence Study.” *BMJ Open* 4, no. 8 (August 25, 2014): e005372–e005372. <https://doi.org/10.1136/bmjopen-2014-005372>.

Poma, Violeta, Nataniel Mamani, and Volga Iñiguez. “Impact of Urban Contamination of the La Paz River Basin on Thermotolerant Coliform Density and Occurrence of Multiple Antibiotic Resistant Enteric Pathogens in River Water, Irrigated Soil and Fresh Vegetables.” *SpringerPlus* 5, no. 1 (December 2016): 499. <https://doi.org/10.1186/s40064-016-2132-6>.

Pouillot, Régis, Jane M. Van Doren, Jacqueline Woods, Daniel Plante, Mark Smith, Gregory Goblick, Christopher Roberts, et al. “Meta-Analysis of the Reduction of Norovirus and Male-Specific Coliphage Concentrations in Wastewater Treatment Plants.” Edited by M. W. Griffiths. *Applied and Environmental Microbiology* 81, no. 14 (July 15, 2015): 4669–81. <https://doi.org/10.1128/AEM.00509-15>.

Prado, Tatiana, Tulio M. Fumian, Marize P. Miagostovich, and Ana Maria C. Gaspar. “Monitoring the Hepatitis A Virus in Urban Wastewater from Rio de Janeiro, Brazil.” *Transactions of the Royal Society of Tropical Medicine and Hygiene* 106, no. 2 (February 2012): 104–9. <https://doi.org/10.1016/j.trstmh.2011.10.005>.

APRIL 2022

Pramer, David, Hovhannes Heukelekian, and Robert A. Ragotzkie. "Survival of Tubercle Bacilli in Various Sewage Treatment Processes: I. Development of a Method for the Quantitative Recovery of Mycobacteria from Sewage." *Public Health Reports (1896-1970)* 65, no. 27 (1950): 851. <https://doi.org/10.2307/4587395>.

Preston', David R, Samuel R Farrah', Gabriel Bitton, and G Rasul Chaudhry. "Detection of Nucleic Acids Homologous to Human Immunodeficiency Virus in Wastewater"," n.d., 8.

Prevost, B., F.S. Lucas, A. Goncalves, F. Richard, L. Moulin, and S. Wurtzer. "Large Scale Survey of Enteric Viruses in River and Waste Water Underlines the Health Status of the Local Population." *Environment International* 79 (June 2015): 42–50. <https://doi.org/10.1016/j.envint.2015.03.004>.

Priest, David, Jason J Ong, Eric P F Chow, Sepehr Tabrizi, Sam Phillips, Melanie Bissessor, Christopher K Fairley, et al. "Neisseria Gonorrhoeae DNA Bacterial Load in Men with Symptomatic and Asymptomatic Gonococcal Urethritis." *Sexually Transmitted Infections* 93, no. 7 (November 2017): 478–81. <https://doi.org/10.1136/sextrans-2016-052950>.

Pícha, D., L. Moravcová, E. Zdárský, V. Maresová, and V. Hulínský. "PCR in Lyme Neuroborreliosis: A Prospective Study." *Acta Neurologica Scandinavica* 112, no. 5 (November 2005): 287–92. <https://doi.org/10.1111/j.1600-0404.2005.00482.x>.

Qiu, Y., B.E. Lee, N. Neumann, N. Ashbolt, S. Craik, R. Maal-Bared, and X.L. Pang. "Assessment of Human Virus Removal during Municipal Wastewater Treatment in Edmonton, Canada." *Journal of Applied Microbiology* 119, no. 6 (December 2015): 1729–39. <https://doi.org/10.1111/jam.12971>.

Rahbar, Maryam, Gholamreza Poormand, Masoud Karkhaneh Mahmoodi, Aboozar Jazayeri, and Seyed Mohammad Jazayeri. "Asymptomatic Epstein-Barr Virus Shedding in the Urine of Kidney Transplant Recipients: Case Reports and Review of the Literature." *Infectious Disease Reports* 8, no. 4 (December 31, 2016): 6817. <https://doi.org/10.4081/idr.2016.6817>.

Ramamurty, Nalini, Duraisamy Raja, Palani Gunasekaran, Elango Varalakshmi, Sambasivam Mohana, and Li Jin. "Investigation of Measles and Rubella Outbreaks in Tamil Nadu, India—2003." *Journal of Medical Virology* 78, no. 4 (April 2006): 508–13. <https://doi.org/10.1002/jmv.20569>.

Randazzo, Walter, Enric Cuevas-Ferrando, Rafael Sanjuán, Pilar Domingo-Calap, and Gloria Sánchez. "Metropolitan Wastewater Analysis for COVID-19 Epidemiological Surveillance." *International Journal of Hygiene and Environmental Health* 230 (September 2020): 113621. <https://doi.org/10.1016/j.ijheh.2020.113621>.

APRIL 2022

Randazzo, Walter, Joaquín Piqueras, Zoran Evtoski, Guadalupe Sastre, Raquel Sancho, Carina Gonzalez, and Gloria Sánchez. “Interlaboratory Comparative Study to Detect Potentially Infectious Human Enteric Viruses in Influent and Effluent Waters.” *Food and Environmental Virology* 11, no. 4 (December 2019): 350–63. <https://doi.org/10.1007/s12560-019-09392-2>.

Rauter, Carolin, Markus Mueller, Isabel Diterich, Sabine Zeller, Dieter Hassler, Thomas Meergans, and Thomas Hartung. “Critical Evaluation of Urine-Based PCR Assay for Diagnosis of Lyme Borreliosis.” *Clinical and Vaccine Immunology* 12, no. 8 (August 2005): 910–17. <https://doi.org/10.1128/CDLI.12.8.910-917.2005>.

Rawre, Jyoti, Benu Dhawan, Neena Khanna, Vishnubhatla Sreenivas, Shobha Broor, and Rama Chaudhry. “Distribution of Chlamydia Trachomatis Omp A Genotypes in Patients Attending a Sexually Transmitted Disease Outpatient Clinic in New Delhi, India.” *Indian Journal of Medical Research* 149, no. 5 (2019): 662. https://doi.org/10.4103/ijmr.IJMR_1171_17.

Raza, Abida, Yasra Sarwar, Aamir Ali, Amer Jamil, Asma Haque, and Abdul Haque. “Effect of Biofilm Formation on the Excretion of Salmonella Enterica Serovar Typhi in Feces.” *International Journal of Infectious Diseases* 15, no. 11 (November 2011): e747–52. <https://doi.org/10.1016/j.ijid.2011.06.003>.

Regasa Dadi, Belayneh, Eyayu Girma, Mheret Tesfaye, and Mohamed Seid. “Assessment of the Bacteriological Profile and Antibiotic Susceptibility Patterns of Wastewater in Health Facilities of Ethiopia.” *International Journal of Microbiology* 2021 (2021): 9969479. <https://doi.org/10.1155/2021/9969479>.

Rehman, Zahid Ur, Luca Fortunato, Tuoyuan Cheng, and TorOve Leiknes. “Metagenomic Analysis of Sludge and Early-Stage Biofilm Communities of a Submerged Membrane Bioreactor.” *Science of The Total Environment* 701 (January 2020): 134682. <https://doi.org/10.1016/j.scitotenv.2019.134682>.

Reither, Klaus, Ralf Ignatius, Thomas Weitzel, Andrew Seidu-Korkor, Louis Anyidoho, Eiman Saad, Andrea Djie-Maletz, et al. “Acute Childhood Diarrhoea in Northern Ghana: Epidemiological, Clinical and Microbiological Characteristics.” *BMC Infectious Diseases* 7, no. 1 (December 2007): 104. <https://doi.org/10.1186/1471-2334-7-104>.

Retchless, Adam C., Mark Itsko, Jose A. Bazan, Abigail Norris Turner, Fang Hu, Sandeep J. Joseph, Alexandria Carter, Morgan Brown, Brandon Snyder, and Xin Wang. “Evaluation of Urethrotropic-Clade Meningococcal Infection by Urine Metagenomic Shotgun Sequencing.” Edited by Daniel J. Diekema. *Journal of Clinical Microbiology* 60, no. 2 (February 16, 2022): e01732-21. <https://doi.org/10.1128/JCM.01732-21>.

APRIL 2022

Richardson, N J, H J Koornhof, V D Bokkenheuser, Z Mayet, and E U Rosen. "Age Related Susceptibility to Campylobacter Jejuni Infection in a High Prevalance Population." *Archives of Disease in Childhood* 58, no. 8 (August 1, 1983): 616–19. <https://doi.org/10.1136/adc.58.8.616>.

Rios, Géraldine, Caroline Lacoux, Vianney Leclercq, Anna Diamant, Kévin Lebrigand, Adèle Lazuka, Emmanuel Soyeux, et al. "Monitoring SARS-CoV-2 Variants Alterations in Nice Neighborhoods by Wastewater Nanopore Sequencing." *The Lancet Regional Health - Europe* 10 (November 2021): 100202. <https://doi.org/10.1016/j.lanepe.2021.100202>.

Rivas, L., P.-Y. Dupont, B.J. Gilpin, and A.J. Cornelius. "Isolation and Characterization of Clostridium Difficile from a Small Survey of Wastewater, Food and Animals in New Zealand." *Letters in Applied Microbiology* 70, no. 1 (January 2020): 29–35. <https://doi.org/10.1111/lam.13238>.

Rodriguez-Manzano, Jesus, Marize Miagostovich, Ayalkibet Hundesa, Pilar Clemente-Casares, Anna Carratala, Maria Buti, Rosend Jardi, et al. "Analysis of the Evolution in the Circulation of HAV and HEV in Eastern Spain by Testing Urban Sewage Samples." *Journal of Water and Health* 8, no. 2 (June 1, 2010): 346–54. <https://doi.org/10.2166/wh.2009.042>.

Rolbiecki, Damian, Monika Harnisz, Ewa Korzeniewska, Martyna Buta, Jakub Hubeny, and Wiktor Zieliński. "Detection of Carbapenemase-Producing, Hypervirulent Klebsiella Spp. in Wastewater and Their Potential Transmission to River Water and WWTP Employees." *International Journal of Hygiene and Environmental Health* 237 (August 2021): 113831. <https://doi.org/10.1016/j.ijheh.2021.113831>.

Romanazzi, Valeria, Silvia Bonetta, Stefania Fornasero, Margherita De Ceglia, Giorgio Gilli, and Deborah Traversi. "Assessing Methanobrevibacter Smithii and Clostridium Difficile as Not Conventional Faecal Indicators in Effluents of a Wastewater Treatment Plant Integrated with Sludge Anaerobic Digestion." *Journal of Environmental Management* 184 (December 2016): 170–77. <https://doi.org/10.1016/j.jenvman.2016.09.081>.

Romano, Vincenza, Vincenzo Pasquale, Karel Krovacek, Federica Mauri, Antonella Demarta, and Stefano Dumontet. "Toxigenic Clostridium Difficile PCR Ribotypes from Wastewater Treatment Plants in Southern Switzerland." *Applied and Environmental Microbiology* 78, no. 18 (September 15, 2012): 6643–46. <https://doi.org/10.1128/AEM.01379-12>.

Roshandel, Mohammad Reza, Masoud Nateqi, Ramin Lak, Pooya Aavani, Reza Sari Motlagh, Shahrokh F. Shariat, Tannaz Aghaei Badr, John Sfakianos, Steven A Kaplan, and Ashutosh K Tewari. "Diagnostic and Methodological Evaluation of Studies on the Urinary Shedding of SARS-CoV-2, Compared to Stool and Serum: A Systematic Review and Meta-Analysis."

APRIL 2022

Cellular and Molecular Biology 66, no. 6 (September 30, 2020): 148–56.
<https://doi.org/10.14715/cmb/2020.66.6.26>.

Rothman, Jason A., Theresa B. Loveless, Joseph Kapcia, Eric D. Adams, Joshua A. Steele, Amity G. Zimmer-Faust, Kylie Langlois, et al. “RNA Viromics of Southern California Wastewater and Detection of SARS-CoV-2 Single-Nucleotide Variants.” Edited by Hideaki Nojiri. *Applied and Environmental Microbiology* 87, no. 23 (November 10, 2021): e01448-21.
<https://doi.org/10.1128/AEM.01448-21>.

Rouchka, Eric C., Julia H. Chariker, Kumar Saurabh, Sabine Waigel, Wolfgang Zacharias, Mei Zhang, Daymond Talley, et al. “The Rapid Assessment of Aggregated Wastewater Samples for Genomic Surveillance of SARS-CoV-2 on a City-Wide Scale.” *Pathogens* 10, no. 10 (October 1, 2021): 1271. <https://doi.org/10.3390/pathogens10101271>.

Roux, Marie Cecilia le, and Anwar Ahmed Hoosen. “Quantitative Real-Time Polymerase Chain Reaction for the Diagnosis of Mycoplasma Genitalium Infection in South African Men With and Without Symptoms of Urethritis.” *Sexually Transmitted Diseases* 44, no. 1 (January 2017): 18–21. <https://doi.org/10.1097/OLQ.0000000000000540>.

Rowbotham, Timothy J. “Isolation of Legionella Pneumophila Serogroup 1 from Human Feces with Use of Amebic Cocultures.” *Clinical Infectious Diseases* 26, no. 2 (February 1998): 502–3. <https://doi.org/10.1086/517095>.

Rowe, B, R J Gross, S M Scotland, A E Wright, G N Shillom, and N J Hunter. “Outbreak of Infantile Enteritis Caused by Enterotoxigenic Escherichia Coli 06.H16,” n.d., 3.

Roy, S. K., R. H. Behrens, R. Haider, S. M. Akramuzzaman, D. Mahalanabis, M. A. Wahed, and A. M. Tomkins. “Impact of Zinc Supplementation on Intestinal Permeability in Bangladeshi Children with Acute Diarrhoea and Persistent Diarrhoea Syndrome.” *Journal of Pediatric Gastroenterology and Nutrition* 15, no. 3 (October 1992): 289–96.
<https://doi.org/10.1097/00005176-199210000-00010>.

Ruhle, C., C. Höller, and K. O. Gundermann. “[Quantitative and qualitative studies of Yersinia species in the waste water of a purification plant].” *Zentralblatt Fur Hygiene Und Umweltmedizin = International Journal of Hygiene and Environmental Medicine* 189, no. 4 (February 1990): 285–99.

Rump, B. O., O. Visser, M. J. M. Te Wierik, H. Vennema, and E. B. Fanoy. “Use of PCR for Detection of Faecal HAV as a Screening Tool in an Outbreak of Hepatitis A in Daycare Centres.” *Epidemiology and Infection* 141, no. 3 (March 2013): 549–55.
<https://doi.org/10.1017/S0950268812000854>.

APRIL 2022

Rumyantseva, Tatiana, Daniel Golparian, Christian S. Nilsson, Emma Johansson, My Falk, Hans Fredlund, Alje Van Dam, Alexander Guschin, and Magnus Unemo. “Evaluation of the New AmpliSens Multiplex Real-Time PCR Assay for Simultaneous Detection of *Neisseria Gonorrhoeae*, *Chlamydia Trachomatis*, *Mycoplasma Genitalium*, and *Trichomonas Vaginalis*.” *APMIS* 123, no. 10 (October 2015): 879–86. <https://doi.org/10.1111/apm.12430>.

Rusak, Leonardo Alves, Rodrigo de Castro Lisboa Pereira, Isabelle Geoffroy Freitag, Cristina Barroso Hofer, Ernesto Hofer, Marise Dutra Asensi, and Deyse Christina Vallim. “Rapid Detection of *Yersinia Enterocolitica* Serotype O:3 Using a Duplex PCR Assay.” *Journal of Microbiological Methods* 154 (November 2018): 107–11. <https://doi.org/10.1016/j.mimet.2018.10.014>.

Ryu, Hodon, Yao Addor, Nichole E. Brinkman, Michael W. Ware, Laura Boczek, Jill Hoelle, Jatin H. Mistry, Scott P. Keely, and Eric N. Villegas. “Understanding Microbial Loads in Wastewater Treatment Works as Source Water for Water Reuse.” *Water* 13, no. 11 (May 21, 2021): 1452. <https://doi.org/10.3390/w13111452>.

Saadoun, Ismail, Qutaiba Ababneh, and Ziad Jaradat. “Genomic Detection of Waterborne Enteric Viruses as Water Quality Indicators in Al-Zarqa River, Jordan.” *Journal of Water and Health* 19, no. 4 (August 1, 2021): 604–15. <https://doi.org/10.2166/wh.2021.038>.

Sabadi, Dario, Ljiljana Peric, Vladimir Savic, Ilija Rubil, Vedrana Baraban, Irena Tabain, Ljubo Barbic, et al. “Fatal Case of West Nile Encephalitis Associated with Acute Anteroseptal ST Elevation Myocardial Infarction (STEMI): A Case Report,” n.d., 4.

Saguti, Fredy, Ellen Magnil, Lucica Enache, Marianela Patzi Churqui, Anette Johansson, Douglas Lumley, Fredrik Davidsson, et al. “Surveillance of Wastewater Revealed Peaks of SARS-CoV-2 Preceding Those of Hospitalized Patients with COVID-19.” *Water Research* 189 (February 2021): 116620. <https://doi.org/10.1016/j.watres.2020.116620>.

Saha, Samir K., Abdullah H. Baqui, Shams El Areefin, Shamim Qazi, Dewan S. Billal, Maksuda Islam, Eliza Roy, M. Ruhulamin, Robert E. Black, and Mathuram Santosham. “Detection of Antigenuria for Diagnosis of Invasive *Haemophilus Influenzae* Type b Disease.” *Annals of Tropical Paediatrics* 26, no. 4 (December 2006): 329–36. <https://doi.org/10.1179/146532806X152854>.

Sahay, Rima R., Pragya D. Yadav, Triparna Majumdar, Swapnil Patil, Prasad Sarkale, Anita M. Shete, Gouri Chaubal, et al. “Clinico-Epidemiological Investigation on Varicella Zoster Virus Indicates Multiple Clade Circulation in Maharashtra State, India.” *Heliyon* 4, no. 8 (August 2018): e00757. <https://doi.org/10.1016/j.heliyon.2018.e00757>.

APRIL 2022

Saito, Makoto. “Excretion of Enterotoxin-Producing *Clostridium Perfringens* in Feces by Patients during and after Diarrhea.” *Journal of the Japanese Association for Infectious Diseases* 65, no. 5 (1991): 571–76. <https://doi.org/10.11150/kansenshogakuzasshi1970.65.571>.

Salazar-Lindo, E., R. B. Sack, E. Chea-Woo, B. A. Kay, Z. A. Piscoya, R. Leon-Barua, and A. Yi. “Early Treatment with Erythromycin of *Campylobacter* Jejuni-Associated Dysentery in Children.” *The Journal of Pediatrics* 109, no. 2 (August 1986): 355–60. [https://doi.org/10.1016/s0022-3476\(86\)80404-8](https://doi.org/10.1016/s0022-3476(86)80404-8).

Samal, Ajit Gopal, Prativa Kumari Behera, Akshay Kumar Mohanty, Sanghamitra Satpathi, Abhishek Kumar, Rabi Ratna Panda, Aruna Mukti Minz, Sanjib Mohanty, Abhijit Samal, and Rob W Van Der Pluijm. “The Sensitivity and Specificity of a Urine Based Rapid Diagnostic Test for the Diagnosis of *Plasmodium Falciparum* in a Malaria Endemic Area in Odisha, India.” *Pathogens and Global Health* 111, no. 7 (October 3, 2017): 383–87. <https://doi.org/10.1080/20477724.2017.1380945>.

Santos-Fortuna, Elizabeth, and Adele Caterino-de-Araujo. “Confirming Shedding of Human Herpesvirus 8 in Urine from Infected Patients in Brazil.” *Journal of Clinical Microbiology* 43, no. 2 (February 2005): 1008. <https://doi.org/10.1128/JCM.43.2.1008.2005>.

Schlindwein, A. D., C. Rigotto, C. M. O. Simões, and C. R. M. Barardi. “Detection of Enteric Viruses in Sewage Sludge and Treated Wastewater Effluent.” *Water Science and Technology* 61, no. 2 (January 1, 2010): 537–44. <https://doi.org/10.2166/wst.2010.845>.

Schmidt, B, R R Muellegger, C Stockenhuber, H P Soyer, S Hoedl, A Luger, and H Kerl. “Detection of *Borrelia Burgdorferi*-Specific DNA in Urine Specimens from Patients with Erythema Migrans before and after Antibiotic Therapy.” *Journal of Clinical Microbiology* 34, no. 6 (June 1996): 1359–63. <https://doi.org/10.1128/jcm.34.6.1359-1363.1996>.

Schmidt, N J, H H Ho, and J Chin. “Application of Immunoperoxidase Staining to More Rapid Detection and Identification of Rubella Virus Isolates.” *Journal of Clinical Microbiology* 13, no. 4 (April 1981): 627–30. <https://doi.org/10.1128/jcm.13.4.627-630.1981>.

Schmidt, N J, J Dennis, and E H Lennette. “Comparison of Immunofluorescence and Immunoperoxidase Staining for Identification of Rubella Virus Isolates.” *Journal of Clinical Microbiology* 7, no. 6 (June 1978): 576–83. <https://doi.org/10.1128/jcm.7.6.576-583.1978>.

Schnagl, Roger D., Ian H. Holmes, and E. M. Mackay-Scollay. “CORONA VIRUS-LIKE PARTICLES IN ABORIGINALS AND NON-ABORIGINALS IN WESTERN AUSTRALIA.” *Medical Journal of Australia* 1, no. 6 (March 1978): 307–9. <https://doi.org/10.5694/j.1326-5377.1978.tb107864.x>.

APRIL 2022

Schoub, Barry D., A. S. Greeff, G. Lecatsas, O. W. Prozesky, I. T. Hay, J. G. Prinsloo, and R. C. Ballard. "A Microbiological Investigation of Acute Summer Gastroenteritis in Black South African Infants." *Journal of Hygiene* 78, no. 3 (June 1977): 377–85.

<https://doi.org/10.1017/S0022172400056278>.

Schulte, H., P. König, P. M. Shah, and R. Hopf. "Lebensbedrohliche Diarrhoe Bei Atypischem Verlauf Einer Legionellose." *DMW - Deutsche Medizinische Wochenschrift* 118, no. 37 (March 25, 2008): 1321–24. <https://doi.org/10.1055/s-2008-1059457>.

Schwartz, Thomas, Holger Volkmann, Silke Kirchen, Wolfgang Kohnen, Katja SchÄn-HÄllz, Bernd Jansen, and Ursula Obst. "Real-Time PCR Detection of *Pseudomonas Aeruginosa* in Clinical and Municipal Wastewater and Genotyping of the Ciprofloxacin-Resistant Isolates: PCR Detection of *P. Aeruginosa* in Clinical and Municipal Wastewater." *FEMS Microbiology Ecology* 57, no. 1 (July 2006): 158–67. <https://doi.org/10.1111/j.1574-6941.2006.00100.x>.

Sehgal, A., S. Gupta, A. Parashari, P. Sodhani, and V. Singh. "Urine HPV-DNA Detection for Cervical Cancer Screening: Prospects and Prejudices." *Journal of Obstetrics and Gynaecology* 29, no. 7 (January 2009): 583–89. <https://doi.org/10.1080/01443610903061736>.

Seifert, Marva, Eva Vargas, Victor Ruiz-Valdepeñas Montiel, Joseph Wang, Timothy C. Rodwell, and Antonino Catanzaro. "Detection and Quantification of *Mycobacterium Tuberculosis* Antigen CFP10 in Serum and Urine for the Rapid Diagnosis of Active Tuberculosis Disease." *Scientific Reports* 11, no. 1 (December 2021): 19193.

<https://doi.org/10.1038/s41598-021-98471-1>.

Seto, J., T. Ikeda, S. Tanaka, K. Komabayashi, Y. Matoba, Y. Suzuki, S. Takeuchi, T. Yamauchi, and K. Mizuta. "Detection of Modified Measles and Super-Spreader Using a Real-Time Reverse Transcription PCR in the Largest Measles Outbreak, Yamagata, Japan, 2017 in Its Elimination Era." *Epidemiology and Infection* 146, no. 13 (October 2018): 1707–13.

<https://doi.org/10.1017/S095026881800211X>.

Shafique, Muhammad, Nasir Ahmad, Fazli R. Awan, Tanveer Mustafa, Mujib Ullah, and Javed A. Qureshi. "Investigating the Concurrent Presence of HCV in Serum, Oral Fluid and Urine Samples from Chronic HCV Patients in Faisalabad, Pakistan." *Archives of Virology* 154, no. 9 (September 2009): 1523–27. <https://doi.org/10.1007/s00705-009-0477-7>.

Shannon, K.E., D.-Y. Lee, J.T. Trevors, and L.A. Beaudette. "Application of Real-Time Quantitative PCR for the Detection of Selected Bacterial Pathogens during Municipal Wastewater Treatment." *Science of The Total Environment* 382, no. 1 (August 15, 2007): 121–29. <https://doi.org/10.1016/j.scitotenv.2007.02.039>.

APRIL 2022

Shannon, K.E., D.-Y. Lee, J.T. Trevors, and L.A. Beaudette. "Application of Real-Time Quantitative PCR for the Detection of Selected Bacterial Pathogens during Municipal Wastewater Treatment." *Science of The Total Environment* 382, no. 1 (August 15, 2007): 121–29. <https://doi.org/10.1016/j.scitotenv.2007.02.039>.

Sheludchenko, Maxim, Anna Padovan, Mohammad Katouli, and Helen Stratton. "Removal of Fecal Indicators, Pathogenic Bacteria, Adenovirus, Cryptosporidium and Giardia (Oo)Cysts in Waste Stabilization Ponds in Northern and Eastern Australia." *International Journal of Environmental Research and Public Health* 13, no. 1 (January 2, 2016): 96. <https://doi.org/10.3390/ijerph13010096>.

Shi, Heshui, Xiaoyu Han, Nanchuan Jiang, Yukun Cao, Osamah Alwalid, Jin Gu, Yanqing Fan, and Chuansheng Zheng. "Radiological Findings from 81 Patients with COVID-19 Pneumonia in Wuhan, China: A Descriptive Study." *The Lancet. Infectious Diseases* 20, no. 4 (April 2020): 425–34. [https://doi.org/10.1016/S1473-3099\(20\)30086-4](https://doi.org/10.1016/S1473-3099(20)30086-4).

Shimada, Y, S Ito, K Mizutani, T Sugawara, K Seike, T Tsuchiya, S Yokoi, M Nakano, M Yasuda, and T Deguchi. "Bacterial Loads of Ureaplasma Urealyticum Contribute to Development of Urethritis in Men." *International Journal of STD & AIDS* 25, no. 4 (March 2014): 294–98. <https://doi.org/10.1177/0956462413504556>.

Shingare, Rita P., Sneha V. Nanekar, Prashant R. Thawale, R. Karthik, and Asha A. Juwarkar. "Comparative Study on Removal of Enteric Pathogens from Domestic Wastewater Using Typha Latifolia and Cyperus Rotundus along with Different Substrates." *International Journal of Phytoremediation*, 2017. <https://doi.org/10.1080/15226514.2017.1303809>.

Shukla, Ratnakar, Ujjala Ghoshal, Tapan N. Dhole, and Uday C. Ghoshal. "Fecal Microbiota in Patients with Irritable Bowel Syndrome Compared with Healthy Controls Using Real-Time Polymerase Chain Reaction: An Evidence of Dysbiosis." *Digestive Diseases and Sciences* 60, no. 10 (October 2015): 2953–62. <https://doi.org/10.1007/s10620-015-3607-y>.

Silva, Kelly, Blanca Bica, Eduardo Pimenta, Rodrigo Serafim, Mirhelen Abreu, Jorge Gonçalves, Larissa Santana, Mauro Cabral-Castro, José Peralta, and Marta Cavalcanti. "Fatal Human Case of Zika and Chikungunya Virus Co-Infection with Prolonged Viremia and Viruria." *Diseases* 6, no. 3 (June 21, 2018): 53. <https://doi.org/10.3390/diseases6030053>.

Silva-Sales, Marcelle, Sandra Martínez-Puchol, Eloy Gonzales-Gustavson, Ayalkibet Hundesa, and Rosina Gironès. "High Prevalence of Rotavirus A in Raw Sewage Samples from Northeast Spain." *Viruses* 12, no. 3 (March 16, 2020): 318. <https://doi.org/10.3390/v12030318>.

APRIL 2022

Simhon, Alberto, and Leonardo Mata. “Fecal Rotaviruses, Adenoviruses, Coronaviruslike Particles, and Small Round Viruses in a Cohort of Rural Costa Rican Children *.” *The American Journal of Tropical Medicine and Hygiene* 34, no. 5 (September 1, 1985): 931–36.

<https://doi.org/10.4269/ajtmh.1985.34.931>.

Simner, Patricia J., Margret Oethinger, Kathleen A. Stellrecht, Dylan R. Pillai, Ram Yogev, Helene Leblond, and Joel Mortensen. “Multisite Evaluation of the BD Max Extended Enteric Bacterial Panel for Detection of *Yersinia Enterocolitica*, Enterotoxigenic *Escherichia Coli*, *Vibrio*, and *Plesiomonas Shigelloides* from Stool Specimens.” Edited by Alexander J. McAdam. *Journal of Clinical Microbiology* 55, no. 11 (November 2017): 3258–66.

<https://doi.org/10.1128/JCM.00911-17>.

Singh, Mini P., Archit Kumar, Neha Gautam, Jasmine Khurana, Madhu Gupta, and Radha Kanta Ratho. “Rubella Outbreak in the Union Territory of Chandigarh, North India: Rubella Outbreak, North India.” *Journal of Medical Virology* 87, no. 2 (February 2015): 344–49.

<https://doi.org/10.1002/jmv.24056>.

Singh, Mini P., Tripti Rungta, Archit Kumar, Kapil Goyal, Bhavneet Bharti, and R.K. Ratho. “Institutional Outbreak of Varicella in a Child Welfare Institute in Chandigarh, North India.” *Indian Journal of Medical Microbiology* 37, no. 1 (January 2019): 24–28.

https://doi.org/10.4103/ijmm.IJMM_18_264.

Siqueira, Claudio, Valéria Féres, Livia Coutinho, Isabela Junqueira, Luziane Bento, Larissa Montes, and João Bosco Siqueira. “Six Cases of Zika/Dengue Coinfection in a Brazilian Cohort, 2015–2019.” *Viruses* 12, no. 10 (October 21, 2020): 1201.

<https://doi.org/10.3390/v12101201>.

Slupsky, Carolyn M., Kathryn N. Rankin, Hao Fu, David Chang, Brian H. Rowe, Patrick G. P. Charles, Allison McGeer, et al. “Pneumococcal Pneumonia: Potential for Diagnosis through a Urinary Metabolic Profile.” *Journal of Proteome Research* 8, no. 12 (December 4, 2009): 5550–58.

<https://doi.org/10.1021/pr9006427>.

Snaidr, J, R Amann, I Huber, W Ludwig, and K H Schleifer. “Phylogenetic Analysis and in Situ Identification of Bacteria in Activated Sludge.” *Applied and Environmental Microbiology* 63, no. 7 (July 1997): 2884–96. <https://doi.org/10.1128/aem.63.7.2884-2896.1997>.

Solomon, Michelle L., and Amy B. Middleman. “Abdominal Pain, Constipation, and Tenesmus in an Adolescent Female: Consider Chlamydia Proctitis.” *Journal of Pediatric and Adolescent Gynecology* 26, no. 3 (June 2013): e77–79. <https://doi.org/10.1016/j.jpjg.2013.01.003>.

APRIL 2022

Song, Ke, Xiaojuan Lin, Yao Liu, Feng Ji, Li Zhang, Peng Chen, Chenxu Zhao, Yanyan Song, Zexin Tao, and Aiqiang Xu. "Detection of Human Sapoviruses in Sewage in China by Next Generation Sequencing." *Food and Environmental Virology* 13, no. 2 (June 2021): 270–80. <https://doi.org/10.1007/s12560-021-09469-x>.

Speranskiĭ, N. P. "[Prolonged excretion of enteropathogenic Escherichia coli following coli infections in young children]." *Voprosy Okhrany Materinstva I Detstva* 22, no. 2 (1977): 50–54.

Srinivasan, Sujatha, Laura C Chambers, Kenneth A Tapia, Noah G Hoffman, Matthew M Munch, Jennifer L Morgan, Daniel Domogala, et al. "Urethral Microbiota in Men: Association of Haemophilus Influenzae and Mycoplasma Penetrans With Nongonococcal Urethritis." *Clinical Infectious Diseases* 73, no. 7 (October 5, 2021): e1684–93. <https://doi.org/10.1093/cid/ciaa1123>.

Stadtler, Hannah, Elizabeth Wescott, Kelly Hughes, Jerry Chang, Feng Gao, Mary Klotman, and Maria Blasi. "HIV-1 Diversity and Compartmentalization in Urine, Semen, and Blood." *Medicine* 99, no. 46 (November 13, 2020): e23063. <https://doi.org/10.1097/MD.00000000000023063>.

Stampi, Serena, Giovanna De Luca, Ornella Varoli, and Franca Zanetti. "Occurrence, Removal and Seasonal Variation of Thermophilic Campylobacters and Arcobacter in Sewage Sludge." *Zentralblatt Für Hygiene Und Umweltmedizin* 202, no. 1 (June 1999): 19–27. [https://doi.org/10.1016/S0934-8859\(99\)80048-0](https://doi.org/10.1016/S0934-8859(99)80048-0).

Steele, A D, L S Steinhardt, and J J Alexander. "Viruses Excreted in Neonatal Stools," n.d.,

Stelzer, Wolfgang, Hanspeter Mochmann, Ursula Richter, and Hans-Joachim Dobberkau. "Characterization of Campylobacter Jejuni and Campylobacter Coli Isolated from Waste Water." *Zentralblatt Für Bakteriologie, Mikrobiologie Und Hygiene. Series A: Medical Microbiology, Infectious Diseases, Virology, Parasitology* 269, no. 2 (August 1988): 188–96. [https://doi.org/10.1016/S0176-6724\(88\)80095-6](https://doi.org/10.1016/S0176-6724(88)80095-6).

Stephan, R., S. Joutsen, E. Hofer, E. Säde, J. Björkroth, D. Ziegler, and M. Fredriksson-Ahomaa. "Characteristics of Yersinia Enterocolitica Biotype 1A Strains Isolated from Patients and Asymptomatic Carriers." *European Journal of Clinical Microbiology & Infectious Diseases* 32, no. 7 (July 2013): 869–75. <https://doi.org/10.1007/s10096-013-1820-1>.

Steyer, Andrej, Ion Gutiérrez-Aguirre, Nejc Rački, Sara Beigot Glaser, Barbara Brajer Humar, Marjeta Stražar, Igor Škrjanc, Mateja Poljšak-Prijatelj, Maja Ravnikar, and Maja Rupnik. "The Detection Rate of Enteric Viruses and Clostridium Difficile in a Waste Water Treatment Plant

APRIL 2022

Effluent.” *Food and Environmental Virology* 7, no. 2 (June 2015): 164–72.
<https://doi.org/10.1007/s12560-015-9183-7>.

Stiborova, Hana, Jan Wolfram, Katerina Demnerova, Tomas Macek, and Ondrej Uhlik. “Bacterial Community Structure in Treated Sewage Sludge with Mesophilic and Thermophilic Anaerobic Digestion.” *Folia Microbiologica* 60, no. 6 (November 2015): 531–39.
<https://doi.org/10.1007/s12223-015-0396-9>.

Stone, Mars, Sonia Bakkour, Marion C Lanteri, Donald Brambilla, Graham Simmons, Roberta Bruhn, Zhanna Kaidarova, et al. “Zika Virus RNA and IgM Persistence in Blood Compartments and Body Fluids: A Prospective Observational Study.” *The Lancet Infectious Diseases* 20, no. 12 (December 2020): 1446–56. [https://doi.org/10.1016/S1473-3099\(19\)30708-X](https://doi.org/10.1016/S1473-3099(19)30708-X).

Strubbia, Sofia, My V. T. Phan, Julien Schaeffer, Marion Koopmans, Matthew Cotten, and Françoise S. Le Guyader. “Characterization of Norovirus and Other Human Enteric Viruses in Sewage and Stool Samples Through Next-Generation Sequencing.” *Food and Environmental Virology* 11, no. 4 (December 2019): 400–409. <https://doi.org/10.1007/s12560-019-09402-3>.

Sun, Zhaoyang, Wenjian Liu, Jinghao Zhang, Su Wang, Feng Yang, Yi Fang, Wenrong Jiang, Li Ding, Hu Zhao, and Yanmei Zhang. “The Direct Semi-Quantitative Detection of 18 Pathogens and Simultaneous Screening for Nine Resistance Genes in Clinical Urine Samples by a High-Throughput Multiplex Genetic Detection System.” *Frontiers in Cellular and Infection Microbiology* 11 (April 12, 2021): 660461. <https://doi.org/10.3389/fcimb.2021.660461>.

Suzuki, Yuki, Pearl Joy Nazareno, Ryuichi Nakano, Melisa Mondoy, Akiyo Nakano, Mark Philip Bugayong, Josie Bilar, et al. “Environmental Presence and Genetic Characteristics of Carbapenemase-Producing Enterobacteriaceae from Hospital Sewage and River Water in the Philippines.” Edited by Christopher A. Elkins. *Applied and Environmental Microbiology* 86, no. 2 (January 7, 2020): e01906-19. <https://doi.org/10.1128/AEM.01906-19>.

Sviben, Mario, Emilija Mlinarić Missoni, Tomislav Meštrović, Gordana Vojnović, and Gordana Mlinarić Galinović. “Epidemiology and Laboratory Characteristics of *Trichomonas Vaginalis* Infection in Croatian Men with and without Urethritis Syndrome: A Case–Control Study.” *Sexually Transmitted Infections* 91, no. 5 (August 2015): 360–64.
<https://doi.org/10.1136/sextrans-2014-051771>.

Swift, Candice L., Mirza Isanovic, Karlen E. Correa Velez, and R. Sean Norman. “Community-Level SARS-CoV-2 Sequence Diversity Revealed by Wastewater Sampling.” *Science of The Total Environment* 801 (December 2021): 149691.
<https://doi.org/10.1016/j.scitotenv.2021.149691>.

APRIL 2022

Symonds, Erin M., Dale W. Griffin, and Mya Breitbart. "Eukaryotic Viruses in Wastewater Samples from the United States." *Applied and Environmental Microbiology* 75, no. 5 (March 2009): 1402–9. <https://doi.org/10.1128/AEM.01899-08>.

Taherkhani, Atefeh, Hossein Movahedyan Attar, Seyyed Abbas Mirzaee, Mehdi Ahmadmoazzam, Neemat Jaafarzadeh, Faeze Hashemi, and Mohammad Jalali. "Performance Evaluation of Waste Stabilization Ponds on Removal of *Listeria* Spp.: A Case Study of Isfahan, Iran." *Journal of Water and Health* 16, no. 4 (August 2018): 614–21. <https://doi.org/10.2166/wh.2018.031>.

Talib, Abu, Shaheen Bhatti, Khalid Mehmood, Huda Naim, Iftikhar Haider, Hari Lal, Gohar Ali, and Muhammad Nashit. "GeneXpert in Stool: Diagnostic Yield in Intestinal Tuberculosis." *Journal of Clinical Tuberculosis and Other Mycobacterial Diseases* 17 (December 2019): 100131. <https://doi.org/10.1016/j.jctube.2019.100131>.

Tan, K. E. et al. "Mumps Virus Detection during an Outbreak in a Highly Unvaccinated Population in British Columbia - PubMed." Accessed March 17, 2022. <https://pubmed.ncbi.nlm.nih.gov/21485966/>.

Tanaka, Hayato, Wataru Hayashi, Masaki Imura, Yui Taniguchi, Eiji Soga, Nao Matsuo, Kumiko Kawamura, Yoshichika Arakawa, Yukiko Nagano, and Noriyuki Nagano. "Wastewater as a Probable Environmental Reservoir of Extended-Spectrum-β-Lactamase Genes: Detection of Chimeric β-Lactamases CTX-M-64 and CTX-M-123." *Applied and Environmental Microbiology* 85, no. 22 (2019): 12.

Tarnvik, A. et al. "Detection of Antigen in Urine of a Patient with Tularemia - PubMed." Accessed March 17, 2022. <https://pubmed.ncbi.nlm.nih.gov/3622500/>.

Teklehaimanot, Giorgis Z., B. Genthe, I. Kamika, and M.N.B. Momba. "Prevalence of Enteropathogenic Bacteria in Treated Effluents and Receiving Water Bodies and Their Potential Health Risks." *Science of The Total Environment* 518–519 (June 2015): 441–49. <https://doi.org/10.1016/j.scitotenv.2015.03.019>.

Teklehaimanot, Giorgis Z., Martie A. A. Coetzee, and Maggy N. B. Momba. "Faecal Pollution Loads in the Wastewater Effluents and Receiving Water Bodies: A Potential Threat to the Health of Sedibeng and Soshanguve Communities, South Africa." *Environmental Science and Pollution Research* 21, no. 16 (August 2014): 9589–9603. <https://doi.org/10.1007/s11356-014-2980-y>.

Thomas, Brenda, Stuart Beard, Li Jin, Kevin E. Brown, and David W.G. Brown. "Development and Evaluation of a Real-Time PCR Assay for Rapid Identification and Semi-Quantitation of

APRIL 2022

Measles Virus.” *Journal of Medical Virology* 79, no. 10 (October 2007): 1587–92.
<https://doi.org/10.1002/jmv.20997>.

Thongprachum, Aksara, Tsuguto Fujimoto, Sayaka Takanashi, Hiroyuki Saito, Shoko Okitsu, Hiroyuki Shimizu, Pattara Khamrin, Niwat Maneekarn, Satoshi Hayakawa, and Hiroshi Ushijima. “Detection of Nineteen Enteric Viruses in Raw Sewage in Japan.” *Infection, Genetics and Evolution* 63 (September 2018): 17–23.
<https://doi.org/10.1016/j.meegid.2018.05.006>.

Tian, Mei, Han-hu Liu, and Xin Shen. “[Comparative Metagenomics of BIOLAK and A2O Activated Sludge Based on Next-generation Sequencing Technology].” *Huan Jing Ke Xue= Huanjing Kexue* 37, no. 2 (February 15, 2016): 638–46.

Tribble, David R., Shahida Baqar, Daniel A. Scott, Michael L. Oplinger, Fernando Trespalacios, David Rollins, Richard I. Walker, et al. “Assessment of the Duration of Protection in *Campylobacter* Jejuni Experimental Infection in Humans.” *Infection and Immunity* 78, no. 4 (April 2010): 1750–59. <https://doi.org/10.1128/IAI.01021-09>.

Tripathy, Anuradha S, Meenal Sharma, Avinash R Deoshatwar, Prasad Babar, Rakesh Bharadwaj, and Omesh Kumar Bharti. “Study of a Hepatitis E Virus Outbreak Involving Drinking Water and Sewage Contamination in Shimla, India, 2015–2016.” *Transactions of The Royal Society of Tropical Medicine and Hygiene* 113, no. 12 (December 1, 2019): 789–96.
<https://doi.org/10.1093/trstmh/trz072>.

Tsai, Lai, and Lin. “Quantification of Pathogenic Micro-Organisms in the Sludge from Treated Hospital Wastewater.” *Journal of Applied Microbiology* 85, no. 1 (July 1998): 171–76.
<https://doi.org/10.1046/j.1365-2672.1998.00491.x>.

Tyker, Anna, Jessica Pudwell, Megan Schneiderman, Prabhpreet Hundal, Julie Thorne, and Mary Anne Jamieson. “Prevalence of Chlamydia and Gonorrhea Among Pregnant Adolescents Screened in the Third Trimester Using a Urine PCR Test: A Retrospective Review.” *Journal of Obstetrics and Gynaecology Canada* 43, no. 9 (September 2021): 1069–75. <https://doi.org/10.1016/j.jogc.2020.12.018>.

Ugarte-Ruiz, María, Diego Florez-Cuadrado, Trudy Wassenaar, María Porrero, and Lucas Domínguez. “Method Comparison for Enhanced Recovery, Isolation and Qualitative Detection of *C. Jejuni* and *C. Coli* from Wastewater Effluent Samples.” *International Journal of Environmental Research and Public Health* 12, no. 3 (March 2, 2015): 2749–64.
<https://doi.org/10.3390/ijerph120302749>.

APRIL 2022

Uhrbrand, Katrine, Anna Charlotte Schultz, and Anne Mette Madsen. “Exposure to Airborne Noroviruses and Other Bioaerosol Components at a Wastewater Treatment Plant in Denmark.” *Food and Environmental Virology* 3, no. 3–4 (December 2011): 130–37. <https://doi.org/10.1007/s12560-011-9068-3>.

Um, Maryse Michèle, Olivier Barraud, Monique Kérourédan, Margaux Gaschet, Thibault Stalder, Eric Oswald, Christophe Dagot, Marie-Cecile Ploy, Hubert Brugère, and Delphine Bibbal. “Comparison of the Incidence of Pathogenic and Antibiotic-Resistant *Escherichia Coli* Strains in Adult Cattle and Veal Calf Slaughterhouse Effluents Highlighted Different Risks for Public Health.” *Water Research* 88 (January 2016): 30–38. <https://doi.org/10.1016/j.watres.2015.09.029>.

Unicomb, Leanne E., Nurun Nahar Banu, Tasnim Azim, Asma Islam, P. K. Bardhan, A. S. G. Faruque, Andrew Hall, et al. “Astrovirus Infection in Association with Acute, Persistent and Nosocomial Diarrhea in Bangladesh.” *The Pediatric Infectious Disease Journal* 17, no. 7 (July 1998): 611–14. <https://doi.org/10.1097/00006454-199807000-00007>.

Utsumi, Takako, Maria Inge Lusida, Zayyin Dinana, Rury Mega Wahyuni, Laura Navika Yamani, Juniastuti, Soetjipto, et al. “Occurrence of Norovirus Infection in an Asymptomatic Population in Indonesia.” *Infection, Genetics and Evolution* 55 (November 2017): 1–7. <https://doi.org/10.1016/j.meegid.2017.08.020>.

Vaidya, S. R., S. M. Tilavat, N. S. Kumbhar, and M. B. Kamble. “Chickenpox Outbreak in a Tribal and Industrial Zone from the Union Territory of Dadra and Nagar Haveli, India.” *Epidemiology and Infection* 146, no. 4 (March 2018): 476–80. <https://doi.org/10.1017/S0950268818000201>.

Valledor, Silvia, Inés Valledor, María Concepción Gil-Rodríguez, Cristina Seral, and Javier Castillo. “Comparison of Several Real-Time PCR Kits versus a Culture-Dependent Algorithm to Identify Enteropathogens in Stool Samples.” *Scientific Reports* 10, no. 1 (December 2020): 4301. <https://doi.org/10.1038/s41598-020-61202-z>.

Van Raemdonck, Geert A., Kara K. Osbak, Xaveer Van Ostade, and Chris R. Kenyon. “Needle Lost in the Haystack: Multiple Reaction Monitoring Fails to Detect *Treponema Pallidum* Candidate Protein Biomarkers in Plasma and Urine Samples from Individuals with Syphilis.” *F1000Research* 7 (2018): 336. <https://doi.org/10.12688/f1000research.13964.2>.

Van, R., C. C. Wun, M. L. O’Ryan, D. O. Matson, L. Jackson, and L. K. Pickering. “Outbreaks of Human Enteric Adenovirus Types 40 and 41 in Houston Day Care Centers.” *The Journal of Pediatrics* 120, no. 4 Pt 1 (April 1992): 516–21. [https://doi.org/10.1016/s0022-3476\(05\)82477-1](https://doi.org/10.1016/s0022-3476(05)82477-1).

APRIL 2022

Vančíková, Zuzana, Milan Trojánek, Helena Žemličková, Zuzana Blechová, Jitka Motlová, Jana Matějková, Otakar Nyč, Jerry John, Marek Malý, and Vilma Marešová. “Pneumococcal Urinary Antigen Positivity in Healthy Colonized Children: Is It Age Dependent?” *Wiener Klinische Wochenschrift* 125, no. 17–18 (September 2013): 495–500.
<https://doi.org/10.1007/s00508-013-0405-4>.

Varavithya, W, S Aswasuwana, P Phuapradit, S Louisirootchanaikul, S Supavej, and S Nopchinda. “Etiology of Diarrhea in Measles,” n.d., 1.

Varela, Miguel F., Imen Ouadani, Tsuyoshi Kato, Syunsuke Kadoya, Mahjoub Aouni, Daisuke Sano, and Jesús L. Romalde. “Sapovirus in Wastewater Treatment Plants in Tunisia: Prevalence, Removal, and Genetic Characterization.” Edited by Christopher A. Elkins. *Applied and Environmental Microbiology* 84, no. 6 (March 15, 2018): e02093-17.
<https://doi.org/10.1128/AEM.02093-17>.

Vazquez-Prokopec, Gonzalo M., Jodi L. Vanden Eng, Rosmarie Kelly, Daniel G. Mead, Priti Kolhe, James Howgate, Uriel Kitron, and Thomas R. Burkot. “The Risk of West Nile Virus Infection Is Associated with Combined Sewer Overflow Streams in Urban Atlanta, Georgia, USA.” *Environmental Health Perspectives* 118, no. 10 (October 2010): 1382–88.
<https://doi.org/10.1289/ehp.1001939>.

Venter, Johanna M. E., Precious M. Mahlangu, Etienne E. Müller, David A. Lewis, Kevin Rebe, Helen Struthers, James McIntyre, and Ranmini S. Kularatne. “Comparison of an In-House Real-Time Duplex PCR Assay with Commercial HOLOGIC® APTIMA Assays for the Detection of *Neisseria Gonorrhoeae* and *Chlamydia Trachomatis* in Urine and Extra-Genital Specimens.” *BMC Infectious Diseases* 19, no. 1 (December 2019): 6.
<https://doi.org/10.1186/s12879-018-3629-0>.

Vernozy-Rozand, C., M.P. Montet, F. Lequerrec, E. Serillon, B. Tilly, C. Bavai, S. Ray-Gueniot, J. Bouvet, C. Mazuy-Cruchaudet, and Y. Richard. “Prevalence of Verotoxin-Producing *Escherichia Coli* (VTEC) in Slurry, Farmyard Manure and Sewage Sludge in France.” *Journal of Applied Microbiology* 93, no. 3 (September 2002): 473–78.
<https://doi.org/10.1046/j.1365-2672.2002.01706.x>.

Vetter, Michele Regina, Rodrigo Staggemeier, Andréia Dalla Vecchia, Andréia Henzel, Caroline Rigotto, and Fernando Rosado Spilki. “Seasonal Variation on the Presence of Adenoviruses in Stools from Non-Diarrheic Patients.” *Brazilian Journal of Microbiology* 46, no. 3 (September 2015): 749–52. <https://doi.org/10.1590/S1517-838246320140718>.

Viau, Emily, and Jordan Peccia. “Survey of Wastewater Indicators and Human Pathogen Genomes in Biosolids Produced by Class A and Class B Stabilization Treatments.” *Applied*

APRIL 2022

and *Environmental Microbiology* 75, no. 1 (January 2009): 164–74.
<https://doi.org/10.1128/AEM.01331-08>.

Victoria, M., L. F. L. Tort, M. García, A. Lizasoain, L. Maya, J. P. G. Leite, M. P. Miagostovich, J. Cristina, and R. Colina. “Assessment of Gastroenteric Viruses from Wastewater Directly Discharged into Uruguay River, Uruguay.” *Food and Environmental Virology* 6, no. 2 (June 2014): 116–24. <https://doi.org/10.1007/s12560-014-9143-7>.

Vijayavel, K., and D. R. Kashian. “Evaluation of *Clostridium Perfringens* as a Tracer of Sewage Contamination in Sediments by Two Enumeration Methods.” *Environmental Monitoring and Assessment* 186, no. 9 (September 2014): 5617–24. <https://doi.org/10.1007/s10661-014-3807-5>.

Villar, L.M., V.S. de Paula, L. Diniz-Mendes, F.R. Guimarães, F.F.M. Ferreira, T.C. Shubo, M.P. Miagostovich, E. Lampe, and A.M.C. Gaspar. “Molecular Detection of Hepatitis A Virus in Urban Sewage in Rio de Janeiro, Brazil.” *Letters in Applied Microbiology* 45, no. 2 (August 2007): 168–73. <https://doi.org/10.1111/j.1472-765X.2007.02164.x>.

Vo, Van, Richard L. Tillett, Ching-Lan Chang, Daniel Gerrity, Walter Q. Betancourt, and Edwin C. Oh. “SARS-CoV-2 Variant Detection at a University Dormitory Using Wastewater Genomic Tools.” *Science of The Total Environment* 805 (January 2022): 149930.
<https://doi.org/10.1016/j.scitotenv.2021.149930>.

Vonberg, Ralf P., Michael Höhle, Martin Aepfelbacher, Franz C. Bange, Cristina Belmar Campos, Katja Claussen, Martin Christner, et al. “Duration of Fecal Shedding of Shiga Toxin–Producing *Escherichia Coli* O104:H4 in Patients Infected During the 2011 Outbreak in Germany: A Multicenter Study.” *Clinical Infectious Diseases* 56, no. 8 (April 15, 2013): 1132–40.
<https://doi.org/10.1093/cid/cis1218>.

Vuotto, Claudia, Filipa Grosso, Francesca Longo, Maria Pia Balice, Mariana Carvalho de Barros, Luisa Peixe, and Gianfranco Donelli. “Biofilm-Forming Ability and Clonality in *Acinetobacter Baumannii* Strains Isolated from Urine Samples and Urinary Catheters in Different European Hospitals.” In *Advances in Microbiology, Infectious Diseases and Public Health*, edited by Gianfranco Donelli, 1057:73–83. *Advances in Experimental Medicine and Biology*. Cham: Springer International Publishing, 2017. https://doi.org/10.1007/5584_2017_70.

Vítek, Libor, Petr Kotal, Milan Jirsa, Jiří Malina, Marcela Černá, Dittmar Chmelař, and Johan Fevery. “Intestinal Colonization Leading to Fecal Urobilinoid Excretion May Play a Role in the Pathogenesis of Neonatal Jaundice.” *Journal of Pediatric Gastroenterology and Nutrition* 30, no. 3 (March 2000): 294–98. <https://doi.org/10.1097/00005176-200003000-00015>.

APRIL 2022

Waage, Astrid S., Traute Vardund, Vidar Lund, and Georg Kapperud. "Detection of Small Numbers of *Campylobacter* Jejuni and *Campylobacter* Coli Cells in Environmental Water, Sewage, and Food Samples by a Seminested PCR Assay." *Applied and Environmental Microbiology* 65, no. 4 (April 1999): 1636–43. <https://doi.org/10.1128/AEM.65.4.1636-1643.1999>.

Wada, M., E. Lkhagvadorj, L. Bian, C. Wang, Y. Chiba, S. Nagata, T. Shimizu, Y. Yamashiro, T. Asahara, and K. Nomoto. "Quantitative Reverse Transcription-PCR Assay for the Rapid Detection of Methicillin-resistant *Staphylococcus Aureus*." *Journal of Applied Microbiology* 108, no. 3 (March 2010): 779–88. <https://doi.org/10.1111/j.1365-2672.2009.04476.x>.

Walters, Elisabetta, Anne-Marie Demers, Marieke M. van der Zalm, Andrew Whitelaw, Megan Palmer, Corné Bosch, Heather R. Draper, Robert P. Gie, and Anneke C. Hesselning. "Stool Culture for Diagnosis of Pulmonary Tuberculosis in Children." Edited by Karen C. Carroll. *Journal of Clinical Microbiology* 55, no. 12 (December 2017): 3355–65. <https://doi.org/10.1128/JCM.00801-17>.

Wan, Min Tao, and Chin Cheng Chou. "Spreading of β -Lactam Resistance Gene (*MecA*) and Methicillin-Resistant *Staphylococcus Aureus* through Municipal and Swine Slaughterhouse Wastewaters." *Water Research* 64 (November 2014): 288–95. <https://doi.org/10.1016/j.watres.2014.07.014>.

Wang, Zhiqi, Jingfeng Gao, Yifan Zhao, Huihui Dai, Jingxin Jia, and Da Zhang. "Plastisphere Enrich Antibiotic Resistance Genes and Potential Pathogenic Bacteria in Sewage with Pharmaceuticals." *Science of The Total Environment* 768 (May 2021): 144663. <https://doi.org/10.1016/j.scitotenv.2020.144663>.

Wannigama, Dhammika Leshan, Mohan Amarasiri, Cameron Hurst, Phatthranit Phattharapornjaroen, Shuichi Abe, Parichart Hongsing, S.M. Ali Hosseini Rad, et al. "Tracking COVID-19 with Wastewater to Understand Asymptomatic Transmission." *International Journal of Infectious Diseases* 108 (July 2021): 296–99. <https://doi.org/10.1016/j.ijid.2021.05.005>.

Watson-Creed, G. "Two Successive Outbreaks of Mumps in Nova Scotia among Vaccinated Adolescents and Young Adults." *Canadian Medical Association Journal* 175, no. 5 (August 29, 2006): 483–88. <https://doi.org/10.1503/cmaj.060660>.

Wijers, Juliën N. A. P., Nicole H. T. M. Dukers-Muijrs, Geneviève A. F. S. van Liere, Jeanne A. M. C. Dirks, Petra F. G. Wolffs, and Christian J. P. A. Hoebe. "Men and Women Have an Equal Oropharyngeal and Anorectal *Chlamydia Trachomatis* Bacterial Load: A Comparison of 3 Anatomic Sites." *The Journal of Infectious Diseases* 223, no. 9 (May 20, 2021): 1582–89. <https://doi.org/10.1093/infdis/jiz668>.

APRIL 2022

Withrington, R. H., J. M. Baylis, and D. N. Challacombe. "Chronic Excretion of Enteropathogenic Bacteria in the Faeces—a Possible Association with Allergy to Cows' Milk." *Clinical Experimental Allergy* 11, no. 2 (March 1981): 185–89. <https://doi.org/10.1111/j.1365-2222.1981.tb01583.x>.

Wolontis, Sigvard, and Bjarne Bjorvatn. "Mumps Meningoencephalitis in Stockholm: IV. Attempts at Virus Isolation from the Urine in Hospitalized Mumps Cases with or without Diagnosed Mumps Meningoencephalitis." *Scandinavian Journal of Infectious Diseases* 6, no. 1 (March 1974): 13–21. <https://doi.org/10.3109/inf.1974.6.issue-1.03>.

Worm, A. M., J. Jørgensen, and A. C. Bollerup. "[Chlamydia trachomatis in feces and the rectum]." *Ugeskrift for Laeger* 149, no. 14 (March 30, 1987): 908–9.

Wu, Fuqing, Amy Xiao, Jianbo Zhang, Katya Moniz, Noriko Endo, Federica Armas, Richard Bonneau, et al. "SARS-CoV-2 Titers in Wastewater Foreshadow Dynamics and Clinical Presentation of New COVID-19 Cases." Preprint. *Infectious Diseases (except HIV/AIDS)*, June 23, 2020. <https://doi.org/10.1101/2020.06.15.20117747>.

Wu, Fuqing, Jianbo Zhang, Amy Xiao, Xiaoqiong Gu, Wei Lin Lee, Federica Armas, Kathryn Kauffman, et al. "SARS-CoV-2 Titers in Wastewater Are Higher than Expected from Clinically Confirmed Cases" 5, no. 4 (2020): 9.

Wu, Qiang, Xiaoqing Fu, Lili Jiang, Rusong Yang, Jianping Cun, Xiaofang Zhou, Yongming Zhou, et al. "Prevalence of Enteroviruses in Healthy Populations and Excretion of Pathogens in Patients with Hand, Foot, and Mouth Disease in a Highly Endemic Area of Southwest China." Edited by Yang Yang. *PLOS ONE* 12, no. 7 (July 13, 2017): e0181234. <https://doi.org/10.1371/journal.pone.0181234>.

Wu, Yongjian, Cheng Guo, Lantian Tang, Zhongsi Hong, Jianhui Zhou, Xin Dong, Huan Yin, et al. "Prolonged Presence of SARS-CoV-2 Viral RNA in Faecal Samples." *The Lancet Gastroenterology & Hepatology* 5, no. 5 (May 1, 2020): 434–35. [https://doi.org/10.1016/S2468-1253\(20\)30083-2](https://doi.org/10.1016/S2468-1253(20)30083-2).

Wurtz, Nathalie, Océane Revol, Priscilla Jardot, Audrey Giraud-Gatineau, Linda Houhamdi, Christophe Soumagnac, Alexandre Annessi, et al. "Monitoring the Circulation of SARS-CoV-2 Variants by Genomic Analysis of Wastewater in Marseille, South-East France." *Pathogens* 10, no. 8 (August 17, 2021): 1042. <https://doi.org/10.3390/pathogens10081042>.

Wuthe, Hanns-Herbert, Stojanka Aleksić, Rainer Podschun, and Angelika Scheer-Sievers. "Urinary Tract Infection Due to a Mucoïd (M) Form of Salmonella A 'New' Transformation from

APRIL 2022

M Form into T1 Form.” *Zentralblatt Für Bakteriologie* 277, no. 1 (June 1992): 74–79.
[https://doi.org/10.1016/S0934-8840\(11\)80873-X](https://doi.org/10.1016/S0934-8840(11)80873-X).

Wéry, Nathalie, Claire Lhoutellier, Florence Ducray, Jean-Philippe Delgenès, and Jean-Jacques Godon. “Behaviour of Pathogenic and Indicator Bacteria during Urban Wastewater Treatment and Sludge Composting, as Revealed by Quantitative PCR.” *Water Research* 42, no. 1–2 (January 2008): 53–62. <https://doi.org/10.1016/j.watres.2007.06.048>.

Wölfel, Roman, Victor M. Corman, Wolfgang Guggemos, Michael Seilmaier, Sabine Zange, Marcel A. Müller, Daniela Niemeyer, et al. “Virological Assessment of Hospitalized Patients with COVID-2019.” *Nature* 581, no. 7809 (May 28, 2020): 465–69.
<https://doi.org/10.1038/s41586-020-2196-x>.

Xia, Ruirui, Ye Ren, and Hai Xu. “Identification of Plasmid-Mediated Quinolone Resistance Qnr Genes in Multidrug-Resistant Gram-Negative Bacteria from Hospital Wastewaters and Receiving Waters in the Jinan Area, China.” *Microbial Drug Resistance* 19, no. 6 (December 2013): 446–56. <https://doi.org/10.1089/mdr.2012.0210>.

Xu, C., J.S. Weese, C. Flemming, J. Odumeru, and K. Warriner. “Fate of *Clostridium Difficile* during Wastewater Treatment and Incidence in Southern Ontario Watersheds.” *Journal of Applied Microbiology* 117, no. 3 (September 2014): 891–904. <https://doi.org/10.1111/jam.12575>.

Yan, T., P. O’Brien, J. M. Shelton, A. C. Whelen, and E. Pagaling. “Municipal Wastewater as a Microbial Surveillance Platform for Enteric Diseases: A Case Study for *Salmonella* and *Salmonellosis*.” *Environmental Science & Technology* 52, no. 8 (April 17, 2018): 4869–77.
<https://doi.org/10.1021/acs.est.8b00163>.

Yanagimoto, Keita, Kosei Uematsu, Takaya Yamagami, and Eiji Haramoto. “The Circulation of Type F *Clostridium Perfringens* among Humans, Sewage, and *Ruditapes Philippinarum* (Asari Clams).” *Pathogens* 9, no. 8 (August 18, 2020): 669.
<https://doi.org/10.3390/pathogens9080669>.

Yanagimoto, Keita, and Eiji Haramoto. “Isolation of Alpha-Toxin-Deficient *Clostridium Perfringens* Type F from Sewage Influent and Effluents.” Edited by Jasna Kovac. *Microbiology Spectrum* 9, no. 1 (September 3, 2021): e00214-21.
<https://doi.org/10.1128/Spectrum.00214-21>.

Yang, Fengxia, Daqing Mao, Hao Zhou, and Yi Luo. “Prevalence and Fate of Carbapenemase Genes in a Wastewater Treatment Plant in Northern China.” Edited by Jan Kluytmans. *PLOS ONE* 11, no. 5 (May 26, 2016): e0156383. <https://doi.org/10.1371/journal.pone.0156383>.

APRIL 2022

Yang, Kun, Eulyn Pagaling, and Tao Yan. “Estimating the Prevalence of Potential Enteropathogenic Escherichia Coli and Intimin Gene Diversity in a Human Community by Monitoring Sanitary Sewage.” *Applied and Environmental Microbiology* 80, no. 1 (January 2014): 119–27. <https://doi.org/10.1128/AEM.02747-13>.

Yang, Meihua, Yuqing Jia, Zhihui Dong, Yu Zhang, Songsong Xie, Quan Liu, and Yuanzhi Wang. “Rickettsia Aeschlimanii Infection in a Woman from Xingjiang, Northwestern China,” n.d., 1.

Yang, Qian, Pierre Rivaller, Shuangli Zhu, Dongmei Yan, Na Xie, Haishu Tang, Yong Zhang, and Wenbo Xu. “Detection of Multiple Viruses Potentially Infecting Humans in Sewage Water from Xinjiang Uygur Autonomous Region, China.” *Science of The Total Environment* 754 (February 2021): 142322. <https://doi.org/10.1016/j.scitotenv.2020.142322>.

Ye, Lin, and Tong Zhang. “Pathogenic Bacteria in Sewage Treatment Plants as Revealed by 454 Pyrosequencing.” *Environmental Science & Technology* 45, no. 17 (September 1, 2011): 7173–79. <https://doi.org/10.1021/es201045e>.

Yokoyama, Toshinobu, Takashi Kinoshita, Masaki Okamoto, Kazuko Matsunaga, Tomoko Kamimura, Masaharu Kinoshita, Toru Rikimaru, Kazuhito Taguchi, Tomoaki Hoshino, and Tomotaka Kawayama. “High Detection Rates of Urine Mycobacterium Tuberculosis in Patients with Suspected Miliary Tuberculosis.” *Internal Medicine* 56, no. 8 (2017): 895–902. <https://doi.org/10.2169/internalmedicine.56.7792>.

Yolken, R. H., S. Li, J. Perman, and R. Viscidi. “Persistent Diarrhea and Fecal Shedding of Retroviral Nucleic Acids in Children Infected with Human Immunodeficiency Virus.” *Journal of Infectious Diseases* 164, no. 1 (July 1, 1991): 61–66. <https://doi.org/10.1093/infdis/164.1.64>.

Yong, Clement. “NEA Monitoring Wastewater in Bid to Give Dorms the Virus All-Clear.” *The Straits Times*. June 23, 2020. <https://www.straitstimes.com/singapore/nea-monitoring-wastewater-in-bid-to-give-dorms-the-virus-all-clear>.

Yong, Clement. “NEA-Led Programme at Migrant Worker Dorms Could Detect Spread of Coronavirus through Wastewater Testing.” *The Straits Times*. June 19, 2020. <https://www.straitstimes.com/singapore/nea-led-programme-at-migrant-worker-dorms-could-detect-spread-of-coronavirus-through>.

Yoo, Jae Young, Mina Rho, Young-Ah You, Eun Jin Kwon, Min-Hye Kim, Sungmin Kym, Young-Koo Jee, Yoon-Keun Kim, and Young Ju Kim. “16S rRNA Gene-Based Metagenomic Analysis Reveals Differences in Bacteria-Derived Extracellular Vesicles in the Urine of

APRIL 2022

Pregnant and Non-Pregnant Women.” *Experimental & Molecular Medicine* 48, no. 2 (February 2016): e208–e208. <https://doi.org/10.1038/emm.2015.110>.

Yoshida, Takashi, Takashi Deguchi, Shin-Ichi Meda, Yasuaki Kubota, Masayoshi Tamaki, Shigeaki Yokoi, Mitsuru Yasuda, and Hiroaki Ishiko. “Quantitative Detection of *Ureaplasma Parvum* (Biovar 1) and *Ureaplasma Urealyticum* (Biovar 2) in Urine Specimens from Men With and Without Urethritis by Real-Time Polymerase Chain Reaction.” *Sexually Transmitted Diseases* 34, no. 6 (June 2007): 416–19. <https://doi.org/10.1097/01.olq.0000243621.89212.40>.

You, Chunlin, Ryoichi Hamasuna, Midori Ogawa, Kazumasa Fukuda, Toru Hachisuga, Tetsuro Matsumoto, and Hatsumi Taniguchi. “The First Report: An Analysis of Bacterial Flora of the First Voided Urine Specimens of Patients with Male Urethritis Using the 16S Ribosomal RNA Gene-Based Clone Library Method.” *Microbial Pathogenesis* 95 (June 2016): 95–100. <https://doi.org/10.1016/j.micpath.2016.02.022>.

You, Chunlin, Ryoichi Hamasuna, Midori Ogawa, Kazumasa Fukuda, Toru Hachisuga, Tetsuro Matsumoto, and Hatsumi Taniguchi. “The First Report: An Analysis of Bacterial Flora of the First Voided Urine Specimens of Patients with Male Urethritis Using the 16S Ribosomal RNA Gene-Based Clone Library Method.” *Microbial Pathogenesis* 95 (June 2016): 95–100. <https://doi.org/10.1016/j.micpath.2016.02.022>.

Yu, Jie-mei, Guoyan Zhao, Yuan-yun Ao, Li-li Li, David Wang, and Zhao-jun Duan. “Complete Genome Sequence of a Novel Human Papillomavirus Identified by Metagenomic Analysis from a Child with Diarrhea in China.” *Archives of Virology* 160, no. 2 (February 2015): 549–52. <https://doi.org/10.1007/s00705-014-2252-7>.

Zahedi, Alireza, Paul Monis, Daniel Deere, and Una Ryan. “Wastewater-Based Epidemiology—Surveillance and Early Detection of Waterborne Pathogens with a Focus on SARS-CoV-2, *Cryptosporidium* and *Giardia*.” *Parasitology Research* 120, no. 12 (December 2021): 4167–88. <https://doi.org/10.1007/s00436-020-07023-5>.

Zee, Anneke van der, Lieuwe Roorda, Gerda Bosman, and Jacobus M. Ossewaarde. “Molecular Diagnosis of Urinary Tract Infections by Semi-Quantitative Detection of Uropathogens in a Routine Clinical Hospital Setting.” Edited by Baochuan Lin. *PLOS ONE* 11, no. 3 (March 8, 2016): e0150755. <https://doi.org/10.1371/journal.pone.0150755>.

Zhang, Manyu, Weixiu Wang, Xue Li, Xiaoxiao Zhang, and Dingwei Yang. “Fast and Precise Pathogen Detection and Identification of Overlapping Infection in Patients with CUTI Based on Metagenomic Next-Generation Sequencing: A Case Report.” *Medicine* 100, no. 49 (December 10, 2021): e27902. <https://doi.org/10.1097/MD.00000000000027902>.

APRIL 2022

Zhang, Shaoqing, Zhili He, and Fangang Meng. “Floc-Size Effects of the Pathogenic Bacteria in a Membrane Bioreactor Plant.” *Environment International* 127 (June 2019): 645–52. <https://doi.org/10.1016/j.envint.2019.04.002>.

Zhang, Yong, Cao Chen, Yang Song, Shuangli Zhu, Dongyan Wang, Hui Zhang, Guangyue Han, et al. “Excretion of SARS-CoV-2 through Faecal Specimens.” *Emerging Microbes & Infections* 9, no. 1 (January 1, 2020): 2501–8. <https://doi.org/10.1080/22221751.2020.1844551>.

Zheng, Bo Jian, Ru Xu Chang, Gui Zhang Ma, Ji Min Xie, Qi Liu, Xi Ruo Liang, and Mun Hon Ng. “Rotavirus Infection of the Oropharynx and Respiratory Tract in Young Children.” *Journal of Medical Virology* 34, no. 1 (May 1991): 29–37. <https://doi.org/10.1002/jmv.1890340106>.

Zhi, Shuai, Paul Stothard, Graham Banting, Candis Scott, Kristin Huntley, Kanghee Ryu, Simon Otto, et al. “Characterization of Water Treatment-Resistant and Multidrug-Resistant Urinary Pathogenic *Escherichia Coli* in Treated Wastewater.” *Water Research* 182 (September 2020): 115827. <https://doi.org/10.1016/j.watres.2020.115827>.

Zhou, Jinhong, Xiaochang C. Wang, Zheng Ji, Limei Xu, and Zhenzhen Yu. “Source Identification of Bacterial and Viral Pathogens and Their Survival/Fading in the Process of Wastewater Treatment, Reclamation, and Environmental Reuse.” *World Journal of Microbiology and Biotechnology* 31, no. 1 (January 2015): 109–20. <https://doi.org/10.1007/s11274-014-1770-5>.

Zhou, Nan, Dong Lv, Suting Wang, Xiaojuan Lin, Zhenwang Bi, Haiyan Wang, Pei Wang, et al. “Continuous Detection and Genetic Diversity of Human Rotavirus A in Sewage in Eastern China, 2013–2014.” *Virology Journal* 13, no. 1 (December 2016): 153. <https://doi.org/10.1186/s12985-016-0609-0>.

Zhu, Libin, Monique Torres, Walter Q. Betancourt, Manan Sharma, Shirley A. Micallef, Charles Gerba, Amy R. Sapkota, et al. “Incidence of Fecal Indicator and Pathogenic Bacteria in Reclaimed and Return Flow Waters in Arizona, USA.” *Environmental Research* 170 (March 2019): 122–27. <https://doi.org/10.1016/j.envres.2018.11.048>.

Ziegert, E., and I. Diesterweg. “[The occurrence of *Yersinia enterocolitica* in sewage].” *Zentralblatt Fur Mikrobiologie* 145, no. 5 (1990): 367–75.

Zohra, Tanzeel, Aamer Ikram, Muhammad Salman, Afreenish Amir, Asim Saeed, Zurva Ashraf, and Abdul Ahad. “Wastewater Based Environmental Surveillance of Toxigenic *Vibrio Cholerae* in Pakistan.” Edited by Muhammad Shahzad Aslam. *PLOS ONE* 16, no. 9 (September 30, 2021): e0257414. <https://doi.org/10.1371/journal.pone.0257414>.

APRIL 2022

Zheng, Shufa, Jian Fan, Fei Yu, Baihuan Feng, Bin Lou, Qianda Zou, Guoliang Xie, et al. "Viral Load Dynamics and Disease Severity in Patients Infected with SARS-CoV-2 in Zhejiang Province, China, January-March 2020: Retrospective Cohort Study." *BMJ*, April 21, 2020, m1443. <https://doi.org/10.1136/bmj.m1443>.

APRIL 2022

Appendix B: Study data

See attached.

Paper	Pathogen	Pathogen group	Pathogen type	Detected in excreta	Quantified in excreta	Detected in wastewater	Quantified in wastewater
Xie 2020	SARS-CoV-2	Respiratory	Virus	+			
Tang 2020	SARS-CoV-2	Respiratory	Virus	+			
Zhang 2020	SARS-CoV-2	Respiratory	Virus	+			
Ling 2020	SARS-CoV-2	Respiratory	Virus	+			
Holshue 2020	SARS-CoV-2	Respiratory	Virus	+			
Xiao 2020	SARS-CoV-2	Respiratory	Virus	+			
Wang 2020	SARS-CoV-2	Respiratory	Virus	+			
Wurtzer 2020	SARS-CoV-2	Respiratory	Virus			+	+
Medema 2020	SARS-CoV-2	Respiratory	Virus			+	
Zheng 2020	SARS-CoV-2	Respiratory	Virus	+			
Hua 2020	SARS-CoV-2	Respiratory	Virus	+			
Guerrero-Latore 2020	SARS-CoV-2	Respiratory	Virus			+	+
Shi 2020	SARS-CoV-2	Respiratory	Virus	+			
Yong 2020a	SARS-CoV-2	Respiratory	Virus			+	
Yong 2020b	SARS-CoV-2	Respiratory	Virus			+	
Wu 2020	SARS-CoV-2	Respiratory	Virus			+	+
Wu 2020b	SARS-CoV-2	Respiratory	Virus			+	+
Wolfel 2020	SARS-CoV-2	Respiratory	Virus	+	+		
Wu 2020a	SARS-CoV-2	Respiratory	Virus	+			
Ahmed 2020	SARS-CoV-2	Respiratory	Virus			+	+
Randazzo 2020	SARS-CoV-2	Respiratory	Virus			+	+
Kitajima 2020	SARS-CoV-2	Respiratory	Virus			+	+
Nemudryi 2020	SARS-CoV-2	Respiratory	Virus			+	+
Zhang 2020a	SARS-CoV-2	Respiratory	Virus	+			
Saguti 2021	SARS-CoV-2	Respiratory	Virus			+	+
Godini 2021	SARS-CoV-2	Respiratory	Virus			+	+
Wannigama 2021	SARS-CoV-2	Respiratory	Virus			+	+
Dergham 2021	SARS-CoV-2	Respiratory	Virus	+			
Albert 2021	SARS-CoV-2	Respiratory	Virus	+	+		
Kuhn 2021	SARS-CoV-2	Respiratory	Virus			+	+
Collivignarelli 2021	SARS-CoV-2	Respiratory	Virus	+	+	+	+
Roshandel 2021	SARS-CoV-2	Respiratory	Virus	+			
Baj 2020	SARS-CoV-2	Respiratory	Virus	+			
deOliveira 2021	SARS-CoV-2	Respiratory	Virus			+	
Rothman 2021	SARS-CoV-2	Respiratory	Virus			+	+
Rothman 2021	Influenza	Respiratory	Virus			+	
Park 2009	Influenza	Respiratory	Virus	+		+	
Heijnen 2011	Influenza	Respiratory	Virus			+	+
Brisebois 2018	Influenza	Respiratory	Virus			-	
Chan 2009	Influenza	Respiratory	Virus	+			
Park 2009	RSV	Respiratory	Virus				
Linstow 2006	RSV	Respiratory	Virus	+			
Hughes 2022	RSV	Respiratory	Virus			+	+
El-Senousy 2021	RSV	Respiratory	Virus			-	
Linstow 2006	HMPV	Respiratory	Virus	+			
Fontenele 2021	SARS-Cov-2 variants	Respiratory	Virus			+	
Crits-Cristoff 2021	SARS-Cov-2 variants	Respiratory	Virus			+	
Baaijens 2021	SARS-Cov-2 variants	Respiratory	Virus			+	+
Carcereny 2021	SARS-Cov-2 variants	Respiratory	Virus			+	+
Vo 2022	SARS-Cov-2 variants	Respiratory	Virus			+	+
Ai 2021	SARS-Cov-2 variants	Respiratory	Virus			+	+
Dharmadhikari 2022	SARS-Cov-2 variants	Respiratory	Virus			+	
Gregory 2021	SARS-Cov-2 variants	Respiratory	Virus			+	
Lin 2021	SARS-Cov-2 variants	Respiratory	Virus			+	+
Rios 2021	SARS-Cov-2 variants	Respiratory	Virus			+	+
Izquierdo-Lara 2020	SARS-Cov-2 variants	Respiratory	Virus			+	
Hillary 2021	SARS-Cov-2 variants	Respiratory	Virus			+	+
Swift 2021	SARS-Cov-2 variants	Respiratory	Virus			+	

Paper	Pathogen	Pathogen group	Pathogen type	Detected in excreta	Quantified in excreta	Detected in wastewater	Quantified in wastewater
Avgeris 2021	SARS-Cov-2 variants	Respiratory	Virus			+	
Wurtz 2021	SARS-Cov-2 variants	Respiratory	Virus			+	
LaRosa 2021	SARS-Cov-2 variants	Respiratory	Virus			+	+
Mondal 2021	SARS-Cov-2 variants	Respiratory	Virus			+	+
Rouchka 2021	SARS-Cov-2 variants	Respiratory	Virus			+	+
Agrawal 2021	SARS-Cov-2 variants	Respiratory	Virus			+	
Bar-Or 2021	SARS-Cov-2 variants	Respiratory	Virus			+	
Bi 2021	SARS-Cov-2 variants	Respiratory	Virus			+	
Martin 2020	SARS-Cov-2 variants	Respiratory	Virus			+	+
Faden 2002	Streptococcus pneumoniae	Respiratory	Bacteria	+			
Andreo 2008	Streptococcus pneumoniae	Respiratory	Bacteria	+			
Slupsky 2009	Streptococcus pneumoniae	Respiratory	Bacteria	+			
Vancikova 2013	Streptococcus pneumoniae	Respiratory	Bacteria	+			
Bhatia 2017	Streptococcus pneumoniae	Respiratory	Bacteria			?	
Limayem 2019	Streptococcus pneumoniae	Respiratory	Bacteria			?	
Drigo 2021	Streptococcus pneumoniae	Respiratory	Bacteria			?	+
Park 2009	Influenza A	Respiratory	Virus			+	
Heijnen 2011	Influenza A	Respiratory	Virus			+	+
Brisebois 2018	Influenza A	Respiratory	Virus			-	
Rothman 2021	Influenza A	Respiratory	Virus			+	
Chan 2009	Influenza A	Respiratory	Virus	+	+		
Brisebois 2018	Influenza B	Respiratory	Virus			-	
Brisebois 2018	Rhinovirus	Respiratory	Virus			-	
Bibby 2014	Rhinovirus	Respiratory	Virus			+	
Brinkman 2017	Rhinovirus	Respiratory	Virus			+	
Belhaouari 2021	Rhinovirus	Respiratory	Virus			+	
Rothman 2021	Common coronaviruses	Respiratory	Virus			+	
Bibby 2014	Common coronaviruses	Respiratory	Virus			+	
El-Senousy 2021	Common coronaviruses	Respiratory	Virus			-	
Schnagl 1978	Common coronaviruses	Respiratory	Virus	+			
Gerna 1984	Common coronaviruses	Respiratory	Virus	+			
Kern 1985	Common coronaviruses	Respiratory	Virus	+			
Simhon 1985	Common coronaviruses	Respiratory	Virus	+			
Leechanachai 1989	Common coronaviruses	Respiratory	Virus	+			
Belhaouari 2021	Common coronaviruses	Respiratory	Virus			-	
Brisebois 2018	Adenovirus (unspecified)	Other	Virus			+	
Rothman 2021	Adenovirus (unspecified)	Other	Virus			+	
Belhaouari 2021	Adenovirus (unspecified)	Other	Virus			+	
Simhon 1985	Adenovirus (unspecified)	Other	Virus	+			
Santos 2017	Adenovirus (unspecified)	Other	Virus	+			
O'Brien 2017	Adenovirus (unspecified)	Other	Virus			+	
Ryu 2021	Adenovirus (unspecified)	Other	Virus			+	+
McCall 2020	Adenovirus (unspecified)	Other	Virus			+	+
Wang 2020	Adenovirus (unspecified)	Other	Virus			+	+
Morillo 2010	Adenovirus (unspecified)	Other	Virus	+			
Kouri 2014	Adenovirus (unspecified)	Other	Virus	+	+		
Steele 1987	Adenovirus (unspecified)	Other	Virus	+			
Kang 2001	Adenovirus (unspecified)	Other	Virus	+			
Kauppinen 2019	Adenovirus (unspecified)	Other	Virus	+			
El-Senousy 2021	Adenovirus (respiratory)	Respiratory	Virus			+	
Masclaux 2014	Adenovirus (respiratory)	Respiratory	Virus			+	+
Bibby 2014	Adenovirus (respiratory)	Respiratory	Virus			+	
Osuolale 2015	Adenovirus (respiratory)	Respiratory	Virus			+	+
Kroes 2007	Adenovirus (respiratory)	Respiratory	Virus	+			
Vetter 2015	Adenovirus (respiratory)	Respiratory	Virus	+	+		
Fong 2010	Adenovirus (respiratory)	Respiratory	Virus			+	+
Miyamura 1989	Adenovirus (respiratory)	Respiratory	Virus	+			
Hanaoka 2019	Adenovirus (respiratory)	Respiratory	Virus	+	+		

Paper	Pathogen	Pathogen group	Pathogen type	Detected in excreta	Quantified in excreta	Detected in wastewater	Quantified in wastewater
El-Senousy 2021	Adenovirus (F40/41)	GI	Virus			+	
Masclaux 2014	Adenovirus (F40/41)	GI	Virus			+	+
Bibby 2014	Adenovirus (F40/41)	GI	Virus			+	
Qiu 2015	Adenovirus (F40/41)	GI	Virus			+	+
Osuolale 2015	Adenovirus (F40/41)	GI	Virus			+	+
Uhrbrand 2011	Adenovirus (F40/41)	GI	Virus			+	+
Reither 2007	Adenovirus (F40/41)	GI	Virus	+			
Magalhaes 2007	Adenovirus (F40/41)	GI	Virus	+			
Fong 2010	Adenovirus (F40/41)	GI	Virus			+	+
Liu 2013	Adenovirus (F40/41)	GI	Virus			+	
Bhan 1988	Adenovirus (F40/41)	GI	Virus	+			
Kim 1990	Adenovirus (F40/41)	GI	Virus	+			
Van 1992	Adenovirus (F40/41)	GI	Virus	+			
El-Senousy 2021	HPIV	Respiratory	Virus			-	
Chan 2009	Campylobacter	GI	Bacteria	+			
Steltzer 1998	Campylobacter	GI	Bacteria			+	+
Jacob 1990	Campylobacter	GI	Bacteria			+	
Jacon 1992	Campylobacter	GI	Bacteria			+	
Waage 1999	Campylobacter	GI	Bacteria			+	
Stampi 1999	Campylobacter	GI	Bacteria			+	+
Moreno 2003	Campylobacter	GI	Bacteria			+	
Wery 2008	Campylobacter	GI	Bacteria			+	+
Khan 2013	Campylobacter	GI	Bacteria			+	
Ugarte-Ruiz 2015	Campylobacter	GI	Bacteria			+	
Sheludchenko 2016	Campylobacter	GI	Bacteria			+	+
Bonetta 2016	Campylobacter	GI	Bacteria			+	
Banting 2016	Campylobacter	GI	Bacteria			+	+
Park 2016	Campylobacter	GI	Bacteria			-	
Boehm 2018	Campylobacter	GI	Bacteria			+	+
Richardson 1983	Campylobacter	GI	Bacteria	+			
Melamed 1983	Campylobacter	GI	Bacteria	+			
Figura 1985	Campylobacter	GI	Bacteria	+			
Salazar-Lindo 1986	Campylobacter	GI	Bacteria	+			
Mawer 1988	Campylobacter	GI	Bacteria	-			
Albert 1992	Campylobacter	GI	Bacteria	+			
Arthur 1992	Campylobacter	GI	Bacteria	+			
Tribble 2010	Campylobacter	GI	Bacteria	+			
Roy 1992	Campylobacter	GI	Bacteria	+			
Cruz 1995	Campylobacter	GI	Bacteria	+			
Kang 2001	Campylobacter	GI	Bacteria	+			
Hien 2007	Campylobacter	GI	Bacteria	+			
Kauppinen 2019	Campylobacter	GI	Bacteria	-		-	
Zheng 2020	Campylobacter	GI	Bacteria			+	
Chan 2009	Salmonella	GI	Bacteria	+			
Wery 2008	Salmonella	GI	Bacteria			+	+
Levantesi 2010	Salmonella	GI	Bacteria			-	
Sheludchenko 2016	Salmonella	GI	Bacteria			+	+
Bonetta 2016	Salmonella	GI	Bacteria			+	
Boehm 2018	Salmonella	GI	Bacteria			+	+
Melamed 1983	Salmonella	GI	Bacteria	+			
Figura 1985	Salmonella	GI	Bacteria	+			
Arthur 1992	Salmonella	GI	Bacteria	+			
Pitkajarvi 1996	Salmonella	GI	Bacteria	+			
Balfour 1999	Salmonella	GI	Bacteria	+			
Murase 2000	Salmonella	GI	Bacteria	+			
Raza 2011	Salmonella	GI	Bacteria	+			
Wuthe 1992	Salmonella	GI	Bacteria	+			
Chaicumpa 1992	Salmonella	GI	Bacteria	+			

Paper	Pathogen	Pathogen group	Pathogen type	Detected in excreta	Quantified in excreta	Detected in wastewater	Quantified in wastewater
Yan 2018	Salmonella	GI	Bacteria			+	+
Kinde 1997	Salmonella	GI	Bacteria			+	
Berge 2006	Salmonella	GI	Bacteria			+	
Schoub 1977	Salmonella	GI	Bacteria	+			
Echeverria 1986	Salmonella	GI	Bacteria	+			
Kang 2001	Salmonella	GI	Bacteria	-			
Dadi 2021	Salmonella	GI	Bacteria			+	
Al-Quraan 2020	Salmonella	GI	Bacteria			+	
Janahi 2020	Salmonella	GI	Bacteria			+	+
Ekwanzala 2020	Salmonella	GI	Bacteria			+	
Andleeb 2018	Salmonella	GI	Bacteria			+	
Mecha 2017	Salmonella	GI	Bacteria			+	+
Nkansah 2016	Salmonella	GI	Bacteria			-	
Shingare 2017	Salmonella	GI	Bacteria			+	+
Teklehaimanot 2015	Salmonella	GI	Bacteria			+	+
Zhou 2014	Salmonella	GI	Bacteria			+	+
Teklehaimanot 2014	Salmonella	GI	Bacteria			+	
Hien 2007	Salmonella	GI	Bacteria	+			
Savichtcheva 2007	Salmonella	GI	Bacteria			+	
Kauppinen 2019	Salmonella	GI	Bacteria	-		-	
Melamed 1983	Shigella	GI	Bacteria	+			
Arthur 1992	Shigella	GI	Bacteria	+			
Pisarchik 1974	Shigella	GI	Bacteria	+			
Levine 1975	Shigella	GI	Bacteria	+	+		
Schoub 1977	Shigella	GI	Bacteria	+			
Kabir 1984	Shigella	GI	Bacteria	+			
Echeverria 1986	Shigella	GI	Bacteria	+			
Erkinbekova 1992	Shigella	GI	Bacteria	+			
Roy 1992	Shigella	GI	Bacteria	+			
Munoz 1995	Shigella	GI	Bacteria	+			
Vihn 2000	Shigella	GI	Bacteria	+			
Kang 2001	Shigella	GI	Bacteria	+			
Hamilton-West 2007	Shigella	GI	Bacteria	+			
Dadi 2021	Shigella	GI	Bacteria			+	
Al-Quraan 2020	Shigella	GI	Bacteria			+	
Janahi 2020	Shigella	GI	Bacteria			+	+
Zheng 2020	Shigella	GI	Bacteria			+	
Ekwanzala 2020	Shigella	GI	Bacteria			+	
Andleeb 2018	Shigella	GI	Bacteria			+	
Parvez 2017	Shigella	GI	Bacteria			+	
Lamba 2017	Shigella	GI	Bacteria			+	
Mecha 2017	Shigella	GI	Bacteria			+	+
Nkansah 2016	Shigella	GI	Bacteria			-	
Shingare 2017	Shigella	GI	Bacteria			+	+
Yang 2016	Shigella	GI	Bacteria			+	+
Teklehaimanot 2015	Shigella	GI	Bacteria			+	+
Zhou 2014	Shigella	GI	Bacteria			+	+
Teklehaimanot 2014	Shigella	GI	Bacteria			+	
Xia 2013	Shigella	GI	Bacteria			+	
Hien 2007	Shigella	GI	Bacteria	+			
Savichtcheva 2007	Shigella	GI	Bacteria			+	
Bonetta 2016	STEC	GI	Bacteria			-	
Boehm 2018	STEC	GI	Bacteria			+	+
Arthur 1992	STEC	GI	Bacteria	+			
Kang 2001	STEC	GI	Bacteria	+			
Garcia-Aljaro 2005	STEC	GI	Bacteria			+	
Savichtcheva 2007	STEC	GI	Bacteria			+	
Harries 2016	STEC	GI	Bacteria	+			

Paper	Pathogen	Pathogen group	Pathogen type	Detected in excreta	Quantified in excreta	Detected in wastewater	Quantified in wastewater
Martinez-Castillo 2013	STEC	GI	Bacteria	+	+		
Vonberg 2013	STEC	GI	Bacteria	+			
Busch 2007	STEC	GI	Bacteria	+			
Bolukaoto 2019	STEC	GI	Bacteria	+		+	
Haymaker 2019	STEC	GI	Bacteria			+	
Zhu 2019	STEC	GI	Bacteria			-	
Divya 2019	STEC	GI	Bacteria			+	
Bibbal 2018	STEC	GI	Bacteria			+	
Bonetta 2016	STEC	GI	Bacteria			+	
Franz 2015	STEC	GI	Bacteria			-	
Ahmed 2015	STEC	GI	Bacteria	-		-	
Ayaz 2014	STEC	GI	Bacteria			+	
Yang 2014	STEC	GI	Bacteria			+	+
Martinez-Castillo 2012	STEC	GI	Bacteria			+	
Lieneman 2010	STEC	GI	Bacteria	+		+	
Heijnen 2006	STEC	GI	Bacteria			+	+
Loukiadis 2006	STEC	GI	Bacteria			+	
Vernozy-Rozand 2002	STEC	GI	Bacteria			+	
Ibekwe 2002	STEC	GI	Bacteria			+	+
Um 2016	STEC	GI	Bacteria			+	
Chern 2004	STEC	GI	Bacteria			+	+
Karch 1995	STEC	GI	Bacteria	+			
Diallo 2013	STEC	GI	Bacteria			+	
O'Donnell 2002	VTEC	GI	Bacteria	+			
Clark 1997	VTEC	GI	Bacteria	+			
Chapman 1997	VTEC	GI	Bacteria	+			
Vernozy-Rozand 2002	VTEC	GI	Bacteria			+	
Figura 1985	EPEC	GI	Bacteria	+			
Roy 1992	EPEC	GI	Bacteria	+			
Kang 2001	EPEC	GI	Bacteria	+			
Hien 2007	EPEC	GI	Bacteria	+			
Haymaker 2019	EPEC	GI	Bacteria			+	
Bibbal 2018	EPEC	GI	Bacteria			+	
Franz 2015	EPEC	GI	Bacteria			+	
Ahmed 2015	EPEC	GI	Bacteria	+	+	+	
Ayaz 2014	EPEC	GI	Bacteria			+	
Yang 2014	EPEC	GI	Bacteria			+	+
Lieneman 2010	EPEC	GI	Bacteria	+		+	
Loukiadis 2006	EPEC	GI	Bacteria			+	
Vernozy-Rozand 2002	EPEC	GI	Bacteria			+	
Ibekwe 2002	EPEC	GI	Bacteria			+	+
Moreira 1997	EPEC	GI	Bacteria	+			
Withrington 1981	EPEC	GI	Bacteria	+			
Speranskii 1977	EPEC	GI	Bacteria	+			
Adegoke 2020	EPEC	GI	Bacteria			-	
Kauppinen 2019	EPEC	GI	Bacteria	+		+	
Igwaran 2018	EPEC	GI	Bacteria			-	
Poma 2016	EPEC	GI	Bacteria			+	
Adefisoye 2016	EPEC	GI	Bacteria			+	
Huang 2011	EPEC	GI	Bacteria			+	
Al-Jabouri 1985	EPEC	GI	Bacteria			+	
Abshire 1976	EPEC	GI	Bacteria			+	
Gustafson 1969	EPEC	GI	Bacteria			+	
Figura 1985	EAEC	GI	Bacteria	+			
Arthur 1992	EAEC	GI	Bacteria	+			
Franz 2015	EAEC	GI	Bacteria			+	
Lieneman 2010	EAEC	GI	Bacteria	+			
Adegoke 2020	EAEC	GI	Bacteria			+	

Paper	Pathogen	Pathogen group	Pathogen type	Detected in excreta	Quantified in excreta	Detected in wastewater	Quantified in wastewater
Kauppinen 2019	EAEC	GI	Bacteria	+			
Igwaran 2018	EAEC	GI	Bacteria			-	
Poma 2016	EAEC	GI	Bacteria			+	
Adefisoye 2016	EAEC	GI	Bacteria			+	
Huang 2011	EAEC	GI	Bacteria			+	
Chan 1994	EAEC	GI	Bacteria	+			
Kang 2001	EAEC	GI	Bacteria	+			
Hien 2007	EAEC	GI	Bacteria	+			
Huang 2006	EAEC	GI	Bacteria	+			
Figura 1985	EIEC	GI	Bacteria	+			
Arthur 1992	EIEC	GI	Bacteria	+			
Hien 2007	EIEC	GI	Bacteria	+			
Franz 2015	EIEC	GI	Bacteria			+	
Lieneman 2010	EIEC	GI	Bacteria	+		+	
Poma 2016	EIEC	GI	Bacteria			+	
Huang 2011	EIEC	GI	Bacteria			+	
Arthur 1992	ETEC	GI	Bacteria	+			
Bovee-Oudenhoven 2003	ETEC	GI	Bacteria	+	+		
Schoub 1977	ETEC	GI	Bacteria	+			
Rowe 1978	ETEC	GI	Bacteria	+			
Echeverria 1986	ETEC	GI	Bacteria	+			
Roy 1992	ETEC	GI	Bacteria	+			
Kang 2001	ETEC	GI	Bacteria	+			
Hien 2007	ETEC	GI	Bacteria	+			
Savichtcheva 2007	ETEC	GI	Bacteria			+	
Franz 2015	ETEC	GI	Bacteria			+	
Lieneman 2010	ETEC	GI	Bacteria	+		+	
Chern 2004	ETEC	GI	Bacteria			+	+
Finkelstein 1976	ETEC	GI	Bacteria	+			
Adegoke 2020	ETEC	GI	Bacteria			+	
Kauppinen 2019	ETEC	GI	Bacteria	+			
Igwaran 2018	ETEC	GI	Bacteria			-	
Poma 2016	ETEC	GI	Bacteria			+	
Adefisoye 2016	ETEC	GI	Bacteria			+	
Huang 2011	ETEC	GI	Bacteria			-	
Savichtcheva 2007	EHEC	GI	Bacteria			+	
Busch 2007	EHEC	GI	Bacteria	+			
Izumi 1998	EHEC	GI	Bacteria	+			
Bolukaoto 2019	EHEC	GI	Bacteria	+		+	
Haymaker 2019	EHEC	GI	Bacteria			+	
Bibbal 2018	EHEC	GI	Bacteria			+	
Lieneman 2010	EHEC	GI	Bacteria	+		+	
Chern 2004	EHEC	GI	Bacteria			+	+
Kauppinen 2019	EHEC	GI	Bacteria	+			
Igwaran 2018	EHEC	GI	Bacteria			-	
Huang 2011	EHEC	GI	Bacteria			+	
Karch 1995	EHEC	GI	Bacteria	+			
Mellmann 2005	EHEC	GI	Bacteria	+			
Divya 2019	ExPEC	Other	Bacteria			+	
Franz 2015	ExPEC	Other	Bacteria			+	
Adefisoye 2016	ExPEC	Other	Bacteria			+	
Diallo 2013	ExPEC	Other	Bacteria			+	
Gomi 2017	ExPEC	Other	Bacteria			+	
Tanaka 2019	ExPEC	Other	Bacteria			+	
Zhi 2020	ExPEC	Other	Bacteria			+	
Ledbetter 1973	Klebsiella pneumoniae	GI	Bacteria			+	
Drigo 2021	Klebsiella pneumoniae	GI	Bacteria			+	+
Figura 1985	Klebsiella pneumoniae	GI	Bacteria	+			

Paper	Pathogen	Pathogen group	Pathogen type	Detected in excreta	Quantified in excreta	Detected in wastewater	Quantified in wastewater
Schoub 1977	Klebsiella pneumoniae	GI	Bacteria	+			
Dadi 2021	Klebsiella pneumoniae	GI	Bacteria			+	
Zheng 2020	Klebsiella pneumoniae	GI	Bacteria			+	
Lamba 2017	Klebsiella pneumoniae	GI	Bacteria			+	
Yang 2016	Klebsiella pneumoniae	GI	Bacteria			+	+
Xia 2013	Klebsiella pneumoniae	GI	Bacteria			+	
Park 2013	Klebsiella pneumoniae	GI	Bacteria	+			
Shannon 2007	Klebsiella pneumoniae	GI	Bacteria			+	+
Suzuki 2020	Klebsiella pneumoniae	GI	Bacteria			+	
Ebomah 2020	Klebsiella pneumoniae	GI	Bacteria			+	
Rolbiecki 2021	Klebsiella pneumoniae	GI	Bacteria			+	
Wery 2008	Clostridium perfringens	GI	Bacteria			+	+
Bonetta 2016	Clostridium perfringens	GI	Bacteria			+	+
Park 2016	Clostridium perfringens	GI	Bacteria			+	+
Teklehaimanot 2014	Clostridium perfringens	GI	Bacteria			+	+
Kauppinen 2019	Clostridium perfringens	GI	Bacteria	+		+	+
Shannon 2007	Clostridium perfringens	GI	Bacteria			+	+
Yanagimoto 2020	Clostridium perfringens	GI	Bacteria	+		+	
Yanagimoto 2021	Clostridium perfringens	GI	Bacteria			+	
Borriello 1984	Clostridium perfringens	GI	Bacteria	+	+		
Saito 1991	Clostridium perfringens	GI	Bacteria	+	+		
Gionchetti 1999	Clostridium perfringens	GI	Bacteria	+	+		
Vitek 2000	Clostridium perfringens	GI	Bacteria	+			
Mueller 2021	Clostridium perfringens	GI	Bacteria	+			
Vijayavel 2014	Clostridium perfringens	GI	Bacteria			+	+
Ajonina 2015	Clostridium perfringens	GI	Bacteria			+	+
Mayer 2016	Clostridium perfringens	GI	Bacteria			+	+
Cyprowski 2018	Clostridium perfringens	GI	Bacteria			+	
Medeiros 2019	Clostridium perfringens	GI	Bacteria			+	+
Chan 2009	Vibrio	GI	Bacteria	+			
Arthur 1992	Vibrio	GI	Bacteria	+			
Roy 1992	Vibrio	GI	Bacteria	+			
Kang 2001	Vibrio	GI	Bacteria	-			
Ekwanzala 2020	Vibrio	GI	Bacteria			+	
Mecha 2017	Vibrio	GI	Bacteria			+	+
Teklehaimanot 2015	Vibrio	GI	Bacteria			+	+
Teklehaimanot 2014	Vibrio	GI	Bacteria			+	
Savichtcheva 2007	Vibrio	GI	Bacteria			+	
Levine 2012	Vibrio	GI	Bacteria	+			
Khouadja 2014	Vibrio	GI	Bacteria			+	
Nongogo 2014	Vibrio	GI	Bacteria			+	+
Zohra 2021	Vibrio	GI	Bacteria			+	
Jones 1981	Brucella	Food borne	Bacteria	-			
Stiborova 2015	Brucella	Food borne	Bacteria	+			
Du 2017	Brucella	Food borne	Bacteria	+			
Li 2021	Brucella	Food borne	Bacteria	+			
Drigo 2021	Listeria	Food borne	Bacteria			+	+
Shannon 2007	Listeria	Food borne	Bacteria			+	+
Ortel 1971	Listeria	Food borne	Bacteria	+			
Ortel 1975	Listeria	Food borne	Bacteria	+			
Ortel 1975a	Listeria	Food borne	Bacteria	+			
Nathaniel 2019	Listeria	Food borne	Bacteria			+	
Taherkhani 2018	Listeria	Food borne	Bacteria			+	+
Moreno 2011	Listeria	Food borne	Bacteria			+	
Geuenich 1984	Listeria	Food borne	Bacteria			+	+
Rothman 2021	Norovirus unspecified	GI	Virus			+	
Chan 2009	Norovirus unspecified	GI	Virus	+			
Reither 2007	Norovirus unspecified	GI	Virus	+			

Paper	Pathogen	Pathogen group	Pathogen type	Detected in excreta	Quantified in excreta	Detected in wastewater	Quantified in wastewater
Vetter 2015	Norovirus unspecified	GI	Virus	-			
McCall 2020	Norovirus unspecified	GI	Virus			+	+
Wang 2020	Norovirus unspecified	GI	Virus			+	+
Boehm 2018	Norovirus unspecified	GI	Virus			+	+
Zhou 2014	Norovirus unspecified	GI	Virus			+	+
Kauppinen 2019	Norovirus unspecified	GI	Virus			+	+
Park 2009	Norovirus GI	GI	Virus			-	
Brisebois 2018	Norovirus GI	GI	Virus			-	
Uhrbrand 2011	Norovirus GI	GI	Virus			+	+
Pouillot 2015	Norovirus GI	GI	Virus			+	+
Kauppinen 2019	Norovirus GI	GI	Virus	+		+	+
Phattanawiboon 2020	Norovirus GI	GI	Virus	+			
Partridge 2012	Norovirus GI	GI	Virus	+			
Park 2009	Norovirus GII	GI	Virus			-	
Brisebois 2018	Norovirus GII	GI	Virus			-	
Masclaux 2014	Norovirus GII	GI	Virus			+	
Uhrbrand 2011	Norovirus GII	GI	Virus			+	+
Bibby 2014	Norovirus GII	GI	Virus			+	
Qiu 2015	Norovirus GII	GI	Virus			+	+
Pouillot 2015	Norovirus GII	GI	Virus				+
Kauppinen 2019	Norovirus GII	GI	Virus		+		+
Utsumi 2017	Norovirus GII	GI	Virus		+		
Phattanawiboon 2020	Norovirus GII	GI	Virus		+		
Lai 2013	Norovirus GII	GI	Virus		+	+	
Partridge 2012	Norovirus GII	GI	Virus		+		
Brinkman 2017	Enterovirus	GI	Virus			+	+
Belhaouari 2021	Enterovirus	GI	Virus			+	
Wang 2020	Enterovirus	GI	Virus			+	+
Janahi 2020	Enterovirus	GI	Virus			+	
Zhou 2014	Enterovirus	GI	Virus			+	+
Berthou 1980	Enterovirus	GI	Virus	+			
Gaudin 1979	Enterovirus	GI	Virus	+			
Lizasoain 2021	Enterovirus	GI	Virus			+	
Wu 2017	Enterovirus	GI	Virus	+			
Li 2013	Enterovirus	GI	Virus	+			
Driss 2012	Enterovirus	GI	Virus	+			
Kiulia_2021	Enterovirus	GI	Virus			+	+
Zheng 1991	Rotavirus	GI	Virus	+			
Brisebois 2018	Rotavirus	GI	Virus			+	+
Nikovskaia 1989	Rotavirus	GI	Virus	+			
Chan 2009	Rotavirus	GI	Virus	+			
Bibby 2014	Rotavirus	GI	Virus			+	
Qiu 2015	Rotavirus	GI	Virus			+	+
Simhon 1985	Rotavirus	GI	Virus	+			
Reither 2007	Rotavirus	GI	Virus	+			
Magalhaes 2007	Rotavirus	GI	Virus	+			
Morillo 2010	Rotavirus	GI	Virus	+			
Vetter 2015	Rotavirus	GI	Virus	-			
Wang 2020	Rotavirus	GI	Virus			+	+
Steele 1987	Rotavirus	GI	Virus	+			
Bhan 1988	Rotavirus	GI	Virus	+			
Kim 1990	Rotavirus	GI	Virus	+			
Figura 1985	Rotavirus	GI	Virus	+			
Arthur 1992	Rotavirus	GI	Virus	+			
Schoub 1977	Rotavirus	GI	Virus	+			
Echeverria 1986	Rotavirus	GI	Virus	+			
Roy 1992	Rotavirus	GI	Virus	+			
Kang 2001	Rotavirus	GI	Virus	+			

Paper	Pathogen	Pathogen group	Pathogen type	Detected in excreta	Quantified in excreta	Detected in wastewater	Quantified in wastewater
Janahi 2020	Rotavirus	GI	Virus			+	
Zhou 2014	Rotavirus	GI	Virus			+	+
Hien 2007	Rotavirus	GI	Virus	+			
Kauppinen 2019	Rotavirus	GI	Virus	+		-	
Victoria 2014	Rotavirus	GI	Virus			+	+
Zhou 2016	Rotavirus	GI	Virus			+	+
Hoque 2019	Rotavirus	GI	Virus			+	+
Silva-Sales 2020	Rotavirus	GI	Virus			+	+
Kiulia_2021	Rotavirus	GI	Virus			+	+
Bibby 2014	Astrovirus	GI	Virus			+	
Qiu 2015	Astrovirus	GI	Virus			+	+
Wang 2020	Astrovirus	GI	Virus			+	+
Janahi 2020	Astrovirus	GI	Virus			+	
Kauppinen 2019	Astrovirus	GI	Virus	+		-	
Barbosa 2020	Astrovirus	GI	Virus	+	+		
Caballero 2003	Astrovirus	GI	Virus	+	+		
Liste 2000	Astrovirus	GI	Virus	+			
Unicomb 1998	Astrovirus	GI	Virus	+			
Michell 1995	Astrovirus	GI	Virus	+			
Saadoun 2021	Astrovirus	GI	Virus			+	
Lin 2021	Astrovirus	GI	Virus			+	
McCall 2021	Astrovirus	GI	Virus			+	
Yang 2021	Astrovirus	GI	Virus			+	
McCall 2020	Astrovirus	GI	Virus			+	
Strubbia 2019	Astrovirus	GI	Virus	-		+	
Randazzo 2019	Astrovirus	GI	Virus			+	+
Thongprachum 2018	Astrovirus	GI	Virus			+	
Lizasoain 2018	Astrovirus	GI	Virus			+	+
Prevost 2015	Astrovirus	GI	Virus			+	+
Aw 2010	Astrovirus	GI	Virus			+	+
Bibby 2014	Sapovirus	GI	Virus	+		+	
Qiu 2015	Sapovirus	GI	Virus			+	+
McCall 2020	Sapovirus	GI	Virus			+	+
Wang 2020	Sapovirus	GI	Virus			+	+
Kauppinen 2019	Sapovirus	GI	Virus	+		+	+
Strubbia 2019	Sapovirus	GI	Virus	-		+	
Thongprachum 2018	Sapovirus	GI	Virus			+	
Song 2021	Sapovirus	GI	Virus			+	
Lemes 2014	Sapovirus	GI	Virus	-			
deOliviera 2014	Sapovirus	GI	Virus	+			
Iwakiri 2009	Sapovirus	GI	Virus	+	+		
Kaas 2015	Sapovirus	GI	Virus			+	+
Fioretti 2016	Sapovirus	GI	Virus	+	+	+	+
Varela 2018	Sapovirus	GI	Virus			+	+
Kitajima 2018	Sapovirus	GI	Virus			+	
Farkas 2018	Sapovirus	GI	Virus			+	+
Haramoto 2008	Sapovirus	GI	Virus			+	+
Steyer 2015	Sapovirus	GI	Virus			+	
Khoo 1998	Chlamydia	STI	Bacteria	-			
Moller 1999	Chlamydia	STI	Bacteria	+			
Rehman 2019	Chlamydia	STI	Bacteria			?	
Tian 2016	Chlamydia	STI	Bacteria			?	
Figuroa-Gonzales 2016	Chlamydia	STI	Bacteria			?	
Collingro 2005	Chlamydia	STI	Bacteria			?	
Horn 2001	Chlamydia	STI	Bacteria			?	
Snaird 1997	Chlamydia	STI	Bacteria			?	
Solomon 2013	Chlamydia	STI	Bacteria	?			
Kamarashev 2010	Chlamydia	STI	Bacteria	?			

Paper	Pathogen	Pathogen group	Pathogen type	Detected in excreta	Quantified in excreta	Detected in wastewater	Quantified in wastewater
Neri 2020	Chlamydia	STI	Bacteria	?			
DePuyseleyer 2014	Chlamydia	STI	Bacteria	+			
Worm 1987	Chlamydia	STI	Bacteria	+			
Cevenini 1982	Chlamydia	STI	Bacteria	-			
Aboud 2021	Chlamydia	STI	Bacteria	?			
Wijers 2021	Chlamydia	STI	Bacteria	?			
Pereyre 2021	Chlamydia	STI	Bacteria	?			
Du 2021	Chlamydia	STI	Bacteria	+			
Tyker 2021	Chlamydia	STI	Bacteria	+			
Venter 2019	Chlamydia	STI	Bacteria	+			
Tayoun 2015	Chlamydia	STI	Bacteria	+			
Kriesel 2016	Chlamydia	STI	Bacteria	+			
Dirks 2015	Chlamydia	STI	Bacteria	+	+		
Gomes 2006	Chlamydia	STI	Bacteria	+	+		
Pereyre 2021	Trichomonas vaginalis	STI	Parasite	+			
Tayoun 2015	Trichomonas vaginalis	STI	Parasite	+			
Kriesel 2016	Trichomonas vaginalis	STI	Parasite	+			
Brooke 1963	Trichomonas vaginalis	STI	Parasite	+			
Gbakima 1994	Trichomonas vaginalis	STI	Parasite	+			
Gil-Campesino 2021	Trichomonas vaginalis	STI	Parasite	+			
Huh 2019	Trichomonas vaginalis	STI	Parasite	+			
Rumyantseva 2015	Trichomonas vaginalis	STI	Parasite	+			
Sviben 2015	Trichomonas vaginalis	STI	Parasite	+			
Plecko 2014	Trichomonas vaginalis	STI	Parasite	+			
Choe 2013	Trichomonas vaginalis	STI	Parasite	+			
Lin 2021	Trichomonas vaginalis	STI	Parasite	+			
Grad 2020	Trichomonas vaginalis	STI	Parasite	+			
Xiu 2019	Trichomonas vaginalis	STI	Parasite	?			
Aboud 2021	Neisseria gonorrhoeae	STI	Bacteria	+			
Pereyre 2021	Neisseria gonorrhoeae	STI	Bacteria	+			
Venter 2019	Neisseria gonorrhoeae	STI	Bacteria	+			
Tayoun 2015	Neisseria gonorrhoeae	STI	Bacteria	+			
Kriesel 2016	Neisseria gonorrhoeae	STI	Bacteria	+			
Priest 2017	Neisseria gonorrhoeae	STI	Bacteria	+	+		
Huh 2019	Neisseria gonorrhoeae	STI	Bacteria	+			
Rumyantseva 2015	Neisseria gonorrhoeae	STI	Bacteria	+			
Plecko 2014	Neisseria gonorrhoeae	STI	Bacteria	+			
Lin 2021	Neisseria gonorrhoeae	STI	Bacteria	+			
Grad 2020	Neisseria gonorrhoeae	STI	Bacteria	+			
Xiu 2019	Neisseria gonorrhoeae	STI	Bacteria	?			
Wang 2021	Neisseria gonorrhoeae	STI	Bacteria			+	
Greay 2019	Neisseria gonorrhoeae	STI	Bacteria			?	
Al-Jassim 2015	Neisseria gonorrhoeae	STI	Bacteria			+	+
Ng 2017	Neisseria gonorrhoeae	STI	Bacteria			+	
Lebedeff 1980	Neisseria gonorrhoeae	STI	Bacteria	?			
Munday 1981	Neisseria gonorrhoeae	STI	Bacteria	+			
Hakansson 1984	Neisseria gonorrhoeae	STI	Bacteria	?			
Barrientos-Duran 2020	Neisseria gonorrhoeae	STI	Bacteria	+			
Kriesel 2016	Treponema pallidum	STI	Bacteria	+			
Xiu 2019	Treponema pallidum	STI	Bacteria	+			
Lu 2014	Treponema pallidum	STI	Bacteria			?	
Nascimento 2018	Treponema pallidum	STI	Bacteria			?	
Osbaek 2018	Treponema pallidum	STI	Bacteria	+			
vanRaemdonck 2018	Treponema pallidum	STI	Bacteria	+			
Barrientos-Duran 2020	Treponema pallidum	STI	Bacteria	+			
Cowley 2021	Treponema pallidum	STI	Bacteria	+			
Rawre 2019	Treponema pallidum	STI	Bacteria	+			
Gayet-Ageron 2009	Treponema pallidum	STI	Bacteria	+			

Paper	Pathogen	Pathogen group	Pathogen type	Detected in excreta	Quantified in excreta	Detected in wastewater	Quantified in wastewater
deLima 2014	Treponema pallidum	STI	Bacteria	+			
DuBourg 2015	Treponema pallidum	STI	Bacteria	+			
Rawre 2019	HIV	STI	Virus	+			
Ansari 1992	HIV	STI	Virus			+	
Preston 1991	HIV	STI	Virus			+	
Palmer 1995	HIV	STI	Virus			-	
Munnink_2014	HIV	STI	Virus	+			
Yolken_1991	HIV	STI	Virus	+			
Stadtler_2020	HIV	STI	Virus	+			
Graham_2011	HIV	STI	Virus	?	+		
Bibby 2014	HPV	STI	Virus			+	
Omura 2016	HPV	STI	Virus	+	?		
Hamza 2018	HPV	STI	Virus			+	+
LaRosa 2013	HPV	STI	Virus			+	
DiBonito 2015	HPV	STI	Virus	+			
Yu 2015	HPV	STI	Virus	+			
Lowe 2012	HPV	STI	Virus	?			
Sehgal 2009	HPV	STI	Virus	+			
Agudelo-Hernandez 2017	EBV	STI	Virus	+			
Chan 2008	EBV	STI	Virus	+	?		
Rahbar 2016	EBV	STI	Virus	+	?		
Khoo 1998	Mycoplasma genitalus	STI	Bacteria	+			
Pereyre 2021	Mycoplasma genitalus	STI	Bacteria	+			
Kriesel 2016	Mycoplasma genitalus	STI	Bacteria	+			
LeRoux 2017	Mycoplasma genitalus	STI	Bacteria	+	+		
Jensen 2004	Mycoplasma genitalus	STI	Bacteria	+	+		
Gil-Campesino 2021	Mycoplasma genitalus	STI	Bacteria	+			
Huh 2019	Mycoplasma genitalus	STI	Bacteria	+			
Rumyantseva 2015	Mycoplasma genitalus	STI	Bacteria	+			
Plecko 2014	Mycoplasma genitalus	STI	Bacteria	+	+		
Grad 2020	Mycoplasma genitalus	STI	Bacteria	+			
Xiu 2019	Mycoplasma genitalus	STI	Bacteria	+			
Frolund 2016	Mycoplasma genitalus	STI	Bacteria	+	+		
Munday 1981	Mycoplasma genitalus	STI	Bacteria	+			
Barrientos-Duran 2020	Mycoplasma genitalus	STI	Bacteria	+			
Cowley 2021	Mycoplasma genitalus	STI	Bacteria	+			
Ogata 1971	Mycoplasma genitalus	STI	Bacteria			?	
Morton 1966	Mycoplasma genitalus	STI	Bacteria			?	
Brisebois 2018	Herpes	STI	Virus			+	
Khoo 1998	Herpes	STI	Virus	+			
Bibby 2014	Herpes	STI	Virus			+	
O'Brien 2017	Herpes	STI	Virus			+	
McCall 2020	Herpes	STI	Virus			+	+
Kouri 2014	Herpes	STI	Virus	-			
Kriesel 2016	Herpes	STI	Virus	+			
Munday 1981	Herpes	STI	Virus	+			
Barrientos-Duran 2020	Herpes	STI	Virus	+			
Miyani 2020	Herpes	STI	Virus			+	+
Agudelo-Hernandez 2017	Herpes	STI	Virus	+	+		
Santos-Fortuna 2005	Herpes	STI	Virus	+			
Barrientos-Duran 2020	Haemophilus ducreyi	STI	Bacteria	-			
Kriesel 2016	Haemophilus ducreyi	STI	Bacteria	+			
Xiu 2019	Haemophilus ducreyi	STI	Bacteria	-			
Zhang 2019	Ureaplasma	STI	Bacteria			+	
Munday 1981	Ureaplasma	STI	Bacteria	?			
Nelson 2012	Ureaplasma	STI	Bacteria	+			
Yoo 2016	Ureaplasma	STI	Bacteria	+			
Yoshida 2007	Ureaplasma	STI	Bacteria	+	+		

Paper	Pathogen	Pathogen group	Pathogen type	Detected in excreta	Quantified in excreta	Detected in wastewater	Quantified in wastewater
Deguchi 2015	Ureaplasma	STI	Bacteria	+	+		
Shimada 2014	Ureaplasma	STI	Bacteria	+	+		
Retchless 2021	Ureaplasma	STI	Bacteria	+			
Mahony 1997	Ureaplasma	STI	Bacteria	+			
You 2016	Ureaplasma	STI	Bacteria	+			
Bibby 2014	Hep C	Hepatitis	Virus			+	
Kane 1984	Hep C	Hepatitis	Virus	+			
Lu 2018	Hep C	Hepatitis	Virus	+	+		
Numata 1993	Hep C	Hepatitis	Virus	+	+		
Caldwell 1996	Hep C	Hepatitis	Virus	+			
Liou 1992	Hep C	Hepatitis	Virus	+			
Shafique 2009	Hep C	Hepatitis	Virus	+			
Heidrich 2016	Hep C	Hepatitis	Virus	+			
Monroy 2017	Hep C	Hepatitis	Virus	+	+		
Brisebois 2018	Hep A	Hepatitis	Virus			+	+
Osuolale 2015	Hep A	Hepatitis	Virus			+	+
McCall 2020	Hep A	Hepatitis	Virus			+	+
Wang 2020	Hep A	Hepatitis	Virus			+	+
Janahi 2020	Hep A	Hepatitis	Virus			+	
Ishizaka 2021	Hep A	Hepatitis	Virus	+	+		
Bisseux 2018	Hep A	Hepatitis	Virus			+	
Iaconelli 2016	Hep A	Hepatitis	Virus			+	
Rodriguez-Manzano 2009	Hep A	Hepatitis	Virus			+	
Adefisoye 2016	Hep A	Hepatitis	Virus			?	
McCall 2020a	Hep A	Hepatitis	Virus			+	+
Beji-Hamza_2014	Hep A	Hepatitis	Virus			+	+
Kaas 2018	Hep A	Hepatitis	Virus			-	
Villar 2007	Hep A	Hepatitis	Virus			+	+
Schindwein 2010	Hep A	Hepatitis	Virus			+	+
Iaconelli 2020	Hep A	Hepatitis	Virus			+	+
Joshi 2014	Hep A	Hepatitis	Virus	+			
Coulepis 1980	Hep A	Hepatitis	Virus	+			
Rump 2013	Hep A	Hepatitis	Virus	+			
Arankalle 2006	Hep A	Hepatitis	Virus	+	+		
Park 2009	Hep B	Hepatitis	Virus			+	
Hou 2020	Hep B	Hepatitis	Virus			-	
Horst 1974	Hep B	Hepatitis	Virus			+	
Arvanitidou 1998	Hep B	Hepatitis	Virus			-	
Grabow 1975	Hep B	Hepatitis	Virus	-		-	
Symonds 2009	Hep B	Hepatitis	Virus			-	
Irwin 1975	Hep B	Hepatitis	Virus	+			
Judson 1981	Hep B	Hepatitis	Virus	+			
Men 1989	Hep B	Hepatitis	Virus	+			
Jain 2018	Hep B	Hepatitis	Virus	+			
Ibrahim 2020	Hep B	Hepatitis	Virus	+			
Knutsson 2000	Hep B	Hepatitis	Virus	+			
Masclaux 2014	Hep E	Hepatitis	Virus			-	
Wang 2020	Hep E	Hepatitis	Virus			-	
Beyer 2020	Hep E	Hepatitis	Virus			+	+
Bisseux 2018	Hep E	Hepatitis	Virus			+	
Iaconelli 2016	Hep E	Hepatitis	Virus			+	
Rodriguez-Manzano 2009	Hep E	Hepatitis	Virus			+	
Fenaux 2018	Hep E	Hepatitis	Virus	+		+	
Beji-Hamza 2015	Hep E	Hepatitis	Virus			+	
Prado 2012	Hep E	Hepatitis	Virus			+	+
Tripathy 2019	Hep E	Hepatitis	Virus			+	+
Kaas 2018	Hep E	Hepatitis	Virus			+	
Cuevas-Ferrando 2020	Hep E	Hepatitis	Virus			+	+

Paper	Pathogen	Pathogen group	Pathogen type	Detected in excreta	Quantified in excreta	Detected in wastewater	Quantified in wastewater
Abravanel 2018	Hep E	Hepatitis	Virus	+			
Orru 2004	Hep E	Hepatitis	Virus	+	+		
Abravanel 2018a	Hep E	Hepatitis	Virus	+	+		
Enouf 2006	Hep E	Hepatitis	Virus	+	+		
Marion 2019	Hep E	Hepatitis	Virus	+	+		
Geng 2016	Hep E	Hepatitis	Virus	+			
Ankcom 2018	Hep E	Hepatitis	Virus	+			
Limayem 2019	MDROs	Nosocomial	Bacteria			+	
Drigo 2021	MDROs	Nosocomial	Bacteria			+	+
Park 2016	MDROs	Nosocomial	Bacteria			+	
Dadi 2021	MDROs	Nosocomial	Bacteria			+	
Ekwanzala 2020	MDROs	Nosocomial	Bacteria			+	
Parvez 2017	MDROs	Nosocomial	Bacteria			+	
Lamba 2017	MDROs	Nosocomial	Bacteria			+	+
Yang 2016	MDROs	Nosocomial	Bacteria			+	+
Fekadu 2015	MDROs	Nosocomial	Bacteria			+	
Xia 2013	MDROs	Nosocomial	Bacteria			+	
Poma 2016	MDROs	Nosocomial	Bacteria			+	
Harries 2016	MDROs	Nosocomial	Bacteria	+			
Cameron 2019	MDROs	Nosocomial	Bacteria			+	
Divya 2019	MDROs	Nosocomial	Bacteria			+	
Franz 2015	MDROs	Nosocomial	Bacteria			+	
Adegoke 2020	MDROs	Nosocomial	Bacteria			+	+
Igwaran 2018	MDROs	Nosocomial	Bacteria			+	
Adefisoye 2016	MDROs	Nosocomial	Bacteria			+	
Diallo 2013	MDROs	Nosocomial	Bacteria			+	
Al-Jabouri 1985	MDROs	Nosocomial	Bacteria			+	
Grevscott 2021	MDROs	Nosocomial	Bacteria			+	+
Lifitte 2016	MDROs	Nosocomial	Bacteria			+	+
Jin 2018	MDROs	Nosocomial	Bacteria			+	
Ebomah 2020	MDROs	Nosocomial	Bacteria			+	
Al-Jassim 2015	MDROs	Nosocomial	Bacteria			+	+
Ng 2017	MDROs	Nosocomial	Bacteria			+	
Sun 2021	MDROs	Nosocomial	Bacteria	+			
Ferreira 2021	MDROs	Nosocomial	Bacteria	+			
Bengtsson-Palme 2015	MDROs	Nosocomial	Bacteria	+			
Do 2018	MDROs	Nosocomial	Bacteria	+			
Steyer 2015	Clostridium difficile	Nosocomial	Bacteria			+	
Moradigaravand 2018	Clostridium difficile	Nosocomial	Bacteria	+		+	
Romanazzi 2016	Clostridium difficile	Nosocomial	Bacteria			+	+
Steyer 2015	Clostridium difficile	Nosocomial	Bacteria			+	
Viau 2009	Clostridium difficile	Nosocomial	Bacteria			+	
Petersen 2015	Clostridium difficile	Nosocomial	Bacteria			+	
Czepiel 2019	Clostridium difficile	Nosocomial	Bacteria	+	+		
Dionne 2013	Clostridium difficile	Nosocomial	Bacteria	+	+		
Rivas 2020	Clostridium difficile	Nosocomial	Bacteria			+	
Nikaeen 2015	Clostridium difficile	Nosocomial	Bacteria			+	
Xu 2014	Clostridium difficile	Nosocomial	Bacteria			+	+
Romano 2012	Clostridium difficile	Nosocomial	Bacteria			+	
Miyani 20202	Varicella	Other	Virus			+	
Singh 2019	Varicella	Other	Virus	+			
Sahay 2018	Varicella	Other	Virus	+			
Vaidya 2018	Varicella	Other	Virus	+			
Ramamurty 2006	Measles	Other	Virus	+			
Seto 2018	Measles	Other	Virus	+	+		
Permar 2001	Measles	Other	Virus	+			
Deng 2004	Measles	Other	Virus	+	+		
Olusola 2014	Measles	Other	Virus	+			

Paper	Pathogen	Pathogen group	Pathogen type	Detected in excreta	Quantified in excreta	Detected in wastewater	Quantified in wastewater
Chua 2015	Measles	Other	Virus	+			
Lievano 2004	Measles	Other	Virus	-			
Benschop 2017	Measles	Other	Virus			+	
Varavithya 1989	Measles	Other	Virus	-			
Kurata 2020	Measles	Other	Virus	+	+		
Thomas 2007	Measles	Other	Virus	+	+		
Bibby 2014	Rubella	Other	Virus			+	
Olusola 2014	Rubella	Other	Virus	-			
Okamoto 2016	Rubella	Other	Virus	+			
Uchino 2020	Rubella	Other	Virus	+			
Nagasawa 2016	Rubella	Other	Virus	+	+		
Mosquera 2002	Rubella	Other	Virus	+			
Schmidt 1978	Rubella	Other	Virus	+			
Schmidt 1981	Rubella	Other	Virus	+			
Singh 2014	Rubella	Other	Virus	+			
Figueredo 2012	Rubella	Other	Virus	+			
Gouma 2016	Mumps	Other	Virus	+			
Wolontis 1974	Mumps	Other	Virus	+			
Hatchette 2009	Mumps	Other	Virus	+			
Tan 2011	Mumps	Other	Virus	+			
Krause 2006	Mumps	Other	Virus	+			
Nunn 2018	Mumps	Other	Virus	+			
Waston-Creed 2006	Mumps	Other	Virus	+			
Laube 2002	Corynebacterium diphtheriae	Respiratory	Bacteria	?			
Davis 1973	Corynebacterium diphtheriae	Respiratory	Bacteria	?			
Cygankiewicz 1955	Corynebacterium diphtheriae	Respiratory	Bacteria	+			
Park 2009	Corynebacterium diphtheriae	Respiratory	Bacteria			+	
Ye 2011	Corynebacterium diphtheriae	Respiratory	Bacteria			+	
Kaldor 1977	Haemophilus influenzae	Other	Bacteria	+			
Murphy 1989	Haemophilus influenzae	Other	Bacteria	+			
Manary 1993	Haemophilus influenzae	Other	Bacteria	+			
Al-Mohizea 2014	Haemophilus influenzae	Other	Bacteria	+			
You_2016	Haemophilus influenzae	Other	Bacteria	+			
Saha 2006	Haemophilus influenzae	Other	Bacteria	+			
Caceci 1981	Haemophilus influenzae	Other	Bacteria	+			
Duraisingham 2015	Haemophilus influenzae	Other	Bacteria	+			
Messina 2020	Haemophilus influenzae	Other	Bacteria	+			
Srinivasan 2021	Haemophilus influenzae	Other	Bacteria	+	+		
Greay 2019	Acinetobacter	Nosocomial	Bacteria			?	
Al-Jassim 2015	Acinetobacter	Nosocomial	Bacteria			+	+
Hrenovic 2016	Acinetobacter	Nosocomial	Bacteria			+	
Jovcic 2020	Acinetobacter	Nosocomial	Bacteria			+	
Ferreira 2011	Acinetobacter	Nosocomial	Bacteria			+	
Perilli 2011	Acinetobacter	Nosocomial	Bacteria			+	
Bedenic 2020	Acinetobacter	Nosocomial	Bacteria			+	
Eze 2021	Acinetobacter	Nosocomial	Bacteria			+	
Cherak 2021	Acinetobacter	Nosocomial	Bacteria			+	
Hemback 2017	Acinetobacter	Nosocomial	Bacteria			+	
Maamar 2018	Acinetobacter	Nosocomial	Bacteria	+			
Gordon 2009	Acinetobacter	Nosocomial	Bacteria	+			
Li 2019	Acinetobacter	Nosocomial	Bacteria	+			
Keum 2006	Acinetobacter	Nosocomial	Bacteria	+			
Corbella 1996	Acinetobacter	Nosocomial	Bacteria	+			
Vuotto_2018	Acinetobacter	Nosocomial	Bacteria	+			
Girgia 2019	Acinetobacter	Nosocomial	Bacteria	+			
Higgins 2018	Acinetobacter	Nosocomial	Bacteria			+	
Asghari 2021	Pseudomonas	Nosocomial	Bacteria			+	
Shannon 2007	Pseudomonas	Nosocomial	Bacteria			+	+

Paper	Pathogen	Pathogen group	Pathogen type	Detected in excreta	Quantified in excreta	Detected in wastewater	Quantified in wastewater
Gray 2019	Pseudomonas	Nosocomial	Bacteria			?	
Al-Jassim 2015	Pseudomonas	Nosocomial	Bacteria			+	+
Ng 2017	Pseudomonas	Nosocomial	Bacteria			+	
Keum 2006	Pseudomonas	Nosocomial	Bacteria	+			
Schwartz 2006	Pseudomonas	Nosocomial	Bacteria			+	
Mapipa 2021	Pseudomonas	Nosocomial	Bacteria			+	
Petit 2013	Pseudomonas	Nosocomial	Bacteria			+	
Highsmith 1975	Pseudomonas	Nosocomial	Bacteria			+	+
Butiuc-Keul 2021	Pseudomonas	Nosocomial	Bacteria			+	
Limayem 2019	Pseudomonas	Nosocomial	Bacteria			+	
Azuma 2020	Pseudomonas	Nosocomial	Bacteria			+	+
Shannon 2007a	Pseudomonas	Nosocomial	Bacteria			+	+
Tsai 1998	Pseudomonas	Nosocomial	Bacteria			+	+
Fakhkhari 2020	Pseudomonas	Nosocomial	Bacteria	+			
Araoka 2014	Pseudomonas	Nosocomial	Bacteria	+			
Estepa 2014	Pseudomonas	Nosocomial	Bacteria	+			
Li 2020	Pseudomonas	Nosocomial	Bacteria	+			
Shukla 2015	Pseudomonas	Nosocomial	Bacteria	+			
Hansen 2013	Pseudomonas	Nosocomial	Bacteria	+			
vanderZee 2016	Pseudomonas	Nosocomial	Bacteria	+	?		
Zhang 2021	Pseudomonas	Nosocomial	Bacteria	+			
Cabot 2021	Pseudomonas	Nosocomial	Bacteria	+			
Pirkani 2020	Pseudomonas	Nosocomial	Bacteria	+			
Azuma 2020	MRSA	Nosocomial	Bacteria			+	+
Goldstein 2012	MRSA	Nosocomial	Bacteria			+	
Borjesson 2010	MRSA	Nosocomial	Bacteria			+	
Wada 2010	MRSA	Nosocomial	Bacteria	+	+		
Borjesson 2009	MRSA	Nosocomial	Bacteria			+	?
Wan 2014	MRSA	Nosocomial	Bacteria			+	+
Muzammil 2020	MRSA	Nosocomial	Bacteria	+			
Mohanty 2019	MRSA	Nosocomial	Bacteria	+			
Havill 2010	MRSA	Nosocomial	Bacteria	+			
Fischer 2017	MRSA	Nosocomial	Bacteria	+			
Oie 2007	MRSA	Nosocomial	Bacteria	+			
Wang 2021	Legionella	Other	Bacteria			+	
Gray 2019	Legionella	Other	Bacteria			+	
Al-Jassim 2015	Legionella	Other	Bacteria			+	+
Maiwald 1995	Legionella	Other	Bacteria	+			
Johansson 2010	Legionella	Other	Bacteria	+			
Johansson 2011	Legionella	Other	Bacteria	+			
Rowbotham 1998	Legionella	Other	Bacteria	+			
Schulte 2003	Legionella	Other	Bacteria	-			
Couturier 2014	Legionella	Other	Bacteria	+			
Murdoch 1996	Legionella	Other	Bacteria	+			
Caicedo 2019	Legionella	Other	Bacteria			+	+
Nasser 2016	Cryptosporidium	Other	Parasite			+	+
Zahedi 2021	Cryptosporidium	Other	Parasite	+	+	+	+
Ahmed 2019	Cryptosporidium	Other	Parasite	+			
Akgun 2020	Cryptosporidium	Other	Parasite	+			
Beyhan 2020	Cryptosporidium	Other	Parasite	+			
Mergen 2020	Cryptosporidium	Other	Parasite	+			
Laude 2016	Cryptosporidium	Other	Parasite	+			
Nurminen 2015	Cryptosporidium	Other	Parasite	+			
Mary 2013	Cryptosporidium	Other	Parasite	+	+		
Langeland 2009	Yersinia enterocolitica	GI	Bacteria			+	
Ziegert 1990	Yersinia enterocolitica	GI	Bacteria			+	
Falcao 2004	Yersinia enterocolitica	GI	Bacteria			+	
Ruhle 1990	Yersinia enterocolitica	GI	Bacteria			+	+

Paper	Pathogen	Pathogen group	Pathogen type	Detected in excreta	Quantified in excreta	Detected in wastewater	Quantified in wastewater
Bottone 1974	<i>Yersinia enterocolitica</i>	GI	Bacteria	+			
Aziz 2021	<i>Yersinia enterocolitica</i>	GI	Bacteria	+			
Rusak 2018	<i>Yersinia enterocolitica</i>	GI	Bacteria	+			
Simner 2017	<i>Yersinia enterocolitica</i>	GI	Bacteria	+			
Stephan 2013	<i>Yersinia enterocolitica</i>	GI	Bacteria	+			
Valledor 2020	<i>Yersinia enterocolitica</i>	GI	Bacteria	+			
Wang 2021	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria			?	
Greay 2019	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria			?	
Al-Jassim 2015	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria			+	+
Cai 2013	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria			+	
Jensen 1954	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria			+	
Pramer 1950	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria			+	+
Yokoyama 2017	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria	+			
deCosta-Lima 2020	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria	+			
Cannas 2008	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria	+			
Lopez 2019	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria	+			
Peter 2010	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria	+			
Seifert 2021	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria	+			
Green 2009	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria	+			
Luo 2013	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria	+			
Drancourt 2018	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria	+			
Mesman 2019	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria	+			
Talib 2019	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria	+			
Abaye 2017	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria	+			
Walters 2017	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria	+			
Cordova 2010	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria	+			
Mesman 2019a	<i>Mycobacterium tuberculosis</i>	Respiratory	Bacteria	+			
Rauter 2005	<i>Borrelia burgdorferi</i>	Vector borne	Bacteria	+			
Goodman 1991	<i>Borrelia burgdorferi</i>	Vector borne	Bacteria	+			
Hyde 1989	<i>Borrelia burgdorferi</i>	Vector borne	Bacteria	+			
Huppertz 1993	<i>Borrelia burgdorferi</i>	Vector borne	Bacteria	+			
Picha 2005	<i>Borrelia burgdorferi</i>	Vector borne	Bacteria	+			
Bergmann 2002	<i>Borrelia burgdorferi</i>	Vector borne	Bacteria	+			
Schmidt 1996	<i>Borrelia burgdorferi</i>	Vector borne	Bacteria	+			
LaCout 2021	<i>Borrelia burgdorferi</i>	Vector borne	Bacteria	?			
Magni 2020	<i>Borrelia burgdorferi</i>	Vector borne	Bacteria	+			
LaCout 2021	<i>Anaplasma phagocytophilum</i>	Vector borne	Bacteria	+			
Magni 2020	<i>Anaplasma phagocytophilum</i>	Vector borne	Bacteria	+			
LaCout 2021	<i>Babesia</i>	Vector borne	Parasite	+			
Magni 2020	<i>Babesia</i>	Vector borne	Parasite	+			
Al-Sheri 2019	<i>Plasmodium</i>	Vector borne	Parasite	?			
Keita 2015	<i>Plasmodium</i>	Vector borne	Parasite	?			
Apinjoh 2021	<i>Plasmodium</i>	Vector borne	Parasite	+			
Aninagyei 2020	<i>Plasmodium</i>	Vector borne	Parasite	+			
Samal 2017	<i>Plasmodium</i>	Vector borne	Parasite	+			
Alnasser 2016	<i>Plasmodium</i>	Vector borne	Parasite	+			
Najafabadi 2014	<i>Plasmodium</i>	Vector borne	Parasite	+			
Najafabadi 2014a	<i>Plasmodium</i>	Vector borne	Parasite	+			
Humaidi 2021	Dengue	Vector borne	Virus	+			
Barzon 2021	Dengue	Vector borne	Virus	+			
Siquiera 2020	Dengue	Vector borne	Virus	+			
Pabbaraju 2016	Dengue	Vector borne	Virus	+			
Choudhury 2021	Dengue	Vector borne	Virus	+			
Vasquez-Prokopec 2010	West Nile	Vector borne	Virus			-	
Macaluso 2021	West Nile	Vector borne	Virus	-			
Karrasch 2021	West Nile	Vector borne	Virus	+			
Sabadi 2020	West Nile	Vector borne	Virus	+			
Pacanti 2020	West Nile	Vector borne	Virus	+			

Paper	Pathogen	Pathogen group	Pathogen type	Detected in excreta	Quantified in excreta	Detected in wastewater	Quantified in wastewater
Murray 2017	West Nile	Vector borne	Virus	+			
Nagy 2016	West Nile	Vector borne	Virus	+			
Magni 2020	Francisella tularensis	Vector borne	Bacteria	+			
Escudero 2010	Francisella tularensis	Vector borne	Bacteria	?			
Peruski 2002	Francisella tularensis	Vector borne	Bacteria	-		-	
Tarnvik 1987	Francisella tularensis	Vector borne	Bacteria	+			
Musso 2016	Chikungunya	Vector borne	Virus	+			
Choudhury 2021	Chikungunya	Vector borne	Virus	+			
Silva 2018	Chikungunya	Vector borne	Virus	+			
Mehta 2018	Chikungunya	Vector borne	Virus	+			
Bandeira 2016	Chikungunya	Vector borne	Virus	+			
Kondo 2016	Chikungunya	Vector borne	Virus	+			
LaCout 2021	Rickettsia	Vector borne	Bacteria	+			
Magni 2020	Rickettsia	Vector borne	Bacteria	+			
Keita 2015	Rickettsia	Vector borne	Bacteria	?			
Ozbil 1955	Rickettsia	Vector borne	Bacteria	+			
Yang 2022	Rickettsia	Vector borne	Bacteria	?			
Fraiture 2021	Zika	Vector borne	Virus	+			
Siquiera 2020	Zika	Vector borne	Virus	+			
Bandeira 2020	Zika	Vector borne	Virus	+			
Stone 2020	Zika	Vector borne	Virus	+			
Mishra 2020	Zika	Vector borne	Virus	+			
Pabbaraju 2016	Zika	Vector borne	Virus	+			