

Postdoctoral Fellow: targeted metaviromics of wastewater for determining the human virome in cities.

This is a China-Netherlands co-funded project on “**metaviromics of wastewater**”. It is a joint project between Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences (RCEES, Prof. Gang Liu), China Water Environment Group (CWE, vice president, Lujing Zhang), Delft University of Technology and KWR Water Research Institute (TUDelft & KWR, Prof. Gertjan Medema). The project has funding for up to 3 years, and the postdoc can be contracted for 1-3 years in RCEES, that will host this position with standard Dutch postdoc salary. The proposed start date is Summer 2024. Review of applications will begin on Apr. 30, 2024 and will continue until the position is filled.

The monitoring of occurrence and concentration of human viruses in cities is crucial for understanding of viral disease circulation and emerging disease outbreaks. To monitor human viruses in wastewater, target enrichment of vertebrate/human virus sequences will be explored as well as PCR panels for selected human viruses. Since virus sequences are relevant to for molecular epidemiology of viruses, we would like to explore a suite of methods that is able to characterize virus species to genotypes. For this objective, we are seeking a motivated and talented postdoctoral fellow, using deep metaviromics based on deep sequencing. China Water Environment Group (CWE) is operating more than 200 wastewater systems in 22 provinces in China with a total capacity of more than 6 million m³ per day. This project will cover wastewater systems operated by CWE in multiple (mega) cities in China and implementing and evaluating the suite of methods to detect the presence and abundance of human virus (genotypes) in wastewater of the cities.

We are seeking for an excellent and ambitious researcher to join our team, with a background of metaviromics and bioinformatics in environmental virology, ideally in wastewater surveillance. The sampling and sequencing will be done in China, and the candidate will conduct research both in China and in the Netherlands, depending on where the research (methods) is available. Knowledge on viruses metaviromics, bioinformatics, biosafety, virus surveillance, including via wastewater, and water systems is desirable.

For further details please contact Prof. Gertjan Medema (gertjan.medema@kwrwater.nl), Prof. Gang Liu (gliu@rcees.ac.cn), and VP Lujing Zhang (bnuzlj@163.com).