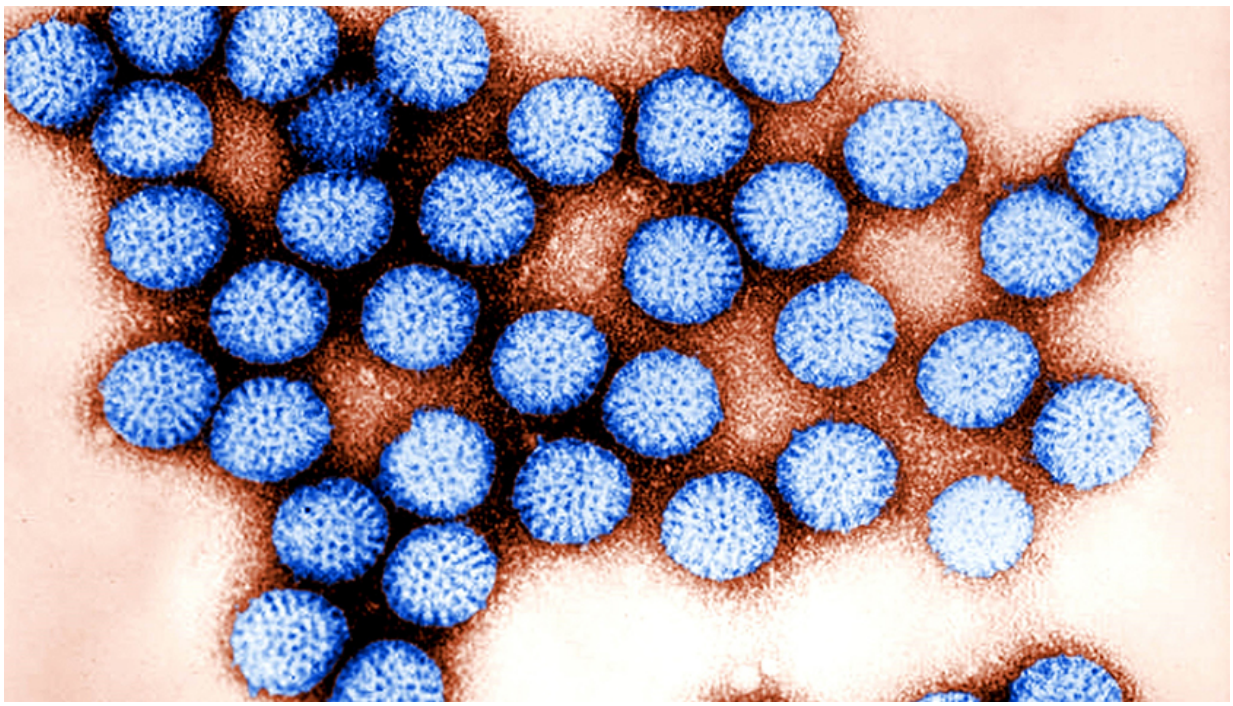

Filtering dangerous diarrhoea pathogens out of drinking water

April 29, 2021 |
Topics: Drinking Water | Water & Development

Their very small size means that rotaviruses are difficult to filter out of water. But these pathogens are among the leading causes of gastrointestinal infections, especially among children in developing countries. Now, a team of researchers from Empa and Eawag has demonstrated an approach that could make rotaviruses easier to remove in the future.

The researchers from Empa and Eawag tackle these miniscule pathogens using two clever tricks: First, a temporary reduction in pH causes the tiny viruses, which are only about 70 nanometres across, to clump together and form larger aggregates. These then adhere to newly developed, positively charged ceramic-copper composites with a large surface area. Although the technology has not yet reached the stage where it can be put into practice, the researchers are confident that they have identified a cost-effective and sustainable approach that will pave the way for advances in water treatment in developing countries.

Cover picture: pixnio.com

Related Links

More information on the Empa website

Contact

Überlandstrasse 133
CH-8600 Dübendorf

T +41 58 765 55 11
F +41 58 765 50 28

info@eawag.ch
www.eawag.ch

eawag aquatic research

Tim Julian

Group Leader of Pathogens and Human Health

Tel. +41 58 765 5632

tim.julian@eawag.ch

Andri Bryner

Media officer

Tel. +41 58 765 5104

andri.bryner@eawag.ch

https://www.eawag.ch/en/info/portal/news/news-archive/archive-detail/filtering-dangerous-diarrhoea-pathogens-out-of-drinking-water