

Microvi Awarded NIH Funding to Develop Novel Biological Solution for Chromium Contamination in Water Affecting Millions

Microvi's chromium treatment technology will be environmentally friendly and cost-effective and will add to their portfolio of water treatment solutions.

HAYWARD, CA, USA, August 17, 2020 /EINPresswire.com/ -- Microvi announced today that they were awarded a grant from the National Institute of Environmental Health Services (NIEHS) to develop a new technology for efficient, environmentally friendly, and cost-effective hexavalent chromium (Cr(VI)) treatment.

Chromium is a widespread contaminant in water sources worldwide. High concentrations of Cr(VI) can contribute to stomach cancers, kidney and liver damage, and reproductive harm. According to a report by the Environmental Working Group, an analysis of Environmental Protection Agency data shows that water supplies serving nearly 218 million Americans have potentially unsafe levels of Cr(VI).

"Our technologies have proven to be a step change when applied to contaminants in water and wastewater such as nitrate and ammonia," said Ameen Razavi, Chief Innovation Officer of Microvi. "Applying this success to the pervasive challenges of chromium treatment allows us to expand the capabilities of our technology portfolio, providing clean water through sustainable and cost-effective treatment methods."

There is a specific need for new technologies to reliably reduce Cr(VI) to very low levels with lower costs and less waste than existing physical or chemical treatment technologies. Microvi's technology has the potential to meet those needs through a novel combination of materials science and microbiology. The project will also provide insight into the unique physiology of certain microorganisms as well as specific gene expression patterns associated with Cr(VI) metabolism.

In contrast to conventional physical or chemical technologies, Microvi's technology does not produce a hazardous secondary waste stream. In addition, the proposed technology offers unique redox flexibility, which allows it to remain effective even while environmental characteristics may change. The technology has the potential to be a highly effective ex-situ or in-situ treatment process to achieving low concentrations of Cr(VI) in water.

Microvi's water technologies have been successfully applied in a number of applications across the water, wastewater and bio-based chemicals sectors. Along with a project focused on [tertiary ammonia removal completed at Thames Water in the UK](#), the technology was recently selected for the [first full scale wastewater sidestream treatment project](#) in the San Francisco Bay, and for drinking water projects at Hillview Water Company in Raymond, CA and [Cucamonga Valley Water District](#).

About the National Institutes of Health (NIH)

NIH, the nation's medical research agency, includes 27 Institutes and Centers and is a component of the U.S. Department of Health and Human Services. NIH is the primary federal agency conducting and supporting basic, clinical, and translational medical research, and is investigating the causes, treatments, and cures for both common and rare diseases. For more information about NIH and its programs, visit www.nih.gov.

About the National Institute of Environmental Health Sciences

NIEHS supports research to understand the effects of the environment on human health and is part of the National Institutes of Health. For more information on NIEHS or environmental health topics, visit www.niehs.nih.gov.

About Microvi

Microvi is a transformative biology company based in the San Francisco Bay Area that delivers next-generation biotechnologies for the water, wastewater, bio-based chemicals, biofuels and biopharma industries. Microvi offers commercial technologies around the world to reduce waste, increase productivity and provide disruptive economics across the value chain. Learn more at www.microvi.com.

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