



Scientists and engineers at the Air Force Civil Engineering Center at Tyndall Air Force Base in Florida are collaborating with Matter of Trust, Inc. to explore the use of renewable natural fibers for filtration.

Fibers such as dog hair, alpaca hair, and human hair have the ability to soak up various types of wastewater contaminants and are being tested and developed for applications that may help our military!

Initial experiments included research by the Air Force and Navy and demonstrated that oil-degrading bacteria can be attached to mats of human hair. The resulting mats can simultaneously capture and break down oil. The results were reported in the journal 'Biotechnology Progress' (1). Current experiments are now being conducted to determine if the process can be adapted to other types of wastewater contamination.

*(1) Biodegradation of medium chain hydrocarbons by Acinetobacter venetianus 2AW immobilized to hair-based adsorbent mats. Biotechnol Progr (2011) 27: 1580-1587.*

Point of Contact: Dr. Jeffery Owens and Dr. Heather Luckarift (contact information available on request from Matter of Trust)

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