Medical Xpress

Emerging drug could help treat a common liver disease

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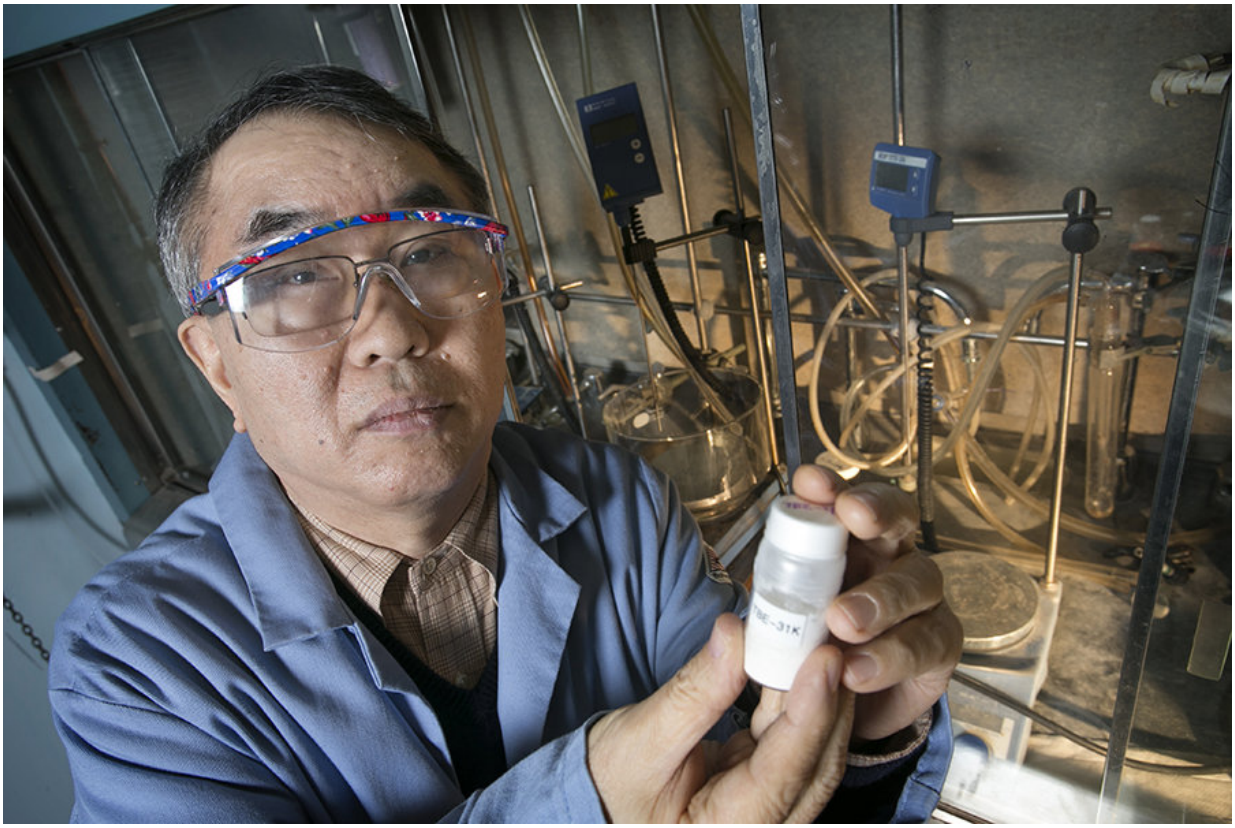

Professor Honda in his laboratory displaying TBE-31, a drug he invented that is being testing to treat NASH. Credit: Stony Brook University

Treating a liver disease called NASH (non-alcoholic steatohepatitis), which affects 10 to 15 percent of obese individuals with type-2 diabetes

worldwide, is difficult. But now scientists believe they have found a pharmacologic approach that may inhibit NASH, and thus stop deadly conditions that result from NASH such as cirrhosis and liver cancer.

Tadashi Honda, PhD, Research Professor in the Stony Brook University Department of Chemistry, and Director of the Anti-Inflammatory Research Laboratory in the ICB & DD, along with colleagues at the Universities of Dundee and St. Andrews, are testing a drug invented by Dr. Honda called TBE-31. They found that TBE-31 activates a protein called Nrf2 in mice that neutralizes a group of damaging oxidizing materials in the liver called reactive oxygen species (ROS).

The drug switches off ROS buildup in NASH, and therefore prevents liver damage thus treating the condition.

Their findings are published in latest edition of *Cellular and Molecular Gastroenterology and Hepatology*.

Currently there is no known drug that treats NASH. Individuals with NASH can only reduce morbidity and complications from the disease by making lifestyle changes.

More information: Ritu S. Sharma et al. Experimental non-alcoholic steatohepatitis and liver fibrosis are ameliorated by pharmacological activation of Nrf2 (NF-E2-related factor 2), *Cellular and Molecular Gastroenterology and Hepatology* (2017). DOI: 10.1016/j.jcmgh.2017.11.016

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