NIH Grant Funds Early Liver Disease Detection Research

Medical University of South Carolina researchers will address gaps in MASLD and advanced fibrosis detection in primary care settings.

September 8, 2025 By Laura Schmidt

The National Institutes of Health (NIH) awarded funding to several Medical University of South Carolina (MUSC) Department of Medicine faculty members, including Andrew Schreiner, MD, whose research aims to improve early liver disease detection, according to a MUSC news release.

More than 100 million people in the United States have conditions that damage the liver, including viral hepatitis and metabolic dysfunction-associated steatotic liver disease (MASLD).

MASLD, formerly called fatty liver disease, is caused by fat accumulation in the liver, known as hepatic steatosis. It is responsible for a growing proportion of advanced liver disease, mirroring a global rise in obesity. If left untreated, the buildup of fat in the liver can lead to inflammation, liver scarring (fibrosis), cirrhosis and liver cancer.

The NIH R01 grant will support the project "Advanced Fibrosis Detection and a Predictive Diagnostic Model for Metabolic Dysfunction-associated Steatotic Liver Disease (MASLD) in Primary Care," which aims to address the underdiagnosis of MASLD.

Schreiner and his team will test a new nonintrusive electronic health record alert that will flag patients at risk for advanced fibrosis caused by MASLD. The project will also develop and test a predictive diagnostic model for identifying MASLD in people with no known liver disease.

MASLD often has no symptoms, especially in its early stages. Symptoms are more likely to occur as the condition progresses to metabolic dysfunction-associated steatohepatitis (MASH, formerly known as non-alcoholic steatohepatitis, or NASH). These may include fatigue, nausea and abdominal pain.

Similar to MASLD, many people with early fibrosis have few or no symptoms. But as liver damage progresses, it can lead to a wide variety of signs and symptoms, including:

- Fatigue
- Jaundice (yellowing of the skin and eyes)
- Brain fog (confusion or difficulty thinking)
- Nausea
- Loss of appetite
- Pain in the upper abdomen
- Muscle or joint aches
- Itchy skin
- Easy bleeding or bruising.

To read more about different forms of #Liver Disease, click #MASLD or #Fibrosis. There, you'll see headlines such as "60% of Liver Cancer Cases Could Be Prevented," "Alcohol Use Tied to Higher Fatty Liver Disease Risk" and "Statin Use Linked to Lower Risk for Liver Cancer and Decompensation."

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