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A HEALTH ISSUE

WEIGHING ON AMERICA

FOCUS: *To develop a drug to mitigate and reverse nonalcoholic fatty liver disease (NAFLD) and nonalcoholic steatohepatitis (NASH) in patients.*

With one-third of Americans obese, nonalcoholic fatty liver disease has become the country’s most commonly diagnosed liver problem. “The obesity epidemic isn’t being mitigated by dieting or the five FDA-approved obesity drugs,” Dr. Schuster says. “So it’s no surprise that scientists have been searching for drugs that could prevent fat from accumulating in the liver.”

In 1995, Dr. Schuster discovered what he dubbed the prostaglandin transporter (PGT), a protein that regulates the uptake and metabolic clearance of certain lipids in tissues throughout the body.

Years later, his team found that mice could live without the PGT gene, and had one-third the body fat of normal mice, even while consuming twice as much food. “These mice were very lean, with low body fat... they would be the envy of other mice at the beach,” Dr. Schuster says.

“If we can find a drug that blocks PGT in people, we will have a safe way to treat NAFLD.”

An anti-PGT compound was developed—the only potential NAFLD drug in the known research pipeline that targets PGT. Dr. Schuster and his colleagues are now testing the safety and efficacy of this compound and related molecules in work supported by the Harrington Discovery Institute.

IMPACT WISH:

“By providing novel and effective treatment for NAFLD/NASH, the medical impact of PGT inhibition would be vast, along with the potential to help reverse the widespread and relatively recent trend toward obesity.”

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