

Table 2. Summary of ongoing principal phase 2 and 3 placebo-controlled randomized clinical trials testing the efficacy of newer glucose-lowering drugs in NAFLD or NASH.

Drug target	Drug name	NCT Number	Phase	Duration	Population	Primary outcome
Dual PPARα/γ agonist	Saroglitazar	NCT04193982	3	6 months	Non-cirrhotic NAFLD/NASH	Change in NAFLD fibrosis score
PPARγ agonist	PXL065	NCT04321343	2	36 weeks	Biopsy-proven NASH, NAS \geq 4, and F1-3 stages	Change in liver fat content (by MRI-PDFF)
PPARγ agonist	Pioglitazone	NCT04501406	2	72 weeks	T2DM and biopsy-proven NASH	Improvement in NAS score \geq 2 points without
GLP1RA	Semaglutide	NCT03884075	2	30 weeks	NAFLD assessed by MRI-PDFF	\geq 2 point improvement in NAS score; \geq 25%
Glucagon/GIP/GLP1 agonist	HM15211	NCT04505436	2	12 months	Biopsy-proven NASH and F1-3 stages	\geq 30% relative reduction of liver fat content (by MRI-PDFF)
Dual GLP-1/GIP agonist	Tirzepatide	NCT04166773	2	52 weeks	Biopsy-proven NASH and F2-3 stages	Resolution of NASH with no worsening of fibrosis
SGLT2 inhibitor	Dapagliflozin	NCT03723252	3	52 weeks	Biopsy-proven NASH	Improvement in scored liver histological features

Abbreviations: ALT, alanine aminotransferase; NAFLD, non-alcoholic fatty liver disease; NASH, non-alcoholic steatohepatitis; T2DM, type 2 diabetes mellitus; TZD, thiazolidinedione; PPAR, peroxisome proliferator–activated receptor; GIP, glucose-dependent insulintropic polypeptide; GLP, glucagon-like peptide; GLP-1RA, glucagon-like peptide-1 receptor agonist; MRI-PDFF, magnetic resonance imaging-proton density fat fraction.