Gene Symbol	Name	Feature importance		Known/*plausible* in DILI?	Citation(s)
		RF	SVM		
MAPK11	MAP kinase p38 beta	**0.0059**	**0.29**	Cellular stress response (Autophagy/Oxidative stress)	Yang et al. (1); Huang et al. (2)
AKR1B1	Aldose reductase	**0.0045**	**0.29**	Oxidative stress and apoptosis	Ahmed et al. (3)
AKR1C3	Aldo-keto-reductase family 1 member C3	**0.0044**	**0.48**	Drug metabolism, Phase II Reaction	Barski, et al.(4); Chen et al. (5)
MPL	Thrombopoietin receptor	**0.0039**	**0.24**	No involvement in DILI	
NQO2	Quinone reductase 2	**0.0030**	**0.38**	Oxidative stress	Miettinen et al. (6)
CYP2C9	Cytochrome P450 2C9	**0.0024**	**0.42**	Drug metabolism, high expression in liver	Zanger et al. (7)
DDR1	Epithelial discoidin domain-containing receptor 1	**0.0024**	**0.24**	*Involvement in DILI for DDR2 - Putative novel target?*	Leitinger (8).
MAPK13	MAP kinase p38 delta	**0.0022**	**0.23**	Cellular stress response (Autophagy/Oxidative stress)	Yang et al. (1); Huang et al. (2)
RXRA	Retinoid X receptor alpha	**0.0021**	**0.28**	Alcohol induced liver damages	Gyamfi et al. (9)
CXCR2	Interleukin-8 receptor B	**0.0021**	**0.38**	Activation in patients with chronic liver diseases	Zimmermann, et al. (10)
STK17B	Serine/threonine-protein kinase 17B	**0.0020**	**0.28**	No involvement in DILI	
CYP1A2	Cytochrome P450 1A2	**0.0019**	**0.43**	Drug metabolism, high expression in liver	Zanger et al. (7)
CLK1	Dual specificty protein kinase CLK1	**0.0084**	0.09	No involvement in DILI	
C1R	Complement C1r	**0.0055**	0.03	No involvement in DILI	

APBA1	Voltage-gated N-type calcium channel alpha-1B subunit/Amyloid beta A4 precursor protein-binding family A member 1	**0.0054**	0.04	No involvement in DILI	
ADORA1	Adenosine A1 receptor	**0.0038**	-0.48	*Involvement in protection against DILI for ADORA2 - Putative novel target? Contribution to renal dysfnction in DILI.*	Chiang, et al. (11); Ming et al. (12)
PRKAB1	AMP-activated protein kinase, beta-1 subunit	**0.0034**	0.19	Protective role in liver regeneration	Huang, et al. (13)
PTGES	Prostaglandin E synthase	**0.0033**	0.15	Inhibitors cause severe DILI	Jin, et al. (14); Norman, et al. (15)
FGR	Tyrosine-protein kinase FGR	**0.0029**	0.14	No involvement in DILI	
P4HTM	Hypoxia-inducible factor prolyl 4-hydroxylase	**0.0029**	0.01	Inactivation has a protective role for alcohol induced liver damages	Laitakari, et al. (16)
CSNK2A2	Casein kinase II alpha (prime)	**0.0029**	0.01	No involvement in DILI	
DYRK2	Dual-specificity tyrosine-phosphorylation regulated kinase 2	**0.0026**	0.21	No involvement in DILI	
EIF2AK4	Eukaryotic translation initiation factor 2-alpha kinase 4	**0.0025**	0.04	Regulation of acute and chronic liver injury	Arriazu, et al. (17) (2013)
FBP1	Fructose-1, 6-bisphosphatase	**0.0025**	-0.13	No involvement in DILI	
AKR1C2	Aldo-keto reductase family 1 member C2	**0.0024**	-0.01	Drug metabolism, Phase II Reaction	Barski, et al. (4); Chen. et al. (5)
PTGS2	Cyclooxygenase-2	**0.0023**	0.19	Protective role in DILI	Reilly, et al. (18)
NR3C2	Mineralocorticoid receptor	**0.0023**	-0.06	Protective role of antagonists against liver injuries	Taye, et al. (19)
DHODH	Dihydroorotate dehydrogenase	**0.0022**	0.16	No involvement in DILI	

CSK	Tyrosine-protein kinase CSK	**0.0022**	-0.06	No involvement in DILI	
MAPK12	MAP kinase p38 gamma	**0.0020**	0.20	Cellular stress response (Autophagy/Oxidative stress)	Yang, et al. (1); Huang, et al. (2)
LIMK2	LIM domain kinase 2	**0.0020**	0.10	No involvement in DILI	
CSNK2B	Casein kinase II beta	**0.0019**	0.06	No involvement in DILI	
MAPK9	c-Jun N-terminal kinase 2	**0.0019**	0.14	Mediate cellular stress response (ROS)	Huang, et al. (2); Seki, et al. (2012)
PRF1	Perforin-1	**0.0019**	0.06	Involvement in immunological mechanisms of DILI pathogenesis	Tajiri, et al. (20)
TIE1	Tyrosine-protein kinase receptor Tie-1	**0.0019**	0.06	*Tyrosine Kinase inhibitors responsible for drug failure. Putative novel target?*	Qu, et al. (21); Spraggs, et al. (22)
SLC22A12	Solute carrier family 22 member 12	**0.0018**	0.22	No involvement in DILI	
ABL1	Tyrosine-protein kinase ABL	**0.0018**	0.01	Severe liver failures caused by ABL inhibitors	Lopina, et al. (23)
AGPAT2	1-acylglycerol-3-phosphate O-acyltransferase beta	**0.0018**	0.00	No involvement in DILI	
EP300	Histone acetyltransferase p300	**0.0018**	0.11	Involvement in Isoniazide-induced rat liver injury	Zhu, et al. (24)
PLA2G1B	Phospholipase A2 group 1B	0.0015	**0.68**	Protection against Fas-induced liver injuries	Li, et al. (25)
EGFR	Epidermal growth factor receptor erbB1	0.0015	**0.56**	No involvement in DILI	
PTPN7	Protein-tyrosine phosphatase LC-PTP	0.0006	**0.51**	No involvement in DILI	
NCOA2	Peroxisome proliferator-activated receptor gamma/Nuclear receptor coactivator 2	0.0008	**0.49**	No involvement in DILI	
TBXAS1	Thromboxane-A synthase	0.0007	**0.46**	Production of hepatic injury during hepatic stress	Yokoama, et al. (26)
PRNP	Prion protein	0.0008	**0.43**	No involvement in DILI	

RPS6KA6	Ribosomal protein S6 kinase alpha 6	0.0005	**0.41**	Prevention and treatment of liver injuries and fibrosis	Buck, M. (27)
MITF	Microphthalmia-associated transcription factor	0.0010	**0.40**	No involvement in DILI	
AR	Androgen Receptor	0.0006	**0.40**	Sex discrepancy in DILI	Sutti, et al. (28)
CCNB2	Cyclin-dependent kinase 1/cyclin B	0.0010	**0.36**	*Overexpressed during liver regeneration*	Lu, et al. (29)
CCNB3	Cyclin-dependent kinase 1/cyclin B	0.0008	**0.36**	No involvement in DILI	
ESRRA	Estrogen-related receptor alpha	0.0009	**0.35**	*Loss of activity promotes hepatocellular carcinoma*	Hong, et al. (30)
RARG	Retinoic acid receptor gamma	0.0015	**0.33**	Higher expression in nonalcoholic steatohepatitis	Elbel, et al. (31)
CDC25A	Dual specificity phosphatase Cdc25A	0.0007	**0.32**	*Overexpressed in hepatocellular carcinoma cells*	Xundi Xu et al. (32)
FABP4	Fatty acid binding protein adipocyte	0.0006	**0.31**	*Not usually expressed in liver, expressed by hepatocellular carcinoma cells*	Thompson. et al. (33)
DYRK1B	Dual specificity tyrosine-phosphorylation-regulated kinase 1B	0.0017	**0.31**	*Involved in adipogenesis and glucose homeostasis*	Keramati, et al. (34)
AKR1A1	Aldehyde reductase	0.0014	**0.30**	AKR1A-deficient mice are resistant to thioacetamide-induced liver injury	Homma, et al. (35)
CASP3	Caspase-3	0.0004	**0.30**	*Inhibition reduces graft injuries due to liver transplantation in rats*	Mueller, et al. (36)
HIPK3	Homeodomain-interacting protein kinase 3	0.0009	**0.29**	*Upregulated in hepatocellular carcinoma*	Chen, et al. (37)
MTOR	Serine/threonine-protein kinase mTOR	0.0004	**0.29**	*Upregulation may contribute to inflammation and liver tumorigenesis*	Ni, et al. (38)
KIF11	Kinesin-like protein 1	0.0005	**0.28**	No involvement in DILI	
CA3	Carbonic anhydrase III	0.0004	**0.28**	*Biomarker of liver injury. Putative role in DILI?*	Carter, et al. (39)

PTGS1	Cyclooxygenase-1	0.0011	**0.28**	Protective role in DILI	Xiao, et al. (40)
AGTR1	Type-1 angiotensin II receptor	0.0009	**0.27**	Gene polymorphism involved in nonalcoholic liver injuries.	Liu, et al. (41)
ITGA2	Integrin alpha-2	0.0006	**0.27**	No involvement in DILI	
EPHA7	Ephrin type-A receptor 7	0.0015	**0.26**	No involvement in DILI	
EDNRB	Endothelin receptor ET-B	0.0007	**0.26**	Receptor antagonists cause DILI	Kenna, et al. (42)
ELOVL6	Elongation of very long chain fatty acids protein 6	0.0015	**0.25**	*Involvement in nonalcoholic steatohepatitis*	Matsuzaka, et al. (43)
RET	Tyrosine-protein kinase receptor RET	0.0005	**0.25**	Inhibitors provoke DILI	Karczmarek-Borowska, et al. (44); Jackson, et al. (45)
MCL1	Induced myeloid leukemia cell differentiation protein Mcl-1	0.0015	**0.25**	Degradation has a protective role against APAP-induced liver injury	Ye, et al. (46)
ERBB2	Receptor protein-tyrosine kinase erbB-2	0.0007	**0.25**	*Involvement in DILI for other tyrosine kinase receptors. Putative novel target?*	Shah, et al. (47)
RARB	Retinoic acid receptor beta	0.0006	**0.25**	No involvement in DILI	
CIT	Citron Rho-interacting kinase	0.0017	**0.24**	No involvement in DILI	
SIK3	Serine/threonine-protein kinase SIK3	0.0002	**0.24**	No involvement in DILI	
TMIGD3	Transmembrane domain-containing protein TMIGD3	0.0015	**0.24**	No involvement in DIL	

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