

NASH CRN Published Manuscripts (as of 22 January 2014)

- 1) Bambha K, Wilson LA, Unalp A, Loomba R, Neuschwander-Tetri BA, Brunt EM, Bass NM; for the NASH CRN. Coffee consumption in NAFLD patients with lower insulin resistance is associated with lower risk of severe fibrosis. *Liver International*, 2013 (in press). (MS# 2008-1)
- 2) Chen Q-R, Braun R, Hu Y, Yan C, Brunt E, Meerzaman D, Sanyal A, Buetow K. Multi-SNP analysis of GWAS data identifies pathways associated with nonalcoholic fatty liver disease. *PLoS One*. 2013; 8(7): e65982. doi:10.1371/journal.pone.0065982. PMCID: PMC3716806. (MS# 2010-8)
- 3) Hoofnagle JH, Van Natta ML, Kleiner DE, Clark JM, Kowdley KV, Loomba R, et al. for the NASH CRN. Vitamin E and changes in serum alanine aminotransferase levels in patients with nonalcoholic steatohepatitis. *Alimentary Pharmacology & Therapeutics*. 2013;38:134-143. PMCID: PMC3775262 (MS# 2011-8).
- 4) Molleston JP, Schwimmer JB, Murray KF, Cummings OW, Lavine JE, Yates KP, Brunt EM, Scheimann AO, Unalp-Arida A, for the NASH CRN. Histologic abnormalities in children with nonalcoholic fatty liver disease and normal or mildly elevated alanine aminotransferase levels. *Journal of Pediatrics* (in press) (MS# 2008-5)
- 5) Nouredin M, Yates KP, Vaughn IA, Neuschwander-Tetri BA, Sanyal AJ, McCullough A, et al. for the NASH CRN. Clinical and histological determinants of nonalcoholic steatohepatitis and advanced fibrosis in elderly patients. *Hepatology*. 2013;58:1644-1654. PMCID: PMC3760979 (MS# 2011-2)
- 6) St-Jules DE, Watters CA, Brunt EB, Wilkens LR, Novotny R, Belt P, Lavine JL for the NASH CRN. Estimation of fish and omega-3 fatty acid intake in pediatric nonalcoholic fatty liver disease. *Journal of Pediatric Gastroenterology and Nutrition*. 2013; ePub ahead of print, DOI: 10.1097/MPG.0b013e3182a1df77. PMID:23820405 (PMCID pending) (MS#2012-15)
- 7) Tang A, Tan J, Sun M, Hamilton G, Bydder M, Wolfson T, et al. Nonalcoholic fatty liver disease: MR imaging of liver proton density fat fraction to assess hepatic steatosis. *Radiology*. 2013;267:422-431. PMCID: PMC3632805 (MS# 2012-1)
- 8) Bambha K, Belt P, Abraham M, Wilson LA, Pabst M, Ferrell L, Unalp-Arida A, Bass N for the NASH CRN Research Group: Ethnicity and nonalcoholic fatty liver disease. *Hepatology*. 2012;55:769-780. PMCID: PMC3278533 (MS# 2007-10)
- 9) Bell LN, Wang J, Muralidharan S, Chalasani S, Fullenkamp AM, Wilson LA, et al. Relationship between adipose tissue insulin resistance and liver histology in NASH: a PIVENS follow-up study. *Hepatology*. 2012;56:1311-1318. PMCID: PMC3432683 (MS#2010-6)
- 10) Cheng JF, Joyce A, Yates K, and Sanyal AJ for the NASH CRN: Metabolomic profiling to identify predictors of response to vitamin E for nonalcoholic steatohepatitis (NASH). *PLoS One*. 2012;7:e44106. PMCID: PMC3446974 (MS#2010-9)
- 11) Dunn W, Sanyal AJ, Brunt EM, Unalp-Arida A, Donohue M, McCullough AJ, and Schwimmer JB; for the Nonalcoholic Steatohepatitis Clinical Research Network (NASH CRN). Modest alcohol consumption is associated with decreased prevalence of steatohepatitis in patients with nonalcoholic fatty liver disease (NAFLD). *Journal of Hepatology*. 2012;57:384-91. PMCID: PMC3399018 (MS# 2007-8)
- 12) Guerrerio AL, Colvin RM, Schwartz AK, Molleston JP, Murray KF, Dieh AM, et al. Choline intake in a large cohort of patients with nonalcoholic fatty liver disease. *American Journal of Clinical Nutrition*. 2012;95:892-900. PMCID: PMC3302364 (MS# 2007-7)
- 13) Guy CD, Suzuki A, Zdanowicz M, Abdelmalek MF, Burchette J, Unalp A, Diehl AM, for the NASH CRN. Hedgehog pathway activation parallels histologic severity of injury and fibrosis in human nonalcoholic fatty liver disease. *Hepatology*. 2012;55:1711-21. PMCID:

PMC3499103 (AS039)

- 14) Guy CD, Suzuki A, Burchette JL, Brunt EM, Abdelmalek MF, Cardona D, McCall SJ, Unalp A, Belt P, Ferrell LD, Diehl AM for the NASH CRN. Costaining for keratins 8/18 plus ubiquitin improves detection of hepatocyte injury in nonalcoholic fatty liver disease. *Human Pathology*. 2012;43:790-800. PMID: PMC3288773 (AS038)
- 15) Kowdley KV, Belt P, Wilson LA, Yeh MM, Neuschwander-Tetri B, Chalasani N, Sanyal AJ, Nelson KE; for the NASH CRN. Serum ferritin is an independent predictor of histologic severity and advanced fibrosis among patients with nonalcoholic fatty liver disease. *Hepatology*. 2012;55:77-85. PMID: PMC3245347 (MS# 2008-6)
- 16) Loomba R, Abraham M, Ünalp A, Wilson L, Lavine J, Doo E, Bass NM; and the NASH Clinical Research Network. Association between diabetes, family history of diabetes, and risk of nonalcoholic steatohepatitis and fibrosis. *Hepatology*. 2012;56:943-51. PMID: PMC3407289 (MS# 2010-1)
- 17) Nelson JE, Brunt EM, Kowdley KV; for the NASH Clinical Research Network. Lower serum hepcidin and greater parenchymal iron in nonalcoholic fatty liver disease patients with C282Y HFE mutations. *Hepatology*. 2012;56:1730-1740. PMID: PMC3462887 (MS#2010-11)
- 18) Suzuki A, Abdelmalek MF, Schwimmer JB, Lavine JE, Scheimann A, Ünalp-Arida A, et al.; for the NASH CRN. Association between puberty and features of nonalcoholic fatty liver disease. *Clinical Gastroenterology and Hepatology*. 2012;10:786-794. PMID: PMC3382041 (MS# 2007-9)
- 19) Vos MB, Colvin R, Belt P, Molleston JP, Murray KF, Rosenthal P, Schwimmer JB, Tonascia JA, Ünalp-Arida A; on behalf of the NASH CRN Research Group. Correlation of Vitamin E, uric acid, and diet composition with histologic features of pediatric nonalcoholic fatty liver disease. *Journal of Pediatric Gastroenterology and Nutrition*. 2012;54:90-96. PMID: PMC3208079 (MS# 2007-2)
- 20) Vuppalanchi R, Gould RJ, Wilson LA, Ünalp-Arida A, Cummings OW, Chalasani N, Kowdley KV; and the NASH CRN. Clinical significance of serum autoantibodies in patients with NAFLD: results from the nonalcoholic steatohepatitis clinical research network. *Hepatology International*. 2012;6:379-385. PMID: PMC3511661 (MS# 2005-2)
- 21) Brunt EM, Kleiner DE, Wilson LA, Belt P, Neuschwander-Tetri BA; for the NASH Clinical Research Network (CRN). Nonalcoholic Fatty Liver Disease (NAFLD) Activity Score and the histopathologic diagnosis in NAFLD: Distinct clinicopathologic meanings. *Hepatology*. 2011;53:810-820. PMID: PMC3079483 (MS# 2007-11)
- 22) Gill RM, Belt P, Wilson L, Bass NM, Ferrell LD: Centrizonal arteries and microvessels in nonalcoholic steatohepatitis. *American Journal of Surgical Pathology*. 2011;35:1400-1404. PMID: PMC3156381 (AS031)
- 23) Hirschey MD, Shimazu T, Jing E, Grueter CA, Collins AM, Aouizerat B, et al. SIRT3 deficiency and mitochondrial protein hyperacetylation accelerate the development of metabolic syndrome. *Molecular Cell*. 2011;44:177-190. PMID: PMC3563434 (AS054)
- 24) Kistler KD, Brunt EM, Clark JM, Diehl AM, Sallis JF, and Schwimmer JB; for the NASH CRN Research Group. Physical activity recommendations, exercise intensity, and histological severity of nonalcoholic fatty liver disease. *American Journal of Gastroenterology*. 2011;106:460-468. PMID: PMC3070294. (MS# 2007-14)
- 25) Lavine JE, Schwimmer JB, Van Natta ML, Molleston JP, Murray KF, Rosenthal P, Abrams SH, Scheimann AO, Sanyal AJ, Chalasani N, Tonascia J, Ünalp A, Clark JM, Brunt EM, Kleiner DE, Hoofnagle JH, Robuck PR; for the NASH CRN. Effect of Vitamin E or Metformin for Treatment of Nonalcoholic Fatty Liver Disease in Children and Adolescents. The TONIC Randomized Controlled Trial. *JAMA*. 2011;305: 1659-1668. PMID: PMC3110082 (MS# 2009-4)
- 26) Nelson JE, Wilson L, Brunt EM, Yeh MM, Kleiner DE, Ünalp-Arida A, Kowdley KV:

- Relationship between the pattern of hepatic iron deposition and histological severity in nonalcoholic fatty liver disease. *Hepatology*. 2011;53:448-457. PMID: PMC3058264 (MS# 2006-3)
- 27) Speliotes EK, Yerges-Armstrong LM, Wu J, Hernaez R, Kim LJ, Palmer CD, et al. Genome-wide association analysis identifies variants associated with nonalcoholic fatty liver disease that have distinct effects on metabolic traits. *PLoS Genetics*. 2011;7(3): e1001324. doi:10.1371/journal.pgen.1001324. PMID: PMC3053321 (AS024)
- 28) Tandra S, Yeh MM, Brunt EM, Vuppalanchi R, Cummings OW, Ünalp-Arida A, Wilson LA, Chalasani N; for the NASH CRN. Presence and significance of microvesicular steatosis in nonalcoholic fatty liver disease. *Journal of Hepatology*. 2011;55:654-659. PMID: PMC3139780 (MS# 2005-2, Aim 3)
- 29) Yokoo T, Shieh-morteza M, Hamilton G, Wolfson T, Schroeder ME, Middleton MS, et al. Estimation of hepatic proton-density fat fraction by using MR imaging at 3.0 T. *Radiology*. 2011;258:749-59. PMID: PMC3042639 (AS009)
- 30) Zein CO, Ünalp A, Colvin R, Liu YC, McCullough AJ; for the NASH CRN. Smoking and increased severity of hepatic fibrosis in nonalcoholic fatty liver disease. *Journal of Hepatology*. 2011;54:753-759. PMID: PMC3060962 (MS# 2006-5)
- 31) Abdelmalek MF, Suzuki A, Guy C, Ünalp-Arida A, Colvin R, Johnson RJ, and Diehl AM; for the Nonalcoholic Steatohepatitis Clinical Research Network. Increased fructose consumption is associated with fibrosis severity in patients with nonalcoholic fatty liver disease. *Hepatology*. 2010;51:1961-71. PMID: PMC2922495 (MS# 2007-5)
- 32) Chalasani N, Guo X, Loomba R, Goodarzi MO, Haritunians T, Kwon S, et al.; and the NASH CRN. Genome-wide association study identifies variants associated with histologic features of nonalcoholic fatty liver disease. *Gastroenterology*. 2010; 139:1567-1576. PMID: PMC2967576 (AS026)
- 33) Kistler KD, Molleston J, Ünalp A, Abrams SH, Behling C, and Schwimmer JB; for the Nonalcoholic Steatohepatitis Clinical Research Network (NASH CRN). Symptoms and quality of life in obese children and adolescents with nonalcoholic fatty liver disease. *Alimentary Pharmacology & Therapeutics*. 2010;31:396-406. PMID: PMC2807909 (MS# 2007-3)
- 34) Lavine JE, Schwimmer JB, Molleston JP, Scheimann AO, Murray KF, Abrams SH, Rosenthal P, Sanyal AJ, Robuck PR, Brunt EM, Ünalp A, Tonascia J; and the NASH CRN Research Group. Treatment of nonalcoholic fatty liver disease in children: TONIC trial design. *Contemporary Clinical Trials*. 2010;31:62-70. PMID: PMC2936451 (MS# 2008-7)
- 35) Neuschwander-Tetri BA, Clark JM, Bass NM, Van Natta ML, Ünalp-Arida A, Tonascia J, Zein CO, Brunt EM, Kleiner DE, McCullough AJ, Sanyal AJ, Diehl AM, Lavine JE, Chalasani N, Kowdley KV; for the NASH CRN. Clinical, laboratory, and histological associations in adults with nonalcoholic fatty liver disease. *Hepatology*. 2010;52:913-924. PMID: PMC3070295 (MS# 2006-2)
- 36) Patton HM, Yates K, Ünalp-Arida A, Behling CA, Huang T, Rosenthal P, Sanyal AJ, Schwimmer JB, Lavine JE; and the NASH CRN. Association between metabolic syndrome and liver histology among children with nonalcoholic fatty liver disease. *American Journal of Gastroenterology*. 2010;105:2093-2102. PMID: PMC3070291 (MS# 2006-6)
- 37) Rotman Y, Koh C, Zmuda JM, Kleiner DE, Liang TJ; and the NASH CRN. The association of genetic variability in PNPLA3 with histological severity of non-alcoholic fatty liver disease. *Hepatology*. 2010;52:894-903. PMID: PMC2932770 (AS027)
- 38) Sanyal AJ, Chalasani N, Kowdley KV, McCullough A, Diehl AM, Bass NM, Neuschwander-Tetri BA, Lavine JE, Tonascia J, Ünalp A, Van Natta M, Clark J, Brunt EM, Kleiner DE, Hoofnagle JH, and Robuck PR; for the NASH CRN. Pioglitazone, Vitamin E,

- or Placebo for Nonalcoholic Steatohepatitis. *New England Journal of Medicine*. 2010;362:1675-85. PMID: PMC2928471 (MS# 2009-1)
- 39) Speliotes EK, Butler JL, Palmer C, Voight BF, the GIANT Consortium, the MIGen Consortium, the NASH CRN, Hirschhorn JN. *PNPLA3* variants specifically confer increased risk histologic nonalcoholic fatty liver disease but not metabolic disease. *Hepatology*. 2010;52:904-912. PMID: PMC3070300 (AS024)
- 40) Suzuki A, Abdelmalek MF, Ünalp-Arida A, Yates K, Sanyal AJ, Guy CD, Diehl AM. Regional anthropometric measures and hepatic fibrosis in patients with nonalcoholic fatty liver disease. *Clinical Gastroenterology and Hepatology*. 2010;8:1062-69. PMID: PMC3089422 (MS# 2007-9)
- 41) Brunt EM, Kleiner DE, Wilson LA, Ünalp A, Behling CE, Lavine JE, Neuschwander-Tetri BA; and the NASH Clinical Research Network. Portal chronic inflammation in nonalcoholic fatty liver disease (NAFLD): A histologic marker of advanced NAFLD - Clinicopathologic correlations from the Nonalcoholic Steatohepatitis Clinical Research Network. *Hepatology*. 2009;49:809-820. PMID: PMC2928479 (MS# 2005-3)
- 42) Chalasani NP, Sayal AJ, Kowdley KV, Robuck PR, Hoofnagle J, Kleiner DE, Ünalp A, Tonascia J; The Nonalcoholic Steatohepatitis Clinical Research Network (NASH CRN). Pioglitazone versus Vitamin E versus Placebo for the Treatment of Nondiabetic Patients with Nonalcoholic Steatohepatitis: PIVENS Trial Design. *Contemporary Clinical Trials*. 2009;30:88-96. PMID: PMC2929909 (MS# 2005-1)
- 43) David K, Kowdley KV, Ünalp A, Kanwal F, Brunt EM, Scwhimmer JB; and the NASH CRN Research Group. Quality of life in adults with nonalcoholic fatty liver disease: Baseline data from the NASH CRN. *Hepatology*. 2009;49:1904-1912. PMID: PMC2692572 (MS# 2006-7)
- 44) Feldstein AE, Wieckowska A, Lopez AR, Liu Y-C, Zein N, McCullough AJ. Cytokeratin-18 fragment levels as noninvasive biomarkers for nonalcoholic steatohepatitis: A multicenter validation study. *Hepatology*. 2009;50:1072-1078. PMID: PMC2757511 (AS012)
- 45) Hamilton G, Middleton MS, Bydder M, Yokoo T, Schwimmer JB, Kono Y, Patton HM, Lavine JE, and Sirlin CB. Effect of PRESS and STEAM sequences on magnetic resonance spectroscopic liver fat quantification. *Journal of Magnetic Resonance Imaging*. 2009;30:145-152. PMID: PMC2982807 (AS009)
- 46) Shah AG, Lydecker A, Murray K, Tetri BN, Contos MJ, Sanyal AJ; and the NASH Clinical Research Network. Comparison of noninvasive markers of fibrosis in patients with nonalcoholic fatty liver disease. *Clinical Gastroenterology and Hepatology*. 2009;10:1104-1112. PMID: PMC3079239 (MS# 2007-13)
- 47) Yokoo T, Bydder M, Hamilton G, Middleston MS, Gamst AC, Wolfson T, Hassanein T, Patton HM, Lavine JE, Schwimmer JM, Sirlin CB. Nonalcoholic fatty liver disease: diagnostic and fat-grading accuracy of low flip-angle, multi-echo acquisition, gradient-recalled-echo magnetic resonance imaging in non-alcoholic fatty liver disease at 1.5T. *Radiology*. 2009;251:67-76. PMID: PMC2663579 (AS009)
- 48) Bahl M, Qayyum A, Westphalen AC, Noworolski SM, Chu PW, Ferrell L, Tien PC, Bass NM, Merriman RB. Liver Steatosis: investigation of opposed-phase T1-weighted liver MR signal intensity loss and visceral fat measurement as biomarkers. *Radiology*. 2008; 249:160-166. PMID: PMC2657853 (PF011)
- 49) Bydder M, Yokoo T, Hamilton G, Middleton MS, Chavez AD, Schwimmer JB, Lavine JE, Sirlin CB. Relaxation effects in the quantification of fat using gradient echo imaging. *Magnetic Resonance Imaging*. 2008;26:347-359. PMID: PMC2386876 (AS009)
- 50) Chalasani N, Wilson L, Kleiner DE, Cummings OW, Brunt EM, Ünalp A; for the NASH Clinical Research Network. Relationship of steatosis grade and zonal location to histological features of steatohepatitis in adult patients with non-alcoholic fatty liver disease. *Journal of Hepatology*. 2008;48:829-834. PMID: PMC2346454 (MS# 2005-2)

- 51) Krasnoff JB, Painter PL, Wallace JP, Bass NM, Merriman RB. Health-related fitness and physical activity in patients with nonalcoholic fatty liver disease. *Hepatology*. 2008;47:1158-1166. PMCID: PMC3096839 (AS010)
- 52) Neuschwander-Tetri BA, Ünalp A, Creer M, Seeff L. Influence of local reference populations on upper limits of normal for serum alanine aminotransferase levels. *Archives of Internal Medicine*. 2008;168:663-666. PMID: 18362260 (PMCID: n/a, published prior to April 2008) (MS# 2006-4)
- 53) Patton H, Lavine J, Van Natta ML, Schwimmer J, Kleiner D, Molleston J; and the Nonalcoholic Steatohepatitis Clinical Research Network (NASH CRN). Clinical correlates of histopathology in pediatric nonalcoholic steatohepatitis (NASH). *Gastroenterology*. 2008;135:1961-1971. PMCID: PMC2628583 (MS#2007-1)
- 54) Westphalen AC, Qayyum A, Yeh BM, Merriman RB, Lee JA, Lamba A, Lu Y, Coakley FV. Liver fat: effect of hepatic iron deposition on evaluation with opposed-phase MR imaging. *Radiology*. 2007;242:450-455. PMID: 23803321 (PMCID: n/a, published prior to April 2008) (PF11)
- 55) Kleiner DE, Brunt EM, VanNatta M, Behling C, Contos MJ, Cummings, OW, Ferrell LD, Liu Y, Torbenson, MS, Ünalp-Arida A, Yeh M, McCullough AJ, Sanyal AJ; for the Nonalcoholic Steatohepatitis Clinical Research Network. Design and validation of a histological scoring system for nonalcoholic fatty liver disease (NAFLD). *Hepatology*. 2005;41:1313-1321. PMID: 15915461 (PMCID: n/a, published prior to April 2008)

NASH CRN Published Abstracts & Presentations

- 1) Brunt EM, Belt PH, Wilson L, Guy CD, Yeh MM, Kowdley KV, Sanyal AJ, Neuschwander-Tetri BA, Kleiner DE: Progression to bridging fibrosis in nonalcoholic fatty liver disease over 4 years in the NASH CRN. AASLD. Washington, DC: November 2013. *Hepatology*, 58(4) Suppl, 495A, 2013.
- 2) Guy CD, Suzuki A, Abdelmalek MF, Burchette J, Diehl AM: Hedgehog pathway targeted by vitamin E therapy in NASH. AASLD. Washington, DC: November 2013. *Hepatology*, 58(4) Suppl, 249A, 2013.
- 3) Jain AK, Deppe RB, Yates KP, Comerford M, Masuoka HC, Molleston JP, Schwimmer JB, Lavine JE, Brunt EM, Tonascia J, Kleiner DE, Chalasani NP: Serum keratin fragment 18 (CK18) levels significantly predict changes in liver histology in children and adolescents with nonalcoholic fatty liver disease (NAFLD): Results from the TONIC trial. AASLD. Washington, DC: November 2013. *Hepatology*, 58(4) Suppl, 264A, 2013.
- 4) Kleiner DE, Belt PH, Wilson L, Brunt EM, Guy CD, Yeh MM, Kowdley KV, Sanyal AJ, Neuschwander-Tetri BA: Natural history of nonalcoholic fatty liver disease in adults: a paired biopsy study from the NASH CRN. AASLD. Washington, DC: November 2013. *Hepatology*, 58(4) Suppl, 483A, 2013.
- 5) Kowdley KV, Kleiner DE, Wilson L, Belt PH, Nelson JE: Reticuloendothelial cell system iron staining is a predictor of progression to borderline or definite steatohepatitis in patients without fibrosis. AASLD. Washington, DC: November 2013. *Hepatology*, 58(4) Suppl, 516A, 2013.
- 6) Lavine JE, Mitchel EB, Viveiros K, Yates KP, Durelle J, Schwimmer JB, Behling CA, Ünalp-Arida A: Sex hormone influence on pediatric NAFLD histology. AASLD. Washington, DC: November 2013. *Hepatology*, 58(4) Suppl, 481A, 2013.
- 7) Nelson JE, Kleiner DE, Aouizerat BE, Kowdley KV: Variants in the I16 and I11 β genes either alone or in combination with C282Y HFE mutations modify the hepatic iron

- phenotype of patients with nonalcoholic fatty liver disease. AASLD. Washington, DC: November 2013. *Hepatology*, 58(4) Suppl, 490A, 2013.
- 8) Samala N, May KP, Kleiner DE, Loomba R, Terrault N, Neuschwander-Tetri BA, Hoofnagle JH: Normal weight nonalcoholic steatohepatitis (NASH). AASLD. Washington, DC: November 2013. *Hepatology*, 58(4) Suppl, 495A, 2013.
 - 9) Siddiqui MS, Ünalp A, Kohli R, Chalasani N, Guy C, Sanyal AJ: Weight loss and resolution of steatohepatitis improves pancreatic beta-cell (β -cell) function in patients with nonalcoholic steatohepatitis (NASH). AASLD. Washington, DC: November 2013. *Hepatology*, 58(4) Suppl, 497A, 2013.
 - 10) Anstee QM, Darlay R, Leathart J, Yiu Y-L, Clement J, Clement K, et al: A candidate-gene approach to validation of genetic modifier associations using a large cohort with histologically characterised nonalcoholic fatty liver disease. The 48th Annual Meeting of the European Association for the Study of the Liver (EASL): Amsterdam, Netherlands, April 2013. *Journal of Hepatology* 2013, 58 (Suppl 1), S46.
 - 11) Athinarayanan S, Wei R, Shaochun B, Traber MG, Yates K, Cummings OW, et al: Genetic polymorphism of cytochrome P450 4F2 (CYP4F2) and histological response to vitamin E treatment in children and adults with nonalcoholic fatty liver disease (NAFLD). Presentation at Digestive Diseases Week: Orlando, FL May 2013. *Gastroenterology* 2013, 144(Suppl 1), S-1012.
 - 12) Cheng JF, Joyce A, Sanyal AJ, for the NASH CRN: Response to Vitamin E for nonalcoholic steatohepatitis (NASH): what is the mechanism? Presentation at Digestive Diseases Week: Orlando, FL May 2013. *Gastroenterology* 2013, 144 (Suppl 1), S-1012.
 - 13) Lavine JE, Chalasani NP, Guo X, Kwon S, Schwimmer J, Molleston JP, et al. Novel genetic loci associated with steatohepatitis and fibrosis in Hispanic boys with nonalcoholic fatty liver disease. Presentation at Digestive Diseases Week: Orlando, FL May 2013. *Gastroenterology* 2013, 144 (Suppl 1), S-946.
 - 14) Vuppalanchi R, Deppe R, Yates K, Comerford M, Masuoka H, Tetri B, et al: Changes in serum cytokeratin 18 levels significantly predict changes in liver histology in adults with nonalcoholic steatohepatitis: Results from the PIVENS trial. Presentation at Digestive Diseases Week: Orlando, FL May 2013. *Gastroenterology* 2013, 144 (Suppl 1), S-951.
 - 15) Anstee Q M, Darlay R, Leathart J, Clement J, Clement K, Aithal GP, Valenti L, Van Gaal L, Stickel F, Allison M, Romero, Gomez M, Andrade R, Reeves H, Bedossa P, Pihlajamäki J, Kotronen A, Yki-Järvinen H, Chalasani N, Kleiner DE, Rotter J, Burt A D, Ratziu V, Cordell H J, Daly AK & Day C P. Genome-Wide Association Analysis Confirms Importance of PNPLA3 and Identifies Novel Variants Associated With Histologically Progressive Steatohepatitis in NAFLD. The 63rd Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA October 2012. *Hepatology* 2012, 56: 265A
 - 16) Bambha K, Wilson L, Unalp A, Loomba R, Neuschwander-Tetri BA, Brunt EB, Bass NM. Coffee Consumption in NAFLD Patients with Lower Insulin Resistance is Associated with Lower Risk of Severe Fibrosis. The 63rd Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA October 2012. *Hepatology* 2012, 56: 242A
 - 17) Brunt EB, Kleiner DE, Wilson L, Unalp A , Tonascia A, Neuschwander-Tetri. Histologic Predictors of Improvement in Fibrosis in NASH: Results from the Clinical Research Network PIVENS Trial. The 63rd Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA October 2012. *Hepatology* 2012, 56: 887A
 - 18) Corey KE, Hokli R, Molleston JP, Wilson L, Unalp A, Cummings O, Lavine JE, Vuppalanchi R, Chalasani NP. Improvement in Liver Histology is Associated with

- Alterations in Non-HDL-Cholesterol and Oxidized LDL Levels in Children with NAFLD The 63rd Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA October 2012. *Hepatology* 2012, 56: 896A
- 19) Guy CD, Brunt EM, Behling C, Torbenson M, Yeh MM, Belt P, Neuschwander-Tetri BA, Murray KF, Kleiner DE. Hepatic Glycogenosis in Children with Nonalcoholic Fatty Liver Disease (NAFLD): A Different Disease Than Glycogenic Hepatopathy. The 101st United States and Canadian Academy of Pathology (USCAP) Annual Meeting: Vancouver, BS, March 2012. *Mod Pathol* 2012; 25(S2): 414A.
 - 20) Kleiner DE, Behling C, Guy CD, Torbenson M, Yeh MM, Belt P, Neuschwander-Tetri BA, Brunt EM. Glycogenosis Is Associated with Measures of Insulin Resistance in Adults with Non-Alcoholic Fatty Liver Disease (NAFLD). The 101st United States and Canadian Academy of Pathology (USCAP) Annual Meeting: Vancouver, BS, March 2012. *Mod Pathol* 2012; 25(S2): 416A.
 - 21) Kohli R, Dodd C, Loomba R, Balt P, Fenchel M, Yeh M, Rosenthal P, Sanyal A, Xanthakos S. High Serum Alpha-1-Antitrypsin Levels are Associated with More Fibrosis in NASH. The 63rd Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA October 2012. *Hepatology* 2012, 56: 893A
 - 22) Lavine JE, Yates KP, Brunt EB, Kleiner DE, Schwimmer JB, Murray KF, Molleston JP, Abrams SH, Rosenthal P, Loomba R, Unalp-A, Tonascia J. The natural history of nonalcoholic fatty liver disease in children and adolescents assessed in placebo recipients in the TONIC trial. The 63rd Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA October 2012. *Hepatology* 2012, 56: 905A
 - 23) Nelson JE, Yeh MM, Kowdley KV. The IL1 β +3953 C>T Polymorphism Minor Allele is Associated with a Higher NAFLD Activity Score, Presence of Nonalcoholic Steatohepatitis and is an Independent Risk Factor for Advanced Fibrosis in Subjects with Nonalcoholic Fatty Liver Disease. The 63rd Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA October 2012. *Hepatology* 2012, 56: 883A
 - 24) Rotman Y, Fujita K, Koh C, Maeder DL, Kleiner DE, Zmuda JM, Obrien TR, Sanyal AJ, Liang TJ. Identification of HSD17B13 and RORA as Genes Involved in Pathogenesis of Nonalcoholic Fatty Liver Disease. The 63rd Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA October 2012. *Hepatology* 2012, 56: 265A
 - 25) Bell LN, Molleston JP, Lavine Je, Schwimmer JB, Murray KF, Rosenthal P, et al : Changes in adipose tissue insulin resistance correlate with changes in ACT and lobular inflammation in children enrolled in TONIC Trial. The 62nd Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): San Francisco, CA November 2011. *Hepatology* 2011, 54:711A.
 - 26) Brunt EM, Kleiner DE, Wilson LA, Belt P, Neuschwander-Tetri BA, for the NASH CRN: The NAS and the Histopathologic Diagnosis in NAFLD: Distinct Clinicopathologic Meanings. The 100th United States and Canadian Academy of Pathology (USCAP) Annual Meeting: San Antonio, TX March 2011. *Mod Pathol* 2011; 24: 357A-358A.
 - 27) Buetow KH, Braun R, Hu Y, Sanyal AJ, et al: Analysis of genome-wide variation within NAFLD population identifies biologic networks that are associated with different disease phenotypes. The 62nd Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): San Francisco, CA November 2011. *Hepatology* 2011, 54: 1151A.
 - 28) Cheng J, Joyce A, Sanyal AJ for NASH CRN. Metabolomic Profiling to Define Predictors of Response to Vitamin E for NASH. Presentation at Digestive Diseases Week 2011: Chicago, IL May 2011. *Gastroenterology* 2011; 140: S903-S904.

- 29) Guy CD, Suzuki A, Burchette JL, Brunt EM, Abdelmalek MF, Cardona D, et al: A Novel Immunohistochemical Staining Pattern for Keratins 8/18 plus Ubiquitin in Nonalcoholic Fatty Liver Disease is Associated with Increased Disease Severity and Fibrosis. The 100th United States and Canadian Academy of Pathology (USCAP) Annual Meeting: San Antonio, TX March 2011. *Mod Pathol* 2011; 24: 361A.
- 30) Loomba R, Abraham M, Unalp A, Wilson L, Lavine J, Doo E, Bass NM, and the NASH-CRN. Association between family history of diabetes and risk of nonalcoholic steatohepatitis. Presentation at Digestive Diseases Week 2011: Chicago, IL May 2011. *Gastroenterology* 2011; 140: S987-S988.
- 31) Nelson JE, Belt P, Wilson LA, Yeh MM, Neuschwander-Tetri BA, Sanyal AJ, Kowdley KV for the NASH Clinical Research Network. Elevated serum ferritin values above the upper limit of normal are associated with laboratory and histologic evidence of worsened NASH, but not the presence of diabetes or metabolic syndrome among patients in the NASH CRN. Presentation at Digestive Diseases Week 2011: Chicago, IL May 2011. *Gastroenterology* 2011; 140: S727.
- 32) Nelson JE, Yeh MM, and Kowdley KV. Relationship of C282Y *HFE* Mutations, Hepatic Iron Deposition and Histologic Features in Patients with Nonalcoholic Fatty Liver Disease. Presentation at Digestive Diseases Week 2011: Chicago, IL May 2011. *Gastroenterology* 2011; 140: S938-S939.
- 33) Nelson JE, Yeh MM, Dhillon B, Kowdley: C282Y *HFE* Mutations Contribute To Decreased Circulating Hcpcidin Levels and Increased. The 62nd Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): San Francisco, CA November 2011. *Hepatology* 2011, 54: 1113A- 1114A.
- 34) Nouredin M, Vaughn IV, Neuschwander-Tetri BA, Sanyal AJ, McCullough AJ, Merriman RB, et al: Clinical and histological determinants of nonalcoholic steatohepatitis (NASH) and advanced fibrosis in the elderly. The 62nd Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): San Francisco, CA November 2011. *Hepatology* 2011, 54: 1118A.
- 35) Shah KK, Suzuki A, Schwimmer JB, Ünalp-Arida A, Guy CD, Molleston JP, et al: Dose dependent association of fructose consumption with hyperuricemia and insulin resistance in children with NAFLD. The 62nd Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): San Francisco, CA November 2011. *Hepatology* 2011; 54: 1116A.
- 36) Siddique A, Nelson JE, Kowdley KV, and NASH CRN. The Relationship Between Obesity, Metabolic Syndrome and Iron Deficiency in NAFLD. Presentation at Digestive Diseases Week 2011: Chicago, IL May 2011. *Gastroenterology* 2011; 140: S703.
- 37) Abdelmalek MF, Suzuki A, Schmidt S, Rimmler J, Unalp A, Guy C, et al: Fructokinase polymorphisms in patients with nonalcoholic fatty liver disease are associated with decreased uric acid and the presence of hepatic fibrosis. The 61st Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA November 2010. *Hepatology* 2010; 644A-645A.
- 38) Lavine JE, Schwimmer JB, Molleston JP, Chalasani NP, Rosenthal P, Murray KF, et al: Vitamin E, metformin, or placebo for treatment of nonalcoholic fatty liver disease in children. The 61st Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA November 2010. *Hepatology* 2010; 52: 374A.
- 39) Neuschwander-Tetri BA, Sanyal AJ, Chalasani NP, Kowdley KV, McCullough AJ, Diehl AM, et al: Changes in ALT and Vitamin E levels and histological response in patients with NASH treated with Vitamin E in the PIVENS trial. The 61st Annual Meeting of the American

- Association for the Study of Liver Diseases (AASLD): Boston, MA November 2010. *Hepatology* 2010; 620A-621A.
- 40) Aouizerat BE, Bambha K, Unalp A, Ferrell L, Bass NM: Genetic variation in hormone sensitive lipase and adiponectin confers susceptibility to nonalcoholic fatty liver disease. The 60th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA November 2009. *Hepatology* 2009; 50:768A.
 - 41) Bambha K, Aouizerat BE, Unalp A, Ferrell L, Bass NM: Genetic variation in adiponectin confers susceptibility to nonalcoholic fatty liver disease in latino caucasians. The 60th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA November 2009. *Hepatology* 2009; 50:771A.
 - 42) Dunn W, Brunt EM, Sanyal AJ, McCullough AJ, Unalp A, Tonascia J, Schwimmer JB: Modest alcohol consumption is associated with decreased prevalence of steatohepatitis in patients with nonalcoholic fatty liver disease (NAFLD). The 60th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA November 2009. *Hepatology* 2009; 50:390A.
 - 43) Gould R, Wilson L, Unalp A, Cummings O, Kowdley KV, Chalasani NP, Vuppalanchi R: Relationship between serum auto antibodies and nonalcoholic steatohepatitis: Results from the nonalcoholic steatohepatitis clinical research network (NASH CRN). The 60th Annual Meeting of the American Association for the Study of Liver Diseases: Boston, MA November 2009. *Hepatology* 2009; 50:786A.
 - 44) Kistler K, Brunt EM, Clark JM, Diehl AM, Schwimmer JB: exercise intensity, and histological severity of nonalcoholic fatty liver disease. The 60th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA November 2009. *Hepatology* 2009; 50:388A.
 - 45) Nelson JE, Maliken BD, Saunders C, Stevenson J, Richards T, Kowdley KV: A Randomized, Masked, Controlled Study of Omega-3 Polyunsaturated Fatty Acid vs Monounsaturated Fatty Acid Diet Supplementation for the Treatment of Nonalcoholic Fatty Liver Disease. Digestive Diseases Week: Chicago, IL May 2009. *Gastroenterology* 2009;136:A847-A848.
 - 46) Nelson JE, Utzschneider K, Maliken B, Alexander J, Kowdley KV: Iron depletion therapy for patients with metabolic syndrome and non-alcoholic fatty liver disease: preliminary findings. International Congress of the Biolron Society 2009. *American Journal of Hematology* 2009, 84(8): E370.
 - 47) Nelson JE, Wilson L, Brunt EM, Yeh MM, Kleiner D, Unalp-Arida A, Kowdley, KV for the NASH CRN: Hepatic iron deposition in reticuloendothelial cells but not hepatocytes is associated with more severe NASH: results from the NASH Clinical Research Network. International Congress of the Biolron Society 2009. *American Journal of Hematology* 2009, 84(8): E373.
 - 48) Sanyal A for the NASH CRN: Pioglitazone or Vitamin E for Nonalcoholic Steatohepatitis (PIVENS). The 60th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA November 2009. (Late-breaking abstract)
 - 49) Speliotes EK, Butler JL, Palmer C, Kathiresan S, Voight BF, the GIANT Consortium, Sanyal AJ, Hirschhorn JN: PNPLA3 variants confer increased risk for liver but not metabolic disease. The 60th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA November 2009. *Hepatology*, 50: 1172A, 2009.
 - 50) Suzuki A, Abdelmalek MF, Guy CD, Schwimmer J, Lavine JE, Scheimann AO, Diehl AM: Sexual Development and its Influence on Regional Anthropometric Measures and Histologic Features among Pediatric Patients with NAFLD. Digestive Diseases Week:

- Chicago, IL May 2009. *Gastroenterology* 2009, 136:A845.
- 51) Tandra S, Vuppalanchi R, Cummings O, Brunt E, Yeh M, Wilson L, Unalp A, Chalasani N. Significance of microvesicular steatosis in nonalcoholic fatty liver disease (NAFLD). The American College of Gastroenterology (ACG) Annual Scientific Meeting and Postgraduate Course: San Diego, CA October 2009. *Am J Gastroenterol* 2009; 104:S157.
 - 52) Yeh MM, Belt P, Brunt EM, Kowdley KV, Unalp A, Wilson L, Ferrell L: Acidophil body index may help diagnosing non-alcoholic steatohepatitis. United States and Canadian Academy of Pathology (USCAP): Boston, MA March 2009. *Mod Pathol* 2009; 22:326A.
 - 53) Brunt EM, Kleiner DE, Wilson L, for the NASH CRN: Portal chronic inflammation in nonalcoholic fatty liver disease: Correlations from the NASH Clinical Research Network (CRN). United States and Canadian Academy of Pathology (USCAP): Denver, CO February 2008. *Mod Pathol*, 21:301A, 2008.
 - 54) David K, Ünalp A, Kanwal F, Kowdley KV, Schwimmer JB: Health related quality of life in adults with nonalcoholic fatty liver disease: baseline data from the NASH CRN. The 59th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): San Francisco, CA November 2008. *Hepatology*, 48:807A, 2008.
 - 55) Kleiner DE, Yeh MM, Guy CD, Ferrell L, Cummings O, Contos MJ, Brunt EM, Behling CA: Creation of a continuous visual scale of ballooned hepatocytes in non-alcoholic fatty liver disease. The 59th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): San Francisco, CA November 2008. *Hepatology* 2008; 48:815A.
 - 56) Nelson JE, Belt P, Wilson L, Yeh MM, Kowdley KV. Serum ferritin is associated with the presence of NASH, increased ALT, AST and histologic severity among patients with NAFLD. The 59th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): San Francisco, CA November 2008. *Hepatology* 2008; 48:809A.
 - 57) Suzuki A, Abdelmalek MF, Guy CD, Diehl AM: Gender-specific associations between regional anthropometric measures and hepatic fibrosis in patients with NAFLD. The 59th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): San Francisco, CA November 2008. *Hepatology*, 48:804A, 2008.
 - 58) Vos M, Colvin R, Belt BH, Bryan D, Molleston JP, Murray K, Rosenthal P, Schwimmer J, Tonascia J, Unalp A, Lavine, JE. Lack of correlation between diet composition and pediatric NAFLD Severity. Digestive Diseases Week: San Diego, CA May 2008. *Gastroenterology* 2008, 134:A781.
 - 59) Yeh MM, Belt P, Brunt EM, Kowdley KV, Ünalp A, Wilson L, Ferrell L. Acidophil bodies in non-alcoholic fatty liver disease. The 59th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): San Francisco, CA November 2008. *Hepatology* 2008; 48:523A.
 - 60) Abdelmalek M, Suzuki A, Guy C, Johnson R, Diehl AM, for the NASH CRN Research Group: Fructose induced hyperuricemia as a causal mechanism of nonalcoholic fatty liver disease. The 58th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA November 2007. *Hepatology*, 46: 293A, 2007.
 - 61) Clark JM, Van Natta M, Kleiner D, Chalasani NP, McCullough AJ, Neuschwander-Tetri BA, Ünalp A, Hoofnagle J, Diehl AM. Association of AST and ALT with liver histology in adults with NAFLD. The 58th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA November 2007. *Hepatology* 2007, 46:738A.
 - 62) Ferrell LD, Belt P, Bass NM. Arterialization of central zones in nonalcoholic steatohepatitis. The 58th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA November 2007. *Hepatology* 2007, 46:732A.
 - 63) Nelson JE, Yates K, Ünalp A, Kowdley KV. Relationship of BMI and the metabolic

- syndrome in non-diabetic patients with NAFLD. The 58th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA November 2007. *Hepatology* 2007, 46:742A.
- 64) Patton HM, Ünalp A, Yates K, Schwimmer J, Lavine J, for the NASH CRN Research Group: Metabolic syndrome among children with variable features of nonalcoholic fatty liver disease. The 58th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA November 2007. *Hepatology*, 46: 738A, 2007.
 - 65) Patton HM, Ünalp A, Schwimmer J, Molleston J, et. al, for the NASH CRN Research Group: Clinical correlates of histopathology in pediatric nonalcoholic fatty liver disease. The 58th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA November 2007. *Hepatology*, 46: 729A, 2007.
 - 66) Wieckowska A, Lopez R, Zein NN, McCullough AJ, Feldstein AE: Noninvasive assessment of hepatocyte apoptosis in nonalcoholic fatty liver disease: A multicenter validation study. Digestive Diseases Week: Washington DC May 2007. *Gastroenterology*, 132: A728, 2007.
 - 67) Yen T, Sirlin CB, Grimm PC, Wolfson T, Gamst A, Middleton M, Hamilton G, Behling C, Schwimmer J, Lavine JE: A multimodality correlation of hepatic steatosis in NAFLD. Digestive Diseases Week: Washington DC May 2007. *Gastroenterology*, 132:A809, 2007
 - 68) Zein CO, Ünalp A, Colvin R, McCullough AJ, for the NASH CRN Research Group: Advanced fibrosis in NAFLD is associated with age, DM, and alcohol, but not with cigarette smoking. The 58th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA November 2007. *Hepatology*, 46: 739A, 2007.
 - 69) Brunt EM, Kleiner DE, Behling C, Wilson L, et. al., for the NASH CRN Research Group: Portal Inflammation in Nonalcoholic Fatty Liver Disease: Clinico-Pathologic Correlations from the NIDDK NASH Clinical Research Network. The 57th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA October 2006. *Hepatology*, 44: 644A, 2006.
 - 70) Chalasani, N, Kleiner D, Ünalp A, Cummings O, for the NASH Clinical Research Network: Relationship between severity of steatosis and other histological features of steatohepatitis in patients with NAFLD: Preliminary findings from the NASH Clinical Research Network. The 57th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA October 2006. *Hepatology*, 44: 200A, 2006.
 - 71) Kleiner DE, Behling C, Brunt EM, Lavine JE, McCullough AJ, Sanyal AJ, Schwimmer JB, Tonascia J for the NASH CRN Research Group: Comparison of adult and pediatric NAFLD – Confirmation of a second pattern of progressive fatty liver disease in children. The 57th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA October 2006. *Hepatology* 2006, 44:259A-260A.
 - 72) Kowdley K, Kleiner D, Ünalp A, Wilson L for the NASH CRN. Prevalence and pattern of hepatic iron distribution and relationship to type 2 diabetes and fibrosis among patients with NAFLD: Preliminary findings from the NASH CRN. The 57th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD): Boston, MA October 2006. *Hepatology* 2006, 44:645A-646A.
 - 73) Tetri BA, for the NASH CRN Investigators: Locally established normal ranges determine the upper limit of normal without accounting for overweight or obesity. Digestive Diseases Week: New Orleans, LA May 2004. *Gastroenterology* 2004, 126(4), Suppl 2: A759.
 - 74) Kleiner DE, et. al., for the NASH CRN Investigators: Design and validation of a histologic scoring system for nonalcoholic fatty liver disease (NAFLD) and nonalcoholic steatohepatitis (NASH). The 54th Annual Meeting of the American Association for the

Study of Liver Diseases (AASLD): Boston, MA: 27 October 2003. *Hepatology* 2003, 38(S4): 233A.