



**SAINT LOUIS
UNIVERSITY**

— EST. 1818 —

SCHOOL OF MEDICINE

1402 South Grand Blvd.
Schwitalla Hall
St. Louis, MO 63104

www.slu.edu

SLUCare Division of Pediatric Gastroenterology and Hepatology Faculty Honors, Publications, and Grants (selected)

Recent Honors

Jeffrey Teckman, MD.

2019 Keynote speaker, “Molecular Therapies for Liver Disease in Alpha-1 Antitrypsin Deficiency,” Telethon Institute of Genetics and Medicine (TIGEM) International Symposium, Italy.

2019 Mentoring Leadership Catalyst Award, Crohn’s and Colitis Foundation-Missouri Chapter.

2019 Inaugural recipient of the Drs. Patricia & James Monteleone Endowed Chair in Pediatric Gastroenterology, Saint Louis University School of Medicine/SSM Health Cardinal Glennon Children’s Hospital.

Ajay Jain, MD, DNB.

2020 Stanley J. Dudrick Award, National Award in Nutrition.

2020 Course Director, “Novel Nutritional Status Biomarkers,” Tampa, Florida.

2019 Naomi Judd Award in Hepatology.

2019 Course Director, “Pediatric Liver Disease,” American Liver Foundation, Education Series

2018 National Nutrition Award, North American Society for Pediatric Gastroenterology, Hepatology & Nutrition.

2018 Harry M. Vars National Nutrition Award, American Society for Parenteral and Enteral Nutrition.

Notable Publications (2018-2019)

Jeffrey Teckman, MD:

Farmakis SG, Buchanan PM, Guzman MA, Hardy AK, Jain AK, Teckman JH. Shear wave elastography correlates with liver fibrosis scores in pediatric patients with liver disease. *Pediatric Radiology* 49: 1742.

Kim SJ, Ratchford T, Buchanan PM, Patel D, Tao TY, Brown J, Teckman JH, Brown J, Farmakis SG. Diagnostic accuracy of non-contrast MR enterography in detecting active bowel inflammation in pediatric patients with diagnosed or suspected inflammatory bowel disease to determine necessity of gadolinium-based contrast agents. *Pediatric Radiology* 49(6):759-769.

Di Bisceglie, A. M., & Teckman, J. (2019). Liver Disease Due to Alpha-1 Antitrypsin Deficiency: Are We Surprised That It Is More Complex Than We Thought? *Hepatology* 70(1), 5–7.

Steven D. Freedman, MD, PhD, Colby Wyatt, John Stevens, Dhiren Patel, Robert Gallotto, Danica Grujic, Perry Brown – August 1, 2018, *Journal of Pediatric Gastroenterology and Nutrition*.

Absorption and Safety with Sustained Use of RELiZORB Evaluation (ASSURE) in Patients with CF Receiving Enteral Feeding PMID: 30074573.

Thomas L. Ratchford, Jeffrey H. Teckman, Dhiren R. Patel (2018): Gastrointestinal pathophysiology and nutrition in cystic fibrosis, *Expert Review of Gastroenterology and Hepatology* PMID: 30019967.

Dhiren Patel, MD, Jeffrey H. Teckman, MD Alpha-1-Antitrypsin Deficiency Liver Disease-August 22, 2018 in *Clinics in Liver Diseases* PMID: 30266154.

Teckman JH, Patel D. Clinical approach to pediatric liver disease. In: Strnad P, Brantly M, Bals R, eds. *α1-Antitrypsin Deficiency*. Sheffield, European Respiratory Society, 2019.

Higher purpose. Greater good.

Ajay Jain:

Madnawat H, Welu A, Gilbert E, Taylor D, Jain S, Manithody C, Blomenkamp K, Jain AK. Mechanisms of Parenteral Nutrition Associated Liver and Gut Injury. *Nutrition in Clinical Practice* (Accepted, Nov 2019).

Part of NASH CRN: Feldman AG, Sundaram SS, Beaty BL, Torres R, Curtis DJ, Kempe A. Immunization Status at the Time of Liver Transplant in Children and Adolescents. *JAMA*. 2019 Nov 12;322(18):1822-1824.

Farmakis SG, Buchanan, Guzman MA, Hardy AK, Jain AK, Teckman JH. Shear wave elastography correlates with liver fibrosis scores in pediatric patients with liver disease. *Pediatr Radiol*. 2019 Aug 15.

Jain AK. Pediatric Fatty Liver Disease. *Mo Med*. 2019 Mar-Apr;116(2):123-128.

Price A, Blomenkamp KS, Manithody C, Saxena S, Abraham S, Greenspon J, Villalona G, Jain AK. Developing a novel ambulatory total parenteral nutrition dependent short bowel syndrome animal model. *J Surg Res*. 2019 Feb; 234:13-19.

Shapiro WL, Yu EL, Arin JC, Murray KF, Ali S, Desai NK, Xanthakos SA, Lin HC, Alkhouri N, Abdou R, Abrams SH, Butler MW, Faasse SA, Gillis LA, Hadley TA, Jain AK, Kavan M, Kordy K, Lee P, Panganiban J, Pohl JF, Potter C, Rudolph B, Sundaram SS, Joshi S, Proudfoot JA, Goyal NP, Harlow KE, Newton KP, Schwimmer JB. Clinical Practice Approach to Nonalcoholic Fatty Liver Disease by Pediatric Gastroenterologists in the United States. *J Pediatr Gastroenterol Nutr*. 2019 Feb;68(2):182-189. PMID: 30640271.

Denton C, Price A, Friend J, Manithody C, Blomenkamp K, Westrich M, Kakarla V, Philips W, Krebs J, Abraham S, Osei H, Jain AK. Role of the Gut-Liver Axis in Driving Parenteral Nutrition Associated Injury. *Children (Basel)*. 2018 Sep 25;5(10).

Villalona G, Price A, Blomenkamp KS, Manithody C, Ratchford T, Saxena S, Westrich M, Kakarla V, Pochampally S, Phillips W, Heafner N, Korremla N, Greenspon J, Guzman M, Jain AK. No gut no gain! Enteral bile acid treatment preserves gut growth but is not protective for parenteral nutrition associated liver injury in a novel extensive short bowel animal model. *Premier Research Paper. JPEN J Parenter Enteral Nutr*. 2018 Nov;42(8):1238-1251.

Compher C, Jain AK, Nichol Peter, Blackmer A, Earthman C, Evans D, McCarthy M, Taylor B, Mehta N. Research Agenda 2018: the American Society for Parenteral and Enteral Nutrition. *JPEN, J Parenter Enteral Nutr*. 2018 Jul;42(5):838-844.

Karlow KE, Africa JA, Wells A, Hou J, Beth PH, Behling CA, Jain AK, Molleston JP, Newton KP, Rosenthal P, Vos MB, Xanthak SA, Lavine J, Schwimmer JB, for the Nonalcoholic Steatohepatitis Clinical Research Network (NASH CRN). Clinically Actionable Hypercholesterolemia and Hypertriglyceridemia in Children with Nonalcoholic Fatty Liver Disease. *J Pediatr*. 2018 Apr 13. j. jped.2018.02.038.

Seth R, Akinboyo I, Chhabra A, Qaiyum Y, Shet A, Gupte N, Jain AK, Jain SK. Mobile-Phone Incentives for Childhood Immunizations in Rural India. *Pediatrics*. 2018 Apr;141(4). pii: e20173455. doi: 10.1542/peds.2017-3455. Epub 2018 Mar 14.

Jain AK, Le Roux C, Puri P, Tavakkoli A, Miller NG, Laferrere B, Kellermayer R, DiBase JK, Martindale, RG, Wolfe BM. Proceedings of the 2017 ASPEN Research Workshop— Gastric Bypass: Role of the Gut. *JPEN J Parenter Enteral Nutr*. 2018; Feb 42:279–295.

Dhiren Patel:

Steven D. Freedman, MD, PhD, Colby Wyatt, John Stevens, Dhiren Patel, Robert Gallotto, Danica Grujic, Perry Brown – August 1, 2018, *Journal of Pediatric Gastroenterology and Nutrition Absorption and Safety with Sustained Use of RELIZORB Evaluation (ASSURE) in Patients with CF Receiving Enteral Feeding* PMID: 30074573.

Thomas L. Ratchford, Jeffrey H. Teckman, Dhiren R. Patel (2018): Gastrointestinal pathophysiology and nutrition in cystic fibrosis, *Expert Review of Gastroenterology & Hepatology* PMID: 30019967.

Dhiren Patel, MD, Jeffrey H. Teckman, MD Alpha-1-Antitrypsin Deficiency Liver Disease- August 22, 2018 in *Clinics in Liver Diseases* PMID: 30266154.

Teckman JH, Patel D. Clinical approach to pediatric liver disease. In: Strnad P, Brantly M, Bals R, eds. *α1-Antitrypsin Deficiency*. Sheffield, European Respiratory Society, 2019.

Significant Grants (2018-2019)

Ajay Jain:

NIH-1 R03 DK121046-01: Role of gut microbiota in total parenteral nutrition associated injury. 04/01/2019 – current.
Principal Investigator: Ajay Jain. \$227,250

NIH-1U01-DK61718, NIH NASH CRN Neuschwander-Tetri, PI 07/01/2011 – current
Multicenter studies on the etiology, contributing factors, natural history, and treatment of nonalcoholic steatohepatitis (NASH) *Site, Role: Saint Louis University, Co-Investigator.* \$73,353.

Zealand Pharmaceuticals: Role of novel gut growth promoters in intestinal rehabilitation: April 2018-Jun 2020.
Principal Investigator: Ajay Jain. \$87,000

Clinical Innovation Fund: Cytokeratin 18 as a biomarker for rejection in liver transplantation. Mid America Transplant Foundation. 07/01/2019-06/30/2021. Principal Investigator: Ajay Jain. \$161,173

NIH-NIDDK, NIEHS: CHEAR: The Children's Health Exposure Analysis Resource (CHEAR) to develop a proposal for the study, 'Role of environmental toxicants in modulating disease severity in children with NAFLD'. 2018 – current.
Principal Investigator: Ajay Jain. \$9,000. NIEHS – Sample analysis costs (approx. \$500,000)

NIH NIDDK (NCT NCT03467217): STOP-NAFLD trial, Losartan for the Treatment of Pediatric NAFLD: A Phase 2, Randomized, Placebo-Controlled Clinical Trial. Site Principal Investigator: Ajay Jain.

Presidents Research Fund. Role of Testosterone in Young Males with Non-Alcoholic Steatohepatitis. 07/01/2019-06/30/2020. Principal Investigator: Ajay Jain. \$50,000

Bill and Melinda Gates Foundation, Jain SK, PI, 11/01/2017 – 12/01/2019. Grand Challenges Explorations, "Improving Childhood Immunizations with Cellular Technology." *Site, Role: Saint Louis University, Co-Investigator.* \$100,000

NIH K08DK098623-01A1: Role of the bile acid activated receptors FXR and TGR5 in Total Parenteral Nutrition associated hepatic and gut disease: 02/01/2016. Principal Investigator: Ajay Jain. \$703,620

DeNardo (Health Sciences) Education and Research Foundation: Heuertz R, PI, 2017-2020.
Active Learning Through Research. *Site, Role: Saint Louis University, Co-Investigator.* \$24,000.

Fleur-de-lis: Role of fecal transplantation in parenteral nutrition associated injury. 07/01/2018 – 12/30/2019. Principal Investigator: Ajay Jain. \$25,000

SPLIT: Studies of Pediatric Liver Transplantation: SPLIT works to identify emerging trends in care, focusing on short- and long-term outcomes with a goal of gaining new knowledge that can be translated into changes in clinical practice. This research also generates new ideas for translational research/clinical trials which SPLIT actively pursues. 05/2013-Current. Principal Investigator: Ajay Jain.

Dhiren Patel:

DIGEST (Developing Innovative Gastroenterology Specialty Training Program) from Cystic Fibrosis Foundation.
Principal Investigator Award amount: \$106,200.00, 05/19-current.

Pediatricians at the SSM Health Cardinal Glennon Children's Hospital are faculty of Saint Louis University School of Medicine and members of SLUCare Physician Group, the clinical arm of Saint Louis University School of Medicine.