



**SAINT LOUIS  
UNIVERSITY**

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SCHOOL OF MEDICINE

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**SLUCare Division of Pediatric Gastroenterology and Hepatology Faculty Publications,  
Abstracts and Clinical Trials (selected)**

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

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.**

NIH - R13DK124950-01. Novel Nutritional Status Biomarkers. 03/01/2020 – 02/28/2021.  
**Role: Principal Investigator: Ajay Jain.**

Zealand Pharmaceuticals: Role of novel gut growth promoters in intestinal rehabilitation: April 2018-Aug 2020. **Role: Principal Investigator: Ajay Jain.**

Clinical Innovation Fund: Role of ferroptosis in mitigating ischemia-reperfusion injury in marginal livers using a novel PROTECT model. 07/01/2020-06/30/2023 **Role: Co-Principal Investigator: Ajay Jain.**

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 – 2/01/2021  
**Role: Principal Investigator: Ajay Jain.**

Clinical Innovation Fund: Cytokeratin 18 as a biomarker for rejection in liver transplantation. Mid America Transplant Foundation. 07/01/2018-06/30/2021 **Role: Principal Investigator: Ajay Jain.**

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. **Role: Principal Investigator: Ajay Jain.**

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

SLU Liver Center Grant: 07/01/2020-06/30/2021

'Recirculating enteral feeds to mitigate liver and gut injury in bowel syndrome. **Role: Principal Investigator: Ajay Jain**

Fleur-de-lis: Role of fecal transplantation in parenteral nutrition associated injury. 07/01/2019 – 10/30/2020. **Role: Principal Investigator: Ajay Jain.**

Fleur-de-lis: Profiling the gut microbiome in individuals with Prader-Willi Syndrome, PI Whitman B 07/01/2017 – 10/30/2020 **Role: Co- Investigator: Ajay Jain.**

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 **Role: Principal Investigator: 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. *Nutr Clin Pract.* 2020 Feb;35(1):63-71

Manithody C, Van Nispen J, Murali V, Jain S, Samaddar A, Armstrong A, **Jain AK.** Role of Bile Acids and Gut Microbiota in Parenteral Nutrition Associated Injury. *Journal of Nutrition* (Accepted Feb 2020).

Manithody C, Denton C, Price A, Blomenkamp K, Patel Y, Welu A, Gilbert E, Madnawat H, Jain S, Villalona G, **Jain AK.** Development and validation of an ambulatory piglet model for short bowel syndrome with ileo-colonic anastomosis. *Experimental Biology and Medicine.* ISSN: 1535-3702. Mar 2020

Newton KP, Lavine J, Wilson L, Behling CA, Vos MB, Molleston JP, Rosenthal P, Miloh T, Fishbein MH, **Jain AK,** Murray KF, Schwimmer JB. Alanine Aminotransferase and Gamma Glutamyl Transpeptidase Predict Histologic Improvement in Pediatric Nonalcoholic Steatohepatitis, *Hepatology.* IF 14.91. (Accepted May 2020).

Guzman M, Manithody C, Krebs J, Denton C, Besmer S, Rajalakshmi P, Jain S, Villalona GS, **Jain AK.** Impaired gut-systemic signaling drives Total Parenteral Nutrition associated injury. *Nutrients.* (Accepted May 2020). IF 4.171

Rodriguez-Baez, Norberto; Murray, Karen F.; Kleiner, David E.; Ling, Simon C.; Rosenthal, Philip; Carlin, Kristen; Cooper, Kara; Schwarz, Kathleen B.; Schwarzenberg, Sarah J.; **Teckman, Jeffrey H.**; Ghany, Marc G.; Alawad, Ahmad; Hepatic Histology in Treatment-naïve Children With Chronic Hepatitis B Infection Living in the United States and Canada, *Journal of Pediatric Gastroenterology and Nutrition:* April 03, 2020 - Volume Publish Ahead of Print - Issue – doi: 10.1097/MPG.0000000000002712

Development of an RNAi therapeutic for alpha-1-antitrypsin liver disease Christine I. Wooddell, ... , Steven B. Kanner, **Jeffrey H. Teckman** *JCI Insight.* 2020;5(12):e135348. <https://doi.org/10.1172/jci.insight.135348>.

Joseph E. Kaserman, Killian Hurley, Mark Dodge, Carlos Villacorta-Martin, Marall Vedaie, Jyh-Chang Jean, Derek C. Liberti, Marianne F. James, Michelle I. Higgins, Nora J. Lee, George R. Washko, Raul San Jose Estepar, **Jeffrey Teckman,** Darrell N. Kotton, Andrew A. Wilson, A Highly Phenotyped Open Access Repository of Alpha-1 Antitrypsin Deficiency Pluripotent Stem Cells, *Stem Cell Reports* (2020), <https://doi.org/10.1016/j.stemcr.2020.06.006>

**Jain AK,** Anand R, Lerret S, Yanni G, Chen J, Mohammad S, Doyle M, Telega G, Horslen S. Outcomes following Liver Transplantation in Young Infants: Data from the SPLIT. *American Journal of Transplantation.* Accepted for publication, August 2020. IF- 7.163

Xanthakos S, Lavine J, Yates K, Schwimmer J, Molleston J, Rosenthal P, Murray K, Bos MB, **Jain AK,** Scheimann AO, Miloh T, Fishbein M, Behling C, Brunt E, Sanyal A, Tonascia J. Progression of Fatty Liver Disease in Children Receiving Standard of Care Lifestyle Advice. *Gastroenterology.* 2020 Jul 23; S0016-5085(20)34996-9. PMID: 32712103. IF – 20.877

**Medina Carbonell FR,** Choyudhry Chandan O. Body Mass Index at Presentation of Inflammatory Bowel Disease in Children. *Pediatr Gastroenterol Hepatol Nutr.* 2020 Sep;23(5):439-446. doi: 10.5223/pghn.2020.23.5.439. Epub 2020 Aug 27. PMID: 32953639; PMCID: PMC7481061. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7481061/>

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**Teckman J**, Rosenthal P, Hawthorne K, Spino C, Bass LM, Murray KF, Kerkar N, Magee JC, Karpen SJ, Heubi JE, Molleston JP, Squires RH, Kamath BM, Guthery SL, Loomes KM, Sherker AH, Sokol RJ. Longitudinal Outcomes in Young Patients with Alpha-1-Antitrypsin Deficiency with Native Liver Reveal that Neonatal Cholestasis is a Poor Predictor of Future Portal Hypertension. *J Pediatr* 2020 (in press).

Kaserman JE, Hurley K, Dodge M, Villacorta-Martin C, Vedaie M, Jean JC, Liberti DC, James MF, Higgins MI, Lee NJ, Washko GR, San Jose Estepar R, **Teckman J**, Kotton DN, Wilson AA. A Highly Phenotyped Open Access Repository of Alpha-1 Antitrypsin Deficiency Pluripotent Stem Cells. *Stem Cell Reports*. 2020 Jun 23:S2213-6711(20)30227-7. doi: 10.1016/j.stemcr.2020.06.006. Online ahead of print. PMID: 32619491

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Rodriguez-Baez N, Murray KF, Kleiner DE, Ling SC, Rosenthal P, Carlin K, Cooper K, Schwarz KB, Schwarzenberg SJ, **Teckman JH**, Ghany MG, Alawad AS. Hepatic Histology in Treatment-naïve Children With Chronic Hepatitis B Infection Living in the United States and Canada. *J Pediatr Gastroenterol Nutr*. 2020 Jul;71(1):99-105. doi: 10.1097/MPG.0000000000002712. PMID: 32265408

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**Patel D, Teckman JH**. Liver disease with unknown etiology – have you ruled out alpha-1 antitrypsin deficiency? Chapter 3. CSL Behring Sponsored Monograph on Alpha-1-antitrypsin. (in press).

Brantly M, Campos M, Davis AM, D'Armiento J, Goodman K, Hanna K, O'Day M, Queenan J, Sandhaus R, Stoller J, Strange C, **Teckman J**, Wanner A. Detection of alpha-1 antitrypsin deficiency: the past, present and future. *Orphanet J Rare Dis*. 2020 Apr 19;15(1):96. doi: 10.1186/s13023-020-01352-5.

Wang C, Zhao P, Sun S, **Teckman J**, Balch WE. Leveraging Population Genomics for Individualized Correction of the Hallmarks of Alpha-1 Antitrypsin Deficiency. *Chronic Obstr Pulm Dis*. 2020 Jul;7(3):224-246. doi: 10.15326/jcopdf.7.3.2019.0167. PMID: 32726074

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**Patel, Dhiren**, Shannon L. McAllister, and **Jeffrey H. Teckman**. "Alpha-1 Antitrypsin Deficiency Liver Disease." Translational Gastroenterology and Hepatology (2020). <http://tgh.amegroups.com/article/view/5843>

**Dhiren Patel MD**, Jeffrey King MD, Dysmotility and GERD in Cystic Fibrosis, **Gastrointestinal Manifestations of Cystic Fibrosis**. *Indiana University School of Medicine Continuing Medical Education Cystic Fibrosis Online Education Program*. 2020

Sathe, Meghana; **Patel, Dhiren**; Stone, Archie; First, Eric, Accepted for NACFC. Virtually to be resented in October 2020. Evaluation of the effectiveness of the in-line immobilized lipase cartridge in enterally fed patients with cystic fibrosis

### **Clinical Trials**

**Principal Investigator**, Absorption and Safety with Sustained Use of Relizorb™ Evaluation (ASSURE) Study in Patients with Cystic Fibrosis Receiving Enteral Feeding. July 1 2016 - present **Dhiren Patel, MD**

**Principal Investigator**, CFFC - A Long-Term Prospective Observational Safety Study of the Incidence of and Risk Factors for Fibrosing Colonopathy in US Patients with Cystic Fibrosis Treated with Pancreatic Enzyme Replacement Therapy: A Harmonized Protocol Across Sponsors. July 1 2016 - present **Dhiren Patel, MD**

**Principal Investigator**, - A long term Gastrointestinal Symptoms endpoint evaluation by CF foundation. Saint Louis University site is selected for GALAXY trial- August 2018 - present **Dhiren Patel, MD**

**Co-Investigator**, COMBINE -Anti-TNF Monotherapy versus Combination Therapy with Low Dose Methotrexate in Pediatric Crohn's Disease – February 2017- present **Dhiren Patel, MD**

**Sub Investigator**, Cytokeratin 18 as a biomarker for rejection in liver transplantation, Mid America Transplant - 05/18 - current **Dhiren Patel, MD**

*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.*