



Gastroenterology and Hepatology
2023 ANNUAL REPORT



Indiana University Health



INDIANA UNIVERSITY
SCHOOL OF MEDICINE

A message from our director

In the Midwest and nationally, Indiana University Health Gastroenterology and Hepatology is making an impact in the lives of patients living with gastrointestinal and liver diseases. As one of the largest gastroenterology and hepatology programs in the nation, our clinical specialty areas continue to grow in volume with several recognized nationally for expertise, innovation and patient outcomes. I'm pleased to share some highlights and distinguishing features of our comprehensive program.

- We remain a regional and national destination for the expert treatment and care of liver and pancreatobiliary diseases, neurogastroenterology and motility disorders, inflammatory bowel disease (IBD), fecal microbiota transplant, colorectal cancer screening, and advanced and innovative endoscopy.
- The recipient of federal grant funding in key clinical research areas, our hepatology program is one of the busiest in the country and the site of dozens of investigator-initiated and industry trials.
- Our adult liver transplant program set a record in 2023 with 189 lifesaving liver transplants. With a robust living donor liver transplant program, we expect our transplant program volumes to continue this upward trajectory.
- Led by experienced physicians—faculty at Indiana University School of Medicine—our GI and hepatology teams served more than 100,000 patients in 2023. This represents a 30% increase in patient volume compared to 2019. Additionally, our outpatient endoscopy volume has grown each year.
- In downtown Indianapolis, our physicians and care teams continue to serve veterans at the VA medical center and underserved populations at our county hospital. We are also able to provide care closer to home for patients through outreach locations in Central Indiana and other parts of the state.
- Our research portfolios are growing rapidly, and we continue to attract funding from major funding sources.
- Fulfilling our mission of excellence in teaching, our training programs, including our accredited clinical GI fellowship program, are attracting postdoctoral trainees from around the globe.

In this annual report, you will find more details about our specialty programs, as well as our efforts in leading-edge research and exceptional graduate medical education. We are proud of our most recent accomplishments, as well as the legacy of excellence for which we've become known nationwide. On behalf of our division, I thank you for your interest in our program. If you have any questions, please feel to reach out to me at moalhadd@iu.edu.

Sincerely,



Mohammad Al-Haddad, MD, MSc, FASGE, FACG, AGAF
Director, IU Health Gastroenterology and Hepatology
Naga P. Chalasani Chair of Gastroenterology and Hepatology,
and Professor of Medicine, IU School of Medicine

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About our program

Procedure volume

Esophagogastroduodenoscopy (EGD)

2021	2022	2023
15,281	14,411	14,860

Colonoscopy

2021	2022	2023
15,715	17,470	17,971

Endoscopic retrograde cholangiopancreatography (ERCP)

2021	2022	2023
3,610	3,896	3,144

Endoscopic ultrasound (EUS)

2021	2022	2023
2,536	2,473	2,339

Gastroenterology motility testing

2021	2022	2023
1,077	1,957	846

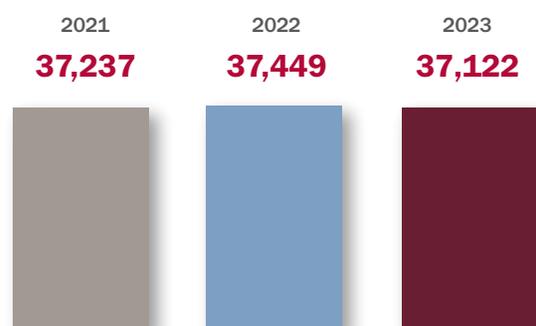
Video capsule endoscopy

2021	2022	2023
312	291	124

Double-balloon enteroscopy (Small bowel enteroscopy)

2021	2022	2023
41	62	129

Total*



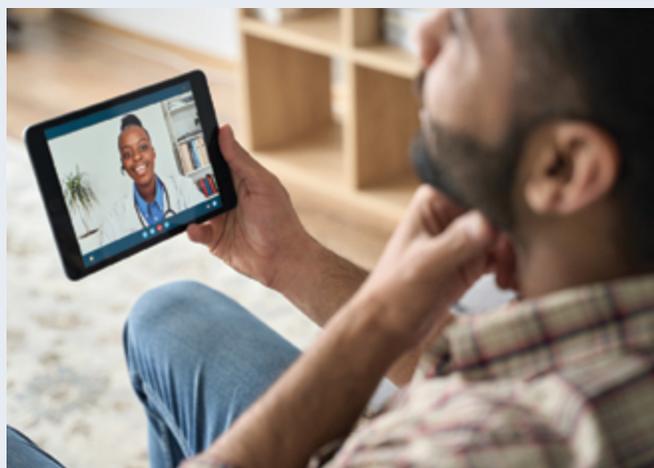
Adult liver transplants in 2023: **189**
 IU Health Gastroenterology and Hepatology set a record in 2023 for the total number of adults receiving lifesaving liver transplants.

* Procedure volume is for IU Health and IU Health Physicians practices in downtown Indianapolis and the city's northside. Volume does not include procedures performed at Eskenazi Health, the Richard L. Roudebush VA Medical Center and statewide outreach sites.

Outpatient volume

Patient visits

	2022	2023
New patients (in person)	9,794	10,294
New patients (virtual)	2,048	1,683
NEW PATIENTS TOTAL	11,842	11,977
Returning patients (in person)	26,157	28,804
Returning patients (virtual)	9,274	9,849
RETURNING PATIENTS TOTAL	35,431	38,653



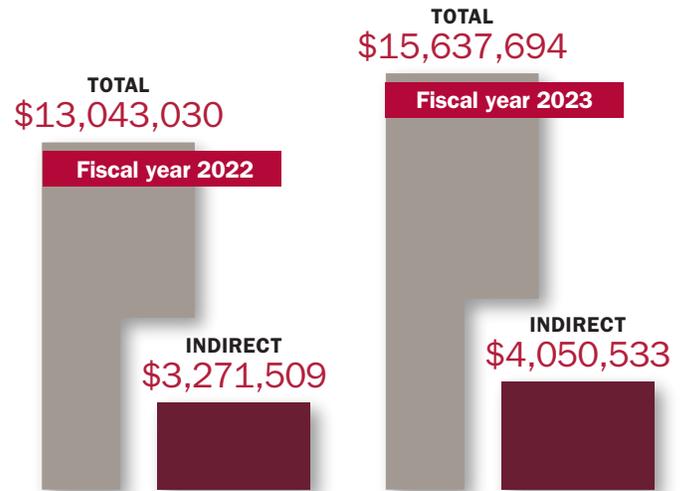
About our program

Research funding

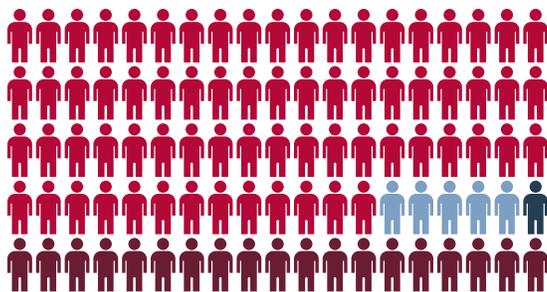
Total National Institutes of Health (NIH) award dollars



Total award dollars



Gastroenterology and Hepatology team members



- Full-time faculty **70**
- Affiliate faculty **5**
- Postdoctoral students **1**
- Fellows **19**
- Total 95**

Our physicians practice in 12 locations.

Central Indiana

- IU Health Methodist Hospital
- IU Health North Hospital
- IU Health Saxony Hospital
- IU Health at Spring Mill Medical Building
- IU Health University Hospital
- IU Health Physicians Zionsville
- Eskenazi Health
- Richard L. Roudebush VA Medical Center

North Central Indiana

- IU Health Tipton Hospital
- Witham Health Services*

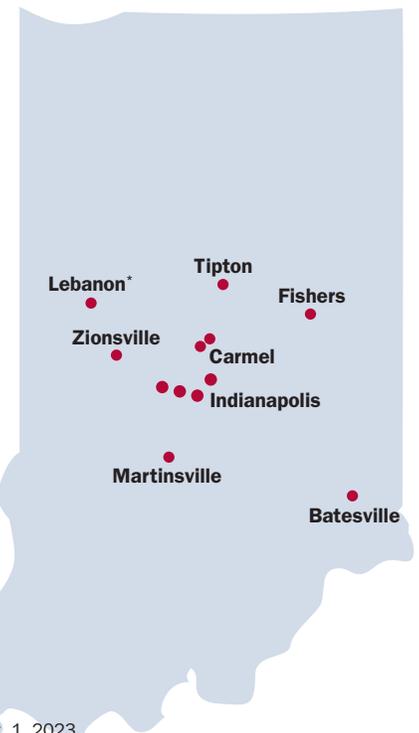
South Central Indiana

- IU Health Morgan

South East Indiana

- Margaret Mary Health

* Patient care services provided Jan. 1 – Sept. 1, 2023.



AFFILIATED WITH

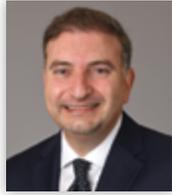


- Our physicians are faculty members in the Division of Gastroenterology/Hepatology—one of 10 internal medicine specialty divisions at IU School of Medicine.
- The unique partnership with one of the nation’s leading medical schools gives patients access to innovative treatments and leading-edge therapies.

Meet our physicians and faculty

Mohammad Al-Haddad, MD, MSc, FASGE, FACG, AGAF

Naga P. Chalasani Chair of Gastroenterology and Hepatology, and Professor of Medicine, IU School of Medicine; Director, IU Health Gastroenterology and Hepatology



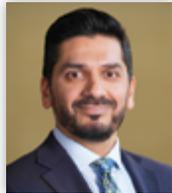
Khaled Abdeljawad, MD

Assistant Professor of Clinical Medicine, IU School of Medicine



Awais Ahmed, MD

Assistant Professor of Clinical Medicine, IU School of Medicine



Zhibo An, MD

Assistant Professor of Clinical Medicine, IU School of Medicine



Umer Bhatti, MD

Assistant Professor of Clinical Medicine, IU School of Medicine



Matthew Bohm, DO

Associate Professor of Clinical Medicine, IU School of Medicine



Naga Chalasani, MD

David W. Crabb Professor of Gastroenterology and Hepatology, IU School of Medicine



Lixian Chen, PhD

Assistant Research Professor, IU School of Medicine



David Crabb, MD

Professor Emeritus of Medicine, IU School of Medicine



Archita Desai, MD

Assistant Professor of Medicine, IU School of Medicine



John DeWitt, MD

Professor of Medicine, IU School of Medicine



Christen Dilly, MD, MEHP

Associate Professor of Medicine, IU School of Medicine



Jeffrey Easler, MD

Associate Professor of Medicine, IU School of Medicine



Hala Fatima, MD

Professor of Clinical Medicine, IU School of Medicine



Nabil Fayad, MD

Professor of Clinical Medicine, IU School of Medicine



Monika Fischer, MD

Professor of Medicine, IU School of Medicine



Evan Fogel, MD

Stuart Sherman Professor of Gastroenterology, and Professor of Medicine, IU School of Medicine



Heather Francis, PhD

Professor of Medicine, IU School of Medicine



Samer Gawrieh, MD

Professor of Clinical Medicine, IU School of Medicine



Marwan Ghabril, MD

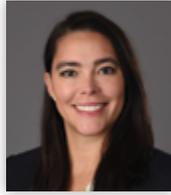
Professor of Medicine, IU School of Medicine



Meet our physicians and faculty

Ashley Gilmore, MD

Assistant Professor of Clinical Medicine, IU School of Medicine



Toya James-Stevenson, MD, MBA

Chief Physician Executive, Indianapolis Suburban Region



Konstantina Kyritsi, PhD

Assistant Research Professor, IU School of Medicine



Mark Gromski, MD

Assistant Professor of Medicine, IU School of Medicine



Sean Jones, PhD

Assistant Professor of Clinical Medicine, IU School of Medicine



Marco Lacerda, MD

Associate Professor of Clinical Medicine, IU School of Medicine



John Guardiola, MD

Assistant Professor of Clinical Medicine, IU School of Medicine



Charles Kahi, MD

Professor of Medicine, IU School of Medicine



Craig Lammert, MD

Associate Professor of Medicine, IU School of Medicine



John Holden, MD

Assistant Professor of Clinical Medicine, IU School of Medicine



Lindsey Kennedy, PhD

Assistant Research Professor, IU School of Medicine



Tiebing Liang, PhD

Associate Research Professor, IU School of Medicine



Rachel Holmes, PhD

Assistant Professor of Clinical Medicine, IU School of Medicine



William Kessler, MD

Associate Professor of Clinical Medicine, IU School of Medicine



Suthat Liangpunsakul, MD, MPH

Professor of Medicine, IU School of Medicine



Nazmul Huda, PhD, MSC

Assistant Research Professor, IU School of Medicine



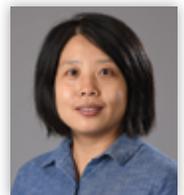
Hak Nam Kim, MD

Assistant Professor of Clinical Medicine, IU School of Medicine



Jing Ma, PhD, MSC, BMED

Assistant Research Professor, IU School of Medicine



Thomas Imperiale, MD

Lawrence Lumeng Professor of Gastroenterology and Hepatology, and Distinguished Professor, IU School of Medicine



Satya Kurada, MD

Assistant Professor of Clinical Medicine, IU School of Medicine



Jessica Maiers, PhD

Assistant Professor of Medicine, IU School of Medicine



Meet our physicians and faculty

Jennifer Maratt, MD

Assistant Professor of Medicine, IU School of Medicine



Eric Orman, MD

Associate Professor of Medicine, IU School of Medicine



Akira Saito, MD

Assistant Professor of Clinical Medicine, IU School of Medicine



Smitha Marri, MD

Assistant Professor of Clinical Medicine, IU School of Medicine



Anahli Patel, PsyD, HSPP

Assistant Professor of Clinical Medicine, IU School of Medicine



Niharika Samala, MD

Assistant Professor of Medicine, IU School of Medicine



Lee McHenry, MD

Professor of Medicine, IU School of Medicine



Douglas Rex, MD

Distinguished Professor Emeritus, IU School of Medicine



Keisaku Sato, PhD, MSC, BSC

Assistant Research Professor, IU School of Medicine



Anne Mary Montero, PhD

Assistant Professor of Clinical Medicine, IU School of Medicine



Chris Robinson, PhD

Assistant Professor of Medicine, IU School of Medicine



Ashina Singh, MD

Assistant Professor of Medicine, IU School of Medicine



Lauren Nephew, MD, MSCE

Assistant Professor of Medicine, IU School of Medicine



Nicholas Rogers, MD

Associate Professor of Clinical Medicine, IU School of Medicine



Robert Siwiec, MD

Associate Professor of Clinical Medicine, IU School of Medicine; Clinical Director, Division of Gastroenterology and Hepatology, IU Health



Thomas Nowak, MD

Professor of Clinical Medicine, IU School of Medicine



Nasir Saleem, MD

Assistant Professor of Clinical Medicine, IU School of Medicine



Margaret Sozio, MD

Assistant Professor of Clinical Medicine, IU School of Medicine



Ite Obaitan, MD

Assistant Professor of Clinical Medicine, IU School of Medicine



Sashidhar Sagi, MD

Associate Professor of Clinical Medicine, IU School of Medicine



John Tang, DO

Assistant Professor of Clinical Medicine, IU School of Medicine



Meet our physicians and faculty

Eduardo Vilar-Gomez, MD, PhD

Assistant Research Professor, IU School of Medicine



Raj Vuppalanchi, MD

Professor of Medicine, IU School of Medicine



Megan Walker, MD

Assistant Professor of Clinical Medicine, IU School of Medicine



James Watkins, MD

Associate Professor of Medicine, IU School of Medicine



Joel Wittles, MD

Associate Professor of Medicine, IU School of Medicine



John Wo, MD

Douglas Rex Professor of Gastroenterology and Hepatology, IU School of Medicine



Zhihong (Joe) Yang, PhD

Assistant Research Professor, IU School of Medicine



Tianhao (Vincent) Zhou, PhD

Assistant Research Professor, IU School of Medicine



Advanced practice providers

Lindsay Yoder, PA-C

Clinical manager,
Advanced practice providers

Advanced endoscopy

Sarah Stainko, NP

Pancreatobiliary

Brianna Bonne, PA-C

Shania Mayer, PA-C

Jessica Samson, PA-C

General gastroenterology

Benjamin Horne, PA-C

Nefeli Makris, NP

Leigh Preston, PA-C

Inpatient gastroenterology

Chelsea Sexton, NP

General hepatology

Nadia Blessing, PA-C

Loren Cihlar, PA-C

Laura Corbitto, PA-C

Michelle Haugh, PA-C

Garret Minardo, PA-C

Haleigh Rodgers, PA-C

Lindsay Yoder, PA-C

Transplant hepatology

Dawn Korson, DNP

Inflammatory bowel disease

Laura Worley, PA-C

Medical weight loss

Benjamin Horne, DMS, PA-C

Motility

Rachel Anderson, NP

Victoria Crosby, NP

Physicians and team members of IU Health Gastroenterology and Hepatology



Specialty programs overview

Endoscopic ultrasound (EUS)

- One of the busiest EUS units in the nation
- Leading-edge interventional procedures
 - EDGE – EUS-directed transgastric ERCP
 - Rendezvous EUS-ERCP procedures
 - Placement of lumen-opposing stents to drain walled-off pancreatic necrosis and obstructed bile ducts
 - Injection of cyanoacrylate and coil placement into gastric and ectopic varices
 - Ablation of solid pancreatic tumors with radiofrequency waves and ablation of pancreatic cysts with chemotherapeutic agents
- Current research
 - Investigation of EUS for ablation of benign pancreatic tumors
 - NIH-sponsored study investigating the use of chemotherapy for injection and ablation of pancreatic cystic neoplasms
 - Molecular markers for the prognostication of pancreatic cysts

ERCP

- Nationally recognized clinical leader in the management of complex pancreatobiliary disease
- Dedicated inpatient pancreatobiliary consultation service; weekly complex pancreatobiliary multidisciplinary conference with surgical and interventional radiology colleagues
- Advanced ERCP techniques
 - Endoscopic papillectomy
 - Post-surgical anatomy ERCP
 - Complex hilar and intrahepatic strictures
 - Endoscopic shock wave lithotripsy for difficult pancreatic stones
 - Single operator cholangioscopy/pancreatocopy
- Current research
 - Clinical and procedural aspects of pancreatobiliary disease

A leader in infection prevention in ERCP, our experts have authored groundbreaking journal publications in duodenoscope reprocessing and implementation of novel duodenoscope designs that have established best practices in the field.

IU Health is among the highest volume pancreatobiliary centers in the world. Each year, our team performs more than 3,500 ERCP procedures and more than 2,300 EUS procedures.

Specialty programs overview

Neurogastroenterology and motility disorders

- Extensive clinical and procedural portfolio for patients with neurogastroenterology and GI motility disorders
- One of the nation's most prominent sites for gastric electrical stimulation to treat gastroparesis
- Peroral endoscopic myotomy of the pylorus for gastroparesis (G-POEM) and POEM for achalasia through our GI destination program
- Clinical, translational and device research
- Clinical trials and investigator-initiated translational studies in collaboration with the Center for Implantable Devices in the Weldon School of Bioengineering at Purdue University

The GI Motility Lab at IU Health University Hospital accommodates our large patient volume and offers the latest in diagnostic testing:

- Esophageal impedance-manometry
- Ambulatory pH monitoring
- Electrogastrogram
- Endoluminal functional lumen imaging probe (EndoFLIP)
- Antroduodenal manometry
- Anorectal manometry-compliance

Inflammatory bowel disease (IBD)

- Only program of its kind in Indiana
- Continuity of care for more than 4,000 patients living with chronic IBD, including Crohn's disease, ulcerative colitis, microscopic colitis and celiac disease
- Outpatient and inpatient management expertise and exceptional procedural capabilities (colonoscopy, chromoendoscopy, endoscopic stricture dilation and double balloon enteroscopy)

IBD clinical trials in the Division of Gastroenterology and Hepatology*

* Industry-funded and federally funded

Through our Fecal Microbiota Program, **more than 1,000 patients with recurrent and recalcitrant clostridium difficile infection have achieved cure.**



Specialty programs overview

Medical weight loss

- Largest medical weight loss program in Indiana
- Committed to addressing the increasing obesity burden, as well as preventing and improving obesity-related comorbidities
- Only program in the state to offer comprehensive nonsurgical obesity care, including endoscopic, pharmaceutical and intensive lifestyle modification therapies
- Recently expanded to provide medical and endoscopic weight loss offerings to veterans through the Richard L. Roudebush VA Medical Center in Indianapolis



Psychology

Digestive and liver disorders

- Evidence-based treatment for disorders of gut-brain interaction (DGBI) and associated psychological functioning with robust patient improvement across both physical and psychological domains
- High patient and peer referral satisfaction rates: Greater than 98% for patients and 100% (5.0 on a five-point scale) for physicians and advanced practice providers
- Presentation on a novel interdisciplinary assessment protocol for preoperative evaluation at the 2023 American Surgical Conference; nearly 30 additional presentations and publications on health psychology integration

Transplant

- Pretransplant assessments to optimize psychosocial transplant candidacy
- Assessment of all living kidney and liver donor candidates
- Integrated mental healthcare and substance abuse treatment following transplant
- American Psychological Association training rotations in transplant psychology for residents and postdoctoral clinical health psychology fellows

Responsible for establishing the first full-time clinical GI psychology program in the nation, our two clinical psychologists receive national and international patient referrals for assessment and treatment of conditions related to DGBI. Services include preoperative and postoperative evaluation, transplant candidacy assessment, assessment of capacity, and more.



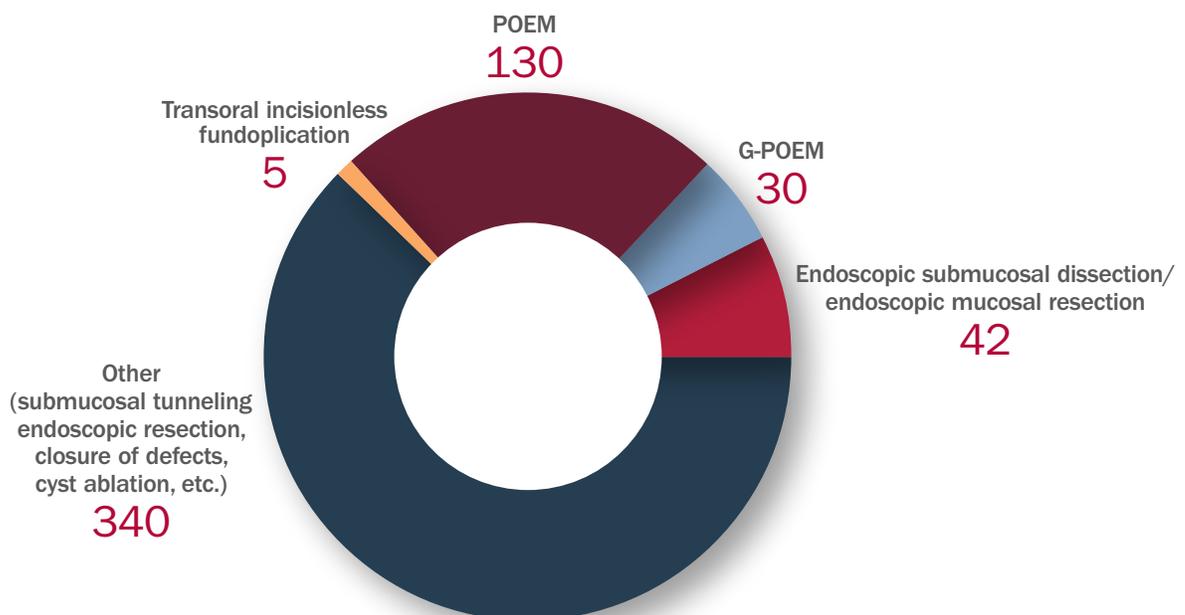
Specialty programs overview

Third space and innovative endoscopy

- One of the busiest programs in the nation with more than 250 third space endoscopy procedures performed annually
- Procedures performed
 - Esophageal POEM
 - Gastric POEM (endoscopic pyloromyotomy)
 - Z-POEM for Zenker’s diverticulum repair
 - Endoscopic submucosal dissection (ESD) for early-stage esophageal, gastric and rectal cancers
 - Variety of endoscopic resections that include freehand and device-assisted full thickness resections and subepithelial tunneling, among other techniques
- Expanding portfolio in innovative endoscopy
 - EUS-guided gall bladder drainage and EUS-guided gastrojejunostomy
 - EUS-guided ablation of cystic and solid tumors of the pancreas
 - ERCP-EUS hybrid procedures for patients with altered upper GI anatomy
 - Endoscopic closure options, including endoscopic suturing and other device-assisted partial and full thickness closures

We are one of the **nation’s largest referral programs for achalasia and refractory gastroparesis management**. In addition to novel assessment tools, we provide leading-edge therapeutics, including POEM, G-POEM and gastric electric stimulators.

Innovative endoscopy volume: 2023

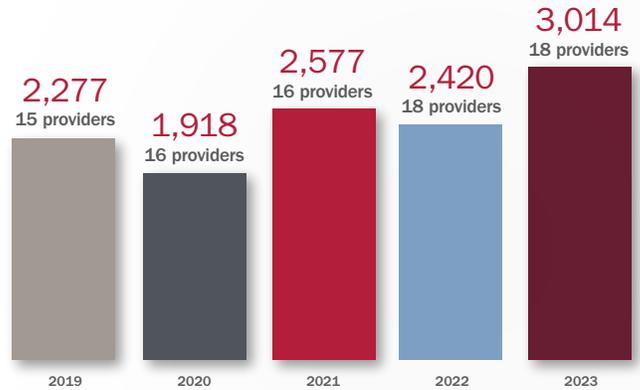


Specialty programs overview

Hepatology

- Only academic hepatology group in Indiana
- Traditional inpatient and outpatient facilities and novel healthcare delivery modes, including:
 - Hepatology urgent care clinic
 - Transitional liver program
 - Liver tumor program
 - Cirrhosis program
 - Fatty liver disease program
 - Rare liver disease program
 - Inpatient telehepatology consult service (inpatient remote e-consults)
 - Transfer avoidance program
 - Hospital-at-home program
- Collaborative care model using a paired hepatologist and hepatology advanced practice provider to improve capacity and access for patients who need specialized hepatology care
- Leading-edge, noninvasive tools to risk stratify patients with liver disease
- Personalized care by leveraging decades of academic excellence integrating patient-oriented clinical research with clinical care

Hepatology program new patient volume: 2019 – 2023



We offer comprehensive care that includes standard of care treatment options, lifestyle measures and access to novel therapeutics through an array of clinical trials funded by the NIH and pharmaceutical industry sponsors.



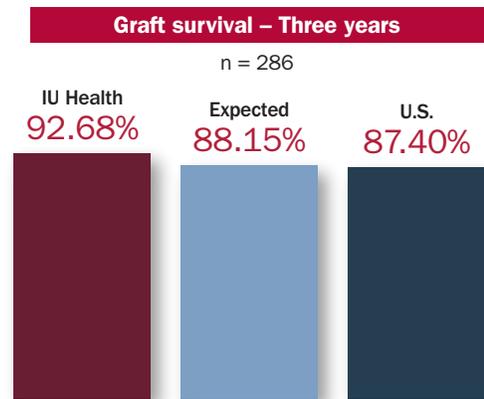
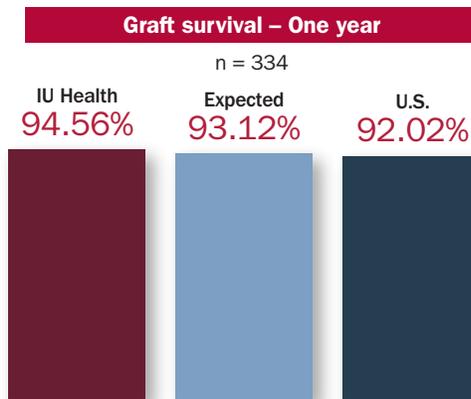
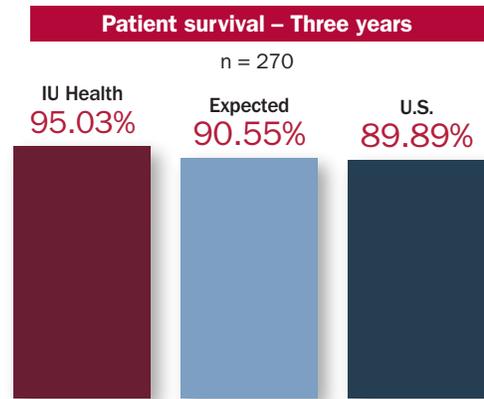
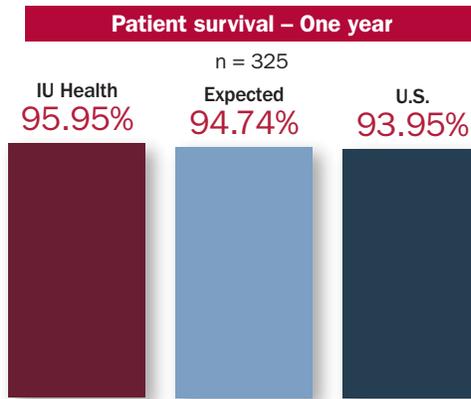
Specialty programs overview

Transplant hepatology

- 189 liver transplants performed in 2023 – the highest annual total in IU Health history
- Consistently among the top 10 largest hepatology transplant programs in the United States; in 2023, IU Health was ranked ninth in the nation
- Home to a successful and thriving living donor liver transplant program projected for significant growth in the coming years

Our combined medical and surgical pretransplant program guarantees that every patient in significant need of transplant evaluation is seen within a few days of the initial referral.

Liver transplant survival rates



Commitment to diversity and healthcare equity

IU Health Gastroenterology and Hepatology is engaged in research studies to determine barriers to transplant for liver cancer among minorities. A team led by **Lauren Nephew, MD, MSCE**, is currently writing an R21 grant proposal to adapt a toolkit of interventions targeted at community GI providers and patients across Indiana. Designed for providers who treat vulnerable populations, the interventions aim to improve the ability of these providers to connect patients to IU Health for liver transplant.

- **30% of the patients** receiving liver transplants at IU Health receive Medicaid
- **12% of IU Health liver transplant patients** live in counties defined by the U.S. Census Bureau as rural

Research highlights

IU Health key contributor to leading pancreatitis research

IU Health is one of 10 centers in the U.S. conducting groundbreaking pancreatitis research as part of the **Consortium for the Study of Chronic Pancreatitis, Diabetes and Pancreatic Cancer (CPDPC)**. Forty healthcare facilities vied for the opportunity to lead and enroll patients in these studies, which include research related to the interaction between chronic pancreatitis, pancreatogenic (Type 3c) diabetes and pancreatic cancer. Studies in both adults and children focus on:

- Risk factors
- Disease progression
- Early diagnosis
- Clinical features
- Pathogenesis
- Management
- Outcomes

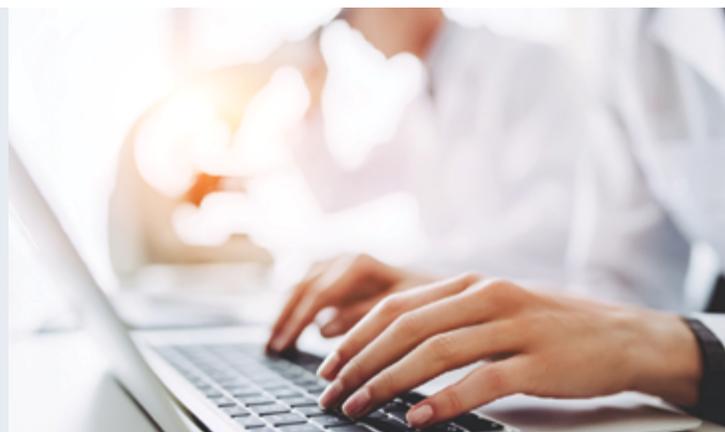
Led by principal investigator **Evan Fogel, MD**, IU Health and Indiana University's CPDPC clinical site plays a prominent role in the consortium and is the top enrolling center in several studies, including the CPDPC's main longitudinal cohort study, PROCEED (PROspective Evaluation of Chronic Pancreatitis for Epidemiologic and Translational Studies). Our team also has received two R01 grants to lead ancillary studies in the consortium—MINIMAP (magnetic resonance imaging as a noninvasive method for the assessment of pancreatic fibrosis) and STTEPP (safety, tolerability and dose limiting toxicity of lacosamide in patients with painful chronic pancreatitis). Several publications have resulted from these studies.

As the CPDPC completes its second five-year funding cycle in 2024, plans are underway to continue the consortium's research initiatives. Emphasis has shifted to completing enrollment in existing high-priority studies, performing data analyses, publishing manuscripts, and designing and carrying out clinical trials in pancreatitis. In addition, there is consortium-wide discussion about discovery and validation of biomarkers for pancreatitis.



The CPDPC was formed and funded in 2015 by the National Institute of Diabetes and Digestive and Kidney Diseases and the National Cancer Institute.

The consortium represents the NIH's largest investment in pancreatitis research.



Research highlights

Researchers continue legacy in study of alcohol-associated liver disease

- **Suthat Liangpunsakul, MD, MPH**, professor of medicine, is one of the leading experts in basic and translational studies in alcohol-associated liver disease. His laboratory, extensively funded by the NIH and the National Institute on Alcohol Abuse and Alcoholism (NIAAA), is a training ground for promising, next-generation basic science researchers. **Jing Ma, PhD, MSC, BMED**, and **Zhihong (Joe) Yang, PhD**, were recently awarded K99/R00 and R01 grants from the NIAAA.
- **Dr. Liangpunsakul** is also conducting an NIH-funded clinical trial of S-adenosyl-L-methionine (SAME) in patients with alcohol-related cirrhosis.
- **Samer Gawrieh, MD**, professor of clinical medicine, and **Wanzhu Tu, PhD**, professor of biostatistics and health data science, are co-leaders of the data coordinating center for the Alcoholic Hepatitis Network (AlcHepNet). Funded by the NIAAA, the network conducts important observational studies and leading-edge clinical trials in patients with acute alcohol-related hepatitis.
- **Naga Chalasani, MD**, David W. Crabb Professor of Gastroenterology and Hepatology, is a principal investigator in AlcHepNet. His work is integral to the ongoing alcohol-associated liver disease research conducted by IU Health Gastroenterology and Hepatology and IU School of Medicine.

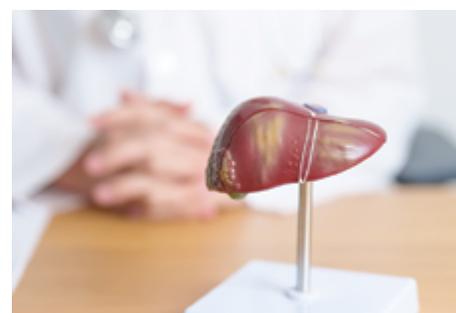
The renowned alcohol-associated liver disease research program at IU School of Medicine and IU Health is rooted in the foundational research conducted by our division's founding members and nationally recognized leaders in the field, David Crabb, MD, professor emeritus of medicine, and the late Lawrence Lumeng, MD.

Cirrhosis research aims to improve quality of life

With the only liver transplant and hepatology program in Indiana, IU Health Gastroenterology and Hepatology serves nearly every patient in the state diagnosed with cirrhosis. Over the past decade, our clinical and translational research efforts related to cirrhosis have risen dramatically.

- **Eric Orman, MD**, associate professor of medicine, conducts novel studies designed to reduce the burden of high readmission rates associated with cirrhosis and to integrate palliative care for those with advanced cirrhosis.
- **Archita Desai, MD**, assistant professor of medicine, investigates patient-reported outcomes and health-related quality of life in patients with cirrhosis. Her trailblazing work includes incorporating “hospital at home” for patients with cirrhosis and “emergency room hepatology.”
- **Lauren Nephew, MD, MSCE**, assistant professor of medicine, leads impactful work to better understand the barriers for timely liver transplantation and liver cancer treatment.
- Our team is initiating transformational models of care via digital health to serve a large and growing number of patients with cirrhosis throughout Indiana and surrounding states.

Our primary focus is health services and outcomes research to improve the lives of patients with cirrhosis. **Cirrhosis research conducted by members of our team is funded by the NIH.**



Research highlights

Novel studies aim to find new treatments for nonalcoholic steatohepatitis (NASH)

IU School of Medicine and IU Health are founding members of the NASH Clinical Research Network funded by the National Institute of Diabetes and Digestive and Kidney Diseases.

- **Naga Chalasani, MD**, was the primary author of the multisociety practice guideline on the diagnosis and management of nonalcoholic fatty liver disease (NAFLD) published in 2012 and updated in 2018.
- Under the leadership of **Dr. Chalasani** and **Samer Gawrieh, MD**, IU Health Gastroenterology and Hepatology directs a large HIV NASH Clinical Research Network. Funded by the NIH and an industry partner, this \$13 million endeavor is engaged in seminal observational studies and a clinical trial in persons with HIV and NAFLD. Led by Indiana University, the network includes leading academic centers Duke University, Johns Hopkins, the University of California at San Diego and the University of California at San Francisco.
- **Dr. Chalasani** and his team, in collaboration with investigators from Regeneron Genetics Center and the Lundquist Institute, are conducting genomic and multi-omic investigations in NASH that will likely reveal important gene-environment interactions and novel therapeutic targets.
- Under the leadership of Director of Hepatology and Professor of Medicine **Raj Vuppalanchi, MD**, IU Health Gastroenterology and Hepatology is at the forefront of clinical trials exploring novel compounds for patients with NASH.

Notable publications



Gastroenterology: January 2023

Prospective, Multi-Institutional, Real-Time Next-Generation Sequencing of Pancreatic Cyst Fluid Reveals Diverse Genomic Alterations That Improve the Clinical Management of Pancreatic Cysts
PMID: 36209796

Gastroenterology: March 2023

Identification of Reduced ERAP2 Expression and a Novel HLA Allele as Components of a Risk Score for Susceptibility to Liver Injury Due to Amoxicillin-Clavulanate
PMID: 36496055

Gastroenterology: July 2023

Distinct Serum Immune Profiles Define the Spectrum of Acute and Chronic Pancreatitis From the Multicenter Prospective Evaluation of Chronic Pancreatitis for Epidemiologic and Translational Studies (PROCEED) Study
PMID: 37061168

Gastroenterology: August 2023

Fibrosis Progression Rate in Biopsy-Proven Nonalcoholic Fatty Liver Disease Among People With Diabetes Versus People Without Diabetes: A Multicenter Study
PMID: 37127100

Hepatology: April 2023

CAP and LSM as Determined by VCTE Are Independent Predictors of All-Cause Mortality in the US Adult Population
PMID: 36626638

Journal of Hepatology: July 2022

Unexplained Liver Test Elevations after SARS-CoV-2 Vaccination
PMID: 35282897

Hepatology: August 2023

Burden of Fatty Liver and Hepatic Fibrosis in Persons With HIV: A Diverse Cross-Sectional US Multicenter Study
PMID: 36805976

Hepatology: November 2022

FNPLA3 rs738409 and Risk of Fibrosis in NAFLD: Exploring Mediation Pathways Through Intermediate Histological Features
PMID: 35349726

Hepatology: December 2023

PROMIS Profile-29 Is a Valid Instrument With Distinct Advantages Over Legacy Instruments for Measuring Quality of Life in Chronic Liver Disease
PMID: 37222262

Diabetes Care: January 2023

Development of a Clinical Prediction Model for Diabetes in Chronic Pancreatitis: The PREDICT3c Study
PMID: 36382801

Commitment to education and physician and faculty development

Our mission

IU Health Gastroenterology and Hepatology aims to provide an excellent educational experience to medical students, residents and fellows in our training programs. We strive to develop and deliver excellent lectures, clinical experiences, advising, assessment and research mentorship for our trainees. For faculty members, we continuously assess and address their needs for skill development and try to maximize the intrinsic and extrinsic rewards of teaching. Through these efforts, we contribute to the mission of the IU School of Medicine Department of Medicine and IU Health in training the workforce that will meet the needs of the people of Indiana.

Faculty development

Mini faculty educational development sessions are incorporated as part of regular faculty meetings. Topics include:

- Setting expectations with learners
- Providing feedback and building a supportive learning environment
- Using a servant leadership model to prevent burnout on teaching teams
- Creating an environment of inquiry and providing feedback



Fellowship program

Accredited by the Accreditation Council for Graduate Medical Education (ACGME), our fellowship program provides robust clinical training that covers the various aspects of gastrointestinal, pancreatobiliary and liver diseases in inpatient and outpatient settings. With multiple training sites at IU Health, Eskenazi Health and the Richard L. Roudebush VA Medical Center, our graduates are uniquely prepared to care for patients in any clinical or socioeconomic setting.

Other highlights of our program

- Fellows gain endoscopy experience that exceeds most other programs both in quantity and nature of procedures.
- Engaged in multiple research opportunities, our fellows are mentored by experts, present abstracts regularly at the leading national GI meetings and publish in prominent journals.

“We support our fellows throughout their training by prioritizing their personal well-being and customizing training plans for each individual. Our graduates embark on successful careers after fellowship—many are academic leaders in the field, and others are serving diverse patients and communities.”

Nabil Fayad, MD
Fellowship program director

Fellowship program by the numbers

- **16 positions approved by the ACGME:** All positions currently filled
- 5 or 6 graduates each year with first-attempt GI board **exam pass rate of 98%** for the past decade
- **59%** remained in academia (2022 – 2023 academic year)
- **26%** retained as IU School of Medicine faculty (2022 – 2023 academic year)



Gastroenterology fellows



**Mahmoud Ahmed
Rahal, MD, RES**
PGY 7



**Azizullah
Beran, MB, BS**
PGY 5



**Ramzi
Hassouneh, DO, MS**
PGY 5



**Andrew
Ortega, MD**
PGY 4



**Gabriella
Aitchison, MD**
PGY 6



**Wade
Billings, MD**
PGY 7



**Yervant
Ichkhanian, MD, RES**
PGY 4



**Feenalie
Patel, MD**
PGY 7



**Natashay
Bailey, MD**
PGY 5



**Jason
Browne, MD**
PGY 5



**Chelsea
Jacobs, DO**
PGY 6



**Alexander
Scherer, MD, PhD**
PGY 4



**Serge
Baroud, MD, RES**
PGY 4



**Ben
Byriel, DO**
PGY 6



**Jiayi
Ma, MD**
PGY 6



**Hani
Shamseddeen, MD**
PGY 4

Fellowship program diversity

2023 – 2024 academic year

25% women
25% URiM*

2024 – 2025 academic year

37.5% women
25% URiM*

* Underrepresented in medicine



For more information, contact:

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