

Government of West Bengal

Institute of Postgraduate Medical Education & Research

Centre of Excellence in Medical Education & Research

School of Digestive & Liver Diseases

(Medical Gastroenterology, Surgical Gastroenterology, Paediatric Gastroenterology, Gastrointestinal Radiology, Gastrointestinal Pathology, Gastrointestinal Anesthesiology & Center for Liver Research)

FACULTY

Medical Gastroenterology

Prof. Gopal Krishna Dhali, DM Professor and Head Prof. Kshaunish Das, DM Professor Dr. Rajib Sarkar, DM Associate Professor Dr. Partha Sarathi Patra, DM Associate Professor Dr Arka Banerjee, DM Associate Professor Dr. Debashis Misra, DM Associate Professor Dr Bipul Barman, DM Assistant Professor Dr Shamik Banerjee, DM Assistant Professor

Paediatric Gastroenterology

Dr Goutam Ray, DM Assistant Professor

Hepatology

Prof. Abhijit Chowdhury, DM
Professor and Head
Dr. Kausik Das, DM
Professor
Dr. Mahiuddin Ahammed, DM
Associate Professor
Dr Souvik Ghosh, DM
Associate Professor
Dr Prasenjit Halder, DM
RMO cum Clinical Tutor

Gastrointestinal Surgery

Prof. Sukanta Ray, MCh

Dr. Shomak Das, MCh

Dr Tuhin Subhra Mandal, MCh

Assistant Professor

Assistant Professor

Gastrointestinal Anaesthesia

Prof. Tapas Ghosh, MD
Professor
Dr. Dibyendu Garai, MD
Associate Professor
Dr. Saikat Bhattacharya, MD
Assistant Professor

Gastrointestinal Pathology

Dr. Ranajoy Ghosh, MD
Assistant Professor
Dr. Aniket Halder, MD
Assistant Professor
Dr. Sonali Mondal, MD
Demonstrator
Dr. Tamalika Kundu, MD
Demonstrator

Gastrointestinal Radiology

Dr. Avik Sarkar, MD Assistant Professor

Center for Liver Research

Prof. Soma Banerjee, PhD
Professor
Prof. Simanti Datta, PhD
Professor
Dr. Suman Santra, PhD
Assistant professor

Senior residents

Dr. Kishalay, DM Dr. Souvik Mitra, DM Dr. Debarshi Bose, DM Dr. Manish Kumar, MD Dr. Jyotish Roy, MD

Postdoctoral trainees

| Session 2020-23 | Session 2019-22 | Session 2018-21 * |
|------------------------|----------------------|--------------------|
| Dr. Abhishek Bera | Dr. Neeraj Agarwal | Dr. Chandan Das |
| Dr. Abhishek Banerjee | Dr. Ankit Mahajan | Dr. Arun Baidya |
| Dr. Biswajit Banik | Dr. Karan Bhargav | Dr. Alokit Gulati |
| Dr. Chandan Sharma | Dr. Bhoopender Singh | Dr. Anshuman Singh |
| Dr. Bhagyamani | Dr. Krishanu Banik | Dr. Sunny Uttamani |
| Dr. Jayati Samanta | Dr. Riten Samaddar | Dr. Dilip Kumar |
| Dr. Uddipta Dutta | Dr. Dipak Kumar | |
| Dr. Himanshu Khanna | Dr. Zubair Ansari | |
| Dr. Vivek Chowdhury | | |
| Dr. Tripti Mishra | | |
| Dr. Maimam Bobby Singh | | |
| Dr. Abhishek Sabui | | |
| Dr. Vivek Nagrale | | |
| Dr. Sourin Mukherjee | | |
| Dr. Arunesh Gupta | | |

^{*} Cleared University examination in 2021

Research scholars and non-teaching staff

| Debangana Dey, MSc | Senior Research Fellow (DST inspire) |
|-----------------------------|--|
| Sayantani Bhowmik, MSc | Senior Research Fellow (CSIR fellow) |
| Ayana Baidya, MSc | Senior Research Fellow (ICMR fellow) |
| Swagata Majumdar, MSc | Senior Research Fellow (UGC fellow) |
| Anannya Chakraborty, MSc | Junior Research Fellow (DBT project fellow) |
| Shreya Mallik, MSc | Junior Research Fellow (ICMR fellow) |
| Indrashish Dey, MSc | Junior Research Fellow (UGC fellow) |
| Soumyabrata Chatterjee, MSc | Junior Research Fellow (UGC fellow) |
| Deeya Roy Chowdhury, MSc | Junior Research Fellow (DBT project fellow) |
| Sudeshna Halder, MSc | Junior Research Fellow (DST-SERB Project Fellow) |
| Sarthak Nandi, MSc | Junior Research Fellow (CSIR fellow) |
| Dyuti Basu Chowdhury, MSc | Research Intern |
| Shatabdi Biswas, MSc | Research Intern |

FACULTY NEWS

Invited Lectures in the meeting/conference by Faculties:

- Prof. Soma Banerjee was invited for a lecture in the Refresher Course on Biological Sciences for college and university teachers conducted by UGC Human Resource Development Centre (HRDC), University of Calcutta on 10th March, 2021. The title of the deliberation was "The functional importance of non-coding RNAs on human diseases".
- 2. **Prof. Simanti Datta** was invited for a lecture in the Annual Indian Society of Gastroenterology meet of Kolkata Chapter 2021 held in the hotel Radisson Fort at Raichak from 25-27th February 2020. The title of the deliberation was "immunotherapy for chronic hepatitis b virus infection: Targeting myeloid derived suppressor cells"

ACADEMIC ACTIVITY

Total Number of Students at Center for Liver Research: 13

Students awarded Ph.D. degree in 2021: 2

- 1. **Dr. Sourina Pal.** Her thesis title was" **Exploring the immune regulatory role of myeloid derived suppressor cells during chronic HBV infection".**
- 2. **Dr. Suchandrima Ghosh.** Her thesis Title was "Genome-wide analysis of MicroRNA Signatures in HCV infected Hepatocellular Carcinoma (HCC) and Contribution of a novel candidate miRNA in Development of HCC".

Oral and poster presentation in national meets by students

- 1. **Swagata Majumdar** had oral presentation on "Convergent multi-tumor suppressor microRNAs downregulated by a single lncRNA MALAT1 drives Hepatocellular Carcinoma" in Annual meeting of Society of Biological Chemists (I), Kolkata held at Sankarpur, Digha during 19-21st March 2021.
- 2. Oral presentation (PhD Scholar section) in the 65th Foundation Day celebration of the Institute held on 15th January 2020 by the following students:
- 3. **Debangana Dey** had presented "Functional defects of monocyte subsets in chronically HBV infected patients with high levels of hepatitis B surface antigen and its persistence after antiviral therapy".
- Anannya Chakraborty had presented "MicroRNA-126 suppresses APAF-1-Caspase9-Caspase3 axis of Apoptosome Pathway and induces Chemo-resistance by impeding BMPR1A-SMAD4 in Hepatocellular Carcinoma".

Oral and poster presentation in international national meets by students

- 5. **Swagata Majumdar** had presented a poster in theAASLD Liver meeting, 2021 held on Nov. 12-15. The title of the poster was "By impeding a convergent network of multiple tumor suppressor microRNAs, MALAT1 promotes stemness in Hepatocellular carcinoma through BMPR1A, BMPR1B/ACVR2B/SMAD2/3 signaling pathway".
- 6. **Ayana Baidya** had presented a poster in the International conference 2021 International HBV Meeting from 26-30 September 2021. The title of the poster was "Hepatitis B virus X protein epigenetically suppresses complement C9 expression and inhibits the lytic activity of membrane attack complex".
- 7. **Debangana Dey** had presented a poster in the International conference 2021 International HBV Meeting from 26-30 September 2021. The title of the poster was "Insights into the multifaceted defects of monocytes in different phases of chronic HBV infection: lack of functional normalization after anti-viral therapy".

Awards received by students:

1. **Debangana Dey** had received the first prize for Oral presentation (PhD Scholar section) in 65th Foundation Day celebration of I.P.G.M.E.& R held on 15th January 2021.

2. **Anannya Chakraborty** had received the third prize for Oral presentation (PhD Scholar section) in 65th Foundation Day celebration of I.P.G.M.E.& R held on 15th January 2021.

Students registered for Ph.D. degree

- Anannya Chakraborty has registered for a Ph.D. degree in the Department of Biochemistry, University
 of Calcutta.
- 2. Shreya Mallick has registered for a Ph.D. degree in the Department of Zoology, University of Calcutta.

PUBLICATION BY FACULTY, STUDENTS AND RESEARCH SCHOLARS

- 1. Ray S, Das K, Ghosh R. Isolated pancreatic and peripancreatic nodal tuberculosis: A single-centre experience. Trop Doct. 2021 Apr;51(2):203-209. doi: 10.1177/0049475520962941. Epub 2020 Oct 26. PMID: 33104450
- 2. Patra PS, Das A, Ahmed SKM, Mitra S, Dhali GK. Treatment response and long-term outcomes in biliary ascariasis: A prospective study. Arab J Gastroenterol. 2021 Jun;22(2):164-169.
- 3. Maheshwari A, Patra PS, Ray S, Dhali GK, Das K. External validation of Chronic Pancreatitis Prognosis Score(COPPS): A prospective cohort study. Dig Liver Dis. 2021 Sep 17:S1590-8658(21)00762-3. doi: 10.1016/j.dld.2021.08.022. Epub ahead of print. PMID: 34544675.
- 4. Ray S, Das K, Khamrui S, Jana K, Das R, Kumar D, Ansari Z. Short- and long-term outcome of Frey procedure for chronic pancreatitis in adults. Am J Surg. 2021 Oct;222(4):793-801.
- Singh P, Chakraborty B, Sarkhel S, Ray S, Patra PS, Das K. Indian Outpatients with Idiopathic Chronic Pancreatitis Have Catastrophic Healthcare Expenditure, Malnutrition, Anxiety/Depression and Work-Impairment. Dig Dis Sci. 2021 Sep 28. doi: 10.1007/s10620-021-07255-0. Epub ahead of print. PMID: 34581905.
- Jana K, Ray S, Das R, Kumar D, Mandal TS, Das S. Alcoholic vs. non-alcoholic chronic pancreatitis: surgeons' perspective from a tertiary centre in India. Arq Bras Cir Dig. 2021 Oct 15;34(2):e1595. doi: 10.1590/0102-672020210002e1595. PMID: 34669885; PMCID: PMC8521776.
- 7. Ray S, Das S, Mandal TS, Jana K, Das R, Kumar D, Ansari Z, Khamrui S. Perioperative outcome of Whipple's procedure with special attention to the impact of preoperative biliary drainage: a real-life scenario. Updates Surg. 2021 Oct;73(5):1735-1745. doi: 10.1007/s13304-021-01038-y. Epub 2021 Apr 3. PMID: 33811607.
- 8. Misra D, Das K, Chatterjee S, Mukherjee PS, Chowdhury A. Mortality pattern in cirrhosis: A reflection of liver disease burden in India.GastroHep. 2021 Nov; 3(6): 409-416.
- 9. Dhali A, Ray S, Sarkar A, Khamrui S, Das S, Mandal TS, Biswas DN, Dhali GK. Peripancreatic arterial pseudoaneurysm in the background of chronic pancreatitis: clinical profile, management, and outcome. Updates Surg. 2021 Nov 23. doi: 10.1007/s13304-021-01208-y. Epub ahead of print. PMID: 34816352.
- 10. Chakraborty D, Ghosh R, Halder A, Mondal D, Misra D. Endoscopic ultrasonographic diagnosis of pancreatic tuberculosis in immunocompetent patients-A case series from eastern India. Indian J Gastroenterol. 2021 Sep 16. doi: 10.1007/s12664-021-01171-x. Epub ahead of print. PMID: 34528180.
- 11. Parvin S, Dhali A, Biswas DN, Ray S. Bruck syndrome: a rare cause of reduced fetal movements. BMJ Case Rep. 2021 Dec 1;14(12):e246786. doi: 10.1136/bcr-2021-246786. PMID: 34853049
- 12. Dhali A, Ray S, Dhali GK, Ghosh R, Sarkar A. Duodenal Ganglioneuroma: A Rare Tumor Causing Upper Gastrointestinal Bleed. Surg J (N Y). 2021 Sep 14;7(3):e255-e258. doi: 10.1055/s-0041-1735644. PMID: 34541318; PMCID: PMC8440055.
- 13. Ray S, Kumar D, Garai D, Khamrui S. Dropped Gallstone-Related Right Subhepatic and Parietal Wall Abscess: A Rare Complication After Laparoscopic Cholecystectomy. ACG Case Rep J. 2021 May 12;8(5):e00579. doi: 10.14309/crj.000000000000579. PMID: 34549058; PMCID: PMC8443814.
- 14. Dhali A, Ray S, Ghosh R, Sinha MGM, Khamrui S, Dhali GK. Mixed neuroendocrine-non-neuroendocrine tumour of pancreas mimicking groove pancreatitis: Case report. Int J Surg Case Rep. 2021 Nov;88:106524. doi: 10.1016/j.ijscr.2021.106524. Epub 2021 Oct 18. PMID: 34688070; PMCID: PMC8536533.
- 15. Dhali A, Ray S, Dhali GK, Ghosh R, Sarkar A. Refractory hypoglycaemia in a localised gastrointestinal stromal tumour: Case report. Int J Surg Case Rep. 2021 Jun;83:106023. doi: 10.1016/j.ijscr.2021.106023. Epub 2021 May 26. PMID: 34090190; PMCID: PMC8188391.

- 16. Dhali A, Ray S, Ghosh R, Sarkar A, Dhali GK. Massive Upper Gastrointestinal Hemorrhage in Brunner's Gland Hamartoma of Duodenum. Cureus. 2021 Jun 23;13(6):e15875. doi: 10.7759/cureus.15875. PMID: 34336406; PMCID: PMC8312786.
- 17. Dhali A, Ray S, Khamrui S, Dhali GK. Mucinous cystadenocarcinoma of pancreas mimicking gastrointestinal stromal tumor of stomach: Case report. Int J Surg Case Rep. 2021 Aug;85:106240. doi: 10.1016/j.ijscr.2021.106240. Epub 2021 Jul 26. PMID: 34343789; PMCID: PMC8349996.
- 18. Dhali A, Ray S, Dhali GK. Primary Small Cell Neuroendocrine Tumour of Gallbladder Presenting as Pyrexia of Unknown Origin. Cureus. 2021 Jun 23;13(6):e15874. doi: 10.7759/cureus.15874. PMID: 34327099; PMCID: PMC8302456.
- 19. Dhali A, Sarkar A, Ray S, Biswas DN, Dhali GK, Mahajan A. Hepatic artery pseudo-aneurysm rupturing into hepato-gastric fistula, a rare cause of massive upper gastrointestinal hemorrhage: Case report. Radiol Case Rep. 2021 Nov 10;17(1):133-136.
- 20. Ghosh I, Mukhopadhyay P, Das K, Anne M B, Ali Mondal S, Basu M, Nargis T, Pandit K, Chakrabarti P, Ghosh S. Incretins in fibrocalculous pancreatic diabetes: A unique subtype of pancreatogenic diabetes. J Diabetes. 2021 Jun;13(6):506-511. doi: 10.1111/1753-0407.13139. Epub 2020 Dec 16. PMID: 33247879.
- 21. "A combination of circulating microRNA-375-3p and chemokines CCL11, CXCL12, and G-CSF differentiate Crohn's disease and intestinal tuberculosis" Susree Roy, Suchandrima Ghosh, Mallica Banerjee, Sayantan Laha, Dipanjan Bhattacharjee, Rajib Sarkar, Sujay Ray, Arka Banerjee, Ranajoy Ghosh, Alakendu Ghosh, Raghunath Chatterjee, Simanti Datta, Gopal Krishna Dhali, and Soma Banerjee. Sci Rep 11, 23303 (2021).
- 22. .Variability in the response of HBV D-subgenotypes to antiviral therapy: designing pan D-sub genotypic reverse transcriptase inhibitors. Mousumi Khatun, Krishna Kumar, Ayana Baidya,, Rajiv Kumar Mondal, Ondřej Baszczyňski, Filip Kalčic, Soma Banerjee, Gopal Krishna Dhali, Kausik Das, Abhijit Chowdhury, Zlatko Janeba, Saikat Chakrabarti, Simanti Datta. 2021 Nov 3; *JVI* 0180021.
- 23. Persistence of Hepatitis B Virus Infection: A Multi-Faceted Player for Hepatocarcinogenesis. Suchandrima Ghosh, Anannya Chakraborty, Soma Banerjee. *Front Microbiol.* 2021; 12: 678537. Published online 2021 Aug 30.

ONGOING RESEARCH PROJECTS

Central Government funded

1. Investigating the Role of Macrophage in Hepatitis B virus mediated disease progression towards end-stage liver diseases. # BT/PR32493/MED/29/1492/2020.

PI: Dr.Soma Banerjee, Co-PI: Prof. Abhijit Chowdhury.

Funding Agency: Department of Biotechnology, Government of India. Period: 2021-2024.

2. To identify and validate functionally, variants in immune genes as predictor and microRNA restricting those genes as therapeutic for alcohol induced liver diseases: an in vitro and in vivo study #BT/PR24838/NER/95/868/2017.

PI: Prof. Abhijit Chowdhury, Co-PI: Dr. Soma Banerjee.

Funding Agency: Department of Biotechnology under Twinning Program. Period: 2018-2022.

 "To study the role of tumor micro-environment (TME) in the pathogenesis of hepatocellular carcinoma (HCC) and prediction of potent therapeutic target." #BT/PR12648/MED/30/1897/2017.

PI: Dr.Soma Banerjee, Co-PI: Prof. Abhijit Chowdhury.

Funding Agency: Department of Biotechnology, Government of India. Period: 2017-2021.

"Understanding the biology of monocytes during chronic Hepatitis B virus infection".

Principal Investigator: Dr. Simanti Datta, Co-Investigator: Prof. Abhijit Chowdhury Funding agency: DST, Government of India Period: 2019-2022.

5. Analysis of Virological and Immunogical factors to patients in e negative chronic hepatitis patients after cessation of Nucleoside/nucleotide Analogue.

Principal Investigator: Dr Sk mahiuddin Ahammed.

Funding agency: National Health Mission, Govt. of India. Period: 2021-2022.

State Government funded

6. Virological Response to Tenofovir in a real-world chronic hepatitis B population from Eastern India and its correlation to HBV genotype, subgenotype and quasispecies structure

Principal Investigator: Dr. Kausik Das, Co-Investigator: Dr. Simanti Datta

Funding Agency: Department of Higher Education, Science & Technology and Biotechnology, Government of

West Bengal. Period: 2018-2021.

7. "Identification of a noninvasive biomarker to distinguish patients with ITB and CD from integrated mRNA and MicroRNA transcription sequencing".

Principal Investigator: Dr. Soma Banerjee, Co-PI-I: Prof. G.K. Dhali, Co-PI-II: Dr. Rajib Sarkar, Co-PI-III: Dr.

Sumit Sanyal.

Funding Agency: Department of Biotechnology, Government of West Bengal. Period: 2017-2021.

8. 3. "Alterations in neutrophil extracellular traps in patient with acute on chronic liver failure (ACLF)"

Principal Investigator: Dr. Sk. Mahiuddin Ahammed

Funding agency: MRU, IPGME&R Kolkata. Year: 2018 to 2022.

SERVICE INFORMATION (January to November 2021)

| OPD and In-patient service provided: | | | |
|--------------------------------------|--------------|--------------|----------------|
| | New Patients | Old Patients | Total patients |
| OPD Service: | | | • |
| GE OPD | 59317 | 25127 | 84444 |
| Hepatology OPD | 13217 | 8239 | 21456 |
| GI Surgery OPD | 4371 | 3913 | 8284 |
| Pediatric Gastroenterology | 1691 | 1442 | 3113 |
| IBD clinic | 824 | 526 | 1350 |
| NVHCP | 2069 | 4762 | 6831 |
| LIVER TRANSPLANT | 74 | 48 | 122 |
| Pancreatic Clinic | - | - | 431 |
| Indoor admission: | | | • |
| GE Indoor admission | - | - | 572 |
| Hepatology Indoor admission | - | - | 427 |
| GI Surgery Indoor admission | - | - | 393 |
| Polyclinic admission | - | - | 1450 |

| Endoscopy Service : | |
|--------------------------------|--------|
| Procedure | Number |
| Upper GI Endoscopy Diagnostic | 5039 |
| Upper GI Endoscopy Therapeutic | 1105 |
| Colonoscopy | 1951 |
| ERCP | 1577 |
| APC | 90 |
| Esophageal Dilatation | 583 |
| Fibro Scan | 0 |
| Liver Biopsy | 95 |
| Endoscopic Ultrasound | 364 |
| Double Balloon Enteroscopy | 43 |
| Capsule Endoscopy | 26 |

| GI- Radiology Service : | |
|------------------------------------|--------|
| Procedure | Number |
| Diagnostic Ultrasound & CT/MRI | 10536 |
| Review | |
| Vascular Interventional Procedures | |
| Abdominal Angiography | 6 |
| Peripheral Angiography | 2 |
| TJLB | 2 |
| TACE | 5 |
| Budd Chiari Syndrome (Bcs) | 12 |
| Visceral Aneurysm Embolisation | 24 |
| Bato/Brto/Parto/Carto | 2 |
| TIPSS | 0 |
| Splenic Hemangioma Embolization | 1 |

| Esophageal manometry | 127 |
|-------------------------------------|------|
| Anorectal manometry | 57 |
| 24-Hr Esophageal pH impedance study | 1 |
| PG POLYCLINIC ENDOSCOPY | |
| SERVICES | |
| Upper GI Endoscopy Diagnostic | 4046 |
| Upper GI Endoscopy Therapeutic | 684 |
| Colonoscopy | 1506 |
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| Brochial Artery Embolization | 3 |
|--------------------------------------|-----|
| Iliac Aneurysm Graft | 1 |
| JNA Embolisation | 2 |
| Fistuloplasty | 6 |
| Central Venous Plasty / Stenting | 3 |
| Prostate Artery Embolization | 1 |
| | |
| Nonvascular Interventional Radiology | |
| procedures | 269 |
| PCD | 297 |
| FNAC | 72 |
| PTBD | 128 |
| DIAGNOSTIC ASPIRATION | 8 |
| PAIR | 298 |
| US guided biopsy | |

| Pathology Service : | | |
|------------------------|--------|--|
| Procedure | Number | |
| Surgical Biopsy | 375 | |
| Endoscopic Biopsy | 1812 | |
| FNAC | 598 | |
| Review biopsy | 48 | |
| Liver biopsy | 180 | |
| Frozen sections | 15 | |
| Peripheral Blood Smear | 36 | |
| Body fluid analysis | 894 | |
| PAP cytology - Fluids | 247 | |
| Qualitative stool fat | 18 | |
| Liver ITU Service : | | |
| | Number | |
| Admitted | 228 | |
| Death | 109 | |

| Gastro Surgery Service : | |
|----------------------------------|--------|
| Operative procedures | Number |
| Surgery for Chronic Pancreatitis | 54 |
| Whipple's Operation | 38 |
| Biliary Stricture | 23 |
| Recurrent Pyogenic Cholangitis | 39 |
| Extended Cholecystectomy | 14 |
| Lap/ Open Cholecystectomy | 13 |
| CBD Exploration | 3 |
| Pancreatic Necrosectomy | 2 |
| ColonPullUp | 4 |
| L-R Shunt | 16 |
| Liver Resection | 34 |
| Colon/ Rectum | 19 |
| Small bowel | 15 |

| Stomach/ Esophagus | 19 |
|------------------------------|-----|
| Excision of Choledochal Cyst | 33 |
| Liver Transplantation | 1 |
| Miscellaneous | 32 |
| Total | 359 |

SPECIAL CONTRIBUTIONS TO FIGHT AGAINST COVID-19 AND OTHER SPECIAL ACHIEVEMENTS

All the faculties and residents were actively involved in the round the clock management of Covid infected patients with mild disease or asymptomatic presentation at the "UTTIRNO" safe home facility at Alipore.

Residents and faculties also took active involvement in the management of Covid infected patients admitted at SNPH.

Faculties and residents actively participated in Telemedicine centre at the Academic building of IPGME & R