

Dr. Subhasish Sarkar MBBS, MS (General Surgery)

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Sreema Road, Kolkata 700065, West Bengal, India

Affiliation

College of Medicine and Sagore Dutta Hospital (March 2017 – Till Date)

Position – Assistant Professor, Department – General Surgery

Work experience

1. R.G. Kar Medical College and Hospital (2012—2015)

Clinical Surgical Tutor of MBBS Students

2. Balurghat District Hospital, (2015—2017)

Dept. of Surgery MS (Practicing) Surgeon

Education

1. Bachelor of Medicine and Surgery (MBBS) (2006 – 2011)

Burdwan Medical College and Hospital

- **2. Master of Surgery (MS)** General Surgery (2012 –2015)
 - R. G. Kar Medical College and Hospital

Service

- I am actively involved in indoor, outdoor, and emergency patient management in the Hospital. I
 regularly perform numerous elective and emergency operations in our hospital. Emergency
 operations include peptic perforation, acute appendicitis, large bowel and small bowel obstructions,
 RTA, gunshot or stab injuries etc. Elective operations include Hernioplasty, Laparoscopic and open
 cholecystectomy, appendectomy, Major GI surgeries, MRM, thyroid and parotid surgery, varicose
 vein surgery etc.
- I actively participate in departmental clinical meetings, seminars, workshops and in different scientific proceedings, integrated teaching classes organized in our or other departments regularly.

Academic activities

- I used to take the regular tutorial and bedside clinical classes of undergraduate students from my PGT ship in R.G. Kar Medical College and College of Medicine and Sagore Dutta Hospital regularly.
- I am engaged in teaching the undergraduate students of MBBS in tutorial classes as allotted by my HOD and also taking bedside clinical classes. I teach the students with deep sincerity and love. I encourage them to actively participate in cutting-edge research work for better-serving mankind.
- I attended the Annual Conference of ASI in 2012 and attended the workshop on patient preparation for post-op recovery.
- I had attended several state conferences SACICME from 2012 till date. I presented papers and operative videos.

Details of Research Activities

- From the very beginning of my MBBS studies I was actively involved in translational research. I have taken hands-on training in the methods of genomics and proteomics which includes DNA RNA isolation, PCR, RT-PCR, Gel electrophoresis, cell culture, FACS etc. at Genelon Life Sciences Bangalore.
- I have a research collaboration with **George Washington University, University of South Florida**. In India, I have collaborated with IICB, **IACS**, **IISER**, **SNBNCBS**, **NCL**, **JU**, **IIT** Kanpur, Kharagpur and Bombay.
- I have selected and participated in **Developing Indian Physician Scientist (DIPS 2019)** of Welcome Trust DBT at Hyderabad.
- I presented my invention **Smart Prediction of IR-Based Detection of Residual Cancer (SPiDR)** for funding from Biotechnology Research Grant at CCAMP Bangalore. But I failed due to the present Govt. regulations of Faculty Entrepreneur.
- I received funding to develop the device from **SERB** under **Core Research Grant 2020**. We are now doing cutting-edge research in this field.
- My proposal on COVID-19 treatment is under the selection process of the COVID-19 Research Consortium.
- I am working on a joint project "Silver nanoparticles in treatment against SARS-CoV-2" with Germany Company BMS Medical Solutions.
- I have developed Variable Pressure Water Jet a device for debridement and dissection.
- My other projects are
 - 1. **Iron Oxide Nanoparticle Hyperthermia in Cancer Treatment** in collaboration with JU, IACS and CU. We have progressed significantly.
 - 2. **Developing Free radical Scavenging Polymer** with IISER. The results are not favourable till now but we are actively working on that.

Publications

- **1. Sarkar S**. Quality of life outcomes in patients with colostomy and ileostomy, with reference to psychosocial problems and surgical complications. Journal of the evolution of medical and dental sciencesgems. 2018 dec 3;7(49):5292-7.
- **2. Sarkar S**. Two cases of advanced colonic carcinoma presenting with entero-cutaneous fistula. Jmcrr. 2019 apr 1;2(3).
- **3. Sarkar S**. Silver Nanoparticles with Bronchodilators Through Nebulisation to Treat COVID-19 Patients. Journal of Current Medical Research and Opinion. 2020 Apr 22;3(04):449-50.
- **4.** Chakraborti S, Pramanick A, Saha S, **Sarkar S**, Singh LP, Stewart A, Maity B. Biphasic changes in TGF-β1 signalling drive NSAID-induced multi-organ damage. Free Radical Biology and Medicine. 2020 Nov 20;160:125-40.
- **5.** Basak M, Sengar A. S, Das K, Mahata T, Kumar M, Kumar D, Biswas S, **Sarkar S**, Kumar P, Das P, Stewart A. A RGS7-CaMKII complex drives myocyte-intrinsic and myocyte-extrinsic mechanisms of chemotherapy-induced cardiotoxicity. Proceedings of the National Academy of Sciences. 2023 Jan 3;120(1): e2213537120.
- **6.** Mahata T, Sengar A. S, Basak M, Das K, Pramanick A, Verma S. K, Singh PK, Biswas S, **Sarkar S**, Saha S, Chatterjee S. Hepatic regulator of G protein signaling 6 (RGS6) drives non-alcoholic fatty liver disease by promoting oxidative stress and ATM-dependent cell death. Redox Biology. 2021 Oct 1:46:102105.

Patents

Sl. no	CBR Number	Application Number	Date	Name of the Invention
1	15836	201831034513	13/09/18	An Intraoperative Cancer
				Imaging System
2	22850	201931048806	28/11/19	A Device and Method for
				treatment of Erectile Dysfunction
3	98	202031000136	02/01/20	A Variable pressure jet Device

Expertise

General Surgery, Laparoscopic Surgery, Cancer Surgery of Breast, Thyroid, Gastro Intestinal Tract, Hernia Surgery, Varicose Vein and other life saving operations such as peptic perforation, blunt trauma abdomen, bullet injury or stab injury, appendectomy and others.

Research interest

Cancer imaging, Molecular biology, Oncosurgery, General surgery

Ongoing Project

- 1. Smart Prediction of IR Based Detection of Residual Cancer (SPiDr), funded by DST-SERB, 2021
- 2. Development and Efficacy Testing of Variable Pressure Flat Ultrathin Water Jet Device for Debridement and Dissection an Interventional Study, funded by ICMR,2022

References

1. Prof. (Dr.) Saibal Kumar Mukherjee MBBS, MS

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NRS Medical College and Hospital

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2. Dr. Ramanuj Mukherjee MBBS, MS

Associate Professor

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