



Government of West Bengal
Institute of Postgraduate Medical Education & Research
Centre of Excellence in Medical Education & Research

Endocrinology & Metabolism

FACULTY

Dr. Pradip Mukhopadhyay	MBBS, MD, DM	Professor and HOD
Dr. Sujoy Ghosh	MBBS, MD, DM, MRCP, FRCP, FACE	Professor
Dr. Pranab Kumar Sahana	MBBS, MD, DM, FRCP (Edin)	Professor
Dr. Dibakar Biswas	MBBS, MD, DM	Assistant Professor
Dr. Tapas Chandra Das	MBBS, MD, DM	Assistant Professor
Dr. Indra Maisnam	MBBS, MD, DM, FRCP, FACE	Assistant Professor
Dr. Subir Chandra Swar	MBBS, MD, DM	Assistant Professor
Dr. Kaushik Pandit	-	Senior Scientific Officer
Dr. Nitai Pada Bhattacharyya	-	Senior Research Advisor

Senior Residents

Dr. Mainak Banerjee Dr. Soham Tarafder Dr. Piyas Gargari Dr. Debaditya Das Dr. Subhasish Neogi
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Postdoctoral Trainees (DM)

Session 2021-2024	Session 2020-23
Dr. Abhranil Dhar Dr. Debasish Dash Dr. Nisha Batra Dr. Anjukrishna R Dr. Gokul MS Dr. Pritam Biswas	Dr. Pankaj Singhanian Dr. Anish Kar Dr. Aditya Deshpande Dr. Vijay Budhwar Dr. Arunava Ghosh Dr. Sreejith Babu

Non-teaching Staff

Sri Pradip Mandal	MT Lab
Sri Ujjwal Chatterjee	MT Lab
Sri Rabin Chakraborty	Group D
Rajarm Mallick	Group D
Sri Rajinder Balmiki	Group D
Sri Narayan Das	Group C
Sri Kapil Deb Shaw	Group D

Research scholars

Sudipta Banerjee, SRF Madhurima Basak, SRF Pieu Adhikary, SRF Subhasish Pramanik, SRF Hiya Ghosh, SRF	Bidisha Mukherjee, SRF Chiranjit Bose, SRF Asif Mondal, SRF Pampita Chakraborty, SRF Madhurima Basu, SRF	Susmita Dutta, SRF Shatabdi Ghosh, SRF Masuma Yasmin, JRF Swarnadip Chakraborty, JRF Ranu Pal, JRF
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TRANSFERS, POSTINGS AND SUPERANNUATIONS:

Dr.Rana Bhattacharjee is promoted and transferred to Medical College, Kolkata on 12.10.2022.

ACADEMIC ACTIVITY OF THE DEPARTMENT

- Seminar on every Monday
- Case presentation on every Tuesday
- Journal club on every Friday
- Regular theoretical and practical classes for DDCT students.
- Class by research Scientist on Biomedical research and genetics -periodically
- Workshop on Diabetes Technology-periodically
- Death Audit-periodically
- Clinico- pathological conference-periodically
- Guest Faculty lecture

Social Awareness

Diabetes advocacy on Insulin Discovery day (30.07.22) and World Diabetes Day (14.11.22)

FACULTY NEWS

Prof. Subhankar Chowdhury (HOD)

External Examiner for DM (Endocrinology) examination at AIIMS, New Delhi 20-21 May'22.

External Expert for selection of Faculty for the Deptt. of Endocrinology, AIIMS, New Delhi on 22 Sep'22

President, Foundation Day Committee of IPGME&R for 2020 – 2023.

Chairperson:

1. "Discovery of Insulin – lesser known facts" at Webinar 'Triumphant Century of Insulin' of Endocrine Society of Bengal on 23 Jan'22
2. "Recent advances in Management of Diabetes" at Annual Conference of Bengal IMA (BIMACON) on 19 Feb'22 at Kolkata
3. "Thyroid Hormone Resistance" at web-based Annual Conference of Indian Thyroid Society on 26 Feb'22
4. "Thyroid disorders in women" in 'Women Endocrine Care' series organized by Endocrine Society of India on 12 Mar'22
5. "DKA and Hypoglycaemia" at Paediatric Endocrinology webinar organised by Bengal Paediatric Endocrinology Group on 17 Apr'22
6. "Graves's disease – unmet needs" at web-based World Thyroid day webinar organized by Indian Thyroid Society on 25 May'22
7. "Incretins – an incredible journey" by Dr Michael Nauck at hybrid CRESCENDO, joint annual conference of RSSDI, WB branch and Endocrine Society of Bengal on 29 Apr'22
8. "Sleep medicine for physicians" at web-based first annual conference of The Unihealth at Kolkata on 28 May'22
9. "Place of other OAD in the era of SGLT2i" at web-based annual conference of Diabetes and You on 25 Jun'22
10. "How to become an influencer in the physician community" at Karnataka Endocrine Conclave at Bangalore on 16 Jul'22
11. "Basketful of Insulins: how to choose" at Insulin Discovery Day Symposium organized by Diabetes Association of India, West Bengal at Kolkata on 30 Jul'22
12. "Osteoporosis" at web-based Masterclass in Diabetes Endocrinology and Metabolism on 10 Sep'22

Oration:

- Charles Best Memorial Oration "Evidence on Evidence-based Medicine" at web-based EnDiab Summit 2022 on 12 Feb'22 organised by Charles Best Memorial Committee
- Best Mentor Award Oration "Secondary Diabetes – what the physician needs to know" at annual conference of RSSDI Jharkhand branch at Ranchi on 27 Aug'22
- APJ Abdul Kalam Oration "Management of Hyperglycaemia in Type 2 Diabetes" at annual Bengal Diabetes Conference at Durgapur on 6 Nov'22

Speaker:

1. State of the Art Lecture on "Globesity and Mitochondrial Dysfunction....The Connect or, Disconnect?" at Hybrid Annual Conference of Research Society for Study of Diabetes in India at Ahmedabad on 10 Dec'21
2. "Mitochondria: the missing piece in Diabetes treatment" at the Golden Jubilee Annual Conference of Endocrine Society of India at Bangalore on 11 Dec'21.
3. Pearls of Wisdom session on "Lessons learnt in last 30 years" at the Golden Jubilee Annual Conference of Endocrine Society of India at Bangalore on 12 Dec'21.
4. "Clinical application of Remogliflozin-based fixed dose combination" at International Web-based Symposium on Diabetes 2022 on 8 Jan'22.
5. "Changes of glucose in different phases of pregnancy" at Web-based International Conference on Metabolic disease organized by All India Institute of Diabetes and Research on 8 Jan'22.
6. "Thyroid and Diabetes – the emerging twin epidemic" at web-based International Conference on Metabolic disease organized by All India Institute of Diabetes and Research on 9 Jan'22.
7. "Pitfalls in management of Hypothyroidism" at web-based annual conference of Global Association of Physicians of Indian Origin on 26 Feb'22
8. "Case presentation on Congenital Adrenal Hyperplasia" at web-based Symposium with American Association of Clinical Endocrinologists on 16 Apr'22
9. "Mitochondria – new therapeutic target for CV risk modulation" at hybrid International Diabetes Summit organized by Chellaram Diabetes Institute, Pune on 5 Mar'22
10. "Graves' disease – what not to do" at Travancore Endocrinology Conference at Tiruvananthapuram on 18 Jun'22
11. "Optimum pubertal induction in Turner syndrome" at annual national conference IDEACON at Kolkata on 2 Jul'22
12. "Diabetes management beyond glucose control" at annual conference of RSSDI, Odisha branch at Cuttack on 20 Aug'22
13. "Diabetes and the Thyroid: the Conundrum" at annual conference of Academy of Diabetes Endocrinology Research and Education at Manesar on 3 Sep'22
14. "Imagining primary hyperparathyroidism" at international Conference organized by KEM Hospital, Mumbai at Mumbai on 17 Sep'22
15. "Endocrine Kaleidoscope" at web-based Hormone India 2022 on 18 Sep'22
16. "A dip into fat biology – visceral vs. subcutaneous" at annual conference of Endocrine Society of India at Jaipur on 23 Dec'22
17. "Metabolic disorders and Infection – inter-relationship and management strategies" at annual conference of Society for Nutrition and Diabetes on 30 Oct'22

Ongoing Projects:

1. "Evaluation of prevalence, regional phenotypic variation, co-morbidities, risk factors and the variations in response to different therapeutic modalities among Indian women with polycystic ovary syndrome (PCOS): A Multicenter study across India" funded by ICMR.
2. "A pilot study on the Role of Gut Microbiome in Gestational Diabetes Mellitus" funded by Department of Biotechnology, Government of West Bengal.
3. "A pilot study on Aetiopathogenesis of Graves' Ophthalmopathy – Focus on the Role of IgG (containing) TSH Receptor Antibody (TRAb) and Circulating Fibrocytes." funded by Endocrine Society of India.
4. "A study of on aetiopathogenesis of Graves Ophthalmopathy" funded by Deptt. of Higher Education, Science and Technology and BioTechnology, Govt. of West Bengal.
5. "Study of relationship between key factors of adipogenesis and obesity induced adipokines in subjects with and without diabetes", funded by Research Society for Study of Diabetes in India.
6. "Semaglutide cardiovascular outcomes trial in patients with Type 2 Diabetes (SOUL)",
7. Protocol Trial ID : EX9924-4473, Sponsored by "Novo Nordisk"

PhD Guide for Studies (Recently completed)

- "Role of Different Lipid Components in Pathogenesis of Diabetic Retinopathy." under Calcutta University
- "Role of endometrial cytokines of the female genital tract tuberculosis in the context of infertility" under Calcutta University.

PhD Guide for Studies (Current)

- "Study on Potential Pathogenetic Factors of Gestational Diabetes Mellitus: Focus on Role of Placenta, Inflammatory Markers and Gut Microbiota" under Calcutta University
- "A study of Aetiopathogenesis of Graves' Ophthalmopathy – Focus on Role of Circulating Fibrocytes." under Calcutta University.
- "Study of differential adipogenesis of visceral and subcutaneous adipocytes and its association with the biochemical markers of macrovascular risk factors in obese and non-obese diabetic individuals" under Calcutta University.
- "Role of TSH beyond the thyroid with special reference to peripheral blood mononuclear cells and markers of Atherosclerotic cardiovascular diseases: A study on subclinical and overt hypothyroid subjects" under Calcutta University.
- "Cytogenetic, molecular and hormonal studies of Disorders of sex development and its psychosexual effects" under West Bengal University of Health Sciences.

Book Chapter

- Chapter on "Diabetic Eye Disease – From Therapeutic Pipeline to the Real World" ISBN: 978-1-83969-765-4, Indexed in Web of Science; Academic Editor: Giuseppe Lo Giudice; Azienda Ospedaliera Di Padova, Italy
- Edited the section on Metabolism in the API Textbook of Medicine 2022

Prof. Satinath Mukhopadhyay

Guest Lectures and orations

1. 13/02/2022 - Lecture on Immunology and Inflammation "Fresh inflammatory tunes of metabolic disorder concern by Fetuin A, Society of Inflammation Research, Chennai, India.
2. 19/02/2022 - Guest lecture on 'Lipid Induced insulin resistance: Clinical implications. At the virtual meeting of the American Association of Clinical Endocrinologists, American Endocrinologists of Indian Origin in the USA (AEIOU) meeting.
3. 29/04/2022 - Management of phosphopenic osteomalacia in adults, CRESENDO 2022, Kolkata
4. 06/05/2022 - Endocrine Masterclass: Management of Primary Hyperparathyroidism (PHPT), CMC Vellore.
5. 28/05/2022- RSSDI Research Meet, Pune- Lipid Induced IR: Clinical implications.
6. 02/07/2022- IDEACON 2022: Lecture on Non-Cardio renal benefits of SGLT2-inhibitors
7. 03/07/2022 - Hypothalamic amenorrhea -Challenging estrogen replacement scenarios. IDEACON 2022, Kolkata.
8. 24/07/2022 - WB branch of Indian Dental Association: Plenary lecture on Diabetes & Oral health, Science City, Kolkata.
9. 03/09/2022 – Lecture on Time-In-Range, at the annual conference of the society for 'Diabetes awareness and You (DAY), Suresh Neotia Center of Excellence, Salt Lake, Kolkata.
10. 29/10/2022 – Guest lecture on tissue DPP-IV inhibition and glycemic control: novel insights, at GERIKON, ITC Royal Bengal, Kolkata.
11. 26/11/2022 – JM Bose memorial oration on 'Vitamin-D deficiency and insulin resistance, at the Bose Institute, Kolkata.
12. 29/11/2022 – Invited lecture on Vitamin D – The Sunshine Hormone, at the UGC Biotechnology faculty development program at St xaviers College, Kolkata
13. 10/12/2022 - Session Chair: Disease biology. Society of Biological Chemists, Biswa Bangla Convention Centre, Kolkata.

List of PhD Students:

- Bidisha Mukherjee
- Chiranjit Bose
- Asif Mondal

Prof. Pradip Mukhopadhyay

Working as a Member of the Local Research Advisory committee (LRAC) to MRU at IPGME&R, Kolkata.

Also working as a

- i) Vice Chairman to Endocrine Society of Bengal, a state affiliate of Endocrine Society of India.
- ii) Vice President to Diabetic Association of India

Book Chapter:

- Mukhopadhyay P, Ghosh S. Pathophysiology of Diabetes and its subtypes. In: API Text Book of Medicine 2022. 12th Edition. Editor in Chief: Kamath Sandhya A. Jaypee Brothers. New Delhi, India.
- Mukhopadhyay P, Ghosh S. Diabetic Ketoacidosis, Hyperosmolar Hyperglycemic States, Lactic Acidosis, and Hypoglycemia. In: RSSDI text book of Medicine. 2022. 5th Edition. Editor in Chief: Rajeev Chawla . Jaypee Brothers. New Delhi, India.

Prof. Sujoy Ghosh

Ongoing Projects:

1. Identification of non-invasive signatures for differential diagnosis of biopsy proven diabetic nephropathy and non-diabetic kidney disease by metabolomics and peptidomics approach
2. Liquid biopsy: a non-invasive approach for detection of known driver mutations and Long-Non-coding RNA expression in patients with Differentiated thyroid carcinoma
3. Evaluation of Lipidomic signature in prediction of onset of Polycystic Ovarian Syndrome
4. Utility of protein markers in urine/plasma to help differentiate diabetic kidney disease (DKD) from non-diabetic kidney disease (NDKD) in patients with Type 2 diabetes with biopsy proven nephropathy
5. Pilot project for management of Type 1 Diabetes in West Bengal
6. A study on clinical biochemical and molecular signatures in type 2 diabetes mellitus with renal involvement
7. Correlation of cyto-histopathological, radiological and genetic markers from FNAC material and Plasma in thyroid nodules
8. Urinary non-coding RNA in biopsy confirm patients with diabetic kidney disease to understand pathophysiology of disease and differentiate from non-diabetic kidney disease
9. Determination of differences in insulin resistance as measured by frequently sampled intravenous glucose tolerance test (fsIVGTT) in obese and non-obese PCOS with obese and non-obese control with special reference to body composition as measured by DXA
10. Role of long non-coding RNA in progression of early neuropathy to late neuropathy in Type 1 diabetes mellitus
11. Evaluation of Adrenal functions in patients with HbE/Beta Thalassemia
12. A Double Blind Comparative Prospective Study of The Safety of Tenueligliptin and Sitagliptin To Evaluate QTc Prolongation In Indian Type 2 Diabetes Patients
13. Clinical trial network for hospital based trail in Diabetology (BIRAC)
14. A prospective multicenter Phase IV study to assess the safety of fixed dose combination of Dapagliflozin and Saxagliptin in Indian Type 2 Diabetes mellitus (T2D) patients
15. A randomized controlled multicentre study to evaluate the safety and efficacy of Paltusontine in subjects with non-pharmacologically treated Acromegaly.

Completed Projects:

1. A Study on The Clinical and Microbiological Association Between Chronic Periodontitis And Diabetes
2. Establishment and characterization of human renal proximal tubular cell for determining expression of SGLT2 amongst Type2 diabetes
3. ICMR INDIAB Study
4. A prospective study on the role of incretin hormones in patients undergoing bariatric surgery
5. Comprehensive Molecular studies in Monogenic Forms of Diabetes In India
6. A Study of Anti-Hyperglycaemic properties of Gymnadenia Orchidis Lindl of Orchidaceae Family
7. A Study of Glucagon response and incretin levels in patients with fibro calculous pancreatic disease attending SSKM Hospital Kolkata
8. A Study of the prevalence of autoantibodies in Type 1 Diabetes
9. A prospective, multi-centre, double-blind, randomized, study to evaluate the safety and efficacy of Saroglitazar 4mg versus Placebo in the treatment of HIV associated lipodystrophy
10. Clinical significance of In Vivo Corneal Confocal Microscopy in Type 1 Diabetes mellitus patients
11. Evaluation of bone mineral density in subjects with type 1 diabetes mellitus
12. Dietary Fat & Cholesterol intake in patients with Type 2 Diabetes and input of Dietary intervention on serum Lipid parameters

Guide for PhD students (Current)

- **Pampita Chakraborty:** A Study on The Clinical And Microbiological Association Between Chronic Periodontitis And Diabetes (Thesis Submitted)
- **Madhurima Basu:** Identification of non-invasive signatures for differential diagnosis of biopsy proven diabetic nephropathy and non-diabetic kidney disease by proteomics, metabolomics and genomics approach

- **Susmita Dutta:** Common driver mutations and epigenetic changes mediated through long non-coding RNA in cell free nucleic acid among thyroid carcinoma patients for improvement of diagnosis and understanding mechanism of tumor development
- **Masuma Yasmin:** Evaluation of Type 1 Diabetes management programme in West Bengal: a clinic based study in selected districts
- **Shatabdi Ghosh (co-guide)** Role of long non-coding RNA in progression of early neuropathy to late neuropathy in Type 1 Diabetes mellitus.

Trainees:

1. **Astha Mukhopadhyay:** Long non-coding RNA expression in subjects with differentiated thyroid cancer using quantitative Real Time PCR
2. **Sreya Bhattacharya:** Expression of SGLT2 in urine sample by using quantitative real time PCR assay in Type 2 Diabetes patients
3. **Suvendu Patra:** Possible genetic abnormalities in Congenital Hypothyroidism

MBBS Students (ICMR STS):

1. **Sayan Patra:** Study of Fibrocalculous Pancreatic Diabetes with special reference to SPINK 1 mutation

Book Chapter:

1. Mukhopadhyay P, Ghosh S. Pathophysiology of Diabetes and its subtypes. In: API Text Book of Medicine 2022. 12th Edition. Editor in Chief: Kamath Sandhya A. Jaypee Brothers. New Delhi, India.
2. Mukhopadhyay P, Ghosh S. Diabetic Ketoacidosis, Hyperosmolar Hyperglycemic States, Lactic Acidosis, and Hypoglycemia. In: RSSDI text book of Medicine. 2022. 5th Edition. Editor in Chief: Rajeev Chawla . Jaypee Brothers. New Delhi, India.
3. Editor in Chief-RSSDI Yearbook, 2022, Jaypee Brothers. New Delhi, India.
4. Handbook of Thyroid disorders, Wiley Publishers,2022

Prof. Pranab Kumar Sahana.

Chairperson/Moderator

- IDEACON, July 2022
- CRESCENDO April 2022 (ESI-RSSDI)
- INSILIN DISCOVERY DAY(DAIWB), July 2022
- ENLIGHT April,2022 (Howrah Town Diabetes Society)
- MCESA scientific programme, Medical College Kolkata, January 2022

Guest Lecture

- Approach to a case of recurrent hyponatremia- HOPECON May,2022

Ongoing Project: Interplay between Fatty Acid Binding Protein 4 (FABP4) and Peripheral Arterial Disease in Type 2 diabetes in Indian population- A MRU sanctioned project.

Thesis Guide and Co- Guide:

- A study on Clinical, Radiological and Genotypic profile of Growth hormone deficiency- By Dr. Gokul MS (Post-Doctoral Trainee),Funded by ESB and ESI.
- A cross-sectional study on different clinical and biochemical phenotypes in Prader-Willi syndrome with special reference to Non-alcoholic fatty liver disease and Bone health” by Dr. Pritam Biswas (Post-Doctoral Trainee)
- The Effectiveness Of Vitamin D Therapy Along With Scaling And Root Planning In People With Chronic Periodontitis And Type 2 Diabetes Mellitus. Dr. Mitrasen Manna, Dr. R Ahmed Dental College, Kolkata.

Achievements:

- Academic Co-coordinator- DDCT Course, SMF, WB
- Examiner of DDCT Course, SMF, WB
- Reviewer and Editor of IJEM, AMSR, OAJE, EMIJ, IJCR Journals
- Awarded Fellowship by Royal College of Edinburgh (FRCP)

Dr. Dibakar Biswas

- 1. Thesis Co-guide of Post-Doctoral Trainee
- 2. Chairperson of Crescendo 2022

Dr. Tapas Chandra Das

- Chairperson in "Insulin workshop" organised by CRESENDO 2022.
- Thesis Co-Guide of DM Post-Doctoral trainee.

Dr. Indira Maisnam

- 1) Chapters in Books
 - a. API Update in Medicine: Endocrine Arthropathy
 - b. RSSDI Yearbook of Diabetes 2021: Chapter on T1DM
 - c. Elsevier: MEN 1
 - d. NEDSCON update: Peptide in a pill: will it prove to be the promise of the millennium?
 - e. Vitamin D and immune health: Vitamin D in cardiometabolic health
- 2) Speaker in Workshops
 - a. 16th March 2022: Workshop on T1DM at Swasthya Bhawan for Medical Officers in various Hospitals in Districts of West Bengal
 - b. Training of ICU Medical Officers and Nurses: Glycemic Control in Critical Care & Management of Hyperglycemic Crisis
- 3) Reviewer of Journals: IJEM, IJDDC, Diabetes UK, Diabetes and Metabolic Syndrome
- 4) Participation in National and Regional Conferences as Faculty.
- 5) Thesis Co-guide
 - a. Assessment of metabolic status in female medical students with special reference to Body fat Composition and Polycystic ovary syndrome. Student: Dr. Nisha Batra, Post-Doctoral Trainee, Endocrinology, IPGMER
 - b. Association of serum fetuin-A level with early peripheral neuropathy in type 2 diabetes mellitus patients detected by corneal confocal microscopy. Student: Dr. Debashish Dash, Post-Doctoral Trainee, Endocrinology, IPGMER
 - c. Study of body composition and metabolic parameters in patients with polycystic ovary syndrome. Student: Dr. Jemima Islam, Post-Graduate Trainee, General Medicine, IPGMER, Kolkata.

Dr Subir Chandra Swar

- Faculty in CRESCENDO, April, 2022
- Faculty in Endocrinology and Diabetes update, August 2022
- Thesis Co-Guide: A study on Clinical, Radiological and Genotypic profile of Growth hormone deficiency- By Dr. Gokul MS (PDT)

Prof. Nitai Pada Bhattacharyya, PhD

- Hony. Senior research Advisor
- Department of Endocrinology & Metabolism
- Date of joining: Extension on and from 05.10.2021

Achievements by Post-Doctoral Trainees/Senior Residents:

1. Dr. Soham Tarafdar (Post DM SR)- Winner of ESI- AV Gandhi Award for excellence in Endocrinology 2021
2. Dr. Aditya Deshpande DM resident) - 3rd Prize in Enspire ESI Quiz at Jaipur, 2022
3. Dr. Pankaj Singhania (DM Resident)- 2nd Prize for poster presentation in ISBMR 2022 at Chandigarh
DFCON 2022, Los Angeles, 2022 oral paper presentation on Fetuin A: A potential biomarker of PAD in T2DM.
Poster presentation at IDF, Lisbon on TBI is better than ABI in predicting raised CIMT in people with T2DM.
4. Dr. Vijay Budhwar- First prize winner at Enspire ESI Quiz at Jaipur, 2022
5. Dr. Piyas Gargari-

2nd position in oral paper presentation in ESICON 2021
 2nd position in national Endocrine Quiz in ESICON 2021
 2nd position in paper presentation in Crescendo 2022

PUBLICATION BY FACULTY, STUDENTS AND RESEARCH SCHOLARS

1. One-year trends from the LANDMARC trial: A 3-year, pan-India, prospective, Longitudinal study on the management and real-world outcomes of type2 diabetes mellitus. Ashok K Das, Sanjay Kalra, Shashank Joshi, Ambrish Mithal, Prasanna Kumar K.M, Ambika G.Unnikrishnan, Hemant Thacker, Bipin Sethi, Subhankar Chowdhury, Romik Ghosh. First Published : 01 Dec 2021, Endocrinology, Diabetes & Metabolism/ Volume 5, Issue 1/ e00316.
2. Pankaj Singhanian, Rana Bhattacharjee, Partha Pratim Chakraborty, Subhankar Chowdhury. .Leydig Cell Tumor- Induced Gonadotropin- Independent Precocious Puberty Progressing to Gonadotropin- Dependent Precocious Puberty Post Orchiectomy : Out of the Frying Pan into the Fire. Published on 12 Jan 2022. Cureus 14(1):e21165.
3. Decreased Levels of miR-126 and miR-132 in Plasma and Vitreous Humor of Non-Proliferative Diabetic Retinopathy Among Subjects with Type-2 Diabetes Mellitus. Subhasish Pramanik, Chinmay Saha, Subhankar Chowdhury, Chiranjit Bose, Nitai P Bhattacharyya, Lakshmi Kanta Mondal. Diabetes Metabolic Syndrome and Obesity: Targets and Therapy 2022;15 345-358
4. Risk Factors Analysis and Management of Cardiometabolic-Based Chronic Disease in Low- and Middle-Income Countries. haitanya Dutt , Joao Eduardo Nunes Salles , Shashank Joshi , Tiny Nair , Subhankar Chowdhury , Ambrish Mithal , et al : Targets and Therapy 2022;15 451-465
5. Ranjit Mohan Anjana, Ranjit Unnikrishnan, Mohan Deepa, Ulagamathesan Venkatesan, Rajendra Pradeepa, Shashank Joshi, Banshi Saboo, Ashok Kumar Das, Sarita Bajaj, Anil Bhansali, Sri Venkata Madhu, Vinay Kumar Dhandhania, Puthiyaveetil Kottayam Jabbar, Sunil M Jain, Arvind Gupta, Subhankar Chowdhury, et al, for the ICMR-INDIAB collaborators* Achievement of guideline recommended diabetes treatment targets and health habits in people with self-reported diabetes in India (ICMR-INDIAB-13): A national cross-sectional study. www. The Lancet.com/diabetes-endocrinology. Published online April21, 2022.
6. Shashank R Joshi^{1*}, Subhash K Wangnoo², Subhankar Chowdhury³, Hemraj B Chandalia⁴, Bipin Sethi⁵, Ambika G Unnikrishnan⁶, Abdul Hamid Zargar⁷, Ashok Kumar Das⁸, Ajay Kumar⁹, Sanjay Kalra¹⁰, Viswanathan Mohan¹¹. Indian Reality of Clinical Practice and Patient Profile in Diabetes Care: Lessons from the IMPACT survey. Journal of The Association of Physicians of India ■ Vol. 70 ■ May 2022.\
7. Lakshmi Kanta Mondal, Subhasish Pramanik, Subhankar Chowdhury, Chiranjit Bose, Debgopal Bera, Ayindrila Saha and Koena Bhattacharjee. Do different lipid components accelerate the pathogenesis and severity of Diabetic Retinopathy? International Journal of Retina and Vitreous, June 2022
8. Pankaj Singhanian, Rana Bhattacharjee, Subhankar Chowdhury. Van Wyk-Grumbach syndrome: a rare presentation of a common endocrine disorder. Endokrynologia Polska, Clinical Vignette, Accepted on: 08.03.2022,
9. Macronutrient Recommendations for Remission and Prevention of Diabetes in Asian Indians Based on a Data-Driven Optimization Model: The ICMR-INDIAB National Study. Ranjit Mohan Anjana , Seshadhri Srinivasan, Vasudevan Sudha, Shashank R. Joshi., Banshi Saboo, Nikhil Tandon, Ashok Kumar Das, et al for ICMR-INDIAB Collaborative Study Group. Epidemiology/Health Services Research, August 19, 2022
10. Singhanian P, Kar A, Das D, Bhattacharjee R, Chowdhury S. Ectopic Cushing's Syndrome: A Race Against Time. Turk J Endocrinol Metab. 2022;26(3):174-177
11. Diagnostic and prognostic utility of SF-1 in adrenal cortical tumours. Priyanka Maity, Akash Mondal, Rhituparna Das, Moumita Sengupta, Piyas Gargari, Anish Kar, Debansu Sarkar, Satinath Mukhopadhyay, Subhankar Chowdhury, Uttara Chatterjee. Indian Journal of Pathology and Microbiology, Volume 65, Issue 4, Oct-Dec 2022
12. Rana Bhattacharjee, Subhankar Chowdhury, Dipanjana Datta, Emili Banerjee. Aromatase deficiency in a tall man: Case report of two novel mutations and review of literature. Published by Elsevier – Bone Reports. <https://doi.org/10.1016/j.bonr.2022.101642>.
13. Basu M, Pulai S, Neogi S, Ghosh S et al. Prevalence of non-diabetic kidney disease and inability of clinical predictors to differentiate it from diabetic kidney disease: results from a prospectively performed renal biopsy study. BMJ Open Diab Res Care doi:10.1136/ bmjdrc-2022-003058
14. Arya AK, Bhadada SK, Kumari P, Agrawal K, Mukhopadhyay S, Sarma D, et al. Differences in primary hyperparathyroidism between pre-and postmenopausal women in India. 2021;27(7):710-5.
15. Baidya A, Basu AK, Bhattacharjee R, Biswas D, Biswas K, Chakraborty PP, et al. Diagnostic approach in 46, XY DSD: an endocrine society of bengal (ESB) consensus statement. 2022.
16. Baidya A, Datta S, Mukhopadhyay S, Roy SSJJotES. Novel Mutations in FGFR1 Causing Idiopathic Hypogonadotropic Hypogonadism: A Cohort Study in Eastern Indian Population. 2021;5(Supplement_1):A507-A8.

17. Banerjee M, Ahamed J, Chowdhury S, Mukhopadhyay S. Influence of Serum Biochemistry on Bone and Kidney Phenotypes in Subjects With Symptomatic Primary Hyperparathyroidism. 2021.
18. Banerjee M, Pal R, Mukhopadhyay SJAD. Can SGLT2 inhibitors prevent incident gout? A systematic review and meta-analysis. 2022;1-9.
19. Barkondaj B, Nargis T, Chakrabarti P, Mukhopadhyay S, Biswas K, Ganguly D, et al. An Observational Study showing Dipeptidyl Peptidase-4 (DPP-4) Activity and Gene Expression Variation in Chronic Liver Disease (CLD) Patients from a Tertiary Care Hospital of Eastern India. 2022;26(3):245-51.
20. Bhadada SK, Chadha M, Sriram U, Pal R, Paul TV, Khadgawat R, et al. The Indian Society for Bone and Mineral Research (ISBMR) position statement for the diagnosis and treatment of osteoporosis in adults. 2021;16(1):1-13.
21. Burkart K, Causey K, Cohen AJ, Wozniak SS, Salvi DD, Abbafati C, et al. Estimates, trends, and drivers of the global burden of type 2 diabetes attributable to PM2.5 air pollution, 1990–2019: an analysis of data from the Global Burden of Disease Study 2019. *Lancet Planet Health*. 2022 Jul;6(7):e586-e600. doi: 10.1016/S2542-5196(22)00122-X. PMID: 35809588; PMCID: PMC9278144.
22. Das S, Chattopadhyay D, Chatterjee SK, Mondal SA, Majumdar SS, Mukhopadhyay S, et al. Increase in PPAR γ inhibitory phosphorylation by Fetuin—A through the activation of Ras-MEK-ERK pathway causes insulin resistance. Das S, Chattopadhyay D, Chatterjee SK, Mondal SA, Majumdar SS, Mukhopadhyay S, Saha N, Velayutham R, Bhattacharya S, Mukherjee S. Increase in PPAR γ inhibitory phosphorylation by Fetuin-A through the activation of Ras-MEK-ERK pathway causes insulin resistance. *Biochim Biophys Acta Mol Basis Dis*. 2021 Apr 1;1867(4):166050. doi: 10.1016/j.bbadis.2020.166050. Epub 2020 Dec 24. PMID: 33359696.
23. Dasgupta A, Bakshi A, Mukherjee S, Das K, Talukdar S, Chatterjee P, et al. Epidemiological challenges in pandemic coronavirus disease (COVID-19): Role of artificial intelligence. Dasgupta A, Bakshi A, Mukherjee S, Das K, Talukdar S, Chatterjee P, Mondal S, Das P, Ghosh S, Som A, Roy P, Kundu R, Sarkar A, Biswas A, Paul K, Basak S, Manna K, Saha C, Mukhopadhyay S, Bhattacharyya NP, De RK. Epidemiological challenges in pandemic coronavirus disease (COVID-19): Role of artificial intelligence. *Wiley Interdiscip Rev Data Min Knowl Discov*. 2022 Jul-Aug;12(4):e1462. doi: 10.1002/widm.1462. Epub 2022 Jun 28. PMID: 35942397; PMCID: PMC9350133.
24. Dinneen SF, Mukhopadhyay SJDMAJotBDA. Tackling Diabetes Care at a Population Level. Dinneen SF, Mukhopadhyay S. Tackling diabetes care at a population level. *Diabet Med*. 2021 Sep;38(9):e14590. doi: 10.1111/dme.14590. Epub 2021 May 16. PMID: 33930215.
25. Frostad JJ, Nguyen QP, Baumann MM, Blacker BF, Marczak LB, Deshpande A, et al. Mapping development and health effects of cooking with solid fuels in low-income and middle-income countries, 2000–18: a geospatial modelling study. *Lancet global health*. 2022;10(10):e1395-e411.
26. Gargari P, Mukhopadhyay S, Chowdhury SJJJoE, Metabolism. Height adjusted lumbar spine BMD in Turner syndrome: A case control study. 2022;26(Suppl 1):S51.
27. Ghosh A, Ray S, Garg M, Chowdhury S, Mukhopadhyay SJDM. The role of infrared dermal thermometry in the management of neuropathic diabetic foot ulcers. 2021;38(4):e14368.
28. Goswami S, Choudhuri S, Bhattacharya B, Bhattacharjee R, Roy A, Mukhopadhyay S, et al. Chronic inflammation in polycystic ovary syndrome: A case–control study using multiple markers. 2021;19(4):313.
29. Goswami S, Choudhuri S, Bhattacharya B, Bhattacharjee R, Roy A, Mukhopadhyay S, et al. *International Journal of Reproductive Medicine*, 2021, 19(4): 313-320 . 2021;19(4):313-20.
30. James SL, Abate D, Abate KH, Abay SM, Abbafati C, Abbasi N, et al. Policy and technical considerations for implementing a risk-based approach to international travel in the context of COVID-19. 2021;392(10159):1789-858.
31. Karmakar E, Das P, Yatham P, Kumar D, Mukhopadhyay S, Roy SSJNPR. Seedpod extracts of *Wrightia tinctoria* shows significant anti-inflammatory effects in HepG2 and RAW-264.7 cell lines. 2022:1-5.
32. Mohan V, Bhavadharini B, Mukhopadhyay S, Nallaperumal S, Tiwaskar M, Anjana RM, et al. Diabetes in pre-independence India: Rediscovering a forgotten era. 2021;69:80-4.
33. Mohan V, Shanthi Rani CS, Saboo B, Mukhopadhyay S, Chatterjee S, Dharmarajan P, et al. Clinical Profile of Long-Term Survivors and Nonsurvivors with Type 1 Diabetes in India. 2022;24(2):120-9.
34. Mukherjee S, Mondal A, Sengupta M, Chatterjee U, Sarkar D, Mukhopadhyay SJJJoP, et al. Composite phaeochromocytoma with malignant peripheral nerve sheath tumour: A case report with summary of prior published cases. 2021;64(3):571.
35. Pal R, Joshi A, Bhadada SK, Banerjee M, Vaikkakara S, Mukhopadhyay SJEP. Endocrine follow-up during post-acute COVID-19: practical recommendations based on available clinical evidence. 2022.
36. Pandey A, Brauer M, Cropper ML, Balakrishnan K, Mathur P, Dey S, et al. Health and economic impact of air pollution in the states of India: the Global Burden of Disease Study 2019. 2021;5(1):e25-e38.
37. Rastogi A, Mukhopadhyay S, Sahoo JP, Ghosh A, Jha S, Bal. Intensive glycemic control for diabetic foot ulcer healing: a multicentric, randomized, parallel arm, single-blind, controlled study protocol (INGLOBE study). 2022;21(4):443-9.

38. RASTOGI A, SAHOO JP, SIVASUBRAMANIAN S, MUKHOPADHYAY S, SHUKLA R, SANTOSH R, et al. A Pan-India, Knowledge, Attitudes and Practices (KAP) Study of Healthcare Practitioners in India Regarding Immunomodulatory Role of Vitamin D Supplementation in COVID-19. 2022;23(2).
39. Selvan C, Mukhopadhyay S. Harnessing gut friendly microbiomes to combat metabolic syndrome. Microbiome, Immunity, Digestive Health and Nutrition: Academic Press; 2022. p. 185-91.
40. Unnikrishnan R, Anjana RM, Mukhopadhyay S, Kesavadev J, Mithal A, Joshi S, et al. Comment on Lontchi-Yimagou et al. An Atypical Form of Diabetes Among Individuals With Low BMI. Diabetes Care 2022; 45: 1428–1437. 2022;45(11):e157-e8.
41. Beatrice AM., Chakraborty, P., Mukhopadhyay, P. et al. Periodontal disease in fibrocalculous pancreatic diabetes (FCPD): common complication of an uncommon disease. Int J Diabetes Dev Ctries (2022). <https://doi.org/10.1007/s13410-022-01148-2>
42. Yasmin M, Mukhopadhyay P, Ghosh S. Model of care for Type 1 diabetes in India: Integrated approach for its incorporation in future national health care policy. The Lancet Regional Health - Southeast Asia 2022; 00: 100014. <https://doi.org/10.1016/j.lansea.2022.05.003>
43. Mukhopadhyay P, Sanyal D, Chatterjee P, Pandit K, Ghosh S. Authors' Response. Endocr Pract. 2022 Oct;28(10):1109-1111. doi: 10.1016/j.eprac.2022.07.013. Epub 2022 Aug 27. PMID: 36031179.
44. Baidya A, Basu AK, Bhattacharjee R, Biswas D, Biswas K, Chakraborty PP, Chatterjee P, Chowdhury S, Dasgupta R, Ghosh A, Ghosh S, Giri D, Goswami S, Maisnam I, Maiti A, Mondal S, Mukhopadhyay P, Mukhopadhyay S, Mukhopadhyay S, Pal SK, Pandit K, Ray S, Chowdhury BR, Raychaudhuri M, Raychaudhuri P, Roy A, Sahana PK, Sanyal D, Sanyal T, Saraogi RK, Sarkar D, Sengupta N, Singh AK, Sinha A. Diagnostic approach in 46, XY DSD: an endocrine society of bengal (ESB) consensus statement. J Pediatr Endocrinol Metab. 2022 Nov 25. doi: 10.1515/jpem-2022-0515. Epub ahead of print. PMID: 36424806.
45. Kalra S, Shaikh S, Priya G, Baruah MP, Verma A, Das AK, Shah M, Das S, Khandelwal D, Sanyal D, Ghosh S et al. Individualizing Time-in-Range Goals in Management of Diabetes Mellitus and Role of Insulin: Clinical Insights From a Multinational Panel. Diabetes Ther. 2021 Feb;12(2):465-485. doi: 10.1007/s13300-020-00973-0. Epub 2020 Dec 26. Erratum in: Diabetes Ther. 2021 Sep;12(9):2627-2629. PMID: 33367983; PMCID: PMC7846622.
46. Jain A, Chawla M, Kumar A, Chawla R, Grover V, Ghosh S, Pandit N, Chawla P. Management of periodontal disease in patients with diabetes- good clinic practice guidelines: A joint statement by Indian Society of Periodontology and Research Society for the study of diabetes in India. Int J Diabetes Dev Ctries. 2022 (Aug) 40 (Supp 2):S1-S33.
47. Mukhopadhyay P, Sanyal D, Chatterjee P, Pandit K, Ghosh S. Different Sodium-Glucose Co transporter-2 Inhibitors: Can They Prevent Death? Endocr Pract. 2022 May 13:S1530-891X (22) 00513-4. doi: 10.1016/j.eprac.2022.05.005. Epub ahead of print. PMID: 35569736.
48. Mandal S, Mukhopadhyay P, Ghosh S. DHEA on sexual function in Sheehan Syndrome: A randomized double-blind placebo-controlled cross-over trial. J Clin Endocrinol Metab. 2022 Apr 27:dgac260. doi: 10.1210/clinem/dgac260. Epub ahead of print. PMID: 35481572
49. Gargari P, Mukhopadhyay P, Saboo B, Mishra A, Ghosh S. Fabkin and glucose homeostasis. Diabetes Metab Syndr. 2022 Jul 9;16(8):102565. doi: 10.1016/j.dsx.2022.102565. Epub ahead of print. PMID: 35850074.
50. Sujoy Ghosh, Pradip Mukhopadhyay. Getting Published: The Inside Story. Editorial. J Ind Med Assoc 2022; 120(1):11-2.
51. Mandal S, Mukhopadhyay P, Ghosh S. Quality of life in Sheehan syndrome. Indian J Endocr Metab 2022;26:282-3. doi: 10.4103/ijem.ijem_100_22.
52. Anjana RM, Srinivasan S, Sudha V, Joshi SR, Saboo B, Tandon N, Das AK, Jabbar PK, Madhu SV, Gupta A, Bajaj S, Chowdhury S, et al for ICMR-INDIAB Collaborative Study Group. Macronutrient Recommendations for Remission and Prevention of Diabetes in Asian Indians Based on a Data-Driven Optimization Model: The ICMR-INDIAB National Study. Diabetes Care. 2022 Aug 18:dc220627. doi: 10.2337/dc22-0627.
53. Masuma Yasmin, Sujoy Ghosh. Ethics in Publication. J Ind Med Assoc 2022; 120(11):13-15.
54. Basu M, Ghosh S, Mukhopadhyay P, Bhattacharyya N, Chaudhury AR. Urinary long noncoding RNA to differentiate diabetic kidney disease (DKD) from non-diabetic kidney disease (NDKD). The European Association for the Study of Diabetes 2022 At: Stockholm.
55. Basu M, Neogi S, Pulai S, Banerjee M, Sengupta S, Bhattacharyya N, Mukhopadhyay P, Chaudhury AR, Ghosh S. Prevalence and clinical predictors of Non-diabetic kidney disease in Type 2 Diabetes with renal involvement. April 2022Diabetes Research and Clinical Practice 186:109638. DOI:10.1016/j.diabres.2022.109638
56. Tarafdar S, Dutta S, Mukhopadhyay P, Bhattacharyya N, Ghosh S. Utility of liquid biopsy in indeterminate thyroid nodules. Endocrine Abstracts (2022) 81 P219 | DOI: 10.1530/endoabs.81.P219.
57. Saboo, B., Agarwal, S., Makkar, B.M. Ghosh S et al. RSSDI consensus recommendations for dyslipidemia management in diabetes mellitus. Int J Diabetes Dev Ctries 2022; 42, 3–28.

58. Mukherjee, Partha Sarathi and Ghosh, Sujoy and Mukhopadhyay, Pradip and Das, Dipesh Kumar and Sarkar, Pabak and Majumdar, Saibal and Chatterjee, Kajal and Chowdhury, Abhijit and Das, Kausik, Stepwise Evaluation for the Risk of Metabolic Unhealthiness and Significant Non-Alcoholic Fatty Liver Disease in the Community of a Lower Income Country. 2022 AUG (30). Available at SSRN: <https://ssrn.com/abstract=4194740>.
59. Aditya Deshpande, Pankaj Singhania, Sreejith Babu, Anish Kar, Pranab K Sahana, Rana Bhattacharjee. Low-trauma Fracture with Hypercalcemia: Need to Look Deeper. Bengal Physician Journal 2022;9(2):41–43.
60. Ankita Sen, Pranab Kumar Sahana, Prantar Chakrabarti, Pramit Ghosh, Tuphan Kanti Dolai Rajib De. Abnormal glucose homeostasis in patients of HbE β thalassemia: Prevalence and possible pathogenesis using the Oxford HOMA model. Journal of Hematology and Allied Sciences 2022;2: 46-54
61. Das Niladri, Sahana Pranab Kumar, Tarenia, Silima Subhasnigdh, Gaikwad, Prashant Manohar, Baidya Arjun, Sengupta Nilanjan, Goswami Soumik. Osteopetrosis: A rare case. Annals of Medical Science & Research: May–Aug 2022 - Volume 1 - Issue 2 - p 93-96
62. Das, Chanchal; Sahana, Pranab Kumar, . Magnitude of dyslipidemia in type 2 diabetes. Annals of Medical Science & Research: May–Aug 2022 - Volume 1 - Issue 2 - p 74-76
63. Paul R, Ghosh A, Sengupta N, Sahana PK. Comparison of efficacy and safety of vildagliptin 50 mg tablet twice daily and vildagliptin 100 mg sustained release once daily tablet on top of metformin in Indian patients with Type 2 diabetes mellitus: A randomized, open label, Phase IV parallel group, clinical trial. Natl J Physiol Pharm Pharmacol. 2022; 12(8): 1229-1232.
64. Sattik Siddhanta, Pranab Kumar Sahana, Nilanjan Sengupta, and Soumik Goswami. a prospective cohort study on effect of levothyroxine replacement on health-related quality of life in subjects with subclinical hypothyroidism in a tertiary care. Int J Recent Sci Res, Vol. 13, Issue, 03 (C), pp. 629-37.
65. Goswami S, Agrawal N, Sengupta N, et al. (February 10, 2022) Absence of Vitamin D deficiency among Outdoor workers with type 2 diabetes mellitus in southern West Bengal, India. Cureus 14(2): e22107. doi:10.7759/cureus.22107
66. Singhania P, Bhattacharjee R, Das TC, Swar SC, Sahana PK, Chowdhury S. Salt and pepper pot skull. Ann Med Sci Res 2022; 1:44-5.

SERVICE INFORMATION

1. Out- patient care (patient served)- From DEC 21 To Nov 22

	New and old Patient
Endocrinology	28862
Diabetes	79300

2. Special clinic (Patient served):

	Diabetes Foot Clinic	GDM (Diabetes in Pregnancy Clinic)	Pediatric Endocrinology clinic	Thyroid nodule Clinic
No. of patients	763	302	221	102

3. Inpatient care (patient served): Total admission-136

Male Ward (EC)	74
Female Ward (EC)	62

4. RIALAB (Immunossay-Immolute 1000) OF ENDOCRINOLOGY

Tests data from December 2021 to November 2022

T4	FT3	F4	TSH	LH	FSH	PRL	TEST	COR	GH	INS	ATA
0	1288	9911	10380	1007	918	985	929	1629	444	377	1246

ATG	IG1	PEP	ACT	AND	DHS	TG	IPT	E2	CAL	PRG	SBG
200	562	381	670	130	257	303	1463	197	73	0	0

TOTAL TESTS DONE IN RIA LAB = **33,350**

5. Dynamic tests done in the department:

- Short Synacthen test
 - Water deprivation test
 - Growth hormone stimulation and suppression tests
 - Water deprivation test
 - Inferior petrosal sinus sampling- in collaboration with Interventional Radiology
 - Adrenal Venous sampling- in collaboration with Interventional Radiology
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