Name:	Dr. Atanu Kumar Dutta	
Expertise:	Biochemistry Clinical Chemistry Molecular Diagnostics Clinical Genetics	

Contact Address:

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Education:

Sl No	Institution	Degree Awarded	Year	Subject
1	Burdwan Medical College, University of Burdwan	MBBS	2006	Medicine, Surgery
2	Post Graduate Institute of Medical Education and Research, Chandigarh	MD	2011	Biochemistry
3	Christian Medical College, Vellore	Postdoctoral Fellowship	2015	Clinical Genetics
4	CMC Ludhiana FAIMER Institute	FAIMER Fellowship in educational leadership	Ongoing since 2021	Health Professional Education

Position:

Sl No	Institute	Position	From	To
1	Institute of Postgraduate Medical Education and Research, Kolkata	Demonstrator	July 2011	October 2012
2	Institute of Postgraduate Medical Education and Research, Kolkata	Assistant Professor	October 2012	July 2013

3	Christian Medical College, Vellore	Senior Resident	July 2013	July 2015
4	National Institute of Biomedical Genomics, Kalyani	Clinical Molecular Geneticist	October 2015	30.05.19
5	All India Institute of Medical Sciences, Kalyani	Assistant Professor, Biochemistry	04.06.2019	Till date

Write-up of clinical service, research and development interest/focus, past and present goals:

- Six years of experience in diagnostic molecular genetics in Christian Medical College, Vellore and National Institute of Biomedical Genomics, Kalyani. Worked for the establishment of Genetic Services Unit in IPGMER and SSKM Hospital, Kolkata. This lab has tested more than 1100 patients for around 45 different inherited diseases. The lab got high scores from European Molecular Genetics Quality Assurance Network (EMQN) and is included in the NCBI Gene Test Registry.
- We had identified PNPLA3 rs738409 polymorphism as a risk factor for alcoholic liver disease in North Indians and subsequently shown HepG2 cell line to be a natural model system to study this polymorphism.
- We have identified and reported several novel genetic variants associated with rare genetic diseases both in the form of publication and ClinVar submission.
- **Area of interest:**

My career goal is to provide cost effective genomic diagnostic services of highest quality standard to all. I am also interested in using model systems to elicit the functional implications of novel genes and variants in respect of genetic diseases.

Significant Recognition:

Selected for International Summit of Human Genetics and Genomics 2018 by National Human Genome Research Institute, NIH, Bethesda.

Was awarded the prestigious Jagadis Bose National Science Talent Search Scholarship (2001).

Was awarded Academic Medal by PGIMER, Chandigarh (2011).

Selected list of Publications and Patents:

1. Yoganathan S, Sudhakar SV, Thomas M, Dutta AK, Danda S. “Eye of tiger sign” mimic in an adolescent boy with mitochondrial membrane protein associated neurodegeneration (MPAN). Brain and Development. 2016;38(5):516–9.
2. Dutta AK. A curious case of hyperbilirubinemia. Indian Journal of Clinical Biochemistry. 2012;27(2):200–1.
3. Dutta AK, Saha S, Chatterjee S, Datta S. A Dilemma in Diabetes. 2012;
4. Dutta AK. A new PCR-RFLP method for diagnosing PNPLA3 RS738409

polymorphism. 2011;

5. J. Chaudhuri t. B A Biswas, S Biswas, G Gangopadhyay, A Dutta. A study of Mutation in ATP7B gene and its correlation with clinical phenotype and radiological features in patients of Wilson Disease-a population based study in a tertiary care institute in eastern India. In International Parkinson and Movement Disorder Society; 2019. p. S206.

6. Chaudhuri J, Biswas S, Gangopadhyay G, Biswas T, Datta J, Biswas A, et al. A study of Mutation in ATP7B gene and its correlation with clinical phenotype and radiological features in Wilson Disease patients. bioRxiv. 2021;

7. Dutta AK. Adiponutrin (PNPLA3) in liver fibrogenesis: Is unaltered HepG2 cell line a better model system compared to murine models? Medical Hypothesis. 2015;

8. Dutta AK, Danda S, Muthusamy K, Alexander M, Sudhakar SV, Hansdak S, et al. Cerebrotendinous xanthomatosis: Possibility of founder mutation in CYP27A1 gene (c. 526delG) in Eastern Indian and Surinamese population. Molecular genetics and metabolism reports. 2015;3:33–5.

9. Chaudhuri J, Dutta AK, Biswas T, Biswas A, Ray BK, Ganguly G. Charcot-Marie-Tooth disease type 4J with spastic quadriplegia, epilepsy and global developmental delay: a tale of three siblings. International Journal of Neuroscience. 2020;1–4.

10. Dutta AK, Ekbote AV, Thomas N, Omprakash S, Danda S. De Barsy syndrome type B presenting with cardiac and genitourinary abnormalities. Clinical dysmorphology. 2016;25(4):190–1.

11. Dutta AK, Goswami K, Murugayan SB, Sahoo S, Pal A, Paul C, et al. Evaluation of e-OSPE as compared to traditional OSPE: A pilot study. Biochemistry and Molecular Biology Education. 2021;

12. Danda S, Mohan S, Devaraj P, Dutta AK, Nampoothiri S, Yesodharan D, et al. Founder effects of the homogentisate 1, 2-dioxygenase (HGD) gene in a gypsy population and mutation spectrum in the gene among alkaptonuria patients from India. Clinical rheumatology. 2020;39(9):2743–9.

13. Ullah E, Saqib MAN, Sajid S, Shah N, Zubair M, Khan MA, et al. Genetic analysis of consanguineous families presenting with congenital ocular defects. Experimental eye research. 2016;146:163–71.

14. Dutta AK. Genetic factors affecting susceptibility to alcoholic liver disease in an Indian population. Annals of hepatology. 2013;12(6):901–7.

15. Dutta AK, Goswami K. Host genomics of COVID-19: Evidence point towards Alpha 1 Antitrypsin Deficiency as a putative risk factor for higher mortality rate. Medical Hypotheses. 2021;110485.

16. COVID-19 Host Genetics Initiative. Mapping the human genetic architecture of COVID-19 by worldwide meta-analysis. MedRxiv. 2021;

17. Yoganathan S, Sudhakar S, Thomas M, Dutta AK, Danda S, Chandran M. Novel imaging finding and novel mutation in an infant with molybdenum cofactor deficiency,

a mimicker of hypoxic-ischaemic encephalopathy. Iranian journal of child neurology. 2018;12(2):107.

18. Dutta AK. Promises and pitfalls of NGS technology in Clinic: Experience from Kolkata. Canadian Journal of Biotechnology. 2017;1(Special):284.

19. Dutta A, Paulose B, Danda S, Alexander S, Tamilarasi V, Omprakash S. Recurrent truncating mutations in alanine-glyoxylate aminotransferase gene in two South Indian families with primary hyperoxaluria type 1 causing later onset end-stage kidney disease. Indian journal of nephrology. 2016;26(4):288.

20. Dutta AK, Danda S. Restrictive dermopathy. Pediatrics & Neonatology. 2016;57(3):259.

21. Dutta AK. Schuurs-Hoeijmakers syndrome in a patient from India. American Journal of Medical Genetics Part A. 2019;179(4):522–4.

22. COVID-19 Host Genetics Initiative. The COVID-19 Host Genetics Initiative, a global initiative to elucidate the role of host genetic factors in susceptibility and severity of the SARS-CoV-2 virus pandemic. European Journal of Human Genetics. 2020;28(6):715.

23. Chaudhary A, Mohapatra R, Nagarajaram H, Ranganath P, Dalal A, Dutta A, et al. The novel EDAR p. L397H missense mutation causes autosomal dominant hypohidrotic ectodermal dysplasia. Journal of the European Academy of Dermatology and Venereology. 2017;31(1):e17–20.

24. Dutta AK, Goswami K, Murugaiyan S, Sahoo S, Pal A, Paul C, et al. The transition from objectively structured practical examination (OSPE) to electronic OSPE in the era of COVID-19. Biochemistry and Molecular Biology Education. 2020;48(5):488–9.

25. Pal A, Squitti R, Picozza M, Pawar A, Rongioletti M, Dutta AK, et al. Zinc and COVID-19: basis of current clinical trials. Biological trace element research. 2020;1–11.

Research Support:

Sl No.	Title of Project	Funding Agency	Amount in Rs	Date of sanction and Duration
1	Evaluation of HepG2 cell line as a natural model system for liver fibrosis	RSSDI	2,00,00	Sept 2013, 2 years
2	Genetic analysis of Indian families with CerebrotendinousXanthomatosis	CMC Vellore	40,000	July 2014, 1 year
3	Towards understanding genetic architecture underlying hereditary non-syndromic hearingloss (NSHL)	DBT under Genetic disease task force.	40,00,000	Sanctioned, awaiting release of funds

Membership of Professional Bodies:

- Life member of Indian Academy of Medical Genetics.