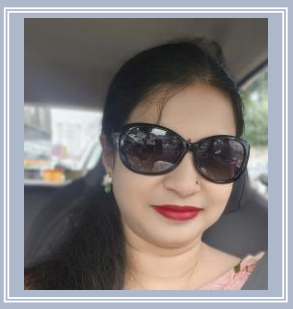

VIDYASAGAR COLLEGE
39 SANKAR GHOSH LANE
KOLKATA

Name: **DR. KOTISREE LAHIRI**

1	Name	Dr. Kotisree Lahiri		
2	Designation	Assistant Professor		
3	Mail ID	kotisree.lahiri@gmail.com		
4	Contact No	(+91) 9433241811		
5	Date of Joining	03.12.2016		
Academic qualifications				
6	Degree	Subject	University	Year
	Ph.D.	Botany	University of Calcutta	2010
	M.Sc.	Botany	University of Calcutta	2005
	B.Sc.	Botany	University of Calcutta	2003
PH.D. DETAILS				
7	Title of the Thesis	Micropropagation, cytomolecular and chemical analysis of different varieties and regenerated plants of *Mucuna pruriens* L.		
	Field of specialization under subject/ discipline	Plant Tissue Culture, Plant Biotechnology, Molecular Biology and Cytology		
8	PREVIOUS POSITIONS/Engagement	**Woman Post Doctoral Fellow** (UGC) in the project entitled "Genome analysis and *in vitro* clonal propagation of *Clitoria ternatea* L." from 16.02.2012 to 02.12.2016, in the Department of Botany, University of Calcutta. **Research Associate** in the CSIR research project entitled "Cyto-molecular analysis of different species of *Calathea* and *Maranta* for assessment of phylogeny and affinities as well as micropropagation for improvement and conservation" from 18.05.2011 to 15.02.2012, in the Department of Botany, University of Calcutta. [Qualified CSIR NET (LS) and GATE]		
9	Google scholar page:	https://scholar.google.com/citations?user=xLEVkKMAAAAJ&hl=en		
10	ORCID ID			
11	HONOURS AND AWARDS	1. Received National Scholarship from Government of India for securing a place in the Merit List in Graduation (B.Sc. Honours Part II Examination) held by the University of Calcutta in 2003. 2. Received certificates for General Proficiency in Class VII, VIII, IX and X. (Calcutta Girls' High School). 3. Received prize for ranking first in Botany Hons. in the Annual Examination, 2001. (Bethune College) 4. Received the Hemoprova Bose Memorial Medal for Highest Proficiency in Botany (Hons.) in the B.Sc. Examination, 2003. (from Bethune College) 5. Received Girindra Nath Mitra Memorial Prize, for Highest Proficiency in Botany (Hons.) in the B.Sc. Examination, 2003. (from Bethune College) 6. Received Tapati Chatterjee Memorial Prize, for Highest Proficiency in Botany (Hons.) in the B.Sc. Examination, 2003. (from Bethune College) 7. Received Special Staff Prize by Botany Dept. for Highest Proficiency in Botany (Honours) in the B.Sc Examination, 2003. (from Bethune College)		

		8. Received A. K. Chandra Memorial Award for obtaining highest marks in 'Microbiology' Special paper in M.Sc. Final Examination, 2005.
12	CURRENT RESEARCH PROJECT/ Field of Research	
13	TECHNICAL UNDERSTANDING AND EXPERIENCE	• Isolation and purification of plant genomic DNA. • Agarose gel electrophoresis for DNA analysis. • Plant genome polymorphism analysis through RAPD, ISSR, ITS-PCR techniques. • Extraction and Isolation of plant total protein. • Total Plant Protein analysis following Polyacrylamide Gel Electrophoresis. • Study of isozyme activity. • Nuclear genome analysis using **Fluorescence Activated Cell Sorter.** • *In situ* microspectrophotometric estimation of nuclear DNA. • Plant chromosome analysis. • Plant Cell and Tissue Culture Techniques including suspension culture. • Extraction of plant secondary metabolites. • Isolation and maintenance of bacterial pure culture. • Staining of microbial organisms. • Preparation of lyophilized bacterial cell mass. • Atomic absorption spectrophotometry.
14	SUMMARY OF RESEARCH EXPERIENCE	10 years of research experience in the field of Plant Tissue culture, plant chromosome study, nuclear genome amount estimation and molecular biology studies including DNA isolation, purification and use of molecular markers (RAPD, ISSR etc) for genome polymorphism analysis, total protein and isozyme activity analysis.
15	EXPERIENCE OF PROJECT MANAGEMENT	
16	COMPLETE LIST OF PUBLICATIONS	1. **Lahiri K** (2020). A review on tissue culture of an important medicinal herb of Fabaceae- *Mucuna pruriens* L. *Int J Biol pharma & Allied Sci*. 10(5):1590-1604. 2. **Lahiri K**, Mukhopadhyay MJ and Mukhopadhyay S (2018). Biochemical marker-based comparative genomic characterization of *in vivo* varieties and *in vitro* regenerates of *Mucuna pruriens* L., an important medicinal plant. *Int J Bot Studies* 3(3):1-10. 3. **Lahiri K**, Mukhopadhyay MJ and Mukhopadhyay S (2016). Karyotype analysis and 4C Nuclear DNA estimation in different cultivars of *Clitoria ternatea* L. *Cytologia* 81(1):19-23. 4. Samanta D, **Lahiri K**, Mukhopadhyay MJ and Mukhopadhyay S (2016). Cytomorphological analysis and *in situ* 4C nuclear DNA estimation in species and varieties of *Tabernaemontana*. *Nucleus* 59:99-105. 5. Samanta D, **Lahiri K**, Mukhopadhyay MJ and Mukhopadhyay S (2015). Karyomorphological analysis of different varieties of *Tabernaemontana coronaria*. *Cytologia* 80(1):67-73. 6. Kumari A, **Lahiri K**, Mukhopadhyay MJ and Mukhopadhyay S (2014). Genome analysis in species of *Calathea* utilizing chromosomal and nuclear DNA parameters. *Nucleus* 57(3):203-208. 7. **Lahiri K**, Mukhopadhyay MJ and Mukhopadhyay S (2012). Somatic embryogenesis and Plant Regeneration in *Mucuna pruriens*. *J Trop Med Plants* 13(1):43-49.

8. **Lahiri K**, Mukhopadhyay MJ, Desjardins Y and Mukhopadhyay S (2012). Rapid and stable *in vitro* regeneration of plants through callus morphogenesis in two varieties of *Mucuna pruriens* L.- An anti-Parkinson's drug yielding plant. *Nucleus* 55(1):37-43.

9. Mukherjee A, **Lahiri K**, Samanta D and Mukhopadhyay S (2011). Effects of cytokinin on *in vitro* shoot bud multiplication and subsequent plant regeneration of *Solanum melongena* L. *J Bot. Soc. Beng.* 65(2):173-177.

10. **Lahiri K**, Mukhopadhyay MJ and Mukhopadhyay S (2011). Enhancement of L-DOPA production in micropropagated plants of two different varieties of *Mucuna pruriens* L., available in India. *Plant Tiss Cult and Biotech.* 21(2):115-125.

11. **Lahiri K,** Samanta D**,** Sengupta P, Mukhopadhyay MJ and Mukhopadhyay S (2011). Stable plant regeneration through somatic embryogenesis in two species of *Allium.* Proceedings of the International Convention on "Botanicals in Integrated Health Care" 174-176.

12. **Lahiri K**, Mukhopadhyay MJ and Mukhopadhyay S (2010). Karyotype analysis and *in situ* 4C nuclear DNA quantification in two varieties of *Mucuna pruriens* L. *J Trop Med Plants* 11(2): 219-225.

13. **Lahiri K,** Mukhopadhyay MJ and Mukhopadhyay S (2009). Study of somatic chromosomes, estimation of 4C and 2C nuclear DNA content and RAPD analysis of two varieties of *Mucuna pruriens* L. *Pers Cytol Genet* 14:193-198.

14. Mukhopadhyay MJ, **Lahiri K** and Mukhopadhyay S (2008). *In vitro* microtuberization and enhanced colchicine accumulation in two species of *Gloriosa. Cytologia* 73(4): 357-363.

15. **Lahiri K,** Mukhopadhyay MJ and Mukhopadhyay S (2008). Genomic diversity and its influence on rapid shoot bud multiplication and efficient plant regeneration in *Mucuna pruriens* L. In: SK Ghose and A Bhattacharrya (eds) Scientific and technological interventions on the development of medicinal and aromatic plants- Indian perspective: 46-54.

16. **Lahiri K**, Mukhopadhyay S and Mukhopadhyay MJ (2006). A new report on induction of embryogenic callus culture of *Mucuna pruriens* L., - an important medicinal plant. *J Bot Soc Bengal* 60(1): 1-4.

17. **Lahiri K*,** Mukhopadhyay MJ and Mukhopadhyay S (2007). Genome diversity and its influence on rapid shoot bud multiplication and efficient plant regeneration in *Mucuna pruriens* L. Presented at the National Symposium on "Present status ---- plants in India, held on 26th –28th April, 2007 at BCKV, Mohanpur, West Bengal.

18. Mukhopadhyay MJ, **Lahiri K**, Ghosh N*****, Smith DW and Mukhopadhyay S (2007). A comparative study on microtuberization *in vitro* and colchicine contents of two species of *Gloriosa* of Colchicaceae. Presented at The Botanical Society of America Congress, Chicago, July 7-11, 2007 [Abs. No. CP39004].

19. **Lahiri K***, Mukhopadhyay MJ and Mukhopadhyay S (2009). Chromosomal and molecular polymorphism at intra- and inter-varietal levels in *Mucuna pruriens* L. Presented at the 14th All India Congress of Cytology and Genetics, held on 1st – 4th December, 2009 at Kolkata.

		20. **Lahiri K*,** Mukhopadhyay MJ and Mukhopadhyay S (2010). Micropropagation, evaluation of genetic status and estimation of L-DOPA content of the regenerated clones of two varieties of *Mucuna pruriens* L. Presented at the National Symposium on "Plant Cell Tissue & Organ Culture: The Present Scenario", held on 3rd – 5th March, 2010 at Kolkata. 21. **Lahiri K*,** Samanta D**,** Sengupta P, Mukhopadhyay MJ and Mukhopadhyay S (2010). Stable plant regeneration through somatic embryogenesis in two species of *Allium*. Presented at the International Convention on "Botanicals in Integrated Health Care" held on 26th – 28th December, 2010 at Kolkata. 22. **Lahiri K*,** Samanta D, Mukhopadhyay MJ and Mukhopadhyay S (2013). Cyto-morphological study of species and varieties of *Calathea.* Presented at the Centenary Session of The Indian Science Congress, Kolkata, 3rd-7th January, 2013. 23. **Lahiri K*,** Mukhopadhyay MJ and Mukhopadhyay S (2014). Complete Plant Regeneration Following Somatic Embryogenesis in *Mucuna pruriens* var. *pruriens.* Presented at the International Symposium-*Trends in Plant Science Research*, Kolkata, held on 15th and 16th of February 2014. 24. **Lahiri K*,** Mukhopadhyay MJ and Mukhopadhyay S (2014). Karyotype analysis and in situ cytophotometric nuclear DNA content estimation in different cultivars of *Clitoria ternatea* L. Presented at the National Symposium on Evolving Plant Biology: From Chromosomes to Genomics, Kolkata, 27th – 29th November, 2014. 25. **Lahiri K***, Mukhopadhyay MJ and Mukhopadhyay S (2015). Chromosomal analysis in different cultivars of *Clitoria ternatea* L. Presented at the 17th All India Congress of Cytology and Genetics, held on 22nd-24th December, 2015 at Kolkata. 26. **Lahiri K***, Samanta D, Mukhopadhyay MJ and Mukhopadhyay S (2019). Genome characterization of different species, varieties and populations of *Tabernaemontana* using protein and molecular markers. Presented at the National symposium on New Horizons of Integrative Biology, held on 29th-30th March, 2018 at Kolkata. 27. **Lahiri K***, Mukhopadhyay MJ and Mukhopadhyay S (2019). A comparative analysis on callus-mediated plant regeneration in *Mucuna pruriens* L. Presented at the National symposium on Advancement in Plant Sciences: An Insight, held on 30th September, 2019, at Kolkata. *** Presenting author**
17	Extracurricular Activities	Photography, painting
18	Link to personal website (if any)	