

CURRICULUM VITAE

PERSONAL

NAME Bhagyalaxmi Mohapatra
SEX Female
DATE OF BIRTH August 28, 1963
PLACE OF BIRTH Cuttack, Orissa (INDIA)
CITIZENSHIP Indian
MARITAL STATUS Married
Current Position Professor
ADDRESS (Work) Cytogenetics Laboratory
Department of Zoology
Banaras Hindu University
Varanasi – 221005
Email: blaxmi2@yahoo.com
HYPERLINK :blaxmi2@yahoo.com

(Home)

R-10 Hyderabad Colony
Banaras Hindu University
Varanasi – 221 005
Phone: 0542-2570280
Mobile: 7080815065

EDUCATION

DEGREE	INSTITUTION AND LOCATION	YEAR
B.Sc	Utkal University, India	1982
M.Sc.	Utkal University, India	1984
Ph.D.	Banaras Hindu University, India	1994

PROFESSIONAL EXPERIENCE

POSITION	INSTITUTION AND LOCATION	DURATION AND (AREA OF RESEARCH)
Post-doctoral fellowship (Genes & Proteins Lab)	National Institute of Immunology	Nov1995 - July 1998 (Isolation and characterization of genes coding sperm surface

	(Mentor: Prof. Anil Suri PhD)	antigens by screening human testis expression cDNA library: Identification of a candidate molecule(s) for development of contraceptive vaccine.")
Post-doctoral fellowship (Exp. Radiation Oncology)	MD Anderson Cancer Center (Mentor: Prof. M.L.Meistrich, PhD)	June 1999 - Aug 2000 ("To study the role of transition proteins (TP1 and TP2) during mammalian spermatogenesis by using mice lacking Tnp1 and/or Tnp2 genes generated by targeted-deletion of these genes in mouse embryonic stem cells.")
Post-doctoral Res. Associate (Pediatrics- Cardiology)	Baylor College of Medicine, (Mentor: Prof. Jeffery A Towbin, MD)	Sept 2000– June 2009 ("Screening and Characterization of genes associated with myocardial disorders, Cariomyopathy and congenital heart defects in human.")

Posts held after appointments at BHU:

Designation	Department	Date of joining	Date of leaving	Pay-Grade
Assistant Professor	Department of Zoology, BHU, Varanasi-5 India	01/07/2009	27/02 /2018	PB3, Rs. 15600-39100
Associate Professor	Department of Zoology, BHU, Varanasi, India	28/02/2018	Continuing	PB-IV Rs37400-67000 AGP-Rs.9000/-

Period of teaching experience:

P.G. Classes	U.G. Classes	Post-Doctoral Research experience (as Research Scientist, Research Associate etc.)
15years	15years	12.5 years

Fields of specialization: Cytogenetics, Human molecular Genetics

(a) Cytogenetics

(b) Human molecular Genetics

(c) Developmental Genetics

Brief Profile and Research Interest:

I am currently working as professor in the Department of Zoology, Institute of Science at Banaras Hindu University. My research interest is cardiovascular genetics, particularly genetic analysis of congenital heart disease (CHD) and cardiomyopathy. Goal of my laboratory is to map, isolate and characterize the genes responsible for familial cardiomyopathies and congenital heart diseases as well as will determine the prevalence of genetic mutations that cause these disorders in Indian population and establish DNA based diagnostic for these diseases. I have authored more than 40 research papers in peer reviewed international journals. I also authored 9 book chapters.

MEMBERSHIP IN ACADEMIC AND PROFESSIONAL SOCIETIES

1. Member of the "Indian Society for Cell Biology" (INDIA)
2. Member of "Indian Society of Human genetics" (INDIA)
3. Member of the American Society of Human Genetics (USA)

Publications (Numbers Only):

Research Papers, Reports: **44**

Books: 9 Book Chapters

Patents: 4 applied (3 Granted)

Others (Conference Abstracts): 59, **Invited Lectures: 7**

Total cumulative Impact factor : **210.19**

Total Citation: **3438** **H- Index: 21** **I10 index: 31**

OMIM Citation: 5

EDITORIAL BOARD/ REVIEWER:

1.Frontiers in Genetics, 2.BMC Cardiovascular Disorders

Manuscript reviewer for Frontiers in Genetics, Frontiers in cardiovascular medicine, Frontier in molecular medicine, American Journal of Medical Genetics, , J of Genetics, Current Science, Indian Journal of medical Research etc

PEER-REVIEWED RESEARCH PUBLICATIONS:

BOOK CHAPTERS:

Published:

1. Giri, P. and Mohapatra, B., **Genotype**; (2017), In: Vonk J., Shackelford T. (eds) Encyclopedia of Animal Cognition and Behavior. 1st Ed, Springer International Publishing Co. page1-3, https://doi.org/10.1007/978-3-319-47829-6_68-1 **Citation:1**
2. Giri, P. and Mohapatra, B., **Copy number variant**;(2017) In: Vonk J., Shackelford T. (eds) Encyclopedia of Animal Cognition and Behavior. 1st Ed, Springer International Publishing Co., page:1714-1717, https://doi.org/10.1007/978-3-319-55065-7_8 **Citation:2**
3. Ritu and Mohapatra, B., **Genetic variation**; (2018) In: Vonk J., Shackelford T. (eds) Encyclopedia of Animal Cognition and Behavior. 1st Ed, Springer International Publishing Co. page 2913-2918, https://doi.org/10.1007/978-3-319-55065-7_20 **Citation:2**
4. Giri, P. and Mohapatra, B., **Candidate gene**; (2018) In: Vonk J., Shackelford T. (eds) Encyclopedia of Animal Cognition and Behavior. 1st Ed, Springer International Publishing Co., page:929-932; https://doi.org/10.1007/978-3-319-55065-7_1 **Citation:16**
5. Yadav, M. and Mohapatra, B., **Homogametic**; (2017) In: Vonk J., Shackelford T. (eds) Encyclopedia of Animal Cognition and Behavior. 1st Ed, Springer International Publishing Co. page: 3206-3208, https://doi.org/10.1007/978-3-319-47829-6_15-1
6. Yadav M. and Mohapatra, B., **Intergenic**; (2017) In: Vonk J., Shackelford T. (eds) Encyclopedia of Animal Cognition and Behavior.1st Ed, Springer International

Publishing Co. page: 3630-3634, https://doi.org/10.1007/978-3-319-55065-7_64, **Citation:25**

7. Giri, P. and Mohapatra, B., **Gene pool**, (2018) In: Vonk J., Shackelford T. (eds) Encyclopedia of Animal Cognition and Behavior. 1st Ed, Springer International Publishing Co. page 1-4, https://doi.org/10.1007/978-3-319-47829-6_69-1
8. Giri, P., Yada v, M. and Mohapatra, B., **QTL Linkage Analysis**, (2018) In: Vonk J., Shackelford T. (eds) Encyclopedia of Animal Cognition and Behavior. 1st Ed, Springer International Publishing Co. page:5821-5826, **Citation: 12** https://doi.org/10.1007/978-3-319-55065-7_161
9. Ritu, Giri, P. and Mohapatra, B., **Genomic imprinting**, (2017) In: Vonk J., Shackelford T. (eds) Encyclopedia of Animal Cognition and Behavior. 1st Ed, Springer International Publishing Co. page 1-7, https://doi.org/10.1007/978-3-319-47829-6_23-1

RESEARCH PAPERS:

Manuscript under review:

- 1) Prerna Giri; Ritu Dixit; Ashok Kumar; **Bhagyalaxmi Mohapatra**, Identification and characterization of CSRP3 variants in dilated cardiomyopathy in patients from Indian population (communicated in **Exp. Cell Res.** manuscript # ECR-24-1406)
- 2) Prerna Giri; Dharmendra Jain; Ashok Kumar; **Bhagyalaxmi Mohapatra**, "Mutations in LBD3/ZASP are associated with Dilated cardiomyopathy. (**communicated**)
- 3) Dixit R, Agrawal D, Kumar A, **Mohapatra B.** Whole transcriptome analysis revealed novel differentially regulated GATA4 targeted genes in transactivation domain mutant (**communicated**)

Published:

(44) **B Mohapatra**, A Mukhopadhyay, P Giri, D Jain, A Kumar (2025), Identification and functional characterization of LDB3 gene variants in DCM patients from Indian Population. **BioRxiv**, 10.21.683814. (<https://doi.org/10.1101/2025.10.21.683814>).

- (43) Jyoti Maddhesiya, Ritu Dixit, Ashok Kumar and **Bhagyalaxmi Mohapatra**, Implication of novel variants of *BMP2* in isolated congenital heart disease: Functional characterization by *in silico* and *in vitro* approaches (2025), **BioRxiv**, doi: <https://doi.org/10.1101/2025.08.29.672127>
- (42) Jyoti Maddhesiya, Dharmendra Jain, Ashok Kumar, **Bhagyalaxmi Mohapatra**, Association of *IRX4* synonymous variants with congenital heart disease: Leveraging *in-silico* approaches to predict the functional impact. (2025) **Research Square**, <https://doi.org/10.21203/rs.3.rs-7192653/v1>
- (41) Jyoti Maddhesiya, Ritu Dixit, Ashok Kumar and **Bhagyalaxmi Mohapatra**, Functionally significant, novel variants of *BMP4* are associated with isolated congenital heart disease (2025), **BioRxiv**, <https://doi.org/10.1101/2025.05.26.656099>
- (40) Amrita Mukhopadhyay, Bharti Devi, Anurag TK Baidya, Manohar Lal Yadav, Rajnish Kumar, **Bhagyalaxmi Mohapatra** (2025) "Computational Exploration of *TITIN* Variations: Insights from Whole Exome Sequencing and Molecular Dynamics Simulation Study. **Journal of Biomolecular Structure & Dynamics**, Page 1-19; **Impact Factor Best Quartile ; 3.2, 5 year IF ; 8.9 [Q2] Citation: 1**
- (39) Amrita Mukhopadhyay, Bharti Devi, Anurag TK Baidya, Manohar Lal Yadav, Rajnish Kumar, **Bhagyalaxmi Mohapatra**, Implication of *TITIN* Mutations in Dilated Cardiomyopathy: Integrating Whole Exome Sequencing with Molecular Dynamics Simulation study. (2024) **BioRxiv**, <https://doi.org/10.1101/2024.11.10.622829> **Citation: 2**
- (38) Jyoti Maddhesiya, **Bhagyalaxmi Mohapatra**; Understanding the Genetic and Non-Genetic Interconnections in the Aetiology of Syndromic Congenital Heart Disease: An Updated Review: **Part 2** (2024) **Current Cardiology Reports**. Feb. 15, Vol 26. No. 3 **P167-178 Impact factor: 3.99. <https://doi.org/10.1007/s11886-024-02020> [Q1] Citation: 1**
- (37) Jyoti Maddhesiya, **Bhagyalaxmi Mohapatra**; Understanding the Genetic and Non-Genetic Interconnections in the Aetiology of Syndromic Congenital Heart Disease: An Updated Review: **Part 1** (2024) **Current Cardiology Reports**. 28 march, Vol. 26 p 147-165, **Impact factor: 3.99. <https://doi.org/10.1007/s11886-024-02022-9> [Q1] Citation: 6**
- (36) Chandra Devi, Shivendra Singh, **Bhagyalaxmi Mohapatra**, Ashok Kumar, Sanjay Vikrant, Rana Gopal Singh, and Parimal Das; Association of *MIOX* with Autosomal Dominant Polycystic Kidney Disease. (2023) **medRxiv**, <https://doi.org/10.1101/2023.04.20.23288719> **Citation: 1**

- (35) Prerna Giri, Dharmendra Jain, Ashok Kumar and **Bhagyalaxmi Mohapatra**; Identification and inCSRP3 synonymous variants in dilated cardiomyopathy: an *in-silico* approach (2023) **Molecular Biology Reports**, Springer Vol50 (5) p1-13. <https://doi.org/10.1007/s11033-023-08314-7> **Impact factor: 2.74 Citation: 4 [Q2]**
- (34) PrernaGiri, Ritu Dixit, Ashok Kumar & **Bhagyalaxmi Mohapatra**, Mutations in CSRP3/MLP, a Z-disc associated gene are functionally associated with dilated cardiomyopathy in Indian population. (2021) **medRxiv**, <https://doi.org/10.1101/2021.11.05.21265852>
- (33) Manohar Lal Yadav, Ashutosh Narayan Bhaskar, Ashok Kumar, **Bhagyalaxmi Mohapatra**, Identification and characterization of variant of *TGFB1* in patients with congenital heart disease. **Metagene**, Vol.31 p1-11, Feb 2022, <https://doi.org/10.1016/j.mgene.2021.100987>, **Impact factor:0.536 Citation: 8 [Q4]**
- (32) Manohar Lal Yadav, Prashant Ranjan, Parimal Das, Dharmendra Jain,Ashok Kumar, **Bhagyalaxmi Mohapatra**, Implication of rare genetic variants of *NODAL* and *ACVR1B* in Congenital Heart Disease patients from Indian Population. **Experimental Cell Research**, Dec 2021, Vol 409 (1) p1-15 <https://doi.org/10.1016/j.yexcr.2021.112869>, **Impact factor: 4.1 Citation: 3 [Q2]**
- (31) P Giri, A Mukhopadhyay, M Gupta, B Mohapatra, Dilated cardiomyopathy: a new insight into the rare but common cause of heart failure. **Heart failure Reviews**, March, 2022 vol.27 No. 2 page- 431-454 **Impact factor: 4.5 Citation: 34.** <https://doi.org/10.1007/s10741-021-10125-6> **[Q1]**
- (30) Ritu Dixit, Chitra Narasimhan, Vijayalaksmi I. Balekundri, Damyanti Agarwal, Ashok Kumar, **Bhagyalaxmi Mohapatra**, (2021) Functional analysis of novel genetic variants of *NKX2-5* associated with non-syndromic Congenital Heart Disease. **Am. J. Med Genet, part A**, vol185(12):3644-63. DOI: 10.1002/AJMG.A.62413 **[Q2]** **Impact factor: 3.9 Citation: 21**
- (29) Manohar Lal Yadav, Dharmendra Jain, Neelabh, Damayanti Agrawal, Ashok Kumar, **Bhagyalaxmi Mohapatra**, A Gain of Function mutation in *CITED2* is associated with congenital heart disease. **Mutation Res: Fund Mol Mech Mutagen**, 2021 vol.822 p1-13. **Impact Factor: 2.398** (<https://doi.org/10.1016/j.mrfmmm.2021.111741>) **Citation:15 [Q2]**
- (28) Prashant Ranjan, **Bhagyalaxmi Mohapatra**, Parimal Das (2020)A rational drug designing: What bioinformatics approach tells about the wisdom of practicing traditional medicines for screening the potential of Ayurvedic and natural compounds for their inhibitory effect against COVID-19 Spike, Indian strain Spike, Papain-like protease and Main Protease protein. **Research Square**: DOI:[10.21203/rs.3.rs-30366/v1](https://doi.org/10.21203/rs.3.rs-30366/v1) **Citation: 19**

- (27) Ritu Dixit, Ashok Kumar, **Bhagyalaxmi Mohapatra**, Implication of GATA4 synonymous variants in congenital heart disease: A comprehensive in-silico approach. *Mutation Res: Fund Mol Mech Mutagen* (2019), 813, p31-38, <https://doi.org/10.1016/j.mrfmmm.2018.12.002>
Impact Factor: 2.398 Citation: 18 [Q2]
- (26) Ritu Dixit, Chitra Narasimhan, Vijyalakshmi I.B, Damyanti Agrawal, Ashok Kumar, **Bhagyalaxmi Mohapatra**, Functionally significant, novel GATA4 variants are frequently associated with Tetralogy of Fallot. *Human Mutation*, 27 August 2018 vol.39(12) 1957-1972.
Impact Factor: 5.359 Citation: 20, <https://doi.org/10.1002/humu.23620> [Q1]
- (25) Ritu Bhardwaj, Sunil Kumar Rai, Abhishek Kumar Yada¹, Siddharth Lakhota, Damyanti Agrawal, Ashok Kumar, **Bhagyalaxmi Mohapatra**. Epidemiology of congenital heart disease in India. *Congenital Heart Disease*, Wiley, 8 Sep 2015 vol.10(5) 437-46 <https://doi.org/10.1111/chd.12220>
Impact Factor: 2.419 Citation: 145 [Q2]
- (24) Ritu Bhardwaj, Damyanti Agrawal, Ashok Kumar, **Bhagyalaxmi Mohapatra**. Identification of mutations in bone morphogenetic protein 2, 4,7 in congenital heart disease patients from Indian population. *Molecular Cytogenetics* Jan 2014 vol.7 p32 <https://doi.org/10.1186/1755-8166-7-S1-P32>
Impact Factor: 1.5 5 Yrs. Impact factor: 2.05 Citation: 1 [Q3]
- (23) Li Qian, Joshua D. Wythe, Jiandong Liu, Jerome Cartry, Georg Vogler, **Bhagyalaxmi Mohapatra**, Robyn T Otway Y, Yu Huang, Isabelle N. King, Marjorie Maillet, Yi Zheng, Tomothy Crawley, OuardaTaghli-Lamalle, Christopher semsarian, Sally Dunwoodie, David Winlaw, Richard P. Harvey, Diane Fatkin, Jeffrey A. Towbin, Jeffery Molkentin, Deepak Srivastava, Karen Occore, Benoit G. Bruneau, Rolf Bodmer. Tinman/Nkx2-5 acts via miR-1 and upstream of Cdc42 to regulate heart function across species. *Journal of Cell Biol.* June 2011 Vol. 193 (7) 1181-1196 <https://doi.org/10.1083/jcb.201006114>
Impact Factor:10.539 5 Yrs. Impact factor: 10.54 Citation: 102 [Q1]
- (22) Marco Ricci*, **Bhagyalaxmi Mohapatra***, Arnel Urbiztondo, Rhea J. Birusingh, Micaela Morgado, Maria M. Rodriguez, Joy Lincoln, Matteo Vatta. Differential Changes in TGF- β /BMP Signaling Pathway in the Right Ventricular Myocardium of Newborns with Hypoplastic Left Heart Syndrome. *Journal of Cardiac Failure*, 2010 May VOL16 (8) 628-634 <https://doi.org/10.1016/j.cardfail.2010.03.007>
***Equal contributor first author**
Impact Factor: 6.5 5 Yrs. Impact factor:5.4 Citation: 42 [Q1]
- (21) **Bhagyalaxmi Mohapatra**, G. Wesley Vick III, Charles D. Fraser, Sarah K. Clunie, Jeffrey A. Towbin, Gianfranco Sinagra and Matteo Vatta (2010): Short-term mechanical unloading LVAD Therapy Improve Gene Expression in failing Heart and Elicits Pro-

Apoptotic Cytokines Inhibition Associated with Heat Shock Transcription Factor-1 Up-regulation. *Journal of Heart and Lung Transplantation*, 2010, VOL 29 pages 98-104 doi:10.1016/j.healun.2009.06.030

Impact Factor:13.57 5 Yrs. Impact factor: 5.63 **Citation: 35 [Q1]**

- (20) **Bhagyalaxmi Mohapatra**, Brett Casey, Hua Li, Trang Ho, Liana smith, Susan Frenbach, Laura Molinary, Stephen R Niesh, John Lynn Jefferies, William J Craigen,Jeffery A. Towbin, Stephanie M. Were and John W. Belmont, Identification and functional charecterization of Nodal rare-variants in heterotaxy and isolated cardiovascular malformations. *Human Molecular Genetics*, 2009, Vol18 (5) 861-71 DOI: [10.1093/hmg/ddn411](https://doi.org/10.1093/hmg/ddn411)

Impact Factor: 6.15 5 Yrs. Impact factor:5.99 **Citation: 206 [Q1]**

- (19) Qian Li, **Mohapatra B**, Akasaka T, Liu J, Occor K, Towbin JA ad Bodmer R: (2008): Transcription factor *neuromancer*/TBX20 is required for cardiac function in *Drosophila* with possible implications for human heart disease.

Proceedings of the National Academy of Sciences, USA, Dec 16, 2008, Vol 105 (50) p 19833-19838. doi: 10.1073/pnas.0808705105.

Impact Factor: 12.78 5 Yrs. Impact factor: 12.291 **Citation: 102 [Q1]**

- (18) Wu G, Ai T, Kim J J, **Mohapatra B**, Xi Y, Li Z, Abbasi S, Purevjav E, Samani K, Ackerman MJ, Qi M, Moss A J, Shimizu W, TowbinJA, Cheng J and Vatta M. Alpha-1-Syntrophin mutation and the Long-QT syndrome. *Circulation: Arrhythmia and Electrophysiology*. 2008; 1:193-201 doi: [10.1161/CIRCEP.108.769224](https://doi.org/10.1161/CIRCEP.108.769224)

Impact Factor:7.7 5 Yrs. Impact factor: 6.43 **Citation: 172 [Q1]**

- (17) **B Mohapatra**, (2007) Novel Mutations in Human NODAL are Potentially Associated with Heterotaxy Syndrome. *Am J Hum Genet*, 81, 987-994.

Impact Factor: 8.1 5 Yrs. Impact factor: 9.6 **Citation: 3. [Q1]**

- (16) M Vatta, T Ai, G Wu, JJ Kim, **B Mohapatra**, Y Xi, MJ Ackerman, S Abbasi, Zhaohui Li, Jie Cheng, Jeffrey A Towbin (2007) A novel variant of Alpha-1-Syntrophin may cause long-QT syndrome. *Circulation* 116 (S16), 653 doi: [10.1161/CIRCEP.108.769224](https://doi.org/10.1161/CIRCEP.108.769224)

Impact Factor: 19.3 5 Yrs. Impact factor: 17.1 **Citation: 3. [Q1]**

- (15) Brandon N. Anim, **Bhagyalaxmi Mohapatra**, Matteo Vatta, Debra Murray, George Weinstock and Richard Gibbs: Role of the beta-adrenergic receptors in the cardiac response to beta-blocker therapy. *The FASEB Journal*, 2008; 22: 1046

Impact Factor: 5.04 5 Yrs. Impact factor: 7.1 **Citation: 1 [Q1]**

- (14) Jagdish N, Rana R, Selvi R, Mishra D, Shankar S, **Mohapatra B**, Suri A: Molecular cloning and characterization of macaque sperm associated antigen 9 (SPAG9): An orthologue of human SPAG9 gene. *Mol Reprod Dev*, 2005 May. 71 (1): p 58-66

Impact Factor: 2.14 5 Yrs. Impact factor: 2.5 **Citation: 19 [Q2]**

- (13) S. Shankar, **B. Mohapatra**, S. Verma, R. Selvi, N. Jagadish, A. Suri: Isolation and characterization of a haploid germ cell specific sperm associated antigen 9 (SPAG9) from the baboon. *Mol Reprod Dev*, 2004 Oct.69(2): p 186-193.
Impact Factor: 2.6 **5 Yrs. Impact factor: 2.5** **Citation: 34** **[Q2]**
- (12) Matteo Vatta, **Bhagyalaxmi Mohapatra**, Shinawe Jimenez, Ximena Sanchez, Neil E. Bowles, Karla R. Bowles, and Jeffrey A. Towbin: Do Cypher Gene Mutations cause Left Ventricular Noncompaction with sub clinical Myopathy? *Journal of the American College of Cardiology*, 2004 Sep. 44 (5) p1139-1140 **Letters to the Editor - Reply**
Impact Factor: 24.094. **5 Yrs. Impact factor: 18.46** **Citation: 3.** **[Q1]**
- (11) Saguna Verma; **Bhagyalaxmi Mohapatra**; Nirmala Jagadish; Ramasamy Selvi; Pragyan Roy; Ritu Rana; Kavitha Lakshmi; Anil Suri: "Molecular Cloning, Expression of Testicular Transcript Abundant in Germ Cells and Immunobiological Effects of the Recombinant Protein". *Amrican J. of Reproductive Immunology*, 2004 Aug; 52 pp. 164-173. **Impact Factor: 2.92** **5 Yrs. Impact factor: 2.47** **Citation: 2.** **[Q2]**
- (10) Belmont JW, **Mohapatra B**, Towbin JA, Ware SM.: Molecular genetics of heterotaxy syndromes. *CurrOpin Cardiol*.2004 May 19(3):216-20
Impact Factor: 2.16 **5 Yrs. Impact factor: 2.66** **Citation:133** **[Q2]**
- (9) Ming Zhao, Cynthia R Shirley, Sharato Hayashi, Ludovic Marcon, **Bhagyalaxmi Mohapatra**, Ryotasuganuma, Richard R Behringer, GuylainBoissonneault, RyuzoYanagimachi, Marvin L. Meistrich: Trastion nuclear proteins are required for normal chromatin condensation and functional sperm development. *Genesis*, 2004; 38: 200-213
Impact Factor: 2.52 **5 Yrs. Impact factor: 2.86** **Citation: 232.** **[Q3]**
- (8) Matteo Vatta*, **Bhagyalaxmi Mohapatra***, Shinawe Jimenez, Ximena Sanchez, Georgine Faulkner, Zeev Perles, Gianfranco Sinagra, Jiuann-Huey Lin, Thuy M. Vu, Qiang Zhou, Karla R. Bowles, Andrea Di Lenarda, Lisa Schimmenti, Michelle Fox, Michelle A. Chrisco, Ross T. Murphy, William McKenna, Perry Elliott, Neil E. Bowles, Ju Chen, Giorgio Valle, and Jeffrey A. Towbin. Mutations in Cypher/ZASP in patients with dilated cardiomyopathy and left ventricular non-compaction. *Journal of the American College of Cardiology*, 2003 Dec 3; 42 (11): 2014-27
- * Equal contributor first author
Impact Factor: 24.094 **5 Yrs. Impact factor: 18.46** **Citation: 698** **[Q1]**
- (7) **Bhagyalaxmi Mohapatra**, Shinawe Jimenez, Jiuann Huey Lin, Karla R. Bowles, Karen J. Coveler, Joseph G. Marx, Michele A. Chrisco, Ross T. Murphy, Paul R. Lurie, Robert J. Schwartz, Perry M. Elliott, Matteo Vatta, William McKenna, Jeffrey A. Towbin, and Neil E. Bowles. Mutations in the Muscle LIM Protein and Alpha-Actinin 2 Genes in Dilated Cardiomyopathy and Endocardial Fibroelastosis. *Mol Genet Metab*, 2003; 80:207-215
Impact Factor:4.797 **5 Yrs. Impact factor: 2.94** **Citation: 346** **[Q2]**

- (6) Barbara Janssens, **Bhagyalaxmi Mohapatra**, Matteo Vatta, Steven Goossens, GrietVanpoucke, Patrick Kools, Tony Montoye, Jolanda van Hengel, Neil E. Bowles, Frans van Roy, Jeffrey A. Towbin. Assessment of the CTNNA3 gene encoding human T-catenin regarding its involvement in dilated cardiomyopathy. ***Hum Genet***, 2003 Mar; 112(3):227-36.

Impact Factor: 5.88 **5 Yrs. Impact factor: 6.099** **Citation: 60**

- (5) Marvin L. Meistrich, **Bhagyalaxmi Mohapatra***, Cynthia R. Shirley and Ming Zhao (2003): Roles of transition nuclear proteins in spermiogenesis. ***Chromosoma Focus***. 2003 Feb; 111:483-488

*** Equal contributor first author**

Impact Factor: 4.97 **5 Yrs. Impact factor: 4.34** **Citation: 461**

- (4) Ming Zhao, Cynthia R Shirley, Y Eugene. Yu, **Bhagyalaxmi Mohapatra**, Yun Zhang, EmmanuelUnni, Jian M. Deng, Nelson A. Arango, Michael M Weil, Lonnie D. Russell, Richard R Behringer, and Marvin L. Meistrich (2001): Targeted disruption of Transition protein 2 gene affects sperm chromatin structure and reduces fertility spermatogenesis in mice. ***Molecular and Cellular Biology*** 21, 7243-7255

Impact Factor: 5.4 **5 Yrs. Impact factor: 5.75** **Citation: 248**

- (3) **Mohapatra B**, Verma S, Srinivasan S and Suri A (1998): Molecular cloning of human testis mRNA specifically expressed in haploid germ cells, having structural homology with the A-kinase anchoring proteins.

Biochemical & Biophysical research Communications. 244, 540 – 545

Impact Factor: 2.5 **5 Yrs. Impact factor: 2.7** **Citation: 23 [Q3]**

- (2) Srinivas S, **Mohapatra B** and Suri A (1998): Cloning of a novel human testis mRNA specifically expressed in testicular haploid germ cells, having unique palindromic sequences and encoding a leucine zipper dimerization motif. ***Biochemical & BiophysicalResearch Communications.*** 243, 561 – 565

Impact Factor: 2.5 **5 Yrs. Impact factor: 2.7** **Citation: 68 [Q3]**

- (1) Chatterjee A, Jacob-Raman M and **Mohapatra B** (1989): Potentiation of Bleomycin-induced chromosome aberration by the radioprotector reduced glutathione. ***Mutation Res.*** 214, 207-213 **Impact Factor: 3.6**, **5 Yrs. Impact factor: 3.76** **Citation: 44. [Q3]**

Patent Applied/ Approved:

1. A system to develop the Somnifericin Phyto molecule growth inhibitor of the SARS CoV2 Virus. Parimal Das, Prashant Ranjan, Neha, Chandra Devi, Garima Jain, Prashasti Yadav, Chandana Basu Malick, **Bhagya Laxmi Mohapatra**, Application number: 202023101467.4 (German; Filing Date: 23.03.2023; **Granted: 03.04.2023**).
2. A system for identifying the tritarget antiviral activity of Sominone phytomolecules against the SARS CoV2 Virus. Parimal Das, Prashant Ranjan, Neha, Chandra Devi,

Garima jain, Bhagya Laxmi Mohapatra, Application number: 202023101466.6 (German; Filing Date: 23.03.2023; **Granted: 24.05.2023**).

3. A novel Genetic Biomarker for Dilated cardiomyopathy. Dr **Bhagyalaxmi Mohapatra** and Ms. Prerna Giri, Application number: 202211025632 (Indian; Filing date 02/05/2022)
4. A Novel Antiviral Compositions of small Phytomolecules Against SARS CoV2 and Associated Virus. Parimal Das, Prashant Ranjan, Neha, Chandra Devi, Garima jain, Prashasti Yadav, Chandana Basu Malick, **BhagyaLaxmi Mohapatra**, Filed on 13.04.2022, Sr No. 202111046937, India. (**Granted on 12.09.2024**)

CONFERENCE PROCEEDINGS/ABSTRACTS:

(58) Bhagyalaxmi Mohapatra, delivered an **invited** talk on “An overview of current Genetic Landscape of Congenital Heart disease: A Global and Indian Prospective.” Presented in 7th Annual Meeting at Sri Satya Sai Sanjeevani Research Foundation, Palwal, Haryana on 14th June, 2025.

(57) Amrita Mukhopadhyay, Bhagyalaxmi Mohapatra ‘Exploring the genetic basis of Dilated cardiomyopathy: Whole exome sequencing highlights UNC45B as a key candidate’ presented in 25th World Congress, International Society of Heart Research (ISHR 2025) at Nara Prefectural Convention Centre, Nara, Japan, from May 11-14, 2025.

(56) Mohini Gupta and Bhagyalaxmi Mohapatra; "Exploring the Impact of MFN2 Genetic Variants on Mitochondrial Function in Dilated Cardiomyopathy" EMBO workshop, 47th SEBBM Congress, Energy balance in metabolic diseases, at Torremolinos, Spain, on 10-13 February 2025,

(55) Amrita Mukhopadhyay, Dharmendra Jain, Bhagyalaxmi Mohapatra; 'Whole Exome Sequencing Reveals UNC45B As a Novel Candidate Gene Associated With Dilated Cardiomyopathy' presented in 49th Annual Meeting of the Indian Society of Human Genetics (ISHG 2025) and International Conclave on Neurogenetics at the Convention Centre, NIMHANS, Bengaluru, from January 20 - 22, 2025

(54) Mohini Gupta, Dharmendra Jain, Ashok Kumar and Bhagyalaxmi Mohapatra; Exploring OPA1 genetic variants: Impacts on mitochondrial integrity and cardiomyopathy progression. Presented in in 47th **All India Cell Biology Conference & International symposium on ‘cell in action’** held at NICETR Bhubaneswer on 16th-18nd December, 2024 .

(53) Mohini Gupta, Amrita Mukhopadhyay, Dharmendra Jain Ashok Kumar, Bhagyalaxmi Mohapatra. “MFN2 Mutation Analysis in Dilated Cardiomyopathy: Implications for Mitochondrial Dynamics & Disease Progression”. International onference on Progress in Mitochondrial Research and Therapy, 10th Annual

Conference of the Society for Mitochondria Research and Medicine, India
SDM University, Dharwad, November 10–12, 2024.

(52) Bhagyalaxmi Mohapatra; delivered an **invited** talk on, “Genomics of congenital heart disease”, in National Seminar on Recent Innovations in Animal Science Research, BBSR, Orissa. India on March 22nd 2024

(51) Bhagyalaxmi Mohapatra; delivered an **invited** talk on,” Role of Z-disc protein CSRP3 and LDB3 in dilated cardiomyopathy” in National Seminar on Recent Advances in Animal Science RAASVB-2024, held at Visva-Bharati, Santiniketan, India on 8th March, 2024

(50) Jyoti Maddhesiya, Ritu Dixit, Bhagyalaxmi Mohapatra; Functional and structural analysis of novel BMPs variants in isolated congenital heart disease” presented Poster at the 48th Annual Meeting and International Conference of the Indian Society of Human Genetics from January, 21st-24th, 2024 at Ahmedabad, India (**Jyoti Maddhesiya, awarded Student scholar award from the society of human genetics**)

(49) Amrita Mukhopadhyay, Bhagyalaxmi Mohapatra; Genomic Exploration of mutations in Titin gene in patients with Dilated Cardiomyopathy: Insights from Whole Exome Sequencing and Molecular Docking Analysis". Presented in at National Biomedical Research Competetion (NBRCOM) held at ESIC medical College and Hospital, Alwar, Rajasthan on 10th December, 2023. (**Amrita Mukhopadhyay, awarded Young Researcher Award, 2023**)

(48) Prof. Bhagyalaxmi Mohapatra; delivered an invited talk on ‘Understanding the genetics of dilated cardiomyopathy in the context of precision medicine.’ in ‘**International Conference on Biotechnology and Human Welfare: Vision 2030 and Beyond.**’held at Chaudhuri Devi Lal University, Sirsa, Haryana, India on March 3-4, 2023

(47) Jyoti Maddhesiya, Ritu Dixit and **Bhagyalaxmi Mohapatra;** Novel genetic variants of BMP7 are functionally associated with isolated Congenital Heart Disease. Presented in in 45th **All India Cell Biology Conference & International symposium on Biology of Development and Disease** held on 20th-22nd January,2023, at Department of Zoology, BHU, Varanasi, India.

(46) Amrita Mukhopadhyay, Bharti Devi, Rajnish Kumar, Bhagyalaxmi Mohapatra; Investigation of spectrum of mutations inTitin by Whole Exome Sequencing in Dilated Cardiomyopathy. **Oral** presentation in **All India Cell Biology Conference & International symposium on Biology of Development and Disease** held on 20th-22nd January,2023, at Department of Zoology, BHU, Varanasi, India.

(45) Dr. B. Mohapatra, participated in the 'Heart failure conflux', virtual confluence of Scientist and clinician caring for heart failure. February 5th-7th, 2021

(44) Prerna Giri, Amrita Mukhopadhyay, Ashok Kumar and Bhagyalaxmi Mohapatra; Role of Z-disc dependent signalling in dilated cardiomyopathy. Presented in 6thannual presentation in institute of science, held on 15th December, 2021 at BHU, Varanasi.

(Prerna Giri Awarded 2nd Inst. Sc prize and 1st prize for Malviya Smriti Samman (for contribution in science)

(43) Ritu Dixit, Ashok Kumar, Vijayalakshmi I Balekundri and **Bhagyalaxmi Mohapatra**, “Functional analyses of genetic variants of NKX2-5 and GATA4 associated with congenital heart disease in Indian population. **Oral** presentation in **45thAnnual Conference of the Indian Society of Human Genetics** held on February 13-15th 2020 at Chennai, India

(42) Ritu Dixit, Ashok Kumar and **Bhagyalaxmi Mohapatra**, “A Comparative transcriptome analysis of a non-synonymous mutation (p.Ala8Asp) of GATA4 identified in Congenital Heart Disease”. **Oral** presentation in **44thAnnual Conference of the Indian Society of Human Genetics on “Genomics for Health and Precision Medicine”** held at National Institute of Biomedical Genomics (NIBGM) during 30th January – 1st February, 2018 Kalyani, WB, India. **Oral Presentation**,

(41) Manohar Lal Yadav, I.B. Vijayalakshmi, Damyanti Agrawal, Ashok Kumar and **Bhagyalaxmi Mohapatra**, “Genetic variants in ZFPM2 (FOG2) are associated with Congenital Heart Disease”. Presented in **44thAnnual Conference of the Indian Society of Human Genetics on “Genomics for Health and Precision Medicine”** held at National Institute of Biomedical Genomics (NIBGM) during 30th January – 1st February, 2018, Kalyani, WB, India.

(40) PrernaGiri, Manohar Lal Yadav, Ankur Kumar Singh, Dharmendra Jain, Damyanti Agarwal, **Bhagyalaxmi Mohapatra**, “Whole Exome Sequencing (WES) Reveals Spectrum of Mutations in Familial DCM: A Case Report”. Presented in **44thAnnual Conference of the Indian Society of Human Genetics on “Genomics for Health and Precision Medicine”** held at National Institute of Biomedical Genomics (NIBGM) during 30th January – 1st February, 2018 Kalyani, WB, India.

(39) Manohar Lal Yadav, Shelly Pal, Dr. DamyantiAgrawal, Dr. Ashok Kumar and **Bhagyalaxmi Mohapatra**, “Mutations in CITED2 gene are associated with Congenital heart disease patients in Indian population.” Presented in Symposium on ‘**Gene Environment interaction in Development, Disease and Evolution**’ from 5th -6th March, 2017 at Banaras Hindu University.

(38) Manohar Yadav, RituBhardwaj, Damayanti Agrawal, Ashok Kumar and **Bhagyalaxmi Mohapatra**, “Mutations in Serum Responsive Factor (SRF) and Friend of GATA (FOG2) are associated with Congenital Heart Disease.” Presented in the **42thAnnual Conference and International Symposium of Indian Society of Human Genetics (ISHG) on ‘Trends in Human Genetic Research and Management’**, 2nd-4th March, 2017 at Indian Institute of Science, Bangalore, India.

(37) PrernaGiri, ChitraNarashimhan, Damyanti Agarwal, Vijayalakshmi IB, Ashok Kumar and **Bhagyalaxmi Mohapatra**, “Burden of Z-disc gene variants in Dilated

Cardiomyopathy in Indian population”Presented in **Mini Symposium on "Recent updated in Reproductive health"** held at ISLS BHU on 12th-13th January, 2017
Oral presentation.

- (36) PrernaGiri, Chitra Narashimhan, Damayanti Agrawal, Ashok Kumar, I B Vijayalakshmi, **Bhagyalaxmi Mohapatra**, “Mutations in *CSRP3/MLP* are functionally associated with Dilated cardiomyopathy”. Presented in **The XL All India Cell Biology Conference and international Symposium on “Functional genomics and epigenomics,”** 17th -19th November, 2016 at Jiwaji University, Gwalior.
- (35) Ritu, Damayanti Agrawal, Ashok Kumar, I. B. Vijayalakshmi, **Bhagyalaxmi Mohapatra**, “Comprehensive genomic and proteomic analysis of patients with congenital heart disease from Indian population. Presented in **Mini Symposium on "Interdisciplinary Research in Life Sciences: Current Scenario and Future Directions on "Genomic & Proteomic Analysis of Cellular Functions"** held at ISLS BHU on 12-13 Nov, 2016
- (34) Ritu, Ashok Kumar, **Bhagyalaxmi Mohapatra**, “Genetic analysis of transcription factors, GATA4 and NKX2 5 in patients with nonsyndromic congenital heart defect from India”. presented in **Annual meeting of American Society of Human Genetics, ASHG 2016 held at Vancouver, Canada** from 18-22 Oct, 2016
- (33) Ritu Bhardwaj, **B Mohapatra**, “Congenital Heart disease in India” Presented in **21st word congress in Cardiology, Boston, USA, published in ‘J. CARDIOLOGY’ 134, 136-136. Karger Publ. API: 10**
- (32) PrernaGiri, Chitra Narashimhan, Damayanti Agrawal, Ashok Kumar, I B Vijayalakshmi, **Bhagyalaxmi Mohapatra**, “Identification of Novel genetic variants in Cysteine Rich Protein3 (CSRP3) in dilated Cardiomyopathy. Presented in **41th Annual conference of Indian Society of Human Genetics &International conference of Celebrating Genetics- The Human Way**, 3rd-5th March, 2016 at **Vision Research Foundation, Chennai.API: 10**
- (31) Ritu, Chitra Narashimhan, Damayanti Agrawal, Ashok Kumar, I B Vijayalakshmi, **Bhagyalaxmi Mohapatra**, “Identification of Novel Mutations of GATA4 gene in Indian Patients with Sporadic Congenital Heart Defects. Presented in **41th Annual conference of Indian Society of Human Genetics &International conference of Celebrating Genetics- The Human Way**, 3rd-5th March, 2016 at ‘Vision Research Foundation’, Chennai. **API: 10**
- (30) Manohar L Yatadav, Damayanti Agrawal, Ashok Kumar, **Bhagyalaxmi Mohapatra**. Identification of mutations in the *NODAL* gene in congenital heart disease patients in Indian population. Abstract published in **“Indian Journal of Human genetics” 2014**

vol. 20 sup 1. P90. Presented in **International symposium on “Genomics in Health and Disease & 40th Annual conference of Indian Society of Human Genetics**, January 28-30, 2015 at NIIH, Mumbai. **API: 10**

(29) Ritu Bhardwaj and Bhagyalaxmi Mohapatra, “Identification of Mutations in Bone Morphogenetic Protein 2, 4 and 7 in Congenital Heart Disease Patients from Indian Population. **Presented in International conference of Human genetics & 39th Annual conference of Indian Society of Human Genetics**, January 22-25, 2014 at Ahmedabad. **API: 10**

(28) Ritu Bhardwaj, Damyanti Aggarwal, Ashok Kumar, and Bhagyalaxmi Mohapatra. “A Prospective study on pattern and prevalence of congenital heart disease in eastern Uttarpradesh and adjoining area **Abstract submitted in The XXXVII All India Cell Biology and International Conference on Cell Dynamics and Cell Fate From December 22-24, 2013, at Instem Bangalore. API: 10**

(27) Ritu, Ashok Kumar, Damyanti Aggarwal, Shiddrtha Lakhotia and Bhagyalaxmi Mohapatra, “Identification of Novel *GATA 4* and *NKX 2-5* genetics variants in isolated cases of Congenital Heart Diseases in patients from Indian population” **Presented in International Symposium on developmental and complex Disorders and 38th Annual conference of Indian Society of Human Genetics**, December 9-11, 2012 at BHU Varanasi. **API: 10**

(26) Ritu and Bhagyalaxmi Mohapatra, “Identification of Novel *BMP7* variants in isolated cases of Congenital Heart Diseases in patients from Indian population” **Abstract submitted in XXXVI All India Cell Biology Conference & International Symposium. On “Stress Adaptive Response and Genome Integrity (SARGI)”, October 17-19, 2012 at BARC Mumbai. API: 10**

(25) Bhagyalaxmi Mohapatra, “The Sarcomeric Z-disc: an interface between biochemical sensing and signaling”. **Abstract submitted for Symposium on population Genetics and Chromatin Dynamics, January 22-23, 2012 (Invited Talk) API: 10**

(24) Yutao Xi, Tomohiko Ai, Bhagyalaxmi Mohapatra, Geru Wu, Haider S. Alwash, Junping Sun, Ross T. Murphy, Shaughan Dickie, William McKenna, Jeffrey A. Towbin, Jie Cheng, Matteo Vatta. The African-American Single Nucleotide Polymorphism (snp) Rs34423165 in *Ldb3* Alters Kv7.1 in Familial Dcm with Qt-Prolongation. **Presented in 89th Annual Meeting on American Heart Association, Nov 12-16, 2011, published in “Circulation” 124 (21 Supplement), A12290**

(23) Jason Cowan, Muhammad Tariq, Ashley Cast, Julie Lander, Jeffrey A. Towbin, Bhagyalaxmi Mohapatra, John W. Belmont, Chard Shaw, Teresa Smolarek, seema R.

- Lalni, Stephanie M. Ware. Identification of genetic basis of heterotaxy-spectrum congenital heart defects. **Presented in The American Society of Human Genetics, 61st Annual Meeting, Montreal, October 11-15, 2011 API: 10**
- (22) Marco Ricci, **Bhagyalaxmi Mohapatra**, Arnel Urbiztondo, Matteo Vatta²; Gene Expression Profiling in the Right Ventricular Myocardium of Newborns with Hypoplastic Left Heart Syndrome. **Presented In 89th Annual Meeting on American Association for Thoracic and Cardiovascular Surgery, Boston, May 9-13, 2009 API: 10**
- (21) Kaveh Samani, Tomohiko Ai, Raman Brugada, **Bhagyalaxmi Mohapatra**, Takeru Makiyama, Wataru Simiza, Jie Cheng, Matteo Vatta. Telothelin mutations reduce Sodium channel current in Brugada Syndrome. Presented in **Annual Meeting on American Heart Association: Ion channel and cellular electrophysiology; 2009, Orlando, Florida API: 10**
- (20) Matteo Vatta; Tomohiko Ai; Geru Wu; Jeffrey J Kim; **Bhagyalaxmi Mohapatra**; Yutao Xi; Michael J Ackerman; Sharhzad Abbasi; Zhaohui Li; Jie Cheng; Jeffrey A Towbin. A Novel Variant of Alpha-1-Syntrophin May Cause Long-QT Syndrome. **Published in 'Circulation'. (Genetics of Cardiac Conduction: QT Intervals and Arrhythmias) 2007;116s: II_653 API: 10**
- (19) **B. Mohapatra**, H. Li, S. Ware, S. Fernbach, T. Ho-Dawson, L. Molinari, B. Casey, J. Towbin. Novel Mutations in Human NODAL are Potentially Associated with Heterotaxy Syndrome. **Presented in "The American Society of Human Genetics, 55th Annual Meeting", October 25-29, 2005 at Salt Lake City, Utah. Published in 'Am J Hum Genet'. Citation 2**
- (18) Ming Tai-Lin, Bhagyalaxmi Mohapatra, Hua Li, Neil H Bowles, John W Belmont and Jeffrey Towbin, Role of ciliary protein in heterotaxy syndrome without chronic sinopulmonary infection. **Presented in Society for Pediatric Research, May, 2005**
- (17) S.M. Ware, **B. Mohapatra**, T. Ho-Dawson, E Weihe, H. Li, L. Smith, S. D. Fernbach, L. Molinari, B. Casey, N. Kaplan, K.L. McBride, J. Belmont, J. Towbin. Mutations in Nodal signaling pathways are associated with human heterotaxy. **Presented in "The American Society of Human Genetics, 54th Annual Meeting", October 26-30, 2004 at Toronto, Canada. API: 10**
- (16) JHL Lin, Sanchez, **B Mohapatra**, S Jimenez, KR Bowles, JG Marx---- JA Towbin. Functional analysis of mutations in the muscle LIM protein (MLP) in dilated cardiomyopathy. AHA meeting 2004. **Published in 'Circulation' 110 (17), p228-228 Supl, Oct. 26th 2004. API: 10**
- (15) Lin JHL, Sanchez X, **Mohapatra B**, Jimenez S, Bowles KR, Marx JG, Murphy RT, Li H, Schwartz RJ, Elliot PM, McKenna W, Vatta M, Towbin JA, Bowles NE. Mutations

in the muscle LIM protein (MLP) gene in dilated cardiomyopathy. Annual meeting for Society for Pediatric Research, **published in 'Pediatric Research'**55 (4): 49A-49A 276 Part 2 Suppl., APR 1, 2004.

- (14) Sanchez X, **Mohapatra B**, Jimenez S, Lin JH, Faulkner G, Vu TM, Zhou Q, Bowles KR, Schimmenti L, Murphy RT, McKenna WJ, Bowles NE, Chen J, Towbin JA, and Vatta M. Role of *Cypher/ZASP* in Dilated Cardiomyopathy and Left Ventricular Non-Compaction. AHA annual meeting 2003, **published in 'Circulation'**, 108 (17): 384 Suppl. OCT 28, 2003 **API: 10**
- (13) Bowles NE, **Mohapatra B**, Jimenez S, Lin JH, Marx JG, Li H, Lurie P, Schwartz RJ, Vatta M, Towbin JA, Bowles KR. Mutations in the Muscle LIM Protein Gene in dilated Cardiomyopathy and Endocardial Fibroelastosis. Annual meeting for Society for Pediatric Research, **Published in 'Pediatric Research'**, 53 (4): 188 Part 2 Suppl. S APR 1, 2003 **API: 10**
- (12) Matteo Vatta, Shinichi Tsubata, **Bhagyalaxmi Mohapatra**, Zeev Perles, Kimberly Makar, Sonny J. Stetson, Alejandro Perez-Verdia, Guillermo Torre-Amione, Jeffrey A. Towbin, Neil E. Bowles; Defects in the Cytoskeleton in Patients with Familial Dilated Cardiomyopathy. **Presented in "Pediatric Academic Societies 2001 Annual Meeting", April 28 - May 1, 2001, Baltimore, Maryland API: 10**
- (11) Shirley, Cynthia, Zhao, Ming, **Mohapatra, Bhagyalaxmi**, Behringer, Richard, Meistrich, Marvin, Processing of Protamine 2 precursor blocked in mice lacking TP1 and TP2. **Submitted for Society of Study of Reproduction (SSR) Meeting, July 28 – August 1, 2001 at university of Ottawa. Published in "Biology of Reproduction" 64, 193-194 API: 10**
- (10) Shirley C R, Yu Y E, Zhao M, **Mohapatra B**, Behringer R R and Meistrich M L (2000) Absence of TP1 or TP2 reduces fertility in mice. Submitted for **Society of Study of Reproduction (SSR) Meeting, July 15 - 18, 2000 at Wisconsin, Madison. published in "Biology of Reproduction"**vol. 62, 110-110, **API: 10**
- (9) **Mohapatra B.**, Shankar S., Suri A. Cloning of a novel rat testis-specific mRNA homologue of human sperm specific gene Hss: a potential sperm protein for development of sperm based vaccine" **European Meeting of Immunology and Reproduction & Joint meeting with the 5th Congress of Alps Adria Society of Immunology of Reproduction – AASIR October 28-29, 1999 at University of Rome API: 10**
- (8) Sankar S, **Mohapatra B L** and Suri A (1997) Identification of gene encoding human sperm antigen: A potential candidate for contraceptive vaccine development. **"American Journal of Reproductive Immunology"** (Abstracts from the 17th ASRI Meeting, Canada) p 357. **API: 10**

- (7) Raman M J, **Mohapatra B**, Sathees CR and Sharma K (1995) Radiosensitivity and DNA damage processing in differentiating male germ cells. **Symposium on Chromosomal and Molecular Basis of Genetic Analysis, Varanasi, p-18**
- (6) **Mohapatra B**, Sathees CR and Jacob-Raman M (1994) Induction of recombinational repair causing chromatid exchanges in paired homologues in meicocytes. **XVII All India Cell Biology conferencee, Indore, p 77.**
- (5) **Mohapatra B** and Jacob-Raman M (1993) X-ray induced DNA repair synthesis in male germ cells and its enhancement by 3 aminobenzamide. **International Symposium on Emerging Frontiers in Radiation Biology, p 97 at JNU, India.**
- (4) **Mohapatra B** and Jacob-Raman M (1993) DNA damage-induced enhancement in poly (ADP-ribosylation) in mouse male germ cells. **XVI All India Cell Biology conference, Banaras Hindu University, Varanasi, p79**
- (3) **Mohapatra B** and Jacob-Raman M (1991) Stage-dependent radio sensitivity of developing spermatocytes. **First Annual Conference of Indian Society for Radiation Biology. JNU, New Delhi, p37**
- (2) **Mohapatra B** and Jacob Raman M (1990) Radio sensitivity and repair at different stages of meiosis. **XIV All India Cell Biology Conference, Bhabha Atomic Research Centre, Bombay, p24**
- 1) **Mohapatra B** and Jacob- Raman M (1989) Cytofluorometric assay for glutathione level and its modulations in live cells. **XIII All India Cell Biology Conference Hyderabad, P58**

SESSION CHAIRED:

1. Bhagyalaxmi Mohapatra chaired a session in International Conference on Biotechnology and Human Welfare: Vision 2030 and beyond,' held at Chaudhuri Devi Lal University, Sirsa, Hariyana, India during 3rd-4th March, 2023
2. Bhagyalaxmi Mohapatra chaired a session in National Seminar on Recent Advances in Animal Science RAASVB, 8th -9th March 2024

AWARDS:

1. Awarded National Merit Scholarship, Dept. of Education, Govt. of Orissa (1973-1977)
2. Awarded National Merit Scholarship, Dept. of Education, Govt. of Orissa (1977-1982)
4. Junior Research Fellowship from UGC, Govt. of India (1987-1991)
5. Senior research Fellowship from CSIR, Govt. of India (1991-1993)
6. Post-doctoral research fellowship from Indo-USA collaborative project (1995-1998)

7. Post-doctoral fellowship from NIH (June, 1999 – August, 2000)
8. Post-doctoral fellowship from NIH (Sept, 2000 – June, 2009)

Details of International visits during last 15 years :

Country Visited	Purpus	Sponsoring agency	Duration	
			<i>From</i>	<i>To</i>
USA	Collaboration	None	May, 2011	June, 2011
USA	Collaboration	None	May, 2013	June, 2013
USA	Collaboration	None	Feb, 2015	Feb, 2015
USA	Collaboration	None	Feb, 2016	Feb, 2016
USA	Collaboration	None	Dec, 2016	Jan, 2017
USA	Collaboration	None	Sept, 2017	Feb, 2018

COURSE ATTENDED:

1. Participated in **1st Refresher Course in Medical / Health Sciences (Interdisciplinary) from February 10 to March 02, 2011, in UGC Academic Staff College, BHU, Varanasi-221005**
2. Participated in **the 63rd Orientation course from January 04- 31, 2013, in UGC Academic Staff College, BHU, Varanasi-221005**
3. Participated in **2nd Refresher Course in Life Sciences (Interdisciplinary) from November 19 to December 09, 2013, in UGC Academic Staff College, BHU, Varanasi-221005**
4. **Participated In advance course in “Clinical and Genetic Epidemiology” from 9th to 14th September 2019 in National Institute of Biomedical Genomics, Kolyani, WB**
5. **Participated In advance course in “Good Clinical Practice, current regulatory and Ethical requirements for conducting clinical trials/research in India” from 27-28 November 2019 in Banaras Hindu University, Varanasi-221005**
6. *Participated in MHRD mega online challenge “SAMADHAN”, MHRD & FORGE, 11 days, 14th -25th April 2020, MHRD, India*
7. *Participated in “DRUG DISCOVERY HACKATHON”-2020, Govt. of India, 1 year, 2nd July 2020- 15th July 2021, Govt. of India & Pharmacy council of India & Ministry of Education Innovation cell.*

PROFESSIONAL DEVELOPMENT TRAINING:

1. Six-month training on 'Animal model and genetic tools for CHD gene discovery and data interpretation' in SBP Medical discovery Institute, La Jolla, San Diego, CA, USA from August 2017 - February 2018
2. Short-term training in 'Altered Drug Metabolism research' in College of Pharmacy, University of Houston TX, USA from December 15, 2016 – January 19, 2017
3. Short-term training in 'Next generation Sequencing and data analysis' in Department of Pathology, Immunology & Pediatrics, Baylor College of Medicine, Houston TX, USA from February 1 - 10, 2016
4. Short-term training in 'Next generation Sequencing' in Department of Pathology, Immunology & Pediatrics, Baylor College of Medicine, Houston TX, USA from February 18 - 28, 2015
5. Short-term training in DNA Sequencing and CHD data analysis in Department of Pedi-Neonatology, Texas Children's Hospital, Houston, TX, USA from May 10 – June 30, 2013
6. Short-term training in thrombosis research and application in Department of Medicine, Baylor College of Medicine, Houston, TX, USA from May 13 – June 24, 2011

ORGANISING SEMINARS/ CONFERENCES/ WORKSHOPS, OTHER ACTIVITIES.

1. Serve as **"Co-Convener"** in 45th All India Cell Biology Conference & International Symposium on Biology of Development and Disease, held at BHU during January 20-22, 2023
2. Organized Web seminar on "Utilization of systems genetics analysis for genetic dissection of Ace2 expression in the heart and related cardiovascular complications in Covid-19" by Dr Enkhsaikhan Purevjav, MD, PhD, Associate Professor, The University of Tennessee Health Science Center, College of Medicine, Department of Pediatrics, Cardiology
3. Serve as **"Organizing Secretary"** of workshop on Good Clinical practice, Current Regulatory and Ethical requirements for Conducting Clinical Trial/ Research in India, held at BHU during November 27-28, 2019
4. Serve as member of organizing committee in Workshop on 'Maternal and Newborn care: Issues and challenges', ISLS, BHU, Varanasi, India: September 1-7, 2018
5. Serve as member of organizing committee in Symposium on "Gene-Environment Interaction in Disease, Development and Evolution" organized by Cytogenetics thrust area, Department of Zoology, BHU, Varanasi, during March 5-6, 2017

6. Serve as member of organizing committee in "International Symposium on Karyotype to haplotype and beyond," December 8-10, 2013
7. Serve as member of organizing committee in 38th Annual conference of Indian society of Human Genetics: Genomics and community health," December 9-11, 2012
8. Serve as member of organizing committee in Symposium on "Population Genetics and Chromatin Dynamics", January 2022-2023, 2012
9. Serve as member of organizing committee for "International Conference on Functional Genomics: Challenges and prospects," October 2-4, 2010
10. Serve as **Treasurer** in Symposium on "DNA Repair, Genomic Instability and Cancer," March 4-5, 2010

RESEARCH PROJECTS:

1. "Genetics of Congenital heart diseases" - XI Plan Research Grant for New Faculty - From University Grants Commission, Govt. of India. Grant amount Rs. 0.95 Lakhs (seed Grant),(Period: 2010-2011), PI
2. "Molecular Genetics of Congenital heart disease" – Department of Biotechnology, Govt. of India. Grant amount Rs. 54.40 Lakhs (Period: 2011-2014), PI
3. "Role of Muscle LIM Protein (MLP) in Dilated Cardiomyopathy" BRNS, Govt. of India. Grant amount Rs. **32.525**Lakhs (Period: 2013-2016), PI
4. "Genetics of Cardiomyopathy" – UGC-UPE thrust area of Genomic and Proteomic analysis of Cellular Functions, Grant amount Rs. 2.0 Lakhs (Period: 2013-2014),(seed Grant), PI
5. "Genetics of Dilated cardiomyopathy- Department of Biotechnology, Govt. of India. Grant amount Rs.101,22429.00(2018- 2021), PI
6. "Role of Z-disc Proteins in Dilated Cardiomyopathy" ICMR (Grant amount, Rs.69,55,200, (2019-2022) PI
7. "Genomics of Polycystic Kidney Disease (PKD): Understanding molecular mechanism of disease pathophysiology in Indian patient and families (BT/PR26080/MED/12/772/2017), DBT, 2018-2021(Extended to 16.03.2022), Grant amount 65.75 Lakhs, CO-PI
8. Sex determination in the Garden Lizard, *Calotes versicolor*: Search for Regulators and modifiers, (Period: 2020- 2023), Grant amount Rs. 38.002 Lakhs, Co-PI

9. “Identification of Serum Biomarkers in Prenatal Diagnosis of Congenital Heart Disease” IOE incentive Grant, Grant amount Rs. 6.0 Lakhs (Period: 2021-2023), PI

10. Identification of circulating RNA as biomarkers in maternal serum for early detection of Congenital heart disease. IOE Bridge Grant, Grant amount Rs. 5.15 Lakhs (Period: 2023-2024), PI

11. Annexin A1: Unravelling its crucial role in neuro inflammation during hepatic encephalopathy. (CSTUP, Project ID- 3774), (2024-27), Grant amount Rs 15.36 lakhs, CO-PI

12. Role of Tim44 in rewiring tumour cell mitochondria to promote cell proliferation and angiogenesis. Department of Biotechnology (DBT), Govt. of India. Grant amount 75 lakhs, (period 2024-2027), Co-PI

13. Development of Fatty acid synthesis inhibitors through ‘Medhohara’ formulation in potential therapeutic strategy for resistant brain tumours. ICMR, Govt. of India,

Grant amount 75 lakhs, (period 2024-2027), Co-PI

14.

15.

PhD Student Enrolled: 7

- 1. MS. Ritu (PhD registration # Zool/RES/March2012/S-5), Awarded**
- 2. Mr. Manohar Lal Yadav (PhD registration # Zool/RES/March2013/S-1/704), Awarded**
- 3. Ms. Prerna Giri ((PhD registration # Zool/RES/September2013/S-24/347), Awarded**
- 3. Ms. Jyoti Maddhesia (PhD registration # Zool/RES/RET-Exempted/March 2019/S-23/2128)**
- 4. Ms. Amrita Mukhopadhaya (PhD registration # Zool/RES/September 2019/S-3/ 2485)**
- 5. Ms. Mohini Gupta (PhD registration # Zool/RES/September 2019/S-3/ 2486)**
- 6. Ms. Ankita Bind (PhD registration# Zool/Res/ RET-Exempted/January-2023/S14/802)**
- 7. Ms. Rolee Yadav (PhD registration# Zool/Res/ RET /July-2024/S-5/169)**

DISSERTATION STUDENTS/TRAINEES (FOR THE AWARD OF MSc/ B. TECH DEGREE):

1. Ms. Amrita Panja, MSc, Dept of Zool, BHU, 2010
2. Ms. Vinita Pandey, Msc, Dept of Zool, BHU, 2010
3. Mr. Sandeep Basu, MSc in Biomed Genet, Vellore Inst. of Tech, Vellore, 2011
4. Ms. Preeti Kumari, MSc, Dept. of Applied Microbiology, BHU, 2011
5. Ms. Puspa Kumari, BSc, Dept of Zool, BHU, 2012
6. Mr. Shishir K. Patel, Msc, Dept of Zool, BHU, 2012
7. Ms. Rashmi Verma, Msc, Purvanchal University, 2012
8. Ms. Sussum Lata, MSc, Dept of Zool, BHU, 2013
9. Ms Tanya Verma, Msc, Dept of Zool, BHU, 2014
10. Mr. Vinod Prasad, Msc, Dept of Zool, BHU, 2014
11. Ms. Sweta Singh Patel, MSc in BioTech., Vellore Inst of Tech, Vellore, 2014
12. Mr. Mr. Sudeep Bhalav, MSc, Dept of Zool, BHU, 2015
13. Ms. Shreyanti Gowami, B.Tech, NIT, Durgapur, WB, 2015
14. Ms. Ayushi Agrawall, B. Tech, Vellore Inst of Tech, Vellore, 2016
15. Ms. Vandita Tripathy, Msc, Dept. of Zool, BHU, 2017
16. Ms. Poulomi Ghosh, Msc, Dept. of Genetics, University of Calcutta, 2017
17. Ms. Debashruti Das, Msc, Dept. of Zool, BHU, 2018
18. Ms. Divya Kumari, B.Tech, Vanasthali, 2018
19. Ms. Sayukta Singh, Msc, Dept. of Zool, BHU, 2019
20. Mr. Jay Kumar, Dept of Biotech. CUSB, Gaya, 2019
21. Mr. Malay K. Nayak, Msc, Dept. of Zool, BHU, 2020
22. Mr. Vikram Singh, Msc, Dept. of Zool, BHU, 2020
23. Mr. Abhishek K. Pathak, Dept. of Zool, BHU, 2021
24. Mr. Swapnil K. Singh, Dept. of Zool, BHU, 2022
25. Ms. Harshika, Dept. of Zool, BHU, 2023

26. Mr. Vivek Kumar, Dept of Biotech. CUSB, Gaya, 2023
27. Ms. Kriti Jain, Dept. of Zool, BHU, 2024
28. Ms. Jyoti Maddhesia, Department of Life Science, NIT, Rourkela, 2024

Summer Trainees from INSA:

1. Ms. Prerna Giri, IASc-INSA-NASI Summer Training Prog, 2012
2. Ms. Shelly Pal, IASc-INSA-NASI Summer Training Prog, 2014
3. Ms. Njana J., IASc-INSA-NASI Summer Training Prog, 2016
4. Dr. Brindha Elangovan., IASc-INSA-NASI Summer Training Prog, 2017
5. Dr. Aiswarya Belapuri, MBBS, IASc-INSA-NASI Summer Training Prog, 2023
6. Ms. Akankha Arora, IASc-INSA-NASI Summer Training Prog, 2023

OTHER PROFESSIONAL DEVELOPMENT ACTIVITIES:

1. *Genetic counselling and DNA diagnosis of Patients with CHD and Cardiomyopathy Since 2010, till date*
2. *Delivered talk "Chromosome and human genetic disorder" in CGD, BHU, 2015*
3. *Delivered talk on 'Genes and diseases' in Accad. Staff college, BHU, Jan 2013*
4. *Delivered talk on 'Congenital heart disease and Cardiomyopathy' in Department of Zoology, BHU, July 2008*
5. *Delivered talk on 'Role of Nodal Signaling in Heterotaxy Syndrome', in Texas heart Institute, Houston, TX, USA, 2008*

OTHER PROFESSIONAL DEVELOPMENT(ADMINISTRATIVE) ACTIVITIES:

1. *Served as member of admission committee for MSc Zoology, 2011 through 2019*
2. *Served as member of admission committee for BSc (Hons), Bio group, 2018 through 2022*
3. *Served as member secretary, DRC, Dept. of Zoology, BHU, 2017*
4. *Served as member of Plagiarism committee 2018-2024*
5. *Served as member of Physical verification committee, Dept of Zoology, BHU*
6. *Serve as member of Convocation organizing committee for Zoology Department, BHU*
7. *Serve as observer for PG examination for Inst. of Science, BHU*
8. *Serve as project proposal reviewer for human ethics committee*

ONGOING RESEARCH ACTIVITIES:

1. **Role of cardiogenic transcription factor NKX 2-5, GATA4 and TBX20 in congenital heart diseases.**

Objectives:

Screening and Identification of genetic mutations in cardiac transcription factors possibly associated with congenital heart diseases.

Evaluation and functional characterization of genetic mutations in these factors to elucidate their role in abnormal heart development.

Name of the PhD student: Ms Ritu, ICMR Senior Research Fellow

2. Role of TGF- β signaling in congenital heart diseases.

Objectives:

Mutational analysis of candidate genes of TGF- β signaling pathway in patients and their family members from different parts of India.

Identification and characterization of molecules underlying abnormal heart development.

To create animal model in order to study the genotype phenotype correlation in CHD

Name of the PhD student: Mr. Manohar Lal Yadav, ICMR Senior Research Fellow

3. Role of Z-disc dependent signaling in dilated cardiomyopathy.

Objectives:

Identification and characterization of Z-disc proteins associated with dilated cardiomyopathy.

To determine the role of Z-disc proteins in transcriptional regulation by characterizing protein-protein interactions.

To investigate the effect of genetic mutations on Z-disc functions as a pathogenic basis for the development of DCM.

Name of the Ph. D student: Ms. Prerna Giri, UGC (CAS) Fellow, ICMR Senior Research Fellow

4. Molecular pathogenesis of Left Ventricular Noncompaction:

- i). To determine the molecular pathway(s) responsible for the development of left ventricular noncompaction by performing high throughput gene expression profiling

The project is initiated by the PI with the help of Trainees

5. Role of BMP signaling in CHD:

Objectives

- i) Screening and Identification of genetic mutations in BMP signaling pathways possibly associated with congenital heart diseases.
- ii) Evaluation and functional characterization of genetic mutations in BMP2, BMP4 and BMP7, to elucidate their role in abnormal heart development
- iii)

6. Understanding the genetics of familial and isolated cases of DCM by whole exome sequencing

Objectives

- i) Identification and characterization of novel DCM causative genes
- ii) Functional characterization of the identified genes by *In vitro* cell culture studies.

Name of the Ph. D student: Ms. Amrita Mukhopaddya, ICMR Senior Research Fellow

7. Role of mitochondrial proteins in Dilated cardiomyopathy

- i) Identification of novel mitochondrial dynamics genes (fusion-fission) and their association with DCM
- ii) Functional characterization of the identified genes by *In vitro* cell culture studies.

Name of the Ph. D student: Ms. Mohini Gupts, ICMR Senior Research Fellow

8. Identification of novel disease-causing genes in families with CHD and to estimate their prevalence in Indian population

Name of the Ph. D student: Ms. Ankita Bind, UGC Junior Research Fellow

9. Identification of novel disease-causing genes in families with DCM by NGS and to validate their disease association by in vitro functional assays

Name of the Ph. D student: Ms. Rolee Yadav, CSIR Fellow

PROFESSIONAL EXPERTISE:

Cell Biology Techniques:

Cell separation, Cellular autoradiography, Transient transfection assay, Stable transfection and establishment of cell line stably expressing the gene of interest etc.

Molecular Biology Techniques:

Gel electrophoresis (Agarose, Acrylamide, Agarose-Acrylamide composite), Bacterial transformation, plasmid, cosmid, BAC, PAC isolation, Genomic DNA isolation from blood and tissue sample, RFLP and Southern blotting, RNA isolation and Northern blotting, DNA sequencing, Molecular Cloning, Western blotting, Genomic and cDNA library screening, Phage screening (antibody) DNA isolation, PCR, RT-PCR, Electrophoretic mobility shift assay (EMSA), Luciferase- reporter assay, Pulse – field gel electrophoresis, Comet assay, FACS etc.

Cytogenetics Techniques:

Preparation of mitotic and meiotic chromosomes, Fluorescent **In Situ Hybridization (FISH)**, **RNA In Situ Hybridization (RISH)**, Human chromosomes karyotyping, G-C and H band analysis in patient (with different syndrome like Down's etc) karyotypes, Immuno cyto-/histo- chemistry, Confocal microscopy

Cell culture techniques:

Long term (Primary and fibroblasts) and short-term tissue cultures (including lymphocyte culture of patients with different syndromes).

