Anshika Srivastava, Ph.D.
Assistant Professor
Department of Medical Genetics
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EDUCATION

Ph.D.	Medical Genetics, King George Medical University, Lucknow, India and Department of Medical Genetics, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow Supervisor: Dr. Balraj Mittal Thesis Title: Influence of Genetic Variations in ABC Transporters and Hormonal Genes in Susceptibility to Gallstone Disease.	2008-2013
M.Sc.	Biochemistry Department of Biochemistry, University of Lucknow, India.	2005-2007

RESEARCH EXPERIENCE

Postdoctoral Fellow	Department of Human Genetics, University of Michigan, Ann Arbor, Michigan, USA Mentor: Dr. Stephanie Bielas, Ph.D. Postdoc area of work: *Genetics of developmental disorders.*	2013-2019
Junior Research Assistant	Department of Medical Genetics, Sanjay Gandhi Postgraduate Institute of Medical Sciences (SGPGIMS), Lucknow, India. Project Title: *Effect of genetic variant (rs11887534) in ABCG8 gene in coronary artery disease and response to atorvastatin therapy.*	2007-2008

PUBLICATIONS

2018 Sarkar MK, Tsoi LC, Xing X, Liang Y, Berthier CC, Swindell WR, Wolterink L, Patrick M, Hile GA, Tsou PS, Beamer MA, **Srivastava A**, Bielas SL, Liu J, Harms PW1, Getsios S, Johnston A, Elder JT, Voorhees JJ, Kahlenberg JM, Gudjonsson JE. Photosensitivity and type I IFN responses in cutaneous lupus are driven by epidermal derived interferon kappa. ***Ann. Rheum. Dis.*** 2018; 77(11): 1653-1664. **IF: 12.3**

2018 **Srivastava A**, Srivastava K, Hebbar M, Galada C, Kadavigrere R, Cao Xuhong, Fengyun Su, Chinnaiyan AM, Girisha KM, Shukla A, Bielas SL. Genetic diversity of *NDUFV1*-dependent mitochondrial complex I deficiency. ***Eur J Hum Genet.*** 2018; 26(11): 1582-1587. **IF: 4.3**

2018 Moccia A, Srivastava A, Skidmore JM, Bernat JA, Wheeler M, Chong JX, Nickerson D, Bamshad M, Hefner MA, Martin DM, Bielas SL. Genetic analysis of CHARGE syndrome identifies overlapping molecular biology. ***Genet Med*** 2018; 20(9): 1022-1029. **IF: 9.9**

2018 Bélanger C, Bérubé-Simard F, Leduc E, Bernas G, Campeau P, Lalani S, Martin D, Bielas S, Moccia A, **Srivastava A**, Silversides DW, Pilon N. Dysregulation of co-transcriptional alternative splicing underlies CHARGE syndrome. ***Proc Natl Acad Sci*** 2018; 115(4): E620-E629. **IF: 9.6**

2018 Jordan V, Fregeau B, Jessica G, Wapner J, Balci TB, Carter M, Bernat J, Moccia A, **Srivastava A**, Martin D, Bielas S, Pappas J, S Melissa, Rio M, Cantagrel V, Lewis AM, Scaglia F, Kohler J, Bernstein JA, Zornio PA, Rosenfeld JA, Sherr EH, Bi W, Scott DA. Genotype-phenotype correlations in individuals with *RERE* mutations. ***Hum Mutat*** 2018; 39(5): 666-675. **IF: 5.1**

2018 Galada C, Hebbar M, Lewis L, Soans S, Kadavigere R, **Srivastava A**, Bielas S, Girisha KM, Shukla A. Report of four novel variants in *ASNS* causing asparagine synthetase deficiency and review of literature. ***Congenit Anom (Kyoto).*** 2018; 58(5): 181-182. **IF: 1.6**

2017 Hebbar M, Girisha KM, **Srivastava A**, Bielas S, Shukla A. Homozygous c.359del variant in

MGME1 is associated with early onset cerebellar ataxia. ***Eur J Med Genet.*** 2017; 60(10): 533-535. **IF: 2.0**

2017 **Srivastava A**, McGrath B, Bielas SL. Role of Histone H2A ubiquitination in Neurodevelopmental Disorders. ***Trends Genet.*** 2017; 33(8): 566-578. **IF: 10.8**

2017 Shukla A, Hebbar M, **Srivastava A**, Kadavigere R, Upadhyai P, Kanthi A, Brandau O, Bielas SL, Girisha KM. Homozygous c.259G>A variant in *ISCA1* is associated with a new multiple mitochondrial dysfunctions syndrome. ***J Hum Genet.*** 2017; 62(7): 723-727. **IF: 3.5**

2016 **Srivastava A,** KC Ritesh, Tsan YC, Liao R, Hannibal M, Keegan C, Chinnaiyan AM, Martin DM, Bielas SL. *De novo* dominant *ASXL3* mutations alter H2A deubiquitination and transcription in Bainbridge-Ropers Syndrome. ***Hum Mol Genet.*** 2016; 25(3): 597-608. **IF: 5.5**

2016 Kc R, **Srivastava A**, Wilkowski JM, Richter CE, Shavit JA, Burke DT, Bielas SL. Detection of nucleotide-specific CRISPR/Cas9 modified alleles using multiplex ligation detection. ***Sci Rep***. 2016; 25 (6): 32048. **IF: 4.5**

2016 Kumar S, Mishra A, **Srivastava A**, Bhatt M, Garg N, Agarwal SK, Pande S, Mittal B. Role of common sarcomeric gene polymorphisms in genetic susceptibility to left ventricular dysfunction. ***J Genet***. 2016; 95(2): 263-72. **IF: 1.1**

2015 Moorthy N, Garg N, Kapoor A, Tewari S, Kumar S, Sinha A, **Shrivastava A**, Goel PK. In Reply–Time to Focus on Preventing Coronary Artery Disease Through Exercise Training Among Normoglycemic Individuals. ***Mayo Clin Proc***. 2015; 90(3): 418-9. **IF: 7.0**

2014 Kumar S, Mishra A, **Srivastava A**, Mittal T, Garg N, Mittal B. Significant role of ADRB3 rs4994 towards development of coronary artery disease. ***Coron Artery Dis.*** 2014; 25(1): 29-34. **IF: 1.8**

2014 Sharma KL, Rai R, **Srivastava A**, Sharma A, Misra S, Kumar A, Mittal B. A multigenic approach to evaluate genetic variants of *PLCE1, LXRs, MMPs, TIMPs* and *CYP* genes in gallbladder cancer predisposition. ***Tumor Biol.*** 2014; 35(9): 8597-606. **IF: 3.6**

2014 Mishra A, **Srivastava A**, Mittal T, Garg N, Mittal B. Genetic predisposition to left ventricular dysfunction: a multigenic and multi-analytical approach. ***Gene.*** 2014; 546(2): 309-17. **IF: 2.6**

2014 Garg N, Moorthy N, Kapoor A, Tewari S, Kumar S, Sinha A, **Shrivastava A**, Goel PK. Hemoglobin A(1c) in nondiabetic patients: an independent predictor of coronary artery disease and its severity. ***Mayo Clin Proc.*** 2014; 89(7): 908-16. **IF: 7.0**

2013 Von Kampen O, Buch S, Nothnagel M, Azocar L, Molina H, Brosch M, Erhart W, von Schonfels, Egberts J, Seeger M, Arlt A, Balschun T, Franke A, Lerch MM, Mayerle J, Kratzer W, Boehm BO, Huse K, Schniewind B, Tiemann K, Jiang ZY, Han TQ, Mittal B, **Srivastava A**, Fenger M, Jørgensen T, Schirin-Sokhan R, Tönjes A, Wittenburg H, Stumvoll M, Kalthoff H, Lammert F, Tepel J, Puschel K, Becker T, Schreiber S, Platzer M, Völzke H, Krawczak M, Miquel JF, Schafmayer C, Hampe J. Genetic and functional identification of the likely causative variant for gallstone disease at the ABCG5/8 lithogenic locus. ***Hepatology***. 2013; 57(6): 2407-17. **IF: 14.9**

2013 **Srivastava A**, Mishra A, Singh R, Rai R, Srivastava N, Mittal B. Multi-analytic approach elucidates significant role of hormonal and hepatocanalicular transporter genetic variants in gallstone disease in north Indian population. ***PLoS One***. 2013; 8(4): e59173. **IF: 2.8**

2013 Mishra A, **Srivastava A**, Mittal T, Garg N, Mittal B. Role of inflammatory gene polymorphisms in LVD susceptibility in CAD patients. ***Cytokine***. 2013; 61(3): 856-61. **IF: 3.1**

2013 Mishra A, **Srivastava A**, Mittal T, Garg N, Mittal B. Role of Angiotensin II type I (AT1) Receptor Polymorphism in Left Ventricular Dysfunction. ***Indian Heart J*** 2015; 67(3): 214-21. **IF: 0.6**

2012 **Srivastava A**, Sharma KL, Srivastava N, Mishra S, Mittal B. Significant role of Estrogen and Progesterone receptor sequence variants in Gallbladder Cancer predisposition: A Multi-analytical strategy. ***PLoS One***. 2012; 7(7): e40162. **IF: 2.8**

2012 Mishra A, **Srivastava A**, Mittal T, Garg N, Mittal B Impact of renin angiotensin-aldosterone system gene polymorphisms on left ventricular dysfunction in coronary artery disease patients.

Dis Markers. 2012; 32(1): 33- 41. **IF: 2.8**

2012 Mishra A, **Srivastava A**, Mittal T, Garg N, Mittal B. Association of matrix metalloproteinases (*MMP2, MMP7* and *MMP9*) genetic variants with left ventricular dysfunction in coronary artery disease patients. ***Clin Chim Acta***. 2012; 413(19-20): 1668-74. **IF: 2.9**

2011 **Srivastava A**, Srivastava A, Srivastava N, Choudhuri G, Mittal B. Organic anion transporter 1B1 (*SLCO1B1*) polymorphism and gallstone formation: High incidence of Exon4 CA genotype in female patients in North India. ***Hepatol Res.*** 2011; 41(1): 71-8. **IF: 3.4**

2011 **Srivastava A**, Garg N, Mittal T, Khanna R, Gupta S, Seth PK, Mittal B Association of 25 bp deletion in *MYBPC3* gene with left ventricle dysfunction in coronary artery disease patients. ***PLoS One.*** 2011; 6(9): e24123. **IF: 2.8**

2010 **Srivastava A**, Garg N, Srivastava A, Srivastava K, Mittal B. Effect of genetic variant (rs11887534) in *ABCG8* gene in coronary artery disease and response to atorvastatin therapy. ***Dis Markers.*** 2010; 28(5): 307-13. **IF: 2.8**

2010 **Srivastava A**, Srivastava A, Srivastava K, Choudhuri G, Mittal B. Role of *ABCG8* D19H (rs11887534) variant in gallstone susceptibility in northern India. ***J Gastroenterol Hepatol.*** 2010; 25(11): 1758-62. **IF: 3.6** (***Best-highlighted article by the editor***).

BOOK CHAPTERS

2014 Mittal B, Mishra A, **Srivastava A**, Garg N. Emerging Role of Genetic Variants of Matrix Metalloproteinases Genes in Left Ventricular Dysfunction. In: Dhalla N., Chakraborti S. (eds) Role of Proteases in Cellular Dysfunction. ***Advances in Biochemistry in Health and Disease***, 2014; vol 8. Springer, New York, NY

2014 Mittal B, Mishra A, **Srivastava A**, Kumar S, Garg N. Matrix metalloproteinase in coronary artery disease. ***Adv Clin Chem.*** 2014; 64:1-72

FELLOWSHIP AND AWARDS

2020 Ramalingaswami Fellow, Department of Biotechnology (DBT), Govt. of India

2019 Innovative Young Biotechnologist Award (IYBA), DBT, Govt. of India

2017 Best Postdoctoral Poster award (2017) in the Department of Human Genetics, University of Michigan Medical School. Awarded to one postdoctoral fellow in the department at yearly retreat. Awardee receives a cash prize.

2012 Awarded Senior Research Fellowship from Indian Council of Medical Research.

2011 Travel Grant from several funding agencies namely DST, DBT, CSIR and ICMR, India to attend the 12th International Congress of Human Genetics, October 11-15, 2011, Montreal, Canada.

2010 Best Poster Award at 35th Annual Conference of the Indian Society of Human Genetics (ISHG) & an International Symposium on Role of Genomics in Clinical Practice 2010, Lucknow, India.

2008 Qualified in Graduate Aptitude Test in Engineering (GATE) 2008, conducted by Govt. of India.

2004 Stood 1st in quiz competition on CSIR foundation day at CDRI, September 2004

ORAL PRESENTATIONS AND INVITED TALKS

2018 Oral presentation to pitch the poster entitled as “Translation human genetics to precision medicine poster” at *Young Investigator Meet 2018*; September 8-9, 2018, Chicago, USA.

2017 Oral presentation entitled as “Congenital heart defects in Bainbridge Ropers Syndrome” at *American Society of Human Genetics*; October 17-21, 2017, Orlando, Florida.

2014 Oral presentation entitled as "Novel insights into the varied genetic background of neurodevelopment disorder" at *INDO-US Symposium on Genomic insights into Human Morphogenesis: Prenatal, Postnatal and Molecular Dysmorphology and First Annual Meeting of Society for Indian Academy of Medical Genetics;* November 7-9, 2014, Hyderabad, India.

2014 Invited talk entitled as "A genetic approach to understanding the pediatrics brain disorders" at the *Department of Medical Genetics, SGPGIMS;* October 30, 2014, Lucknow, India.

POSTER PRESENTATIONS

2016 **Srivastava A**, KC R, Moccia A, Bielas SL. Molecular mechanisms of Asxl3 in neurodevelopment. "*Cell Symposia: Transcriptional Regulation in Development and Disease"* June 26-28, 2016, Chicago, USA.

2016 Martin D, Niederriter AN, Sperry, ED, Skidmore, JM, **Srivastava A**, Attardi L, Heller S, Scacheri P. Neuroblast-specific bias for CHD7 with potential roles in regulation of LONG GENES in the inner ear. *"Associate for Research in Otolaryngology"* February 20-24, 2016, San Diego, California, USA.

2015 Bielas SL, **Srivastava A**, KC R, Tsan YC, Chinnaiyan AM, Bielas SL. ASXL3 regulates H2A deubiquitination and gene transcription in Bainbridge-Ropers-Syndrome. *"American Society of Human Genetics"* October 6-10, 2015, Baltimore MD, USA.

2014 **Srivastava A**, Phadke SR, Girisha KM, Martin DM, Leber S, Innis J, Chinnaiyan AM, Nickerson DA, Bielas SL. Novel insights into the varied genetic background of neurodevelopment disorder. *"INDO-US Symposium on Genomic insights into Human Morphogenesis: Prenatal, Postnatal and Molecular Dysmorphology and First Annual Meeting of Society for Indian Academy of Medical Genetics"* November 7-9, 2014, Hyderabad, India.

2013 **Srivastava A**, Mishra A, Mittal B. Significant Role of Combined Alleles of Hormonal Receptors and Hepatocanalicular Transporter Gene in Susceptibility to Cholesterol Gallstone Disease. *"American Society of Human Genetics"* October 22-26, 2013, Boston, USA.

2012 **Srivastava A**, Srivastava N, Sharma K L, Mishra A, Mittal B. Role of *ESR1, ESR2* and *PGR* genetic variants in gallbladder cancer susceptibility in Northern India*."International Conference on Genes, Genetics & Genomics Today & Tomorrow: Human Concerns and 37th Annual Conference of Indian Society of Human Genetics"* March 3-5, 2012 Panjab University, Chandigarh, India*.*

2011 **Srivastava A**, Sharma K L, Srivastava N, Misra S, Kumar A, Mittal B. Role of genetic variants of *ESR1and ESR2* in susceptibility to gallbladder cancer. *"12th International Congress of Human Genetics",* October 11-15, 2011 Montreal, Canada.

2011 **Srivastava A**, Srivastava N, Mittal B. Role of *ABCG8* D19H (rs11887534) variant in gallstone susceptibility in northern India. *"International Conference Genomics, Genetic Disease and Diagnostics and 36th Annual Conference of the Indian Society of Human Genetics (ISHG)"*, Feb 14-16, 2011 Manipal University, India.

2010 **Srivastava A**, Srivastava A, Srivastava N, Mittal B. "Role of *SLCO1B1* transporters in gallstone susceptibility in North Indian Population. *"35th Annual Conference of the Indian Society of Human Genetics (ISHG) and an International Symposium on Role of Genomics in Clinical Practice"* March 6-8, 2010, Lucknow, India.

2009 **Srivastava A**, Srivastava A, Srivastava K, Choudhuri G, Mittal B. Genetic variant of *ABCG8* and risk of gallbladder diseases *"ISGCON"* December 9-13, 2009, Kolkata, India.

RESEARCH SUPPORT

1. Investigating the genetic contributors to spinocerebellar ataxia in Indian population — 5.00000
   SGPGIMS, Intramural Grant (2019-2021)
   Role: PI

2. Identification of genetic variants and their functional evaluation in the pathogenesis of inherited cardiomyopathies — 60.00000
   ICMR, Govt. of India (2019-2022)
   Role: Co-PI

3. Probing the dynamic balance of histone H2AUb1 regulatory axis in hypertrophic cardiomyopathy and early heart development — 60.61600
   IYBA, DBT, Govt. of India (2019-2022)
   Role: PI

4. Functional characterization of rare founder alleles causing neurodevelopmental disorders for biomarker identification and community genetics surveillance. — 45.00000
   Ramalingaswami Fellow, DBT, Govt. of India (2020-2025)
   Role: PI

5. Whole-exome sequencing based genetic testing and functional characterization of rare pathogenic alleles causing neurodevelopmental disorders for biomarker identification. — 140.00000
   ICMR, Govt. of India (2020-2023)
   Role: PI