



Name: Prof Sarita Agarwal

Qualification: MSc (Biochemistry) PhD(Biochemistry)

With over 39 years of pushing the boundaries of medical innovation, Prof Sarita Agarwal's name is often paired with a single gene disorder like Thalassaemia, Cystic fibrosis, Down syndrome, Myotonic Dystrophy, Friedrich's Ataxia, IEM, VDR gene polymorphism and other genes associated with osteoporotic fractures and fragile X syndrome.

She did her post graduate and PhD (Biochemistry) from Lucknow University. She had been two times recipient of long term Research associateship (awarded by DBT) and visited Medical College of Georgia, USA (1989) and Radboud University, The Netherlands (2009). She had been visited Debre Hospital Paris, France under Scientist Exchange program offered by INSA (2001). As visiting Scientist she had been invited by Creighton University, Nebraska, Omaha, USA (1992)

Having spent over 33 years at the SGPGIMS, Lucknow, Dr. Sarita is credited as a Life member of ISHG, ISHTM, ISPD, India and as member of American Society of Human Genetics and International Society of Prenatal Diagnosis. Dr Agarwal has also chaired as SAC member of ICMR and RBSK for evaluating several thalassaemia and Down syndrome projects.

In past 33 years of her services in the Institute she had been performed her role in several institutional committees like; Academic board of studies in the department and in the dean's review committee of board of studies, Ethical committee member, research committee member, Governing Body Member, Staff Council Member, Hospital Board Member.

She actively participated in forming PhD guidelines of SGPGIMS.

International and National publications of Dr Agarwal can be credited to her medical diagnostic ability, her efficiency, proficiency and successful establishment of antenatal diagnostic facilities in India.

Under PM-Make in India program she has **contributed fragile X syndrome molecular diagnosis by using in house-primers**, as rapid and cost-effective method, which is successfully being used for diagnostic purposes. **[This work is in the process of being patented]**

She is the one who established **STR based Qf-PCR primers dedicated for deducting aneuploidies** in Indian population, and are regularly being used for providing antenatal diagnosis. **[This work is in the process of being patented]**

Beside this she has created **multiplex detection of common SCA types** found in India and are not previously being used in India **[This work is in the process of being patented]**

She has wide experience in the field of polygenic disorders like Asthma, CAD and PIH also.

She had been credited for completion of PhD thesis and dissertation of M Sc thesis of several students.

Prof Sarita Agarwal is the Chairman of Women Harrasment committee of SGPGI and appointed as nodal officer by the director of SGPGI for Rani Laxmi Bai Samman Kosh, UP state

The lab headed by Dr. Sarita Agarwal is pioneer in establishing ante natal diagnosis in India. Her lab is accredited by ICMR for quality assurance of Thalassemia program in India, this is just because of regular accreditation of all the tests with audit trails.

The work in the lab was recently recognized when her work was awarded in **2019 FRM Conference on “Translational Reproductive Biology and Clinical Reproductive Endocrinology,” New York, USA** and was awarded winner prize of USD 2500.

Research Support (Ongoing Research Projects)

Sl No.	Title of Project	Funding Agency	Duration
1.	Genotyping of polymorphic variations at quantitative trait loci on genetic modifier genes and its correlation with fetal hemoglobin levels in homozygous beta thalassemia patients	ICMR, N Delhi	2018-2021
2.	Plasma exosomal micro RNA and proteome profiling in autism spectrum disorder children’s probing for biomarkers” EMR/2016/007407	SERB-DST, N.Delhi	2018-2021
3	e-QTL analysis in Down Syndrome patients for a variable phenotype	SERB-DST	2016-2018
4.	To study on the mosaic loss of Y chromosome in colorectal, Pancreatic and Prostate cancer in Indian patients	SGPGI, Lucknow	2018-2021

Completed Research Projects

Sl No.	Title of Project	Funding Agency	Date of completion
1	Characterization of B-thalassemia by reverse phase HPLC.	SGPGIMS	1990-91.
2	Rapid detection of B-thalassemia mutations by ASO probes.	SGPGIMS	1991-92.
3	Identification and Characterization of unknown B-thalassemia mutations by direct sequencing.	SGPGIMS	1992-93.
4	PCR & Serological study of Parvovirus B ¹⁹ arthritis.	SGPGIMS	1995-96
5	Molecular characterization of B-thalassemia encountered in the state of Uttar Pradesh	ICMR, N Delhi	1991-1995
6	Identification and use of T ₃ responses m RNA in human fetal brain.	DST ,N Delhi	1992-95.
7	Comparative evaluation of different polymorphic sites for carrier detection and antenatal diagnosis of hemophilia in Indian patients.	SGPGIMS	1995-96.
8	Feasibility of Introducing Genetic Services in the National Family Welfare Program.	ICMR,N Delhi	1992-95.
9	Does Beta-thalassemia confer protection for coronary artery disease?	SGPGIMS	1996-97.
10	Prevalence & Molecular characterization of Alpha – thalassemia in State of Uttar Pradesh	ICMR, N Delhi	1998-2000.
11	Molecular characterization of Alpha thalassemia & its association with B-thalassemia in UP.	UPCST,Lucknow	1999-2002.
12	Control Program of thalassemia by antenatal diagnosis.	ICMR, N Delhi	1996-99.

13	Identification and characterization of unknown beta thalassemia mutations by direct sequencing from PCR product.	DST, N Delhi	1996-2000
14	Phenotypic prediction of beta thalassemia in UP origin families.	UPCST, Lucknow	2004-2007.
15	Status of HFE gene frequency & other modifier genes of iron homeostasis in Indian population.	DBT, N Delhi	2005-2008
16	Alzheimer's Disease and ACE gene polymorphism.	ICMR,N Delhi	2006-2008
17	Genetic causes of infertility in an infertile couples.	ICMR,N Delhi	2008-2010
18	Presence of Angiotensin converting enzymes, D-Allele polymorphism as a risk factor and predictor of coronary artery disease and to correlate with the severity of the disease.	SGPGIMS	2003-2004.
19	Angiotensin converting enzyme [ACE] and MTHFR gene polymorphism in Diabetic Nephropathy.	ICMR, N Delhi	2003-2006
20	Polymorphism of MTHFR gene as a risk factor in neural tube defect and it's correlation with the site of defect.	SGPGIMS	2004-2005.
21	Comparison of four techniques for detection of feto - maternal hemorrhage.	SGPGIMS	2005-2006
22	Angiotensin converting enzyme gene Ins/Del polymorphism and receptor gene mutations [AT IR, AT II R] in DN and essential hypertensives.	ICMR, N.Delhi	2006-10
23	VDR gene polymorphism, Growth and bone mineral density in thalassemia patients.	UPCST,Lucknow	2008-2011
24	Quantitative fluorescent PCR for rapid prenatal diagnosis of aneuploidies and sex chromosome.	DBT, N Delhi	2008-2011

25	Identification and characterization of cardiac impairment gene polymorphism of thalassemia patients of the UP origin” CST ref no.CST/SERPD/D-1200	Council of Science & Technology, UP	2012-2015
26	Evaluation of VDR, LRPS, RANKL,OPG and vitamin D gene polymorphism influencing longitudinal rate of change in BMD. In association with Dept of Endocrinology	SGPGI funded	2014-2016
27	Role of RET/PTC,TRK, BRAF and RAS mutation in pathogenesis of Papillary thyroid carcinoma. In association with Dept of Surgical Endocrinology	DST, N Delhi	2013-2016
28	To assess the association between different pro inflammatory cytokine genes and associated polymorphisms with preterm birth. In association with Dept of Pediatrics, KGMU	ICMR, N Delhi	2012-2015
29	To assess the association of haplotype and SNPs of chromosome 17 genes large inversion region with severity of asthma, response to corticosteroids during acute attack as well as on follow-up. In association with Dept of Pediatrics, KGMU	CST, UP	2012-2015
30	Study on genome wide analysis of sub microscopic genetic aberration in children with idiopathic intellectual /multiple congenital anomalies. In association with JIPMER, Pondichery	DBT, N Delhi	2014-2017
31	Identification and characterization of cardiac impairment gene polymorphism of thalassemia patients of the UP origin”	Council of Science & Technology, UP	2012-2015

	CST ref no.CST/SERPD/D-1200		
32	Predicting Oxidative Injury in Homozygous Beta Thalassemia patients through Biochemical and Genetic Markers.CST/SERPD/D-636	CST, UP	2016-2018
33	Epigenetic profiling of Myotonic Dystrophy and its correlation with the clinical phenotype.	SERB-DST	2016-2019

PH D Students

Student Name & Year of Admission	Title of thesis	e.mail
M Naveed 1989	Clinical, biochemical and molecular characterization of thalassemia syndromes in Uttar Pradesh, India	dr_m_naveed@yahoo.com AWARDED
Swati Sarwai	Genetic Determinants in Thalassemia Intermedia	AWARDED
Anju Gupta	Characterization of unknown Beta thalassemia mutations by Direct sequencing of PCR products	Anju_g29@yahoo.com AWARDED
Pragya Singhal1999	Identification of the spectrum of beta thalassemia mutations and linkage analysis in Indian population	AWARDED
Nitu Nigam 1997	Spectrum of Beta Thalassemia mutations, alpha genotype and beta haplotype analysis by PCR-RFLP in Gujarati families.	nigamnitu@gmail.com AWARDED

DeepshikhaTewari 2003	Identification and characterization of beta thalassemia with the help of HPLC and Electrophoresis	deepshikapgi@gmail.com AWARDED
Vandana Arya 2003	Role of Genetic modifiers in Phenotypic expression of beta Thalassemia patients.	vandanapgi@gmail.com AWARDED
Shweta Saxena 2003	HFE gene frequency in North Indian Population.	AWARDED
NaliniDimri 2004	Genetics of Pregnancy induced Hypertension.	Nalini2079@rediff.com AWARDED
Rajneesh Tripathi2006	Genetic Predisposition for Coronary artery Disease.	tripathibt@gmail.com AWARDED
Ravindra Kumar 2007	Genetic Determinants of Thalassemia	ravindrachhabra@gmail.com AWARDED
Shalu Jain 2007	STR markers for detection of aneuploidy and determination of origin of non-disjunction by QF-PCR.	shaluisjain@yahoo.com AWARDED
Divya Sanghi 2008	The status of Vitamin D gene variants and effect of vitamin D on progression of primary Osteoarthritis knee.	divyasanghi_14@rediffmail.com AWARDED
Neetika Srivastava 2009	Some aspects of Genetic Demographic parameters and characterization of blood groups and hemoglobin in Pasis and Chamars of RularLucknow	AWARDED
Shweta Singh 2010	Genetics of chronic tropical pancreatitis: implication for prognosis and diagnosis	shwetasinghpgi@gmail.com AWARDED
Sarika Gupta 2008	Association of SNPs of CRHR1 gene,rs242939 and rs242941 with severity of childhood asthma in Northern Indian asthmatic children	sarika23july@gmail.com AWARDED

NutanMaurya 2008	Detection and characterization of cystic fibrosis transmembrane regulator gene polymorphism in children aged 5 month to 15 years and its association with asthma and its severity	nutanlogin@gmail.com AWARDED
Kritanjali Singh 2010	Role of genetic factors in pathogenesis of osteoporosis in beta thalassemia patients	skritanjali@gmail.com AWARDED
Ashok Kumar2011	Genetic profiling of Myotonic Dystrophy and its correlation with clinical Phenotypes.	chemistry.ashok83@gmail.com AWARDED
M Srinivasan 2011	Friedreich ataxia and Down syndrome: Effect of genetic understanding on disease progression and phenotype	srinimbt@gmail.com AWARDED
Ambreen Asim2012	Studying the genetics and epigenetics aspects of Congenital Heart Defects in Down Syndrome	ambreenasimsiddiqui@gmail.com AWARDED
Pratibha Dixit 2011	To assess the association of CFTR and Interleukin genes polymorphism in Asthmatic children : a case control study	sciencebio.dixit@gmail.com AWARDED
Mable Misha 2013	Studying the genetics involved in causing cardiac damage in thalassemic patients: a cause of morbidity and Mortality	misha4288@gmail.com AWARDED
DeepikaDelsa Dean2014	Repeat mediated genotypic and phenotypic variation associated with permutation and full mutation FMR1 gene.	deepikadean.ddd@gmail.com AWARDED
Priyanka Vishwakarma 2017	Molecular characterization of SCA in Indian population	Priyankagenetics31@gmail.com COMPLETED
Kapil Avasthi 2018	Study on Genetic Heterogeneity in	Kapilavasthi6@gmail.com

	Orofacial Clefts: cleft lip and palate Patients	
Poonam Tripathi 2019	Role of Genetic Markers in Oxidative Injury and Quantitative Trait Loci for phenotypic manifestation of Thalassemia Major	Poonamtripathi90@gmail.com

Publications

1. Kumar A, **Agarwal Sarita**, Pradhan S :CpG methylation and various parameters interaction in myotonic dystrophy type 1Journal of Analytical & Pharmaceutical Research Volume 9 Issue 1 – 2020
2. Poonam Tripathi, Sarita Agarwal, Aditya Narayan Sarangi
Genetic Variation in SOD1Gene Promoter Ins/Del and Its Influence on Oxidative Stress in Beta thalassemia major patients. International Jopurnal of hematology- Oncology and Stem cell Research 1492) 2020
3. Poonam Tripathi & Sarita Agarwal1 & Anshul Gupta & Kausik Mandal
Biallelic rare 17 bp deletion mutation (HBB:c.380_396 del 6 TGCAGGCTGCCTATCAG) in a transfusion depended 7 form of thalassemia. Annals of Hematology <https://doi.org/10.1007/s00277-020-04017-2>
4. Dean DD, **Agarwal Sarita** and Srinivasan M: Fragile X molecular investigation and genetic counseling of intellectual disability/developmental delay patients in an Indian scenario. Expert review of Mol. Diag <https://doi.org/10.1080/14737159.2019.1622416>
5. Dean DD, **Agarwal Sarita** and Srinivasan M : Defining the role of FMR1 gene in unexplained recurrent spontaneous abortion. Journal of Assisted Reproduction and Genetics
6. Mittal N , Garg N, Kashyap R and **Agarwal Sarita**: A case of compound heterozygous hemoglobin Köln/hemoglobin E in an Indian family. Pediatric Hematology and Oncology 2019, ISSN: 0888-0018 (Print) 1521-0669 (Online) Journal homepage: <https://www.tandfonline.com/loi/iph020>
7. Ali W, Jain M, **Agarwal Sarita**, Kumar A: A Case of Hemoglobin Sickle-D Punjab Indian Journal of Hematology and Blood Transfusion <https://doi.org/10.1007/s12288-019-01179-609/2019>
8. Vishwakarma P, **Agarwal Sarita** : Molecular Spectrum and allele frequency of different subtypes(1,2,3,6 and 7) of Spinocerebellar Ataxia in the Indian Population. Intractable Rare Dis Res. 2019; 8 (3); 193-197

9. Pani K, Sharma S, Murari M, Yadav M, Phadke S and **Agarwal Sarita**: Clinico-hematological Profile of Hb E- β Thalassemia- Prospective Analysis in a Tertiary Care Centre. J Association of Physician of India, 66, 2019, 42-45
10. Avasthi K K, **Agarwal Sarita**, Panigrahi I: KLHL40 Mutation Associated with Severe Nemaline Myopathy, Fetal Akinesia, and Cleft Palate. Journal of Pediatric Neurosciences Volume 14 | Issue 4 | 221-224, 2019
11. Asim A, **Agarwal Sarita**, Panigrahi I, Sarangi A N, Srinivasan M, Kapoor A : CRELD1 gene variants and atrioventricular septal defects in Down syndrome. Gene 641 (2018) 180–185
12. Dean DD, **Agarwal Sarita**, Kapoor D, Singh K and Vati, C : Molecular Characterization of FMR1 gene by TP-PCR in women of Reproductive age and women with premature Ovarian Insufficiency. Molecular Diagnosis & Therapy (2018)
13. Singh MM, Kumar, R , Tewari S and **Agarwal Sarita**: No association of Genetic markers with Carotid Intimal Medial thickness in Beta thalassemia Major patients. J Pediatric Genetics 2018. DOI <http://doi.org/10.1055/s-0037-1608796>
14. Singh MM, Kumar, R , Tewari S and **Agarwal Sarita**: Association of GST1/GSTM1 and ApoE variants with left ventricular diastolic dysfunction in Thalassemia major patients. Hematology **2018** Aug 10:1-6. doi: 10.1080/10245332.2018.1502397. [Epub ahead of print]
15. George N, Agarwal A, Kumari N, **Agarwal Sarita**, Kishnani N, Gupta SK: Mutational Profile of Papillary Thyroid Carcinoma in an Endemic Goiter Region of North India Indian J Endocrinology & Metabolism 2018. IP 14, 139.245.181
16. Saiyeda, N, Bakshi, S , Muthuswamy, S , **Agarwal Sarita** : Young mothers and higher incidence of maternal meiosis-I nondisjunction: Interplay of environmental exposure and genetic alterations during halt phase in trisomy 21. Reproductive Toxicology 2018 79, 1–7
17. Dean DD , **Agarwal Sarita** & Tripathi P : Connecting links between genetic factors defining ovarian reserve and recurrent miscarriages. Journal of Assisted Reproduction and Genetics. <https://doi.org/10.1007/s10815-018-1305-3>
18. Tripathi P, **Agarwal Sarita** and Srinivasan M: Prevalence and Genetic Characterization of Glucose-6- Phosphate Dehydrogenase Deficiency in Anemic subjects from Uttar Pradesh, India. J Pediatrics Genetics 2018
19. Tripathi P, Kumar R and **Agarwal Sarita** Spectrum and hematological profile of hereditary anemia in North Indians: SGPGI experience. Intractable & Rare Diseases Research. 2018; 7
20. Singh MM, Kumar R, Tewari S and **Agarwal Sarita** : Investigation of OPG/RANK/RANKL Genes as a Genetic Marker for Cardiac abnormalities in Thalassemia Major Patients . Annals of Human Genetics (2017) , 1–8 Annals of Human Genetics (2017) , 1–8
21. Kumar R, Alwani M , Kosta S, Kaur R, **Agarwal Sarita**: BMP15 and GDF9 Gene Mutations in Premature Ovarian Failure. J Reprod Infertil. 2017;18(1):000-000
22. Singh MM, Kumar, R Tewari S and **Agarwal Sarita** : Determining Nt-pro BNP Levels with Diastolic Dysfunction in Thalassemia Major Patients. J Pediatr Genet. DOI <https://doi.org/10.1055/s-0037-1603193>. ISSN 2146-4596. 2017

23. Asim A, **Agarwal Sarita**, Panigrahi I .MTRR gene variants may predispose to the risk of Congenital Heart Disease in Down Syndrome patients of Indian Origin. Egyptian Journal of Medical human Genetics, (2017) 18:61–66
 24. Kumar A, Tripathi P, Agarwal S. (2017). Palindrome Mediated Translocation in Human: Where do we go from here? Int J Neurosci Res 1(1): 1-04.
 25. Kumar A, Agarwal S. (May 2017). Myotonic Dystrophy Type 1: An Eyesight of Tri Repeat Expansion Disorder. Book published by Scholar press, Germany (ISBN: 978-3-330-65177-7).
 26. Tripathi P, Srinivasan M, **Agarwal Sarita**: A novel single nucleotide deletion mutation in Exon 2 (HBB: c. 240del C) of beta Globin gene : A case report. IJLH 2017
 27. Kumar A, Ranjan A, Yadav S, Vishwakarma P, Agarwal S. (2017). Glaucoma: A Gist of Visual Impairment. Glob J Intellect Dev Disabil. 3(1): 555605.
 28. Zaidi G, Bhatia VL, Sahoo S, Sarangi AN, Bharti, N Zhang L, Srinivasan M, **Agarwal Sarita** and Bhatia E. Autoimmune Polyendocrine Syndrome type I in an Indian Cohort: a longitudinal study. J Endocrine Corrections 6, 289-296 2017
 29. Asim A, **Agarwal Sarita**, Panigrahi I, Saiyad N, Bakshi S: MTHFR Promoter hyper methylation may lead to congenital Heart defects in Down Syndrome. Intractable & Rare Research Disease 6 (4) 295-298, 2017
 30. Kumar A, Vishwakarma P, Agarwal S. (2017). An Overview of Glaucoma. Neuro Disord Stroke Ther 2017; e001
 31. Asim A, **Agarwal Sarita**: Segmental Duplication- Quantitative Fluorescent – Polymerase Chain Reaction: An approach for the Diagnosis of Down Syndrome in India. Turk J Obstet Gynecol. DOI: 10.4274/tjod.56244
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32. Asim A, **Agarwal Sarita**, Kulkarni S S, Panigrahi I (2016). Folate metabolism and genetic variant in Down Syndrome: A meta- analysis. Genetic Syndromes & Gene Therapy 6:3
 33. Asim A, **Agarwal Sarita** , Panigrahi I (2016). Frequency of Congenital Heart Defects in Indian Children with Down syndrome. Austin J Genet Genomic Res. 2016; 3(1): 1016.
 34. Deepika Delsa Dean and **Agarwal Sarita** 2016. Next generation sequencing in New Born Screening –Current Insights. Genetic Clinics 9 (3) 13-18.
 35. Gupta S, Govila, V, Pant V A, **Agarwal Sarita**, Srinivasan M (2016). Implication of triclosan as an anti-cytokine drug in chronic periodontitis. Int J of Advanced research, Volume 4, Issue 5, 1164-1169 DOI: 10.21474/IJAR01
 36. Srinivasan M, and **Agarwal Sarita** (2016) Segmental duplication QF-PCR: a simple and alternative method of rapid aneuploidy testing for developing country like India. Journal of Clinical Laboratory Analysis 00: 1–5 .
 37. Deepika Delsa Dean, Srinivasan M, **Agarwal Sarita** (2016). Fragile X syndrome: Current insight. Review article. The Egyptian Journal of Medical Human Genetics, 17, 303–309
 38. Srinivasan M, Dean DD, **Agarwal Sarita** A Pilot Study on Assessment of Triplet Repeat Primed PCR for Fragile X Syndrome Diagnosis. Article · January 2016, DOI: 10.1007/978-981-287-670-6_1

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40. Gupta S, Awasthi S, Sharma N, **Agarwal Sarita** and Tripathi P: Association of Corticotrophin releasing hormone receptor 1 gene polymorphisms (RS242941 and RS242939) with persistent asthma and its phenotype in Northern Indian Asthmatic Children: A cross Sectional Study. *Indian J Medical Sciences [Molecular Section]* 68,42-8, 2016
41. Kumar A, Sarita Agarwal, Pradhan S. Haplotype analysis and LD detection at DM1 locus. *Gene* 567 (2015) 45–50.,
42. Kumar A, Sarita Agarwal. Myotonic Dystrophy: Sum and Substance. Review article
Austin Journal of Genetics and Genomic Research. Volume 2 Issue 1 – 2015
43. Ambreen Asim, Kumar A, Srinivasan M, Jain S, Sarita Agarwal: Down syndrome: an insight of the disease. *J Biological & Medical sciences*. 2015, 22:41 Review article
44. Kumar A, Singh SK, Kumar V, Kumar D, Agarwal Sarita, Rana MK (2015). Huntington's disease: An update of therapeutic strategies. *Gene* 556:91-97. Review article
45. Awasthi S, Gupta S, Sarita Agarwal, Sharma N . CRHR1 Gene SNPs and Response to Systemic Corticosteroids in Indian Asthmatic Children During Acute Exacerbation.
Indian J Pediatr 2015 Feb 26. Epub 2015 Feb 26.
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Performance of QF-PCR in targeted prenatal aneuploidy diagnosis: Indian scenario. *Gene* 2015 May 10; 562(1):55-61.
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51. Kumar R, Kaur A, Agarwal S. Influence of Xmn 1(G)gamma (HBG2 c.-211 C --> T) Globin Gene Polymorphism on Phenotype of Thalassemia Patients of North India. *Indian J Hematol Blood Transfus* 2014 Dec;30(4):286-90.

52. Dixit P, Awasthi S, Agarwal S. Association of interleukin genes polymorphism with asthma susceptibility in Indian children: a case-control study. *Ann Hum Biol* 2014 Nov 17;1-8.
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57. Singh S, Choudhuri G, Agarwal S. Frequency of CFTR, SPINK1, and cathepsin B gene mutation in North Indian population: connections between genetics and clinical data. *ScientificWorldJournal* 2014;2014:763195.
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60. Singh S, Kumar A, Agarwal S, Phadke SR, Jaiswal Y. Genetic insight of schizophrenia: past and future perspectives. *Gene* 2014 Feb 10;535(2):97-100.
61. Singh K, Agarwal Sarita, Gupta S. Low Bone Density in thalassemia Majors: SGPGI Experience and brief focus on underlying factors behind the cause. *Thalassemia Reports*. 2014.
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63. Sharma N, Awasthi S, Phadke S R, Gupta S and Sarita Agrawal. Development and Validation of a PCR-RFLP method to genotype the CRHR1 (rs242941: G>T)) gene variation: A simple and Inexpensive Pharmacogenetic tool. *J.Bio.Innov* (2013) 2(3), pp: 79-89.
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66. Kumar A, Agarwal Sarita, Phadke, S and Pradhan S: Report of an unusual Family of Myotonic Dystrophy with possible extended approach for genetic counselling: A case Report. *Int.J Bioassay* 2013; 2,315-318.

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72. Singh K, Agarwal Sarita, Shukla A, Gupta S: An SP1-binding site polymorphism in the COL1A1 gene: may be a strong predictor for low bone density in thalassemia major. *Gene Ther Mol Biol* 15, 2013,112-119.
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