

1. **Name** : SATBIR KAUR
2. **Designation** : Professor & Head, Dean Faculty of Life Sciences
3. **Department** : Human Genetics, Punjabi University.
4. **Date of Birth** : April 1, 1958
5. **Address for Correspondence** : Department of Human Genetics,
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6. **Area of Specialisation** : Human Cytogenetics, Genotoxicity, Molecular Genetics.

7. **Academic Qualifications:**

Sr. No.	Degree Held	Year	Board/Univ./Inst	% of marks	Div./ Rank	Subjects Taken
1	B.Sc	1978	M.M.Modi. Deg. College, Patiala	58.6	Second	Botany,Zoology,Chemistry, English and Punjabi (opt.)
2	M.Sc	1980	Punjabi Univ., Patiala.	60.5	First	Human Biology
3	M.Phil	1984	Punjabi Univ., Patiala.			Human Biology
4	Ph.D	1986	Punjabi Univ., Patiala.			Human Biology

8. Membership of Professional Bodies/Organisations

Life-Member:

1. Indian Society of Human Genetics (ISHG)
2. Environmental Mutagen Society of India (EMSI)
3. Punjab Academy of Sciences (PAS)
4. Biosensor Society (India)

9. Medals/Awards/Honours/received

- i) Awarded merit scholarship during M.Sc.

10. Scholarships:

1. Junior research fellow.
2. Senior research fellow.
3. Research associate.

11. Details of Experience:

S. No.	Name of the Inst./Employer	Position Held	Duration	Major Job Responsibilities and Nature of Experience
1.	Dept. of Human Biology, Punjabi University, Patiala	Junior Research Fellow	7/1982-6/1984	Research
2.	Dept. of Human Biology, Punjabi University, Patiala	Senior Research Fellow	7/1984 -1/1987	Research
3.	Dept. of Human Biology, Punjabi University, Patiala	Research Associate	12/1987-8/1989	Research
4.	Dept. of Human Biology, Punjabi University, Patiala	Lecturer	2/1987-5/1987, 8/1989-8/1994	Teaching and Research
5.	Dept. of Human Biology, Punjabi University, Patiala	Lecturer (Senior Scale)	8/1994-8/1998	Teaching and Research
6.	Dept. of Human Biology, Punjabi University, Patiala	Reader	8/1998-8/2006	Teaching and Research
7.	Dept. of Human Biology, Punjabi University, Patiala	Professor	8/2006-3/2013	Teaching and research

8.	Dept. of Human Genetics, Punjabi University, Patiala (name of Dept. Changed in 2013)	Professor	3/2013-till date	Teaching and research
9.	Dept. of Human Genetics, Punjabi University, Patiala	Head	1-6-2012 to 31-5- 2015 and 1-1-16 onwards	--
10	Dept. of Human Genetics, Punjabi University, Patiala	Dean, Faculty of Life Science	1-1-18 onwards	

12. Published work

a. Research Papers (published and communicated): (27+2)

b. Conference/Seminar Presentation: 28

c. Books:

i) Original: None

ii) Books Co-edited: 3

- 1) I.J.S. Bansal, L.S. Sidhu, L. Singh, D.P. Bhatnagar, P. Singhal, H. Kaur, S.P. Singh, Pushpa Singal and **Satbir Kaur** (eds.) 1991, New Horizons in Human Biology, Today's and Tomorrow's, Printers and Publishers, New Delhi.
- 2) R.P. Gupta, D.K. Dhawan, R Kaur, **S. Kaur**, S Jyoti and R.K. Singla (eds.) 1994, Twenty third orientation course- A report. Academic Staff College, Punjab University, Chandigarh.
- 3) P. Singhal , S.P. Singh , D.P. Bhatnagar , P. Singal , P. Mehta and **S. Kaur** (eds)1999, Advances in Human Biology At The Turn Of The Millennium, Publication Beareu, Punjabi University, Patiala.

13. R & D Projects

- i) Successfully completed minor research project entitled “**An assay of SCE frequency in peripheral lymphocytes of patients with carcinoma of reproductive system**” which was sanctioned to me in July 1996 for two years.
- ii) Member "Project implementation group" of FIST Program-2008.
- iii) Deputy Coordinator SAP-2011.

14. Invited Talks/Articles

- i) Invited as a resource person in the refresher course in Human Biology (Life- Sciences) sponsored by U.G.C., held from November 8-29, 2002
- ii) Invited as a resource person in the seminar entitled "Advances in Biology" sponsored by the State Institute of Science Education, Punjab, held in the department of Botany from December 10-15, 2001
- iii) Written articles in Punjabi on the following:
 - a. Twins
 - b. Human Chromosomes
 - c. Gene Therapy

15. Ph.D. Students guided/under guidance (Details):

S. No.	Name of the Student	Title of Thesis	Year of Completion
1.	Vasudha Sambyal	Cytogenetic Studies of Human Cancer	1996
2.	Raminderjeet Kaur	Assessment of genetic damage in the workers occupationally exposed to various pesticides in selected districts of Punjab	2008
3	Mukesh Lata	Cytogenetic study of workers occupationally exposed to industrial pollutants	2010
4.	Shruti Caplash	Association of GST polymorphism with susceptibility to Leukemia and differential chemotherapy response.	Nov. 2016
5.	Gurmeet Kaur	Influence of GST polymorphism on treatment response in breast cancer patients	Jan. 2017
6.	Meenakshi	Biomarker targeted immunosensor for detection of	May. 2017

		cancer	
UNDER GUIDANCE			Date of Registration
7.	Harsimran Kaur	Pharmacogenetic analysis of NEDD4L, ADD1, GNB3, KCNJ1, PRWnk1, PRWnk4 genes in hypertension population of Punjab.	9 May, 2014.
8.	Apinder Kaur	Genetic polymorphism of Mucin and Bile Transporter genes among Gallbladder stone patients in Punjab.	14 Nov, 2014.
9.	Amandeep Kaur	Genetic polymorphism of Hormonal receptor and cholesterol transporter genes in Gallstone disease: A case- control study from Punjab.	14 Nov, 2014.
10.	Nisha Gautam	Genetic polymorphism of Enhancer of Zeste homolog-2 (EZH2) gene in breast cancer patients of punjab.	17 Nov, 2014.
11.	Kaishiv Joshi	Association analysis of genetic polymorphism of CYP3A5, CYP2C19 and TPMT genes with leukemia and its treatment response.	24 Feb, 2016.
12.	Kamaljeet Kaur	Genetic Polymorphisms In RAD51, RAD52 and RAD54 Genes of Homologous Recombination Repair Pathway in Breast Cancer: A Case-Control Study from Punjab	Registration under process
13.	Kiranjeet Kaur Galhna	Pharmacogenetic analysis of multidrug resistance genes ABCB1 and ABCG2 in breast cancer patients of Punjab	Registration under process

16. M.Phil./M.D. Students guided:

S. No.	Name of the Student	Title of Thesis	Year of Completion
1.	Devinder Singh	Chromosomal pattern in Epilepsy	1990
2.	Sudha Rani	Chromosomal abnormalities in primary amenorrhoea	1990
3.	66 M.Sc. students	M.Sc. Dissertations	1990-2017

17. List of Papers/Courses taught at P.G. and U.G. Level

S. No.	Paper	Class
1.	Clinical Genetics	M. Sc. I
2.	Practical paper I : Human Anatomy	M. Sc. I
3.	Practical Paper: Human Cytogenetics	M. Sc. II
4.	Fundamentals of Human Genetics	M. Sc. I
5.	Medical genomics	M.SC. II
7.	Human Molecular Genetics	M.SC. II
8.	Human Cytogenetics	M.SC. II
9.	Dissertation	M.SC. II

18. Technical Proficiency

I have a thorough grounding in the techniques of cell culture, chromosome banding, microphotography, identification of chromosome aberrations, sister chromatid exchanges, direct meiotic chromosome preparations, micronuclei analysis and single cell gel electrophoresis etc. I have travelled abroad (to USA (1988), Canada (1988) and Germany(1986)) twice to attend conferences and obtained training in advanced cytogenetic techniques to study human chromosomes from amniotic fluid cell cultures and chorionic villi samples. On another trip (to Italy, 1991) I did an intensive course on computer applications in Molecular Biology.

19. List of Papers Publications

Articles Published

- 1) Kaur, A., Kaur, A., **Kaur, S.**, (2018)"Role of Serum Lipids in gallstone Pathogenesis: A Case- Control Study from Punjab" : Asian Journal Of Pharmaceutical And Clinical Reasearch.11(2)
- 2) Choudhary, M., Yadav, P., Singh, A., **Kaur, S.**, Ramirez-Vick, J., Chandra, P., Arora, K., Singh, S.P. "CD 59 Targeted Ultrasensitive Electrochemical Immunosensor for Fast and Noninvasive Diagnosis of Oral Cancer" *Electroanalysis* (2016) DOI:10.1002/elan.201600238.
- 3) Singh, A., Choudhary, M., **Kaur, S.**, Singh, S.P., Arora, K., "Molecular Functionalization of Carbon Nanomaterials for Immuno-diagnosis of Cancer" *Materials Today: Proceedings* 3, 2 (2016) 157-161.
- 4) Kaur, G., **Kaur, S.**, Sandhu, D.S., "Genetic Polymorphism of Glutathione S-Transferases Genes GSTM1, GSTT1 and GSTP1 and Susceptibility to Breast Cancer", *International Journal of Multidisciplinary Research Review*, Vol.1, Issue – 4 (2016) 1-15.
- 5) Caplash, S., Joshi, K., Sandhu, D. and **Kaur S** (2015). A study of association of GST gene polymorphism with susceptibility to Acute Leukemia. *Journal, Punjab Academy of Sciences* 13-14 (1&2): 14-18.
- 6) Choudhary M, Singh A, **Kaur S** and Arora K (2014). Enhancing Lung Cancer diagnosis: Electrochemical Bianalyte Immunosensing using Carbon nanotube-chitosan nanocomposite. *Applied Biochemistry and Biotechnology* 174: 1188-1200. [IF 1.89] [NAAS factor: 7.74]
- 7) Choudhary M, **Kaur S** and Arora K (2014). Lung cancer Diagnosis via Interfacing Bio-Nano-Molecular System: hTERT, Chitosan, Carbon nanotubes. *IEEE Computer Society* 559-560. DOI:10.1109/CBMS.2014.137.
- 8) Choudhary, M., Kumar, V., Singh, A., Singh, M., **Kaur, S.**, Reddy, G.B., Pasricha, R., Singh, S.P. and Arora, K. (2013). Graphene oxide based label free ultrasensitive immunosensor for Lung cancer biomarker, hTERT. *Journal of Biosensors and Bioelectronics*. 4: 143.
- 9) Caplash, S., Meenakshi and **Kaur, S.** (2013). Micronucleus investigation in exfoliated buccal cells among tobacco chewers/ smokers and controls. *IJPAS*. 2(1): 72-79.

- 10) Kaur, R., **Kaur, S.** and Lata, M. (2011). Evaluation of DNA damage in agricultural workers exposed to pesticides using single cell gel electrophoresis (comet) assay. *Indian J. Hum. Genet.* 17(3): 179-187.
- 11) S. Abhishek, N. Kaur, **S. Kaur**, M. Lata, J.K. Sharma, A. Sharma.(2010) Association of *GSTM1* and *GSTT1* Gene Deletions with Susceptibility to DNA Damage in the Pesticide-Exposed Workers of Punjab. *Rejuvenation Research.* April / June 2010, 13(2-3): 281-284 [IF 5.08].
- 12) Kaur, R., **Kaur, S.**, M. Lata. (2007). Evaluation of DNA damage in orchard workers exposed to pesticides using comet assay. *J.Pb Acad. Sci.* 4(1&2)
- 13) **Kaur, S.**, Sambyal, V., Sharma, A. and Kaur, P. (2006). Buccal mucosal X-chromatin frequency in breast and cervix cancer. *The Anthropologist* 8(4):223-225.
- 14) **Kaur, S.** and Singh, T. (2005). A study of inheritance of Madarosis. *J. Pb. Acad. Sci.* 2 (1).
- 15) **Kaur, S.**, Kaur, V. and Chugh, A. (2002). Chromosomal instability in lymphocytes of patients with carcinoma of uterine cervix. *J. Pb. Acad. Sci.* 1 (ns):53-56.
- 16) **Kaur, S.** (2000). Gene Therapy. *Vigyan de nakash-manukhi sareer : naveentam khoja de sanmukh.* 39:13-15.
- 17) Sambyal, V., **Kaur, S.**, Bansal, I.J.S. and Singh, R. (2000). Preferential involvement of specific chromosomes in malignant transformations. In: *Advances in Human Biology at the turn of Millinium* eds. Singhal et.al., Patiala : Punjabi University, Pp.108-110.
- 18) **Kaur, S.**, Sambyal, V. and Rai, S.K. (1999). SCE analysis in treated and untreated leprosy patients. *Ind. J. Hum. Genet.* 5(2):11-13.
- 19) Sambyal, V., **Kaur, S.**, Bansal, I.J.S. and Singh, R. (1995). Sister Chromatid Exchange Frequency in Breast Cancer. *Bionature*, 15(2)97-100.
- 20) Singhal, P., Sarin, A.R., Bansal, I.J.S. and **Kaur, S.** (1994). ABO and Rh Blood Groups in Fertility and Infertility. *Ind. Jour. Med. Child Health*, 5(1):10-14
- 21) Kaur, K., **Kaur, S.**, Suman, S.P. and Singh, D. (1992). Congenital Hemihypertrophy with Mental Retardation- A Case Report. *J. of Assocn. of Physicians of India*, 40(3) 203-205.
- 22) **Kaur, S.**, Bansal, I.J.S. and Sarin, A.R. (1988). Cytogenetic Investigations in 100 Couples with Recurrent Fetal Wastage. *Bionature* 10:65-69.

- 23) **Kaur, S.**, Bansal, I.J.S. and Sarin, A.R. (1986). Mitotic and Meiotic Chromosomal Study in a Male with Reproductive Failure. *Biologica* 1(2): 276-277.
- 24) **Kaur, S.** and Bansal, I.J.S. (1985). ABO-Hp Interaction Analysis, *Bionature*, 5:53.
- 25) **Kaur, S.** (1985). A Translocation, 46, XY, t (1; 2) (q32; p21) in a Male with Reproductive Failure. *Hum. Gen.* 70:93.
- 26) **Kaur, S.** and Bansal, I.J.S. (1983). Genetic Markers and Sex Ratio. In *Anthropology in the Indian Context* eds. Bansal et al. – Today and Tomorrow's Printers and Publisher, pp. 195-204.
- 27) Bansal, I.J.S., Bhanwer, A.J.S., Kumar, R.K., Bala, M. and **Kaur, S.** (1981). A Genetic Study of the Bhotia Population of Himalaya, *Manav*, 2:97-104.

Articles Communicated

- 1) Kaur, J., Balgir, P. P., Kaur, H., Kaur, S., Goel, R.K (2018). Prescription Pattern Analysis and Predictors of Hypertension Associated Metabolic Disorders in Population of Punjab: *Public Health*.
- 2 Choudhary, M., Kaur, S., Arora, K., (2017)“Silver Nanoparticles – Graphene Oxide Nanocomposite Based Immunosensing Platform for Lung Cancer” : *Biosensors and Bioelectronics*.

Signature

Date and Place