CURRICULUM VITAE Shahid Mahmood Baig

D.O.B. 09.10.1960 Field of Specialization: Molecular Biology and Human Genetics

Human Molecular Genetics Laboratory, Health Biotechnology Division, National Institute for Biotechnology and Genetic Engineering (NIBGE), PO Box 577, Faisalabad, Pakistan. Tel:+92-41-2551638,Fax:+92-41-2651472Email:shahid baig2002@yahoo.com,

EDUCATIONAL QUALIFICATIONS

Post Doctoral Studies

Molecular Biology and Genetic Engineering Unit, Department of Biochemistry, College of Science, King Saud University, Riyadh, Kingdom of Saudi (August 2000-April 2003)

Ph.D. (Molecular Biology and Human Genetics)

Quaid-I-Azam University Islamabad, Pakistan and Bosphorus University, Istanbul, Turkey (1996).

Title: Molecular basis of β -thalassemia in Turkey and its prenatal diagnosis by DNA analysis.

M.Phil. (Physiology of Reproduction)

Quaid-I-Azam University, Islamabad Pakistan (1986). Title: Studies on monkey gonadotropins and their response to LHRH.

M. Sc. (Biology)

Quaid-I-Azam University, Islamabad Pakistan (1984).

B.Sc. (Biology)

Gordon College, Rawalpindi, Pakistan (1981).

POSITIONS HELD

Principal Scientist (HEC approved M.Phil/PhD supervisor): Health Biotechnology Division, National Institute for Biotechnology and Genetic Engineering (NIBGE), Faisalabad, Pakistan (2003-Present).

Post Doctoral Fellow: Molecular Biology and Genetic Engineering Unit, Department of Biochemistry, College of Science, King Saud University, Riyadh, Kingdom of Saudi Arabia (August 2000-April 2003).

Senior Scientist and MPhil/PhD Faculty Member: Health Biotechnology Division, National Institute for Biotechnology and Genetic Engineering (NIBGE), Faisalabad, Pakistan (1995-2003).

PhD Research Fellow and Teaching Assistant: Department of Molecular Biology and Genetics, Bosphorus University Istanbul, Turkey (1992-1995).

Scientific Officer: Clinical Biochemistry/Radioimmunoassay, Nuclear Medicine Oncology and Radiotherapy Institute (NORI), Islamabad, Pakistan (1987-1992).

Research Scholar: Clinical Biochemistry/ Radioimmunoassay, Nuclear Medicine Oncology and Radiotherapy Institute (NORI), Islamabad Pakistan (Nov.1986-Sept. 1987).

Senior Teacher: Biology, Islamabad College for Boys, G-6/3, Islamabad Pakistan (1986).

Junior Research Assistant (JRA): Hormone Research Laboratory, Department of Biology, Quaid-i-Azam University, Islamabad, Pakistan (1985-1986).

OTHER ACADEMIC AND RESEACH ACTIVITIES

Visiting Faculty (Clinical Biochemistry): Department of Biochemistry, University of Arid Agriculture, Rawalpindi (2000-2004).

Principal Investigator and Co-Investigator: In a number of International and National research projects.

Approved PhD supervisor by HEC: For indigenous MPhil/PhD program by HEC in the field of Molecular Biology and Human Molecular Genetics (presently supervising 8 HEC PhD scholars).

External Examiner (M.Sc., M.Phil. and PhD): Arid University Rawalpindi, Agriculture University, Faisalabad, University of Karachi, Karachi, COMSATS Islamaabad and Quaid-I-Azam University, Islamabad.

Member Technical, Board of Studies: Department of Biochemistry, University of Arid Agriculture, Rawalpindi (Feb. 2004 todate)

TECHNICAL KNOWLEDGE

PCR, RT-PCR, ARMS, Dot-Blot hybridization (radioactive and non-radioactive), Southern hybridization, Cloning, Expression, Primer/Probe synthesis, Radioactive/non-radioactive labeling, Manual and automatic DNA sequencing), Restriction endonuclease analysis, prenatal diagnosis of hemoglobinopathies (thalassemias), Linkage Analysis, Gene Localization, HLA tissue typing by PCR for organ transplants, DGGE, SSCP, Diagnosis of infectious (DNA/RNA viruses and bacteria) and genetic disorders.

Teaching Graduate and Postgraduate level (Biology, Molecular Biology, Biotechnology and Clinical Biochemistry).

TRAINING COURSES

Bulk Production of Reagent for Radioimmunoassay (RIA) by IAEA at NIH, Bangkok, Thailand (Oct 9-20, 1989).

Nuclear Orientation Course, Center For Nuclear studies (CNS-PIEAS), Pakistan Institute For Nuclear Science and Technology (PINSTECH), Islamabad, Pakistan (Sep - Dec 1988).

INTERNATIONAL RESEARCH COLLABORATION

Established research collaboration in Sweden, Denmark and Germany in the area of Human Molecular Genetics.

PUBLICATIONS (International; Citations 52)

1. Farooq, M., Aslam., M., Wajid, M., Hussain, M.S., Rasool, M., Qureshi, J.A., Hansen, L., Eiberg, H., Tommerup, N., Klaus, W.K., Baig, SM. Compound heterozygosity in Pakistani MCPH families. 2007. J Med Genet (Manuscript No. JMG/2007/055996).

- Baig, S.M., Din, M.A., Hassan, H., Baig, J. M., Azhar, A., Aslam, M., Farooq, M., Hussain, M.S., Rasool, M., Anjum, I, Nawaz, S., Qureshi, J. A. Zaman, T. 2008 Prevention of β-thalassemia in a large Pakistani family through cascade testing. Community Genet, 11:68-70.
- 3. Iqbal, Z., **Baig, S.M.**, Aziz, Z., Akhtar, T. 2007. Clinical significance of pre-existing bcr-abl gene ATP-binding domain mutations in chronic myeloid leukemia (CML) patients: implication in prognosis and imatinib follow-up studies. Annal. Oncol., 18(supplement 4): iv48.
- 4. **Baig, S.M.,** 2007. Molecular diagnosis of β -thalassemia by Multiplex ARMS-PCR : A cost effective method for the developing countries. Prenat Diagn, 27(26): 280-281.
- 5. **Baig, S.M.,** Azhar, A., Hassan, H., Baig, J.M., Aslam, M., Din, M.A, Qureshi, J.A. and Zaman, T. 2006. Prenatal diagnosis of β-thalassemia in Southern Punjab, Pakistan. Prenat Diagn, 26:903-905.
- 6. **Baig, S.M.,** Azhar, A., Hassan, H., Baig, J. M. Qureshi, J. A. *et al.* 2006. Spectrum of β-thalassemia mutations in various regions of Punjab and Islamabad, Pakistan: establishment of prenatal diagnosis. Haematologica, 91(3):ELT02.
- 7. Iqbal, Z., **Baig, S. M.** 2006. Optimization of simple PCR assay for detection of globin gene deletions in alpha thalassemia. Haematologica, 91(supplement 3):136.
- Baig, S.M., Rabbi, F., Hameed, U., Azhar, A., Zaman, T, Qureshi, J.A. *et al.* 2005. Molecular characterization of mutations causing β-thalassemia in Faisalabad Pakistan, using the amplification refractory mutation system (ARMS-PCR). Ind J Hum Genet, 11(2):80-83.
- Ahmad, N., Baig, S.M., Shah, W.A. Khattak, K.F., Khan, B. and Qureshi, J.A. 2004. Detection of HCV genotypes using molecular and radio-isotopic methods. World Journal of Nuclear Medicine, 3(3): 219-224.
- Tadmouri, G.O., Tuzmen, S., Ozcelik, H., Ozer, A., Baig, S.M., Senga, E.B. and Basak, A.N. 1998. Molecular and population genetic analysis of beta-thalassemia in Turkey. Am. J. Hematol., 57(3):215-220.
- 11. Tuzmen, S., Tadmouri, G.O., Ozer, A., **Baig, S.M**., Ozcelik, H., Basaran, S. and Basak, A.N. 1996. Prenatal diagnosis of beta-thalassemia and sickle cell anemia in Turkey. Prenat Diagn, 16(3): 252-258.
- 13. Ullah, N., Mahmood, A., Wright, R. W. Jr., and **Baig, S. M**. 1992. Endocrine profile in relation to ovarian response, recovery rate and quality of embryos in Nili-Ravi buffaloes treated with FSH. Buffalo Journal. 1:47-56.
- 14. Mahmood, A., Anwar, M., Ullah, N., **Baig, S.M**., and Wright, R.W. Jr. 1991. Pattern of sex steroids secretion and their relationship with embryo yield in Jersey cows superovulated with PMSG. Theriogenology, 35:513-520.
- 15. Mahmood, S., Khurshid, S., Afzal, M.A., Naqvi, S.M.S., **Baig, S.M**. and Arslan, M. 1986. Changes in circulating levels of immunoreactive Follicle stimulating hormone, Luteinizing hormone and Testosterone during sexual development in the Rhesus monkey, *macaca mulatta*. Journal of Medical Primatology, 15:351-359.

Publications (National)

- Ali, A., Khan, M.M.R., Charania, B.A., Bhojani, F.A. and Baig, S.M. 1992. Impact of long term supply of iodized salt to the endemic goiter area. Journal of Pakistan Medical Association, 42(6): 138-140, PMID 1369614
- Baig, S.M., Anjum, S., Khan, S., Khanum, A., Qazi. M.H. and Haider, M.Z. 1992. Carcinoembryonic antigen (CEA) and beta human chorionic gonadotropin (β-hCG) as markers in breast cancer. Pakistan Journal of Zoology, 24(1): 71-76.
- 3. Khan, S., Anjum, S., **Baig, S.M**., Khanum, A., Haider, M.Z. and Qazi. M.H. 1991. Effect of anticancer chemotherapy on the circulating levels of Follicle stimulating hormone, Luteinizing hormone and Prolactin in postoperative premenopausal breast cancer patients. Pakistan Journal of Zoology, 23(4): 301-303.
- 4. Mahmood, A., **Baig, S.M.**, Khan, M.N, Malik, S.A. and Khanum, A. 1991. Production and characterization of antisera against steroids in rabbits. Pakistan Journal of Zoology, 23(2):277-283.
- 5. **Baig, S.M**., Khan, S., Anjum, S., Khanum, A., Haider. M.Z. and Qazi, M.H. 1991. Circulating levels of 17β-Estradiol, Testosterone and Progesterone in postmenopausal breast cancer patients receiving anticancer chemotherapy. Pakistan Journal of Zoology, 23(4): 335-338.
- 6. Khan, S., Anjum, S., **Baig, S.M**., Khanum, A., Haider. M.Z. and Qazi, M.H. 1991. Studies on the in *vitro and in vivo* release of the hormonal steroids bound to a polymer base. Pakistan Journal of Zoology, 23(3): 263-273.
- 7. Anjum, S., Khan, S., **Baig, S.M**., Khanum, A., Haider. M.Z. and Qazi, M.H. 1991. Effect of chemotherapy on circulating steroid hormone levels in postoperative premenopausal breast cancer patients. Journal of Pakistan Medical Association, 41:296-298, PMID 1663170.
- 8. Ahmad, M.M., Todehdehghan, F. and **Baig, S.M**. 1989. Serum LH, FSH and Estradiol levels in women using injectable contraceptive (Norigest) over long periods of time. Pakistan Journal of Medical Research, 28: 191-193.

PROCEEDINGS (International)

- Inayat, I.A., Azhar, A., Rabbi, F., Qureshi, J.A., Baig, S.M. Spectrum and regional specificity of β-thalassemia mutations in various regions of Punjab, Pakistan.Genomic Disorders 2007, 21-23 March, 2007, p. 67, Wellcome Trust Conference Center, Hinxton, UK.
- 2. Hussain, M.S., Farooq, M., Rasool, M., Inayat, I.A., Nawaz, S., Qureshi, J.A., **Baig, S.M.** Locus heterogeneity study of autosomal recessive primary microcephaly in Pakistani kindereds. Genomic Disorders 2007, 21-23 March, 2007, p. 77, Wellcome Trust Conference Center, Hinxton, UK.

- 3. Tadmouri, G.O, Tuzmen, S., **Baig, S. M**., Senga, E., Altay, C., Akar, N., Nisli, G., Yesilpak, A. and Basak, A.N. A molecular investigation of β -thalassemia in Turkey: Is there a region dependent specificity? 7th Annual meeting of the European Society of the Human Genetics (ESHG) and 7th annual Meeting of the Society of Human Genetics (GfH), Vol.2, p. 263, 1995, Germany.
- 4. Tadmouri, G.O, Tuzmen, S., **Baig, S. M.**, Senga, E., Altay, C., Akar, N., Nisli, G., Yesilpak, A. and Basak, A.N. Prenatal diagnosis of β -thalassemia in Turkey: present status and perspectives. 7th Annual meeting of the European Society of the Human Genetics (ESHG) and 7th annual Meeting of the Society of Human Genetics (GfH), Vol.2, p. 167, 1995, Germany.
- 5. Alkan, S., Tuzmen, S., **Baig, S. M**., Tadmouri, G.O. and Basak, A.N. The ECL oligolabelling and detection system versus radioactive approach in dot-blot hybridization. 7th Annual meeting of the European Society of the Human Genetics (ESHG) and 7th annual Meeting of the Society of Human Genetics (GfH), Vol.2, p. 164, 1995, Germany.
- Tuzmen, S., Tadmouri, G.O., Senga, E., Baig, S. M., Altay, C., Akar, N., Nisli, G., Yesilpak, A., Basaran, S., Aydinli, K. and Basak, A.N. Molecular pathology and prenatal diagnosis of βthalassemia in Turkey. In: H. Bialy, S. Black, Davies, S., Hassler, J., Hodgson, D.L., Oxender, J., Tooze. and W.J. Whelan (Eds)., Miami Biotechnology European Symposium, Advances in Gene Technology: Molecular Biology and Human Genetic Diseases, pp. 64, UK, IRL Pres at Oxford University Press, 1994.

Special International Invited Lecture

Baig SM. Spectrum of β -thalassemia mutations and molecular analysis of various genetic disorders in the Pakistani families. 6th February, 2008, Department of Cellular and Molecular Medicine, Wilhelm Johansen Centre, PANUM Institute, Copenhagen University University, Kopenhagen, Denmark.

Baig, S.M. Spectrum of β -thalassemia mutations and molecular analysis of various genetic disorders in the Pakistani families. 27th May 2007, Department of Medical Genetics and Pathology, Rudbeck Laboratory, Uppsala University, Uppsala, Sweden.

SYMPOSIA/CONFERENCES (International)

- Baig, S.M., Din, M.A., Hassan, H., Baig, J. M., Azhar, A., Aslam, M., Qureshi, J. A. Zaman, T. 2005. Inductive screening of β-thalassemia in a large consanguineous Pakistani family. Meeting of the American Society of Human Genetics Annual Meeting. 9-13 October 2006, New Orleans, Lousiana, USA, Abstract No. 2015/A.
- Baig, S. M., Zaman, T., Hameed, U., Rabbi, F., Bokhari, S. H., Baig, S., Hassan, K., Din, M. A., Azhar, A. and Qureshi, J. A. Molecular characterization of mutations causing β-thalassemia in Pakistan using amplification refractory mutation system (ARMS) and allele specific oligonucleotide (ASO) hybridization. Human Genome Variation Society (HGVS) Scientific and Annual General Meeting a Satellite Meeting of the American Society of Human Genetics Annual Meeting. 26-30 October 2004, Toronto, Canada.
- 3. Bilenoglu, O., Tuzmen, S., Ozer, A., Tadmouri, O., Baig, S.M., Basaran, S., and Basak, A.N. prenatal diagnosis of β -thalassemia and sickle cell anemia in Turkey. 8th International conference:

Oral chelation in the treatment of thalassemia and other diseases. Corfu, Greece Sept, 19-21, 1997, Greece.

- 4. Tadmouri, G.O, Tuzmen, S., **Baig, S. M.**, Senga, E., Tastan, O. and Basak, A.N. Molecular and population genetic analyses of thalassemia and sickle cell anemia in Turkey. Inherited Disorders and Their Genes in Different European Populations. Nov. 11-15, 1995, San Felieu Guixols, Spain.
- 5. Tadmouri, G.O., Tuzmen, S., **Baig, S. M**., Senga, E., Altay, C., Akar, N., Nisli, G., Yesilpak, A. and Basak, A.N. A molecular investigation of beta-thalassemia in Turkey: Is there a region dependent specificity? XIIIth Meeting of the International Society of Hematology (European and African Division). Sept. 3-8, 1995, Istanbul, Turkey.
- 6. Alkan, S., Tuzmen, S., **Baig, S. M**., Tadmouri, G.O. and Basak, A.N. The ECL-TM oligolabelling and detection system versus the radioactive approach in dot blot hybridization. XIIIth Meeting of the International Society of Hematology (European and African Division). Sept. 3-8, 1995, Istanbul, Turkey.
- 7. Tuzmen, S., **Baig, S. M.**, Tadmouri, G.O., Akar, N., Basaran, S., Aydinli, K. and Basak, A.N. Prenatal diagnosis of beta-thalassemia in Turkey: Present status and perspectives. XIIIth Meeting of the International Society of Hematology (European and African Division). Sept. 3-8, 1995, Istanbul, Turkey.

SYMPOSIA/CONFERENCES (National)

- 1. Azhar, A., Nawaz, S., Rasool, M., **Baig S.M.** Molecular genetic analysis of some skin disorders in Pakistani populace. Nov. 4-8, 2007, 4th International Symposium and 1st Pak-China-Iran International Conference on Biotechnology, Bioengineering and Biophysical Chemistry, Institute of Biotechnology and Genetic Engineering, University of Sindh, Jamshoro, Pakistan.
- 2. **Baig, S.M.** Molecular diagnosis of genetic diseases. International workshop on "Techniques related to molecular biology and immunology". Dec. 18-23, 2006. Department of Biochemistry, University of Arid Agriculture, Rawalpindi, Pakistan.
- 3. Farooq, M., **Baig, S. M.**, et al. Genetic analysis of autosomal recessive primary microcephaly (MCPH) families in Southern Punjab population. National symposium on 'biotechnology for economic prosperity' July 24-26, 2006, Nathiagali, Pakistan.
- 4. **Baig, S. M.** Role of medicines in poverty alleviation. Workshop on emerging technologies next generation networks and good practices in science and technology for poverty alleviation. Kohat University of Science and Technology, May 19-21, 2006, Kohat, Pakistan.
- 5. **Baig, S. M.** Bilal, R. Ahmad, N., Qureshi, J.A. Represented Molecular diagnostics services by Biosciences Division PAEC. 29th Annual conference and Scientific Exhibition of Pakistan's Association of Pathologist. 16-19 Nov. 2005, Karachi, Pakistan.
- Baig, S.M., Din, M.A., Hassan, H., Baig, J. M., Azhar, A., Aslam, M., Qureshi, J. A. Zaman, T.A distinct distribution pattern of β-thalassemia mutations in the D.G. Khan area of Pakistan. National Symposium on Biochemistry, April 2005. Karachi University, Karachi. Pakistan.

- 7. **Baig, S. M.** et al. Spectrum of β-thalassemia mutations in the patients attending Children Hospital Pakistan Institute of Medical Sciences (PIMS) Islamabad for blood transfusion. 29-31 March, 2005. Pakistan Institute of Medical Sciences (PIMS), Children Hospital Islamabad.
- 8. **Baig, S. M.** Advances in the molecular diagnosis of HCV. 21st Annual congress of Pakistan's Society of Gastroenterology and GI Endoscopy. March 25-27, 2005, Peshawar, Pakistan.
- 9. Attended, PIMS Symposium 2006, Meeting Health Challenges, March 3-5, 2006, PIMS, Islamabad, Pakistan.
- 10. **Baig, S. M.** Mutation detection systems for the diagnosis of human genetic disorders. Seminar on use of therapeutic agents and diagnostic kits, 14-16th Feb. 2005. Sponsored by National Commission on Biotechnology (NCB), organized by Department of Biochemistry, University of Arid Agriculture, Rawalpindi.
- 11. **Baig, S. M.,** Saleem, Y., Ahmad, N. and Qureshi, J. A. Study of Hepatitis C Virus Genotypes Prevalent in Pakistan. First National Conference on Health Biotechnology, 27-28 Jan, 2005, Lahore, Pakistan.
- 12. Baig, S. M., Zaman, T., Hameed, U., Rabbi, F., Bokhari, H., Baig, S., Hassan, K., Amin-Ud-Din, M., Azhar, A. and Qureshi, J. A. Molecular characterization and regional specificity of mutations causing β-thalassemia in the Pakistani population. 4th International Science Conference, 6-9 October, 2004. The University of Azad Jammu & Kashmir, Muzaffarabad, AJK.
- 13. Zaman, T., Hameed, U., Rabbi, F., Bokhari, H., Azhar, A., Qureshi, J.A. & Baig, S. M. Spectrum of mutations causing β-thalassemia in Faisalabad Pakistan. 4th International Science Conference, 6-9 October, 2004. The University of Azad Jammu & Kashmir, Muzaffarabad, AJK.
- 14. Participated in IAEA-PAEC-HEC Regional Training Course on 13C Urea Breath Test and Conference on Helicobacter Pylori. 26-30 April, 2004, Islamabad, Pakistan.
- 15. Baig, S.M., Hameed, U., Zaman, T., Rabbi, F., Bokhari, H., Baig, S., Hassan, K. and Qureshi, J.A. Amplification refractory mutation system (ARMS) and allele specific oligonucleotide (ASO) hybridization for the detection of mutations causing β-thalassemia in Pakistan. 17th International biennial conference of Pakistan Paediatric Association, 19th –22nd February 2004, Lahore Pakistan.
- Khalid, S., Shahzad, I., Baig, S.M., Ali, S., Qureshi, A.A. and Khanum, A. Cloning of Somatotropin gene from indigenous buffalo breed: Neeli Ravi. 2nd International symposium on biotechnology, Institute of Biotechnology and Genetic Engineering, University of Sindh, January 19-21, 2004, Jamshoro, Pakistan.
- 17. Attended Seminar/workshop on Vaccine development, production and utilization in developing countries: Issues, prospects and implications for Pakistan. Aga Khan University, August 8-10, 2003, Karachi, Pakistan.
- 18. Attended: Weekly research seminars/conferences and workshops at King Faisal Specialist Hospital and Research Center (KFSH-RC), 2000-2003, Riyadh, Kingdom of Saudi Arabia.

- 19. Attended. Fourth Biennial Conference of Pakistan Society for Microbiology. April 2000. Lahore, Pakistan.
- 20. **Baig, S.M**., Rabbi, F., Baig, S., Yaqoob, N., Khan, M.M.A. and Qureshi, J.A. Molecular basis and prenatal diagnosis of β-thalassemia in Pakistan. First Annual Scientific Symposium, Children Hospital, 3-4 Dec. 1999, Lahore Pakistan.
- Rabbi, F., Baig, S.M., Baig, S., Yaqoob, N., Khan, M.M.A. and Qureshi, J.A. Regional specificity of β-thalassemia mutations in Pakistan. First Annual Scientific Symposium, Children Hospital, 3-4 Dec. 1999, Lahore Pakistan.
- 22. **Baig, S.M**., Shah, W.A., Ahmad, N., Saleem, Y., and Qureshi, J.A. Genotyping of Hepatitis C Virus (HCV) by dot blot hybridization. National Symposium on Infectious Diseases, Aga Khan University, 20-21 Sept. 1999, Karachi, Pakistan.
- 23. **Baig, S.M**., Bukhari, S.H., Shah, W.A., Arshad, M., Shamsi, T.S. and Qureshi, J.A. β-Thalassemia mutations in Pakistan: A strategy for prenatal diagnosis. First National Symposium on Biotechnology for Sustainable Development. Nov. 24-27, 1997, Lahore, Pakistan.
- 24. **Baig, S.M**., Bukhari, S.H., Shah, W.A., Arshad, M., Shamsi, T.S. and Qureshi, J.A. Characterization of mutations causing β -Thalassemia in Pakistan. 21st National conference of Pakistan Association of Pathologists, Nov. 14-16, 1997, Faisalabad, Pakistan.
- 25. **Baig, S.M**., Bukhari, S.H., Shah, W.A., Arshad, M., Shamsi, T.S. and Qureshi, J.A. (ARMS): A rapid and direct technique for β-Thalassemia detection in Pakistan. Oct. 22-24, 1997, Center for Advanced Molecular Biology (CAMB), Lahore, Pakistan.
- 26. Shah, W. A., **Baig, S. M.**, Khattak, K.F., Ahmad, N. and Qureshi, J.A. Genotyping of HCV in Pakistan. Second Biennial conference of Pakistan Society for Microbiology. Sept. 24-26, 1997, Bhurban, Pakistan.
- 27. Baig, S. M., Bukhari, S.H., Shah, W. A., Khattak, K.F., Ahmad, M., Asghar, M.S. and Qureshi, J.A. Detection of HCV by RT-PCR and genotyping by dot-blot hybridization in Pakistani patients with chronic hepatitis C and hepatocellular carcinoma. Third Shaukat Khanum Memorial Cancer Symposium, Feb. 22-24, 1997, Lahore, Pakistan.
- 28. Baig, S.M., Bukhari, S.H., Shah, W.A., Khattak, K.F. and Qureshi, J.A. Determination of the spectrum of β-Thalassemia genes in Pakistan by use of amplification refractory mutation system (ARMS) and radiolabelled allele specific oligonucleotide (ASO) hybridization. Inaugural International Conference on Genetics, Nov. 26-28, 1996, Islamabad, Pakistan.
- Baig, S.M., Bukhari, S.H., Shah, W.A. and Qureshi, J.A. Spectrum of β-Thalassemia mutations in Pakistan. Third National Symposium on Basic Health Care and Social Development, Sept. 21-22, 1996, Karachi, Pakistan.
- 30. **Baig, S.M**., and Basak, A.N. Molecular basis of β-thalassemia in Turkey and its prenatal diagnosis by DNA analysis. Second national Symposium on Basic and applied Research in Health Care and Social Development. Sept. 23-24, 1995, Karachi, Pakistan.