

# DR. ALOK KUMAR SINGH

Dr. D. S. Kothari Post Doctoral Fellow

Email Id: [dr.aksingh1980@gmail.com](mailto:dr.aksingh1980@gmail.com), [alokbiochem@gmail.com](mailto:alokbiochem@gmail.com) ☎: +91-8953015385, +91-9307829551



DSK PDF (Department of Surgical Oncology, IMS, Banaras Hindu University)

*Seeking prestigious portfolios with Academic/Research Institutions in the field of Biochemistry/Biotechnology/Molecular Biology/Clinical-Biochemistry*

## PROFESSIONAL SYNOPSIS

- Qualified Biochemistry professional with more than **5 years of teaching/research experience** in the field of Biochemistry, Molecular Biology, Genomics, Proteomics, Bioinformatics, Systems Biology, Clinical-Biochemistry etc and same in **research field** with the specialization of Molecular Biology.
- **Currently doing research work** as **Dr. D. S. Kothari Post Doctoral Fellow** in Department of Surgical Oncology, Faculty of Medicine, Institute of Medical Sciences, Banaras Hindu University, Varanasi India
- Excellent communication & interpersonal skills coupled with polished etiquettes & affable demeanor with credit of conducting seminars and awareness programs on various ailments in the field of community health.
- **Qualified CSIR-UGC NET 2005.**
- Have five years Molecular Biology research experience on **Carcinoma of Breast.**
- Experience in handling Analyzers of different kinds to diagnosis various disease conditions and documenting the Test Results and Data Sheet of the patient.
- **Applied for TATA Innovation Fellowship under DBT, INDIA**

## PROFESSIONAL EXPERIENCE

- **DEPARTMENT OF SURGICAL ONCOLOGY, IMS, BANARAS HINDU UNIVERSITY, INDIA**  
*Dr. D. S. Kothari Post Doctoral Fellow* **Feb 2012-Till date**  
DSK-PDF has been awarded by University Grant Commission (UGC) for Post Doctoral Research work on the topic entitled "Pervasiveness of mitochondrial genome in cancer progression and DNA damage in Indian population".
- **AMITY INSTITUTE OF BIOTECHNOLOGY, AMITY UNIVERSITY, UTTAR PRADESH**  
*Lecturer/Assistant Professor* **Nov 2010-Feb 2012**
  - Teaching Structural Biology, Genomics and proteomics to Undergraduate /Post graduate students.
  - Arranging awareness campaigns in rural and urban areas to educate people on the role and importance of community health and hygiene in daily life.
  - Conducting seminars and continuous education programs at the university and colleges for all around orientation of the students.
  - Innovating teaching tools for students to disseminate information in a very interesting manner.
- **INSTITUTE OF BIO-MEDICAL EDUCATION AND RESEARCH, MANGALAYATAN UNIV., ALIGARH**  
*Lecturer/Assistant Professor* **Aug 2009 - Oct 2010**
- **DEPARTMENT OF BIOCHEMISTRY, BHU, VARANASI**  
*Research Scholar cum Teaching Assistantship* **Jan 2006 - April 2009**

## EDUCATIONAL AND PROFESSIONAL QUALIFICATIONS

**PhD in Biochemistry, 2009**, Department of Biochemistry, Banaras Hindu University, Varanasi, India.

**Master of Science in Applied Biochemistry, 2004**, VBS Purvanchal University, Jaunpur (UP), **76.6%**

**Bachelor of Sciences, 2001**, VBS Purvanchal University, Jaunpur (UP), **56.4%**

**Intermediate, 1997**, UP Board Allahabad (UP), **65%**

**High School, 1995**, U P Board Allahabad (UP), **61.6%**

## AREA OF RESEARCH & BRIEF DESCRIPTION

I have made original contribution to Biomedical Sciences particularly in the field of cancer research. During Ph.D. (2006-09) at Banaras Hindu University, I have done my research on the topic entitled "*Epidemiology of BRCA1 and BRCA2 gene expression in carcinoma of Breast*". I want to attach with the same field of research in future.

The prime objective of my work was:

- a. To explore the penetrance of germline BRCA gene mutation in carcinoma of Breast particularly in North India
- b. To check the extent Epigenetic silencing of BRCA1 gene in sporadic Breast cancer
- c. To check the association of demographic and pathologic factors with gene mutation and promoter methylation

#### **Publications:**

**Published: 8s (7 International, 1 national)**

**2011**

1. **Singh AK**, Pandey A, Tewari M, Pandey HP Shukla HS. Epigenetic silencing of BRCA1 gene associated with demographic and pathologic factors in sporadic breast cancer: A study of Indian population EJCP 2011 Nov; 20(6):478-83. (**Impact Factor = 2.536**)
2. **Singh AK**, Pandey A, Tewari M, Prarush DD, Singh HK, Pandey HP, Shukla HS. Obesity augmented Breast Cancer risk: A potential risk factor for Indian women. Journal of surgical Oncology. 2011; 103(3):217-22 (**Impact Factor =2.428**).
3. Rai R, Tewari M, Kumar M, **Singh AK**, Shukla HS. P53, its alteration in Gallbladder cancer. European journal of Cancer Prevention. 2011; 20(2):77-85 (**Impact Factor = 2.536**)

**2010**

4. **Singh AK**, Pandey A, Tewari M, Kumar P, Shukla HS, Pandey HP. A discussion on chemoprevention of Oral Cancer by selective cyclooxygenase-2 (COX-2) inhibitors. Digest Journal of Nanomaterials and Biostructures 2010; 5(2): 285 –295 (**Impact Factor =2.07**)

**2009**

5. Pandey A, **Singh AK**, Maurya SK, Rai R, Tewari M, Kumar M, Shukla HS (2009). Genomic profiling of Breast Cancer. Journal of Surgical oncology 2009; 99(6):386-392 (**Impact Factor =2.428**)

**2008**

6. **Singh AK**, Pandey A, Rai R, Tewari M, Pandey HP, Shukla HS. Nanomaterials as emerging tool in Cancer diagnosis and treatment: Digest Journal of Nanomaterials and Biostructures. 2008; 3(3): 135 - 140 (**Impact Factor =2.07**)
7. Pandey A, **Singh AK**, Maurya SK, Rai R, Shukla HS. Nanoscience and their biological importance: Human health and disease: Digest Journal of Nanomaterials and Biostructures. 2008; 3(3):141 – 146. (**Impact Factor =2.07**)

**2007**

8. Singh R, Verma S, **Singh AK**, Singh RK, Tripathi V, Shukla HS, Pandey HP. Comparative clinical study of breast and gallbladder cancer. J. Chemtracks 2007; 9 (1&2): 231-240.

#### **Communicated**

1. **Singh AK**, Pandey A, Tewari M, Kumar P, Singh HK, Shukla HS, Pandey HP. Epidemiology of tobacco carcinogenesis with positive association of obesity: a north Indian hospital based study (European Journal of Cancer Care, **Impact factor =1.2**).
2. Pandey A, **Singh AK**, Kumar M, Pandey HP, Shukla HS. Prediction of Risk by joint ER/PR status in cancer breast and gallbladder (Journal of Surgical oncology, **Impact factor =2.48**).

### **Online Submissions**

- A total of 11 novel gene variants were submitted and accepted by Gene Bank, NCBI, USA (Accession Number GU129207 to GU129209)
- 

### **Books:**

1. Singh AK, Shukla HS, Pandey HP. Breast Carcinoma: An association of BRCA1 gene hyper-methylation and demographic risk factors. ISBN 978-3-8473-4824-5 (Author)
2. Kumar R, Sharma A, Bhardwaj P. Machine Learning and Biological Data. ISBN 978-3-8473-1680-0 (Book Chapter)

### **Paper Presented In Conferences:**

#### **International**

- **Singh AK**, Pandey H P, Shukla H S (2007). A discussion on chemoprevention of Oral Cancer by selective cyclooxygenase-2 (COX-2) inhibitors. Poster presented at the International Symposium held at Indian Institute of chemical Biology (IICB), Kolkata, India held on 7-9 march 2007.

#### **National**

- **Singh AK**, Shukla H S, Pandey H P, (2010). Epidemiology of tobacco carcinogenesis with positive association of obesity: a north Indian hospital based study. National Conference on emerging trends in biochemistry & Satellite Symposium of the Society for Environmental Biology Organized by Department of Biochemistry University of Allahabad, Allahabad (2010)

### **Conferences Attended**

#### **International**

- Attended International Integrated Meeting of Indian Association of Surgical Oncology (IASO) with World Federation of Surgical Oncology Societies (WFSOS) (2007)
- Attended International Symposium held at Indian Institute of chemical Biology (IICB), Kolkata, India (2007).

#### **National**

- Attended National Seminar on Biofeedback and Stress Management (2005)
  - Participated in a National symposium and workshop on Statistical Method in Computational Biology (2007)
  - Attended the 4th DBT Hands-on Training workshop on Methods in Clinical Diagnosis: Cytogenetics, Biochemical, Molecular and Bioinformatics Approaches (2007).
  - Took part in the National symposium on Recent Advances in Nano-Materials and their Applications organized by DST Nanoscience and Technology Centre/Unit, Banaras Hindu University, Varanasi (2009).
  - Attended a National Conference on emerging trends in biochemistry & Satellite Symposium of the Society for Environmental Biology Organized by Department of Biochemistry University of Allahabad, Allahabad (2010).
- 

### **EXPERIMENTS (DURING RESEARCH)**

- Isolation of Genomic DNA and RNA from Human Tissue and Blood
- Quantitative and Qualitative analysis of Genomic DNA
- Polymerase Chain Reaction (PCR) and RT-PCR for desired gene.
- Bioinformatic tools viz: Primer designing, alignment Search, Cladogram, Dendogram, Clustal X, Sequence analysis.
- Mutation analysis by Single Sequence Conformational Polymorphism (SSCP).
- Methylation analysis by methylation specific PCR (Bisulfite Method)
- Immunohistochemistry techniques for different protein analysis
- Western Blotting technique
- Statistical Analysis with the SPSS and sigma plot software

### Research Projects/Summer Training (During Post graduation)

- Two month summer training on project entitled *Identification and Isolation of Extremophile Cyanobacteria and Protein Production*, under the guidance of, Dr. R.K.Asthana, Professor, Department of Botany, Banaras Hindu University, Varanasi, India
- 

### EXTRA CURRICULAR ACTIVITIES

- Certificate of Proficiency as a Winner in IMS OPEN Badminton tournament of the Institute of Medical Sciences, Banaras Hindu University for the session 2007-2008.
- Certificate of Merit as a Runner (2nd) position in ELIXIR 08 The Soul of Youth, Institute of Medical Sciences, Banaras Hindu University, Varanasi in 2008.
- Merit Certificate as a Member of winner team (Cricket), Annual Games and Sports, Faculty of Science, Banaras Hindu University, Varanasi.

### PERSONAL DETAILS

**Father's Name:** Mr. Ugrasen Singh

**Marital Status:** Married

**Date of Birth:** July 10, 1980

**Permanent Address:** SA 2/225 AG Shivnagar Colony Pandeypur Varanasi (UP), India

**References:**

<b>Professor H. P. Pandey</b> PhD	Department of Biochemistry Faculty of Science, Banaras Hindu University, Varanasi- 221 005, INDIA E-mail: <a href="mailto:hppandey2010@hotmail.com">hppandey2010@hotmail.com</a> Mobile: +91-9335663878
<b>Professor H. S. Shukla</b> MS, FRCS(ED), PhD., FAMS	Department of Surgical Oncology Institute of Medical Sciences, Banaras Hindu University, Varanasi- 221 005, INDIA E-mail: <a href="mailto:harishukla@usa.net">harishukla@usa.net</a> Mobile: +91-9415224400
<b>Dr. Mallika Tewari</b> MS, M.Ch.	Assistant Professor Department of Surgical Oncology Institute of Medical Sciences, Banaras Hindu University, Varanasi- 221 005, INDIA E-mail: <a href="mailto:drmtewari@gmail.com">drmtewari@gmail.com</a> Mobile: +91-9415600250

Dr. Alok Kumar Singh