

## *CURRICULUM VITAE*

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### **Education:**

Year	Degree	Institution
1996	Ph.D.	Central Drug Research Institute, Lucknow
1990	M.Sc.	University of Lucknow, Lucknow

### **Postdoctoral Training:**

1999 – 2002, Post Doctoral Fellow- Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA

1997- 1999, Research Associate- Council of Scientific and Industrial Research, New Delhi at CDRI and SGPGIMS, Lucknow

**Thesis:** Sharma Preeti (1996): Chemotherapeutic and Immunoprophylactic Strategies in the Control of Visceral Leishmaniasis

### **Teaching Experience:**

1. Worked as a Guest faculty/Visiting Lecturer, Department of Aquatic Biology, V.N. South Gujarat University, Surat-395007 from 02-08-2007 to 31-03-08.
2. Worked as Lecturer (Zoology) & in-charge (Biology Department) from 01-07-08 to 09-11-2009 at Shri Ram Krishna Institute of Computer Education and Applied Sciences (Sarvajanik Education Society) Surat- 395 001.
3. Presently working as Assistant Professor in the Department of Biotechnology, V.N. South Gujarat University, Surat-395007 (from 10-11-2009).

### **Professional Societies:**

2002-	International Society for Eye Research (USA)	Member
1999-	The Association for Research in Vision and Ophthalmology (USA)	Member
1995-	Society of Biological Chemists	Member
1996-	Indian Immunology Society	Life Member
1994-	Indian Society for Parasitology	Life Member

### **Research Projects:**

2014 Co-Investigator (Gujarat Council on Science and Technology): Inhibition of Growth and Induction of Apoptosis in Human Breast Cancer Cell line using *Tribulus terrestris* plant extract – *In-vitro* analysis Department of Science and Technology Government of Gujarat.

2002 Co-investigator (Massachusetts Lions Eye Research Fund, Inc.): Lens Epithelium Derived Growth Factor (LEDGF) Controls the Anti-Oxidant Protein 2 (AOP2) Gene

### **Specialized Training and Courses Attended:**

Radiation Safety Course for Laboratory Work, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA.

“Continuing Education Work-shop in Immunology”, School of Life Sciences, Jawahar Lal Nehru University, New Delhi, India

Short Term Training Program on nanotechnology: A sustainable Alternative to Environment, 2009 at SVNIT, Surat

Short Term Training Program on Advances on Wastewater Treatment and Energy Generation, 2013, SVNIT, Surat

### **Member of the Organizing Committee**

National Symposium on Medicinal Plants: A Promising Resource of the Country at VNSGU, Surat

14<sup>th</sup> International Conference on Physical Sciences interface With Humanity (2011) at SVNIT, Surat

National Conference on Biological Tools for Sustainable Environment (2014) at VNSGU, Surat

## Papers Published in International Journals

1. Patel, A., Soni, A., Siddiqi, N.J. and **Sharma P** (2019). An insight into the anticancer mechanism of *Tribulus terrestris* extracts on human breast cancer cells. *3 Biotech*, 9:58
2. Patel, A., Soni, A. and **Sharma, P.** (2018). Effect of *Tribulus terrestris* saponins on proliferation of adipose-derived mesenchyme stem cells. *Journal of Cellular Biochemistry*, **120**(6): 1-5
3. Shah, A., Jariwala, K., Gupte, S, **Sharma, P.**, Mishra K. and Ghosh, K. (2018). Pattern of distribution of 35 red cell antigens in regular voluntary blood donors of South Gujarat, India, *Transfusion and Apheresis Science*, **57**: 672-675
4. Soni, A., Rokad, S. and Sharma, P. (2013). Screening of efficient halotolerant phosphate solubilizing bacteria and their effect on seed germination under saline conditions. *International Journal of Scientific and Innovative Research*, **2**(5): 932-937.
5. Fatma, N., Kubo, E., **Sharma, P.**, Beier, D. R. and Singh, D. P. (2005). Impaired homeostasis and phenotypic abnormalities in Prdx6<sup>-/-</sup> mice lens epithelial cells by reactive oxygen species: increased expression and activation of TGF  $\beta$ . *Cell Death and Differentiation*, **12**(7): 734-750.
6. **Sharma, P.**, Singh, N., Garg, R., Haq, W., and Dube, A. (2004). Efficacy of human  $\beta$ -casein fragment (54-59) and its synthetic analogue compound 89/215 against *Leishmania donovani* in hamsters. *Peptide*, **25**: 1873-1881.
7. **Sharma, P.**, Fatma, N., Kubo, E., Shinohara, T., Chylack, Jr., Leo T. and Singh, D. P. (2003). Lens Epithelium-derived growth factor (LEDGF) relieves TGF  $\beta$ 1 induced transcription repression of heat shock proteins in human lens epithelial cells. *Journal of Biological Chemistry*, **278** (22): 20037 - 20046.
8. **Sharma, P.**, Rastogi, S., Bhatnagar, S., Srivastava, J. K., Dube, A., Guru, P. Y., Kulshrestha, D. K., Mehrotra, B. N. and Dhawan, B. N. (2003). Antileishmanial action of *Tephrosia purpurea* Linn, extract and its fractions against experimental visceral leishmaniasis. *Drug Development Research*, **60** (4): 285 - 293.
9. Srivastava, J. K., Misra, A., **Sharma, P.**, Srivastava, B., Naik, S. and Dube, A. (2003). Prophylactic potential of autoclaved *Leishmania donovani* with or without BCG against experimental visceral leishmaniasis. *Parasitology*, **127**: 107 - 114.
10. Kubo, E., Fatma, N., **Sharma, P.**, Shinohara, T., Chylack, Jr., Leo T., Akagi, Y. and Singh, D. P. (2002). Transactivation of Involucrin, A Marker of Differentiation in Keratinocytes, by Lens Epithelium Derived Growth Factor (LEDGF). *Journal of Molecular Biology*, **320** (5): 1053-1063.

11. Misra, A., Dube, A., Srivastava, B., **Sharma, P.**, Srivastava, J. K., Katiyar, J. C. and Naik, S. (2001). Successful vaccination against *Leishmania donovani* infection in Indian langurs using alum-precipitated autoclaved *Leishmania major* with BCG. *Vaccine*, **19 (25-26)**: 3485-3492.
12. **Sharma, P.**, Singh, D. P., Fatma, N., Chylack, L. T. Jr. and Shinohara, T. (2000). Activation of LEDGF Gene by Thermal- and Oxidative-Stresses. *BBRC*, **276 (3)**: 1320- 1324.
13. **Sharma, P.**, Anuradha, Rohatgi, A., Haq, W. Mathur, K.B. and Katiyar, J. C. (1999). Stimultion of non-specific resistance by thymopentin and its analogs against *Leishmania donovani* infection in hamsters. *Peptides*, **20**: 1381-1383.
14. Anuradha, Srivastava, J. K., **Sharma, P.**, Chaturvedi, A., Katiyar, J. C. and Naik, S. (1999). *Leishmania donovani*: Cellular and humoral immune responses in Indian langur monkey *Presbytis entellus*. *Acta Tropica*, **73**: 37-48.
15. Dube, A., **Sharma, P.**, Srivastava, J. K., Misra, A., Naik, S. and Katiyar, J. C. (1998). Vaccination of langur monkeys (*Presbytis entellus*) against *Leishmania donovani* with autoclaved *L. major* plus BCG. *Parasitology*, **116**: 219-221.
16. **Sharma, P.**, Anuradha, Sharna, R., Haq, W., Kundu, B., Katiyar, J. C. and Mathur, K. B. (1996). Stimulation of non-specific resistance by human casein fragment (54-59) and its synthetic analogues against *Leishmania donovani* infection. *Protein and Peptide Letters*, **3**: 261-266.

#### **Papers Published in National Journals**

1. Misra, A., Dube, A., Srivastava, J.K., **Sharma, P** and Katiyar, J.C. (2002). Establishment of asymptomatic *Leishmania donovani* infection in Indian langur (*Presbytis entellus*) through intradermal route. *Indian Journal of Experimental Biology*, **40**: 605 - 608.
2. **Sharma, P.**, Anuradha, Srivastava, J. K., Gupta, H. P., and Katiyar, J. C. (1998). Immunization against *Leishmania donovani*: Efficacy of *Mycobacterium habana* in combination with killed promastigotes in hamsters. *Current Science*, **74**: 770-773.
3. **Sharma, P.**, Singh, S. P., Dube, A., Gupta, H. P., Katiyar, J. C. and Srivastava, V. M. L. (1998). Vaccination with *Mycobacterium habana*: Impact on macrophage effector system during *Leishmania donovani* infection in hamsters. *Journal of Parasitic Diseases*, **22 (2)**: 100-103. ISSN: 0971-7196
4. Guru, P. Y., Zaidi, A., **Sharma, P.** and Katiyar, J. C. (1996). Antileishmanial property of certain plants against experimental *Leishmania donovani* infection in golden hamsters. *Journal of Parasitic Diseases*, **20**: 181-184.

## Papers Presented in National and International Symposia/Conferences

1. Arkatkar, A. Mungray, A. K. and **Sharma, P.** (2018). Initial Bioelectrochemical behavior of Microbial Fuel Cell with Biocatalytic co-culture Inoculum. 4<sup>th</sup> Asia Pacific-International Society of Microbial Electrochemistry and Technology Meeting, BITS Pilani, KK Birla Goa Campus.
2. Soni, A., Patel, A. and **Sharma, P.** (2016). In-vitro cytotoxicity studies of Indian herb *Tribulus terrestris* on human breast cancer cells. National Symposium on Exploring advances in Biological Sciences, S. P. University, Vallabh Vidya Nagar, Anand.
3. Patel, A., Soni, A. and **Sharma, P.** (2016). Preliminary study on effect of *Tribulus terrestris* saponins on proliferation of Adipose-Derived Mesenchymal Stem Cells (ADSCs). 2<sup>nd</sup> National Conference on Biological Tools for Sustainable Environment, VNSGU, Surat.
4. Arkatkar, A. and **Sharma, P.** (2014). Microbial fuel cell an approach for waste water treatment and power generation. National Conference on Biological Tools for Sustainable Environment, VNSGU, Surat.
5. Fatma, N., **Sharma, P.**, Kubo, E., Beier, D. A. and Singh, D. P. (2003). Antioxidant protein 2 (aop2) knockout mice: loss of resistance to heat and oxidative stress in lens epithelial cells. ARVO, Fort Lauderdale, Florida, 309- B284
6. Magana-Arachchi, D. N., **Sharma, P.**, Fatma, N., Singh, D. P. and Shinohara, T. (2003). Identification of regulatory elements in the promoter of LEDGF. ARVO, Fort Lauderdale, Florida, 4498- B157
7. Singh, D. P., **Sharma, P.**, Shinohara, T., Chylack, Jr., Leo T. and Fatma, N. (2003). LEDGF regulates expression of SPARC, a gene having important biological function in lens. ARVO, Fort Lauderdale, Florida, 4499- B158
8. **Sharma, P.**, Fatma, N., Shinohara, T. Chylack, Jr., Leo T. and Singh, D. P. (2002). Identification of stress response sequences in lens epithelium derived growth factor (LEDGF) promoter and its regulation. ICER, Geneva, Switzerland. Abstract No: 540.
9. Shinohara, T., Singh, D.P., Fatma, N. and **Sharma, P.** (2002). TGF- $\beta$  suppresses expression of LEDGF, a dipartite transcriptional factor in lens epithelial cells. ICER, Geneva, Switzerland, Abstract No: 330.
10. **Sharma, P.**, Singh, D. P., Fatma, N., Chattopadhyay, N., Chylack, Jr., Leo T. and Shinohara, T. (2002). Attenuation of LEDGF-DNA binding affinity and down regulation of LEDGF-promoter activity in human lens epithelial cells treated with TGF  $\beta$ 1. ARVO, Fort Lauderdale, Florida, 2344-B341
11. Singh, D. P., Fatma, N., **Sharma, P.**, Hayakawa, K., Chylack, Jr., Leo T. and Shinohara, T. (2002). Structural and functional organization of the human lens epithelium derived growth

factor (LEDGF) gene promoter. ARVO, Fort Lauderdale, Florida, 2345-B342

12. Shinohara, T., Singh, D. P., Fatma, N., Kubo, E., **Sharma, P.**, and Chylack, Jr., Leo T. (2002). Identification of nuclear localization signal, DNA binding-, and TAT-domains in LEDGF. ARVO, Fort Lauderdale, Florida, 3637-B621

13. **Sharma, P.**, Singh, D. P., Fatma, N., Chylack, Jr., Leo T. and Shinohara, T. (2001). Certain types of Thymocytes and Splenocytes secrete LEDGF. ARVO, Fort Lauderdale, Florida, 2908-B50

14. Shinohara, T., **Sharma, P.**, Singh, D. P. and Chylack, Jr., Leo T. (2001). Up-regulation of LEDGF gene by thermal- and oxidative-stress. ARVO, Fort Lauderdale, Florida, 2907-B49

15. **Sharma, P.**, Misra, A., Srivastava, J. K., Anuradha, Katiyar, J. C. and Naik, S. 1997). Cross protection against visceral leishmaniasis by killed *L. major* + BCG in Indian langurs (*Presbytis entellus*). Proceedings of II Global Meet on Parasitic Diseases, Hyderabad, August 18-22.

16. Misra, A. **Sharma, P.**, Srivastava, J.K., Anuradha, Katiyar, J.C. and Naik, S. (1997). *Leishmania donovani* in Indian langurs (*Presbytis entellus*): An attempt to establish disease model through natural route. Proceedings of II Global Meet on Parasitic Diseases, Hyderabad, August 18-22.

17. Anuradha, **Sharma, P.**, Haq, W. and Katiyar, J. C. (1997). Efficacy of human (-casein analogue (CDRI comp. 89/215): An immunopotentiator, as an antileishmanial agent against experimental visceral leishmaniasis. Proceedings of II Global Meet on Parasitic Diseases, Hyderabad, August 18-22.

18. Gupta, H. P., **Sharma, P.**, Srivastava, J. K., Misra, A., Anuradha, and Katiyar, J. C. (1997). Vaccination with Mycobacterium habana along with killed Leishmania promastigotes against *L. donovani* infection in langurs. Proceedings of II Global Meet on Parasitic Diseases, Hyderabad, August 18-22.

19. Pal, N. L., **Sharma, P.**, Anuradha and Katiyar, J. C. (1997). A method for the staining of leishmanial amastigotes. Proceedings of II Global Meet on Parasitic Diseases, Hyderabad, August 18-22.

20. Singh, S. P., **Sharma, P.**, Anuradha, Gupta, H. P., Singh, N.B., Katiyar, J. C. and Srivastava, V.M.L. (1996). Impact of Mycobacterium habana vaccine on macrophage effector activities during *Leishmania donovani* infection. Proceedings of I Global Meet on Parasitic Diseases, New Delhi, March 18-22.

21. Naik, S., Anuradha, Srivastava, J. K., **Sharma, P.** and Katiyar, J. C. (1996). Cross protection against *L. donovani* by BCG in an Indian langur monkey model for visceral leishmaniasis. First FIMSA Congress hosted by the Australian Society for Immunology, Adelaide, Australia,

December 1-5.

22. **Sharma, P.**, Anuradha, Rohatgi, A., Haq, W., and Katiyar, J. C. (1999). Stimulation of non-specific resistance by thymopentin and its analogs against *Leishmania donovani* infection in hamsters. 13th National Congress of Parasitology, Bangalore University, Bangalore, February 24-26.
23. Misra, A., Srivastava, B., **Sharma, P.**, Srivastava, J. K., Dube, A., Katiyar, J. C., and Naik, S.(1999). Immunoprophylactic studies against visceral leishmaniasis with Alum precipitated killed *Leishmania major* vaccine + BCG in Indian langurs. 13th National Congress of Parasitology , Bangalore University, Bangalore , February 24-26.
24. Srivastava, J. K., Srivastava, B., **Sharma, P.**, Misra, A., Dube, A., Naik, S. and Katiyar, J. C. (1999). Prophylactic efficacy of ALD + BCG against *Leishmania donovani* in Indian langurs. 13th National Congress of Parasitology, Bangalore University, Bangalore, February 24-26.
25. Anuradha, Srivastava, J. K., **Sharma, P.**, Misra, A., Katiyar, J. C. and Naik, S. (1997). Is vaccination possible against visceral leishmaniasis. 24th Annual Conference of Indian Immunology Soceity. Bose Institute, Calcutta, December 21-23
26. Anuradha, Srivastava, J. K., **Sharma, P.**, Murthy, P. S. R., Bhatia, G. and Katiyar, J. C. (1995). Infectivity of *Leishmania donovani* amastigotes and promastigotes for langur monkeys *Presbytis entellus*. Proceedings of XIIth National Congress of Parasitology, Kala Academy, Panji, Goa, January 23-25.
27. Srivastava, J. K., **Sharma, P.**, Anuradha, Katiyar, J. C., Nagaraju and Naik, S. (1995). Immunological profile of Indian langurs (*Presbytis entellus*) following *L. donovani* infection. Proceedings of XIIth National Congress of Parasitology, Kala Academy, Panji, Goa, January 23-25. 4.
28. **Sharma, P.**, Guru, P. Y., Kulshreshtha, D. K. and Katiyar, J. C. (1994). Antileishmanial action of a fraction from ethanolic extract of *Tephrosia purpurea*. Proceedings of XIth National Congress of Parasitology, College of Science, Mohanlal Sukhadia University, Udaipur, February 22-24.