

Dr. Suresh Kumar
Associate Professor
University School of Biotechnology
GGG Indraprastha University,
Dwarka, Sector 16C, New Delhi, India



Name: **Dr. Suresh Kumar**
Designation: Associate Professor
Department: University School of Biotechnology
University: GGS Indraprastha University
Dwarka, Sector 16C, New Delhi, India
Education: PhD, Newcastle University, United Kingdom.
M. Tech (Biotechnology), B. Pharma
Email: sk222ind@yahoo.com
sureshkumar@ipu.ac.in

Research interest

Dr. Suresh Kumar did his Ph.D. degree from the Newcastle University, United Kingdom. He has 16 year of teaching and research in the area of Biotechnology. He received several international awards and scholarships, important among them are young investigator award 2007 and young investigator scholarship 2009 from Alzheimer's drug discovery Foundation, USA. He also received international research scholarship from Newcastle University, United Kingdom. He has a research experience at All India Institute of Medical Sciences, New Delhi before joining GGSIP University. His area of research interest involved exploring plant and synthetic molecules as a source for novel drugs by *in vitro* and *in silico* tools, which could be used as therapeutic purpose in diseases of the central nervous system such as Alzheimer's disease. His interdisciplinary research involves identification, isolation and characterization of traditional medicinal plants and their derivatives to discover and develop novel therapeutic agents. He has also published several research papers in reputed national and international journals.

FEW SELECTED PUBLICATIONS (RESEARCH PAPER >30)

1. Singh H, **Kumar S**, Dewan S, Kumar VL. Inflammation induced by latex of *Calotropis procera*, a new model to evaluate anti-inflammatory drugs. *J of Pharmacological and Toxicological Methods* 43 (2000) 219-224.
2. Dewan S., **Kumar S**, Kumar VL. Anti-pyretic effect of latex of *Calotropis procera*. *Indian J of Pharmacology* 32; 252: 2000.
3. **Kumar S**, Dewan S, Kumar VL. Anti-diarrheal activity of latex of *Calotropis procera*. *J of Ethnopharmacology*. 76 (2001) 113- 118.

4. **Kumar S.**, Harris RJ., Seal CJ., Okello EJ. An aqueous extract of *Withania somnifera* root inhibits Amyloid β fibril formation *in vitro*. *Phytotherapy research*. Volume 6 (1), 113-117, (2012).
5. Kumar VL, **Kumar S**, Srivastava A, Kumar V. Observation on the presence of E domain variants of estrogen receptor-alpha in the breast tumors. *Journal of Surgical Oncology* 94 (2006), 332-337.
6. **Kumar S**, Seal CJ, Howes MJ, Kite GC, Okello EJ. In vitro protective effects of *Withania somnifera* (L.) dunal root extract against hydrogen peroxide and β -amyloid(1-42)-induced cytotoxicity in differentiated PC12 cells. *Phytotherapy Research*. 2010 Oct;24(10):1567-74.
7. Okello EJ, McDougall GJ, **Kumar S**, Seal CJ. In vitro protective effects of colon-available extract of *Camellia sinensis* (tea) against hydrogen peroxide and beta-amyloid A β (1-42) induced cytotoxicity in differentiated PC12 cells. *Phytomedicine*. 18 (2011) 691–696.
8. **Kumar S**, Kumar N, Gaur RK. Amino Acid Frequency Distribution at Enzymatic Active Site. *IIOAB Journal*; Vol. 2; Issue 4; 2011: 23–30.
9. Kumar, S. Dual inhibition of acetylcholinesterase and butyrylcholinesterase enzymes by allicin. *Indian Journal of Pharmacology*. August **2015**: Vol 47: Issue 4.
10. **Kumar S**, Kashyap P. Antiproliferative activity and nitric oxide production of a methanolic extract of *Fraxinus micrantha* on Michigan cancer Foundation-7 mammalian breast carcinoma cell line. *International Journal of Intercultural Ethnopharmacology*. (2015), April-June **2015**, Vol 4 (2).
11. **Kumar, S**. Dual inhibition of acetylcholinesterase and butyrylcholinesterase enzymes by allicin. *Indian Journal of Pharmacology*. August **2015**: Vol 47: Issue 4.
12. Suman Chowdhury, Shivani, **Suresh Kumar**. *In vitro* anti-acetylcholinesterase activity of an aqueous extract of *Unicaria tomentosa* and *in silico* study of its active constituents. *Bioinformation*. **2016**. Volume 12(3), 112-118.

INTERNATIONAL PRESS COVERAGE OF MY RESEARCH

TOPNEWS (USA), THE SCOTSMAN (SCOTLAND), NHS NEWS (UK), THE PRESS (UK)

BOOKS/BOOK CHAPTERS

1. Chapter entitled '*Experimental inhibition of fibrillogenesis and neurotoxicity by amyloid-beta (A β) and other disease-related peptides/proteins by plant extracts and herbal compounds*; **Suresh Kumar**, Edward Okello and J. Robin Harris in book entitled *Protein Aggregation and Fibrillogenesis in Cerebral and Systemic Amyloid Disease*, Series: **Subcellular Biochemistry**, Vol. 65, Harris, J. Robin (Ed.), 2013, 2012, XXV, 465 p. ISBN 978-94-007-5415-7, (**SPRINGER**).
2. Co-author in Text Book of Biotechnology for Class XII published by Central Board of Secondary Education (CBSE). 2003. ISBN CBSEBT1213
3. Co-author in Laboratory Manual of Biotechnology for Class XII published by Central Board of Secondary Education (CBSE) 2003.
4. Co-author in Text Book of Biotechnology for Class XI published by Central Board of Secondary Education (CBSE). 2002 CBSEBT1114

5. Co-author in Laboratory Manual of Biotechnology for Class XI published by Central Board of Secondary Education (CBSE) 2002

SPEAKER

1. Delivered talk on 'Role of stem cell in new Drug discovery process' in joint Indo-UK joint seminar on 'Stem cell in Drug Discovery and Development' on 21 -23 Jan 2013 sponsored jointly by **Royal Society, United Kingdom and Department of Science and Technology, Ministry of Science and Technology, Government of India.**
2. **Invited speaker on 'Animal cell culture in Drug Discovery' at workshop** held in University Institute of Pharmaceutical Sciences, Panjab University, Chandigarh, 160014, India

Articles published Conference Proceedings

1. **Kumar, S.** To study the effect of various medicinal Plants for protective effects on β amyloid induced cytotoxicity in PC12 cells. **Newcastle University, United Kingdom, May 2009.**
2. **Kumar, S.** Medicinal Plants: Potential Neuroprotectives activities. **University of Leeds, United Kingdom** April 2009.
3. **Kumar, S.** To study the effect of various medicinal Plants for protective effects on amyloid β induced cytotoxicity in PC12 cells. **Newcastle University, United Kingdom, May 2008.**
4. **Kumar, S.** Evaluation of various medicinal plants for their neuroprotective effects in Alzheimer's disease. **Newcastle University, United Kingdom, May 2007.**
5. **Kumar, S., Okello, E.J. and Seal, C.J.** Role of medicinal plants for their neuroprotective action. Page 41, Neurosciences North East conference. **Durham University, United Kingdom, 2006.**
6. Kumar, A., Aggarwal, K. K., **Kumar, S.** Anti-inflammatory activity of methanolic extract of *Fraxinus micrantha* by inhibition of nitric oxide production by murine macrophage RAW 264.7 cell line. Page 75, 3rd National conference of Biotechnology Society of India, **Jawaharlal Nehru University, Delhi, India, Dec 2005.**
7. Kaushal, N., Prakash, H., Goel, H., **Kumar, S.** Inhibition of nitric oxide production by extract of latex of *Calotropis procera* in endotoxin induced septic shock. Page 109, 55th Indian Pharmaceutical Congress. Chennai, India Dec 2003.
8. Dewan, S., **Kumar, S.** and Singh, H. Molecular techniques in Pharmacology. Published in pre-conference hands-on workshop on techniques in experimental and clinical pharmacology held at **All Indian Institute of Medical Sciences, Delhi** on November 2^{9th} to 3^{0th}, 1999.

ORAL/POSTER PRESENTATION

1. Poster presented at Vitae Yorkshire North-East Hub Poster competition & Networking event at **University of Leeds, April 2009, United Kingdom.**
2. Oral presentation entitled 'Molecular targets of Alzheimer's disease' given at Medicinal Plant research Group annual meeting at **Newcastle University, United Kingdom (Feb 2008).**
3. Poster presented at postgraduate conference, **Newcastle University, May 2008, United Kingdom.**

4. Poster presented at North-East Neurosciences conference at **Durham University, December 2006, United Kingdom.**
5. Oral presentation entitled ‘Immune System Mediated anti-inflammatory of *Azadirachta indica* (neem) in endotoxin induced septic shock’. **Kumar S.** 54th Indian Pharmaceutical Congress, Pune, 2002, India.
6. Downregulation of nitric oxide production by latex of *Calotropis procera* in endotoxin induced septic shock model. Kaushal Nitika, **Kumar S.** 55th Indian Pharmaceutical Congress, Chennai, 2003, India.
7. 12th Inter 12th International Congress of Ethnopharmacology national Congress . In Vitro anti-amyloidgenic activity of an aqueous extract of *W. Somnifera* roots. International Congress of Ethnopharmacology.School of Natural Product Studies, Jadavpur University, India. Feb 17-19, 2012.

ABSTRACT PUBLISHED

1. Kumar V. L., **Kumar S.**, Srivastava A. Immunoreactive estrogen receptor and its variants in breast cancer. *Indian Journal of Pharmacology. Feb 2001; 33 (1).*
2. Dewan S., Sangurala H., **Kumar S.**, Kumar V. L. Antiinflammatroy and anti-pyretic properties of latex of *Calotropis procera*. *Indian Journal of Physiology and Pharmacology (Supplement Dec. 2000).*
3. Cloning of exon-6 and 7 of estrogen receptor. Singh H., **Kumar S.**, Kumar V.L. *Indian Journal of Pharmacology Vol 33(1) Feb. 2001.*

EXTRAMURAL RESEARCH GRANTS:

1. **UGC, SERB, GGSIPU >50 LACS**

INTERNATIONAL SEMINAR ORGANIZER

1. Organized three Day **Indo-UK joint seminar** on ‘Stem cell in Drug Discovery and Development’ on 21 -23 Jan 2013 sponsored jointly by **Royal Society, United Kingdom and Department of Science and Technology, Ministry of Science and Technology, Government of India**

AWARDS AND ACHEIVEMENTS:

1. Member of selection committee for selection of Assistant Professor at NIFTEM (Dec 2013).
2. Invited as expert to attend workshop organized by Ministry of Food Processing Industries and NIFTEM on ‘Future Research areas for NIFTEM’ on 27/4/2012.
3. Jury member for the process of **INNOVATION IN SCIENCE PURSUIT FOR INSPIRED RESEARCH (INSPIRE) AWARD-** National Level Exhibition and Project Competition (NLEPC) – 2012, DST, Ministry of Science and Technology.
4. Young Investigator scholarship 2009 from Alzheimer’s drug discovery foundation, February 2-3, 2009, **Washington DC, USA.**
5. Young Investigator award from **Alzheimer’s Drug Discovery Foundation**, October 16 2007, **New York, USA.**

6. Awarded **International Research Scholarship by University of Newcastle upon Tyne, United Kingdom** (2006-2009).
7. Awarded **Certificate of distinction** for best paper presentation in Postgraduate conference held at Newcastle University on 16th May 2007, **United Kingdom**.
8. Awarded **Senior Research Fellowship** from **CSIR (1999) and ICMR (2000)** for his work on breast cancer patient.
9. All India 10th rank in combined entrance examination conducted by **Jawaharlal Nehru University, New Delhi** for admission in M.Tech. Programme (1997).
10. Awarded **DBT scholarship** to pursue M.Tech. Programme (1997-1999).
11. Scholarship awarded by Department of Post, Government of India to pursue B.Pharma degree (1993-1997).

MEMBERSHIP

- Medicinal Plant Research Group, United Kingdom
- Delhi Pharmacy Council, India.
- Editorial Board of Journal Advance Biomedicine and Pharmacy, Bioinformatics
- Member of Editorial Board, International Journal of Research Studies in Microbiology and Biotechnology.
- Member of Editorial Board, Scientific Journal of Bioinformatics & Computational Biology.
- Member of Editorial Board, Austin Journal of Biotechnology & Bioengineering.
- Reviewer, Clinical Phytoscience
-

ADMINISTRATIVE RESPONSIBILITIES

- Assistant Registrar (Examination), July 2012-14.
- Placement Coordinator, USBT, May 2011 onwards
- Member, SRC, USBT, 2010-2011.
- Member, BOS, USBT 2015-16.
- Member, PhD selection committee, USBT and USHS
- University Observer for CET examination.
- Development of course curriculum of for B.Tech and M.Tech programme

Number of PhD students: 3

Number of students completed M.Tech dissertation: 7

Number of students completed B.Tech projects: 23

COUNTRY VISITED

USA, UK, Germany, France, Switzerland, Belgium, Netherland