Bio-data

Name	Dr. Vijay Kumar	
Date of Birth	10-09-1981	
Designation	Professor	
Nature of appointment	Regular	
Faculty	Lifesciences	
Department/Centre/Institute	Biochemistry	
Date of Joining in the University	16-03-2010	
Date of Retirement	30.09.2041	
Contact Details	Mobile No.	9896675276
	Email id	vksiwach@gmail.com

1. Educational Qualifications (10th and onwards)

S. No.	Degree/ Certificate	Board / University	Passing year
1	Ph.D (Biochemistry)	PGIMER, Chandigarh	2009
2	M.Sc. (Biochemistry)	Maharshi Dayanand University, Rohtak	2004
3	B.Sc. (Medical)	Panjab University, Chandigarh	2002

2. Teaching/Research experience

S. No.	Post	Name of Institution	Period	
			From	To
1	Professor	Maharshi Dayanand University, Rohtak	2025-Till date	
2	Associate Professor	Maharshi Dayanand University, Rohtak	2022-2025	
3	Assistant Professor	Maharshi Dayanand University, Rohtak	2010-2022	

3. Details of Research Achievements

h-index (Google/SCOPUS)	20
Google Scholar link	
ORCID ID (if any)	0000-0001-5559-0624
LinkedIn ID (if any)	
Scopus ID	55817552246
Any other	

S. No.	Year	Particulars / Details	Link to Article	Impact Factor (if any)
1	2025	Manoj Soni, Yangala Sudheer Babu, Vivek Kumar, Bharat Singh, Mettle Brahma, Mulaka Maruthi, Ajit Kumar and **Vijay Kumar**. In-silico Novel Thioredoxin-Interacting Protein Inhibitors from Syzygium aromaticum and Terminalia chebula and their validations to combat Arsenic-Induced toxicity in Vero cells. Toxicology Reports, 14, 102027.	https://www.sciencedirect.com/science/article/pii/S2214750025001453	
2	2025	Manoj Soni, Awadhesh Kumar, Rakesh Kumar, Mehak Dangi, Ajit Kumar, and **Vijay Kumar**. Focusing on Keap1, IKKβ, and Bcl2 proteins: predicted targets of stigmasterol in neurodegeneration. Journal of Receptors and Signal Transduction, 45(2), 83–94.	https://www.tandfonline.com/doi/full/10.1080/10799893.2025.2465243	2.3
3	2024	Manoj Soni, Yangala Sudheer Babu, Mettle Brahma, **Vijay Kumar**, Mulaka Maruthi, Aastha Sharma, Shikha Nara, Kiran Sura and Mehak Dangi. Phytochemical-mediated modulation of cancer associated proteins: an integrated in-silico and in-vitro study. Natural Product Research.	https://www.sciencedirect.com/org/science/article/abs/pii/S1478641924006545	2.2
4	2024	Annu Verma, Manoj Soni, **Vijay Kumar**. Neuroprotective efficacy of silymarin against oxidative stress, inflammation, and structural changes mediated by arsenic-induced toxicity in rats. Indian Journal of Clinical Biochemistry. https://doi.org/10.1007/s12291-024-01259-z	https://doi.org/10.1007/s12291-024-01259-z	1.6
5	2024	Annu Phogat, Jagjeet Singh, Reena Sheoran, Arun Hasanpuri, Aakash Chaudhary, Shakti Bhardwaj, Sandeep Antil, **Vijay Kumar**, Chandra Prakash, Vinay Malik. Berberine attenuates acetamiprid exposure-induced mitochondrial dysfunction and apoptosis in rats via regulating the antioxidant defense system. Journal of Xenobiotics, 14(3), 1079–1092.	https://doi.org/10.3390/jox14030061	4.4
6	2023	Annu Verma, Ritu Jakhar, Dev Kumar, Mehak Dangi, **Vijay Kumar**, Twinkle Dhillon and Anil Chhillar. A computational approach to discover antioxidant and anti-inflammatory attributes of silymarin derived from Silybum marianum by comparison with hydroxytyrosol. Journal of Biomolecular Structure & Dynamics, 41(20), 11101–11121.	https://doi.org/10.1080/07391102.2022.2159879	2.4
7	2023	Annu Phogat, Jagjeet Singh, Vinay Malik, **Vijay Kumar**. Neuroprotective potential of berberine against acetamiprid induced toxicity in rats: Implication of oxidative stress, mitochondrial	**https://doi.org/10.1002/jbt.23434**	2.8

		alterations and structural changes in brain regions. Journal of Biochemical and Molecular Toxicology, 37(10), e23434.		
8	2023	Annu Phogat, Jagjeet Singh, **Vijay Kumar**, Vinay Malik. Berberine mitigates acetamiprid induced hepatotoxicity and inflammation via regulating endogenous antioxidants and NF-κB/TNF-α signaling in rats. Environmental Science and Pollution Research, 30(37), 87412–87423.	10.1007/s11356-023-28279-1	
9	2023	Chandra Prakash, Jyoti Tyagi, Shyam Sunder Rabidas, **Vijay Kumar** and Deepak Sharma. Therapeutic potential of quercetin and its derivatives in epilepsy: Evidence from preclinical studies. Neuromolecular Medicine, 25, 163–178.	https://link.springer.com/article/10.1007/s12017-022-08724-z	3.9
10	2022	Jagjeet Singh, Annu Phogat, **Vijay Kumar**, Vinay Malik. N-acetylcysteine mediated regulation of MnSOD, UCP-2 and cytochrome c is associated with amelioration of monocrotophos induced hepatotoxicity in rats. Toxicology International, 29(4), 515-525.	https://www.informaticsjournals.co.in/index.php/toxi/article/view/30325	
11	2022	Amit Kumar, Jagjeet Singh, Ritu Solanki, **Vijay Kumar**. Coenzyme Q10 nanoparticles prevents monocrotophos exposure mediated neurotoxicity by attenuating the histological alterations in rats. Research Journal of Chemistry and Environment, 26(12), 13-23.	10.25303/2612rjce13023	
12	2022	Twinkle Dhillon, Annu Verma, **Vijay Kumar**. N-acetylcysteine elevates Nrf-2/ARE-regulated antioxidant response and mitochondrial biogenesis in different brain regions of monocrotophos exposed rats. Research Journal of Biotechnology, 17(11), 63-72.	10.25303/1711rjbt63072	
13	2022	Jagjeet Singh, Annu Phogat, **Vijay Kumar**, Vinay Malik. N-acetylcysteine ameliorates monocrotophos exposure-induced mitochondrial dysfunctions in rat liver. Toxicology Mechanisms and Methods, 32(9), 686-694.	https://doi.org/10.1080/15376516.2022.2064258	2.7
14	2022	Twinkle Dhillon, Amit Kumar, **Vijay Kumar**. Neuroprotective effect of N-acetylcysteine against monocrotophos-induced oxidative stress in different brain regions of rats. Applied Biochemistry and Biotechnology, 194, 4049–4065.	https://link.springer.com/article/10.1007/s12010-022-03967-9	3.3
15	2022	Amit Kumar, Jagjeet Singh, Annu Phogat, **Vijay Kumar**. Protective effects of coenzyme Q10 nanoparticles on hepatotoxicity induced by monocrotophos in rats. Research Journal of Biotechnology, 17(8), 1-8.	https://doi.org/10.25303/1708rjbt001008	
16	2022	Annu Phogat, Jagjeet Singh, **Vijay Kumar** and Vinay Malik. Toxicity of the acetamiprid	https://agris.fao.org/search/en/providers/	

		insecticide for mammals: a review. Environmental Chemistry Letters, 20(2), 1453–1478.	122535/records/65df02fa0f3e94b9e5d40f94	
17	2022	Jagjeet Singh, Annu Phogat, Chandra Prakash, Sunil Kumar Chhikara, Sandeep Singh, Vinay Malik, **Vijay Kumar**. N-Acetylcysteine Reverses Monocrotophos Exposure-Induced Hepatic Oxidative Damage via Mitigating Apoptosis, Inflammation and Structural Changes in Rats. Antioxidants, 11(1):90.	https://doi.org/10.3390/antiox11010090	6.6
18	2022	Chandra Prakash, Sunil Chhikara and **Vijay Kumar**. Mitochondrial Dysfunction in Arsenic-Induced Hepatotoxicity: Pathogenic and Therapeutic Implications. Biological Trace Element Research, 200(1), 261-270.	https://link.springer.com/article/10.1007/s12011-021-02624-2	3.6
19	2021	Vinay Malik, Jagjeet Singh, Amit Kumar and **Vijay Kumar**. Protective effect of coenzyme Q10 nanoparticles against monocrotophos induced oxidative stress in kidney tissues of rats. Biologia, 76(6), 1849–1857.	10.1007/s11756-021-00732-x	
20	2020	Manisha Soni, Chandra Prakash, Samander Kaushik, Sunil Kumar Chhikara, **Vijay Kumar**. Hydroxytyrosol improves metabolic response by amelioration of oxidative stress following arsenic exposure in rat liver. Research Journal of Biotechnology, 15(9), 104-112.	https://www.researchgate.net/publication/343851980_Hydroxytyrosol_improving_metabolic_response_by_amelioration_of_oxidative_stress_following_arsenic_exposure_in_rat_liver	
21	2019	Suman Devi, Jagjeet Singh, **Vijay Kumar** and Vinay Malik. Monocrotophos induced biochemical and histopathological alterations in the kidney tissues of mice. Chemical Biology Letters, 6(2), 39-45.	https://pubs.thescience.org/journal/index.php/cbl/article/view/2	6.9
22	2019	Chandrashekhar Singh, Chandra Prakash, Pallavi Mishra, Kavindra Nath Tiwari, Sunil Kumar Mishra, Raghunath Singh, **Vijay Kumar** and Jasmeet Singh. Hepatoprotective efficacy of Premna integrifolia leaves against aflatoxin B1-induced toxicity in mice. Toxicon, 166, 88-100.	https://doi.org/10.1016/j.toxicon.2019.05.014	2.4
23	2018	Chandrashekhar Singh, Chandra Prakash, Kavindra Nath Tiwari, Sunil Kumar Mishra, **Vijay Kumar**. Premna integrifolia ameliorates cyclophosphamide-induced hepatotoxicity by modulation of oxidative stress and apoptosis. Biomedicine & Pharmacotherapy, 107, 634-643.	https://doi.org/10.1016/j.biopha.2018.08.039	7.5
24	2018	Manisha Soni, Chandra Prakash, **Vijay Kumar**. Protective effect of hydroxytyrosol against oxidative stress mediated by arsenic-induced neurotoxicity in rats. Applied Biochemistry and Biotechnology, 186(1), 27-39.	https://link.springer.com/article/10.1007/s12010-018-2723-5	3.3

25	2017	Manisha Soni, Chandra Prakash, Sfurti Sehwag, **Vijay Kumar**. Protective effect of hydroxytyrosol in arsenic-induced mitochondrial dysfunction in rat brain. Journal of Biochemical and Molecular Toxicology, 31(7), e21906.	**https://doi.org/10.1002/jbt.21906**	2.8
26	2017	Chandra Prakash, Manoj Kumari and **Vijay Kumar**. Transcriptional regulation of cytochrome c oxidase subunits in rat brain following sodium arsenite exposure. Toxicological & Environmental Chemistry, 99(3), 505-515.	https://doi.org/10.1080/02772248.2016.1217537	1.1
27	2016	Chandra Prakash, **Vijay Kumar**. Arsenic-induced mitochondrial oxidative damage is mediated by decreased PGC-1α expression and its downstream targets in rat brain. Chemico-Biological Interactions, 256, 228-235.	https://doi.org/10.1016/j.cbi.2016.07.017	5.4
28	2016	Chandra Prakash, **Vijay Kumar**. Chronic arsenic exposure-induced oxidative stress is mediated by decreased mitochondrial biogenesis in rat liver. Biological Trace Element Research, 13(1), 87-95.	https://link.springer.com/article/10.1007/s12011-016-0622-6	3.6
29	2016	Chandra Prakash, Manisha and **Vijay Kumar**. Mitochondrial oxidative stress and dysfunction in arsenic-induced neurotoxicity: a review. Journal of Applied Toxicology, 36, 179-188.	**https://doi.org/10.1002/jat.3256**	2.8
30	2015	Chandra Prakash, Vipan Kumar Kamboj, Pooja Ahlawat and **Vijay Kumar**. Structural and molecular alterations in arsenic-induced hepatic oxidative stress in rats: A FTIR study. Toxicological & Environmental Chemistry, 97(10), 1408-1421.	https://doi.org/10.1080/02772248.2015.1102425	1.1
31	2015	Chandra Prakash, Manisha and **Vijay Kumar**. Biochemical and molecular alterations following arsenic induced oxidative stress and mitochondrial dysfunction in rat brain. Biological Trace Element Research, 167(1), 121-129.	https://link.springer.com/article/10.1007/s12011-015-0284-9	3.6
32	2014	**Vijay Kumar** and Kiran Dip Gill. Oxidative Stress and Mitochondrial Dysfunction in Aluminium Neurotoxicity and Its Amelioration: A Review. NeuroToxicology, 41, 154-166.	https://doi.org/10.1016/j.neuro.2014.02.004	3.9
33	2010	Raina Dua, Aditya Sunkaria, **Vijay Kumar** and Kiran Dip Gill. Impaired mitochondrial energy metabolism and kinetic properties of cytochrome oxidase following acute aluminium phosphide exposure in rat liver. Food and Chemical Toxicology, 48, 53-60.	https://doi.org/10.1016/j.fct.2009.09.014	3.9
34	2010	Raina Dua, **Vijay Kumar**, Aditya Sunkaria and Kiran Dip Gill. Altered glucose homeostasis in response to aluminium phosphide induced cellular oxygen deficit in rat. Indian Journal of Experimental Biology, 48, 722-730.	https://pubmed.ncbi.nlm.nih.gov/20929055/	

35	2009	**Vijay Kumar** and Kiran Dip Gill. Aluminium Neurotoxicity: Neurobehavioural and oxidative aspects. Archives of Toxicology, 83(11), 965-978.	https://link.springer.com/article/10.1007/s00204-009-0455-6	6.9
36	2009	**Vijay Kumar**, Amanjit Bal and Kiran Dip Gill. Aluminium induced oxidative DNA damage recognition and cell cycle disruption in different regions of rat brain. Toxicology, 264(3), 137-144.	https://doi.org/10.1016/j.tox.2009.05.011	4.6
37	2009	**Vijay Kumar**, Amanjit Bal and Kiran Dip Gill. Susceptibility of Mitochondrial Superoxide Dismutase to Aluminium Induced Oxidative Damage. Toxicology, 255, 217-223.	https://doi.org/10.1016/j.tox.2008.10.009	4.6
38	2009	Minakshi Sharma, **Vijay Kumar**, Jitender Kumar and Chandra Shekhar Pundir. Preparation of reusable enzyme strips using alkylamine and arylamine glass beads affixed on plastic strips. Indian Journal of Chemical Technology, 16, 357-360.	https://nopr.niscpr.res.in/handle/123456789/55/browse?type=title&sort_by=1&order=ASC&rpp=60&etal=5&null=&offset=1583	
39	2008	**Vijay Kumar**, Amanjit Bal and Kiran Dip Gill. Impairment of mitochondrial energy metabolism in different regions of rat brain following chronic exposure to aluminium. Brain Research, 1232, 94-103.	chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://nopr.niscpr.res.in/bitstream/123456789/1846/1/IJBT%207(3)%20328-332.pdf	
40	2008	Minakshi Sharma, **Vijay Kumar** and Chandra Shekhar Pundir. Immobilization of porcine pancreas lipase onto free and affixed arylamine glass beads and its application in removal of oil stains. Indian Journal of Biotechnology, 7, 328-332.	Chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://nopr.niscpr.res.in/bitstream/123456789/1846/1/IJBT%207(3)%20328-332.pdf	
41	2007	Pinki Rani, Minakshi Sharma, **Vijay Kumar** and Chandra Shekhar Pundir. Immobilization of amylase onto arylamine glass beads affixed inside a plastic beaker: kinetic properties and application. Indian Journal of Biotechnology, 6, 230-233.	https://nopr.niscpr.res.in/bitstream/123456789/3010/1/IJBT%206%282%29%20230-233.pdf	
42	2007	A. Sharma, P. Kaur, **Vijay Kumar** and Kiran Deep Gill. Attenuation of MPTP-induced nigrostriatal toxicity in mice by N-acetyl cysteine. Cellular and Molecular Biology, 53(1), 47-54.	https://pubmed.ncbi.nlm.nih.gov/17519111/	
43	2007	Nisha Sharma, Minakshi Sharma, **Vijay Kumar** and Chandra Shekhar Pundir. Measurement of urine and plasma oxalate with reusable strip of amaranthus leaf oxalate oxidase. Indian Journal of Pharmaceutical Sciences, 69, 669-673.	https://www.ijpsonline.com/articles/measurement-of-urine-and-plasma-oxalate-with-reusable-strip-of-amaranthus-leaf-oxalate-oxidase.html	0.9

44	2006	Minakshi Sharma, **Vijay Kumar** and Chandra Shekhar Pundir. Determination of serum glucose with glucose oxidase immobilized onto affixed egg membrane. Indian Journal of Chemical Technology, 13, 544-549.	https://pubmed.ncbi.nlm.nih.gov/16955741/	

4. Research & consultancy Projects

S. No.	Year	Details	Status
1	2011-13	UGC minor project: to study the changes in antioxidant gene expression and induction of oxidative stress in aluminium toxicity in sorghum (2011-13)	Completed
2	2013-16	DST Projects: Role of NRF-1 and NRF-2 in bigenomic transcriptional regulation of cytochrome c oxidase subunits in response to arsenic induced oxidative stress in rat brain (2013-16, 23.55 lac)	Completed
3	2013-16	ICMR: To evaluate the protection of arsenic induced oxidative stress, mitochondrial oxidative damage and apoptotic cell death by hydroxytyrosol in rat brain (2013-2016, 19 lac)	Completed

5. Research Supervision Overview

S. No.	Level	Degree Awarded	Thesis Submitted
1	Ph.D.	6	
2	P.G. (Dissertation)	>50	
3	U.G.		

6. Honors & Awards

S. No.	Title of Award	Awarding Agency	Particulars / Details
1	**Gold Medal** for Best Published Research Work in Biomedical Sciences	PGIMER, Chandigarh	Awarded for the paper entitled ***"Susceptibility of Mitochondrial Superoxide Dismutase to Aluminium Induced Oxidative Damage"*** (2009)

7. Details as Resource person (Seminar / Conference / Lectures delivered etc.)

S. No.	Details	Number in total	
		National	International
a	Seminar		
b	Conference	4	24
c	Workshops		
d.	Any other		

8. Membership details of Statutory Committees of this University

S. No.	Period	Particulars / Details
1	w.e.f. 2023	Member, **Academic Council**, M.D. University, Rohtak
2	06.08.2019 to 05.08.2021	Member, **Executive Council**, M.D. University, Rohtak
3	26.07.2018 to 25.07.2021	Member, **University Court**, M.D. University, Rohtak
4	26.07.2015 to 25.07.2018	Member, **University Court**, M.D. University, Rohtak
5	26.07.2012 to 25.07.2015	Member, **University Court**, M.D. University, Rohtak
6	29.05.2013 to 28.05.2014	Member of faculty of Life sciences,
7	04.05.2012 to 03.05.2014	Member of PGBOS of the Department
8	03.06.2016 to 02.06.2018	Member of PGBOS of the Department
9	16.10.2020 to 15.10.2022	Member of PGBOS of the Department
10	31.08.2017 to 30.08.2022	Member of IAEC
11	31.08.2022 to 30.08.2027	Member of IAEC

9. Any other Achievements:

S. No.	Period	Particulars / Details
1	Life Member	**Indian Academy of Neuroscience (IAN)** — Membership No. **LK-90**
2	Life Member	**Society for Neurochemistry (India)** — Membership No. **LMI-387**
3	Life Member	**Society of Toxicology (India)** — Membership No. **1013-L**
4	Life Member	**Indian Science Congress Association (ISCA)** — Membership No. **L27129**