ACADEMIC PROFILE

Prof. Vijay Kumar (Ph.D, PGIMER, Chandigarh)

Dept. of Biochemistry,
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Positions Held

- Professor, Dept of Biochemistry, Maharshi Dayanand University, Rohtak -India (16th March, 2025-Till date)
- Associate Professor, Dept of Biochemistry, Maharshi Dayanand University, Rohtak -India (16th March, 2022-15th March, 2025)
- **Assistant Professor**, Department of Biochemistry, Maharshi Dayanand University, Rohtak -India (16th March, 2010-15th March, 2022)
- **Demonstrator**, Department of Biochemistry, PGIMER, Chandigarh, India (29th April, 2009 to 15th March, 2010).

Higher Education & Research

- **Ph.D.** Post Graduate Institute of Medical Education and Research, Chandigarh, India (July, 2006 – August, 2009)
- **M.Sc. (Biochemistry)**, Maharshi Dayanand University, Rohtak (India) (1st Division, 72.14%, July 2002 – Jun, 2004)
- **B.Sc. (Botany, Chem, Zoology)**, Panjab University, Chandigarh (India) (1st Division, 71.50%), (July, 1999 – June, 2002)

Distinctions/Scholarships

- Awarded **gold medal** of PGIMER, Chandigarh for the best published research work in Biomedical sciences for the paper entitled **"**Susceptibility of Mitochondrial Superoxide Dismutase to Aluminium Induced Oxidative Damage" (2009)**.**
- Qualified **ICMR-JRF**, held by Indian Council of Medical Research, New Delhi, India. (2005).

Academic Achievements/contributions

- Head, Dept of Biochemistry w.e.f. 19.05.2023 for three years
- Member of the Faculty of Life Sciences appointed by the university (w.e.f. 2023 till date)
- Chairman, Departmental Research Committee w.e.f. 19.05.2023
- Chairman, PGBOS w.e.f. 01.06.2023
- Member of IAEC w.e.f. August 2022 for 5 years
- Member of PGBOS w.e.f. 16th Oct, 2020 for 2 years
- **Member of Executive Council w.e.f. 06.08.2019 for two years**
- Member of Prevention of Sexual harassment Committee for department w.e.f 17.09.18
- Member of student Grievance redressal committee for department w.e.f 17.09.18
- Member of Anti-ragging committee for department w.e.f 17.09.18
- Member of IAEC w.e.f. 31.08.17 for 5 years
- **Member of University Court w.e.f. 26.07.2018 for three years**
- Member of Departmental Research Committee w.e.f. November 17, 2017 for 2 years
- Member of Faculty of Life Sciences w.e.f. 03.11.17 for one year

- Member of PG Board of Studies of M.D. University w.e.f. April, 2016 for two years
- Secretary, Faculty Club of M.D. University w.e.f. Nov, 2015 for two years
- **Member of University Court w.e.f. 26.07.2015 for three years**
- Member of the Faculty of Life Sciences appointed by the university (w.e.f. 29.05.2013 for one year)
- **Member of University Court of M.D. University w.e.f. 26.07.12 for three years.**
- Member of PG Board of Studies of M.D. University w.e.f. April, 2012 for two years

Refresher/Summer Course Participation

- Completed Short Term Training Course on Open Source Tools for Research organized by Faculty Development Centre, Ramanujan College, New Delhi from 08.06.2020 to 14.06. 2020
- Completed Short Term Training Course on E-learning Technologies organized by Faculty Development Centre, M.D. University, Rohatk from 10.04.2020 to 15.04. 2020
- Completed Short Term Training Course on E-learning Technologies at Faculty Development Centre, M.D. University, Rohatk from 18.07.2019 to 24.07. 2019
- Completed Short Term Training Course on E-learning Technologies at Faculty Development Centre, M.D. University, Rohatk from 20.02.2019 to 26.02. 2019
- Completed Short Term Training Course at UGC-HRDC, Guru Jambheshwar University of Science & Technology, Hisar from 10.12.2018 to 15.12. 2018
- Completed 21 days Refresher Course at H.P. University, Shimla, (17.07.17 - 05.08.17).
- Completed 21 days Refresher Course at H.P. University, Shimla, (07.05.12 - 26.05.12).
- Completed 28 days orientation programme at H.P. University, Shimla, (20.06.11 - 16.07.11).
- Completed a course on Research Methodology & Biostatistcs of PGIMER, Chandigarh (2006).

Research Interests

- Oxidative stress induced modifications of mitochondrial proteins and neurodegeneration,

Publications: 49

Research Project(s) completed

UGC minor project

- To study the changes in antioxidant gene expression and induction of oxidative stress in aluminium toxicity in sorghum (2011-13).

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)

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)

Research Guidance

- PhD- **Completed-7**, Ongoing – 5
- MSc (Dissertations) – ≥80

Conference/Workshop Organization

- **Joint-Secretary**, National conference on "Recent Trends in Biochemistry" organized by Dept of Biochemistry, M.D. University, Rohtak (Haryana) (15th -16th March, 2017).
- **Joint-Secretary**, National workshop on "Genomics and Proteomics" organized by Dept of Biochemistry, M.D. University, Rohtak (Haryana) (3rd March, 2014-5th March, 2014).
- **Member**, organizing committee of DST-INSPIRE PROGRAMME organized by Centre for Biotechnology, M. D. University, Rohtak (April 28-May 2, 2012).
- **Joint-Secretary**, International conference on "Molecular Techniques: the face of modern Science" organized by Dept of Biochemistry, M.D. University, Rohtak (Haryana) (24th Oct. 2011).
- **Member**, Local organization committee of one day **India-Japan seminar,** Dept of Biochemistry, M.D. University, Rohtak (Haryana) (30th Oct. 2010).

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Conference / Symposium attended (paper presented)

1. Oral presentation at 44th Annual Conference of Society of Toxicology (STOX) organized by Deptt of Pharmacology, PGIMER, Chandigarh from 13th -15th October, 2025.
2. Oral presentation at 2nd International Conference on "Science and Technology for Sustainable Future" (ICSTSF – 2024) organized by the University Institute of Engineering and Technology (UIET), Maharshi Dayanand University, Rohtak in association with ISCA- Rohtak Chapter on February 7-8, 2024.
3. Poster presentation at National conference on "Recent Trends in Materials & Life Sciences" held at Dept of Chemistry, M D University, Rohtak on September 29, 2023.
4. Oral presentation at "International conference (virtual) on New trends in chemical research" (ICNTCR - 2022) organized by Department of Chemistry (under the aegis of Department of Higher Education, Haryana) during 29th -30th April, 2022.
5. Oral presentation at "39th Annual Conference of Indian Academy of Neuroscience (Virtual mode), organized by Indian Institute of Science Education and Research-Kolkata, India" during 16-19th Dec, 2021
6. Oral presentation at international Conference on "Brain Diseases, Injuries and Infections: Emerging Challenges and treatment strategies" organized by Society for Neurochemistry, India during 11-13th Dec, 2020
7. Presented a paper at International conference on Advances in Mitochondrial Medicine and Translational Research" organized by Society of Mitochondrial Research and Medicine and Manipal University during 6th to 7th Nov, 2020
8. Oral presentation at 1st International conference of Indian Science Congress Association-Rohtak chapter on "Science & Technology: Rural Development" organized by Dept of Chemistry, M.D. University (4-5 March, 2020).
9. Presented a paper at 37th Annual Conference of Indian Academy of Neuroscience" organized by Dept of Physiology & Anatomy, AIIMS, New Delhi India (19th-21st November, 2019).

10. Presented a paper at International symposium and 36th Annual Conference of Indian Academy of Neuroscience" organized by Dept of Zoology, BHU, Varanasi, India (29th – 31st Oct, 2018).
11. Presented a paper at International Conference on Environmental and Ecological Sustainability organized by IGNOU, New Delhi 4th -5th Oct, 2018.
12. Oral presentation at National Conference on Recent advances in Chemical Sciences organized by Deptt of Chemistry, M.D. University on 7th Feb. 2018..
13. Presented a paper at 36th Annual Conference of Society of Toxicology (STOX) organized by Deptt of Pharmacology, PGIMER, Chandigarh from 17th -19th November, 2017.
14. Presented a paper at National Conference on "Advances in Research on Aging and Neurological Disorders" organized by 31st annual meeting of Society for Neurochemistry, India at BHU, Varanasi, India (20th – 22nd Sept, 2017).
15. Presented a paper at Indian Science Congress, organized by SV University, Tirupati (AP) from 3rd to 7th Jan, 2017.
16. Presented a paper at National Conference on Genetic Diversity and Therapeutic Potential of Natural Products organized by Deptt of Genetics, M.D. University, Rohtak on 17th Sept, 2016.
17. Presented a paper at 35th Annual Conference of Society of Toxicology (STOX) organized by Amity University, Noida (UP) from 3rd -5th August, 2016
18. Presented a paper at 34th Annual Conference of Society of Toxicology (STOX) and on "Challenges and Opportunities in Toxicology research, Education and Product Safety Assessments'' organized by Palamur Biosciences Pvt Ltd and SVS Medical College, Mahabubnagar from 19th-21st, Nov 2015 at Hotel Taj Banjara, Hyderabad, India
19. Made an oral presentation of research paper at XXXIII Annual Conference of Indian Academy of Neuroscience-Neuroscience Research from Mechanisms to Applications" organized by Panjab University and PGIMER, Chandigarh from 31st- 2ndNov, 2015.
20. Presented a paper at 7th International congress of Asian Society of Toxicology held at ICC JEJU, Jeju Island, South Korea from 23rd-26th June, 2015. **(Financially sponsored by DST, New Delhi)**
21. Made an oral presentation of research paper at 4th International conference of International Science Congress Association held at Pacific University, Udaipur, Rajasthan from 8th -9th December, 2014
22. Presented a paper at International Symposium on Translational neuroscience and XXXII Annual Conference of Indian Academy of Neuroscience held at National Institute of Mental Health and Neurosciences, Bangalore from 1st to 3rd November, 2014
23. Presented a paper at 33rd Annual Conference of Society of Toxicology (STOX) and National Symposia on "Toxico-genomic technologies in predictive toxicology", "Alternatives to use of animals for modern toxicity testing" and Phyto-remedial approaches against environmental pollutants for human and animal health'' held from 22nd-25th October, 2013 at College of Veterinary Science & Animal Husbandry, DUVASU, Mathura, India
24. Presented a paper at XXX Annual Conference of Indian Academy of Neurosciences (IAN) & International Symposium on Translational Neurosciences: Unraveling Mysteries of Brain in Health and Disease at GNDU, Amritsar, India (27th-30th Oct, 2012).
25. Presented a paper at XXXI meeting of **Society of Toxicology** of India at Jaipur, India (22nd-24th Dec, 2011).

26. Presented a paper at the international conference on **"Molecular Mechanisms of Diseases",** at DRDE, Gwalior, India (15th-16th Dec, 2008).
27. Made an **Oral presentation** of a research paper at the international symposium on "**Molecular aspects of brain aging and neurological disorders"** and annual meeting of Society for Neurochemistry, GNDU, Amritsar, India (28th – 29th Nov, 2008).
28. Presented a paper at XXVII meeting of **Society of Toxicology of India** at Bangalore, India (6th-7th Oct, 2007).

Scientific Membership:

- Life member "Indian Academy of Neuroscience" (IAN). (membership No LK-90)
- Life member "Society For Neurochemistry (India): membership no-LMI-387
- Life member " Society of Toxicology, India: membership no- 1013-L
- Life member "Indian Science Congress (membership No L27129)

Book: Basic Concepts in Clinical Biochemistry: A Practical Guide by Vijay Kumar and KD Gill. Published by Springer Nature, (1st Ed), 2018; pp-1-175 (ISBN 978- 981-10-8185-9)

Book Chapter- Vijay Kumar **and Kiran Dip Gill.** Mechanistic Aspects of Aluminium Neurotoxicity: Oxidative Stress and Mitochondrial Dysfunctions. Published by Nova Publisher, Inc, New York; 2016; 1-14. (ISBN **978-1-63484-762-9)**

Publications

Indexed/peer reviewed/Scopus indexed Journals

1. Amit Kumar , Jatin Phogat , Aakash Chaudhary and **Vijay Kumar.** Coenzyme Q10 Nanoparticles Supplementation Prevents the Monocrotophos-Induced Mitochondrial Dysfunctions in Brain Tissues of Rats. Toxicology International, eISSN: 0976-5131 | Vol 33(3), 2026 | pp. 01-11
2. Soni M., Kumar V., Babu Y.S., Kumar P., Maruthi M., Yadav P., Kumar A., **Kumar V**. In silico and in vitro insights into stigmasterol targeting Keap1/Nrf2, Bcl-2/Bax and IKKβ/IκBα protein–protein interactions in arsenic-induced toxicity. Naunyn-Schmiedeberg's Archives of Pharmacology. 2026 Jul;399(10):14965-14989 (IF: 3.1).
3. Manoj Soni, Yangala Sudheer Babu, Bharat Singh, Mrs. R. Maruthi, Vijay Kumar. Green synthesis of AgNPs from Syzygium aromaticum flower bud extract: arsenic induced stress mitigation with toxicological considerations. Inorganic and Nano-Metal Chemistry. 2026, 56 (7); 654–663. DOI:10.1080/24701556.2026.2668710 (IF 1.6)
4. Annu Verma, Manoj Soni, Karuna Nandal. Ankita Rathee, Ritika Tehlan. **Vijay Kumar** Silymarin Attenuates Arsenic-Induced Mitochondrial Dysfunction and Suppression of Nrf2/ARE-Regulated Phase II Detoxification Genes in Rat Brain. Journal of Biochemical and Molecular Toxicology. June 2026; 40(6):e70928 (IF 2.8)
5. Jagjeet Singh, Annu Phogat, Reena Sheoran, Arun Hasanpuri, Vijay Kumar, Manoj Kumar Yadav, and Vinay Malik Ameliorative Effects of Berberine Against Acetamiprid-Induced Toxicity in the Testes of Rats: A Computational and Histological Insight. Journal of Xenobiotics 2026, 16(3), 95 (IF 4.4)

6. Annu Verma, Manoj Soni, **Vijay Kumar**. Neuroprotective efficacy of silymarin against oxidative stress, inflammation, and structural changes mediated by arsenic-induced toxicity in rats. *Ind J Clin Biochem* June 2026, 41(3) 391-402. https://doi.org/10.1007/s12291-024-01259-z (IF: 1.8).

7. 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. **Volume 14, June 2025, 102027**

8. Manoj Soni, Awadhesh Kumar, Rakesh Kumar, Mehak Dangi, Ajit Kumar, and **Vijay Kumar**. Focusing on Keap1, IKKb, and Bcl2 proteins: predicted targets of stigmasterol in neurodegeneration. Journal of receptors and signal transduction. 2025, 45(2), 83–94 (IF: 2.6).

9. 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 2025, 39 (24), 6945–6949 (IF: 1.6).

10. 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. J. Xenobiot. Sept 2024, 14 (3), 1079–1092 (IF: 4.4)

11. 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, 2023, 41(20), 11101–11121 (IF:5.1).

12. Annu Phogat, Jagjeet Singh, Vinay Malik, **Vijay Kumar**. Neuroprotective potential of berberine against acetamiprid induced toxicity in rats: Implication of oxidative stress, mitochondrial alterations and structural changes in brain regions. Journal of Biochemical and Molecular Toxicology, Oct 2023; 37 (10), e23434 (IF:2.5).

13. 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. 2023 Aug;30 (37):87412-87423.

14. Chandra Prakash, Jyoti Tyagi, Shyam Sunder Rabidas, **Vijay Kumar** and Deepak Sharma. Theraupetic potential of quercetin and its derivatives in epilepsy: Evidence from preclinical studies. Neuromolecular Medicine, June 2023 25:163–178 (IF:3.9).

15. 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, Dec 2022; 29(4):515-525.

16. 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. Dec 2022; 26 (12):13-23.

17. 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, Nov 2022; 17(11), 63-72 (IF: 0.2).

18. Jagjeet Singh, Annu Phogat, **Vijay Kumar**, Vinay Malik. N-acetylcysteine ameliorates monocrotophos exposure-induced mitochondrial dysfunctions in rat liver. Toxicology: Mechanism & Methods, Nov 2022; 32(9):686-694 (IF: 3.4)

19. 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; Sept 2022; 194:4049–4065 (IF: 3.3)

20. Amit Kumar, Jagjee tSingh, Annu Phogat, and **Vija**y**Kumar**. Protective effects of coenzyme Q10 nanoparticles on hepatotoxicity induced by monocrotophos in rats. Research Journal of Biotechnology, August (2022); Vol. 17 (8), 1-8 (IF: 0.2).

21. Annu Phogat, Jagjeet Singh, **Vijay Kumar** and Vinay Malik. Toxicity of the acetamiprid insecticide for mammals: a review. Environmental Chemistry Letters. April (2022) ; 20(2), 1453–1478

22. 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*. Jan 2022; 11(1):90. https://doi.org/10.3390/antiox11010090 **(IF: 6.6)**

23. ChandraPrakash, Sunil Chhikara and **Vijay Kumar**. Mitochondrial Dysfunction in Arsenic-Induced Hepatotoxicity: Pathogenic and Therapeutic Implications. *Biol Trace Elements Res.* 2022 Jan; 200(1):261-270 (**IF:**3.6)**.**

24. 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 June, 2021. 76(6), 1849–1857 (IF: 1.6).

25. 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. Sept 2020;15 (9):104-112 (IF: 0.2)

26. Suman Devi, Jagjeet Singh, **Vijay Kumar** and Vinay Malik. Monocrotophos induced Biochemical and Histopathological alterations in the Kidney tissues of Mice. Chem. Biol. Lett. 2019, 6(2), 39-45 (IF: 6.9).

27. 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 afflatoxinB1-induced toxicity in mice. Toxicon. August, 2019, 166;88-100 (IF: 2.4).

28. 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. Volume 107, November 2018, Pages 634-643 (IF: 7.5).

29. Manisha Soni, Chandra Prakash, **Vijay Kumar.** Protective effect of hydroxytyrosol against oxidative stress mediated by arsenic-induced neurotoxicity in rats. Applied Biochemistry and Biotechnology, 2018; 186(1); 27-39 (IF: 3.3).

30. Manisha Soni, Chandra Prakash, Sfurti Sehwag, **Vijay Kumar**. Protective effect of hydroxytyrosol in arsenic-induced mitochondrial dysfunction in rat brain. J Biochem Mol Toxicol. 2017; 31 (7): e21906. Feb 22. doi: 10.1002/jbt.21906 (IF: 2.5).

31. Chandra Prakash, Manoj Kumari and **Vijay Kumar.** Transcriptional regulation of cytochrome c oxidase subunits in rat brain following sodium arsenite exposure.*Toxicological & Environmental Chemistry.* 2017; 99 (3): 505-515 (IF: 1.1)

32. 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.* 2016; 256: 228-35. DOI-10.1016/j.cbi.2016.07.017 (IF: 5.4)

33. Chandra Prakash, **Vijay Kumar.** Chronic arsenic exposure-induced oxidative stress is mediated by decreased mitochondrial biogenesis in rat liver. *Biol Trace Elements Res. 2016; 13(1), 87-95 (IF: 3.6)*

34. Chandra Prakash, Manisha and **Vijay Kumar**. Mitochondrial oxidative stress and dysfunction in arsenic-induced neurotoxicity: a review. J Applied Toxicology. 2016;36, 179-88 (IF: 2.8).

35. 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. 2015; 97(10); 1408-21 (IF: 1.1).

36. Chandra Prakash, Manisha and **Vijay Kumar**. Biochemical and molecular alterations following arsenic induced oxidative stress and mitochondrial dysfunction in rat brain. *Biol Trace Elements Res. 2015:167(1); 121-129 (IF: 3.6).*

37. **Vijay Kumar** and Kiran Dip Gill.Oxidative Stress and Mitochondrial Dysfunction in Aluminium Neurotoxicity and Its Amelioration: A Review. *NeuroToxicology, 2014: 41; 154-166 (IF: 3.9).*

38. 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.* 2010;48:53-60 (IF: 3.5).

39. Raina Dua, **Vijay Kumar,** Aditya Sunkariaand Kiran Dip Gill. Altered glucose homeostasis in response to aluminium phosphide induced cellular oxygen deficit in rat. *Indian Journal of Experimental Biology. 2010.48:722-730 (IF: 0.5).*

40. **Vijay Kumar** and Kiran Dip Gill. Aluminium Neurotoxicity: Neurobehavioural and oxidative aspects. *Archives of Toxicology.* 2009; 83(11): 965-78. Review (6.9).

41. **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.* 2009; 264 (3): 137-144 (4.6).

42. **Vijay Kumar,** Amanjit Bal and Kiran Dip Gill. Susceptibility of Mitochondrial Superoxide Dismutase to Aluminium Induced Oxidative Damage. *Toxicology.* 2009; 255: 217-223 (IF: 4.6).

43. 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 2009; 16: 357-360 (IF: 1).

44. **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.*2008; 1232: 94-103 (IF: 2.6).

45. Minakshi Sharma, **Vijay Kumar** and Chandra ShekharPundir. Immobilization of porcine pancreas lipase onto free and affixed arylamine glass beads and its application in removal of oil stains. Indian Journal of Biotechnology. 2008; 7: 328-332 (IF: 0.3).

46. Pinki Rani, Minakshi Sharma, **Vijay Kumar** and Chandra ShekharPundir. Immobilization of amylase onto arylamine glass beads affixed inside a plastic beaker: kinetic properties and application. Indian Journal of Biotechnology. 2007; 6: 230-233 (IF: 0.3).

47. A Sharma, P Kaur, **Vijay Kumar** and Kiran Deep Gill. Attenuation of 1-methyl-4-phenyl-1, 2,3,6-tetrahydropyridine induced nigrostriatal toxicity in mice by n–acetyl cysteine. *Cellular and Molecular Biology* (Noisy-le-grand).. 2007;53 (1):47-54 (IF: 1.6).

48. 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. 2007, 69: 669-673 (IF: 0.9).

49. 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. 2006;13: 544-549 (IF: 1).