

CURRICULUM VITAE



Dr. Kamla Kant Shukla

Professional experience

Institute/ University

Additional Professor of Biochemistry	Department of Trauma & Emergency AIIMS Jodhpur (1 st July 2023 to till date).
Associate Professor of Biochemistry	Department of Trauma & Emergency AIIMS Jodhpur (1 st July 2020 to 30 th June 2023).
Assistant Professor of Biochemistry	Department of Trauma & Emergency AIIMS Jodhpur (1 st June 2017 to 30 st June 2020).
Senior/ Junior Resident	Department of Biochemistry, AIIMS Jodhpur (January 2013 to May 2017)
Postdoctoral Fellowship	Chung ang University, South Korea (2011 to 2012)

Academic qualifications

Ph.D. (Med. Biochemistry)	King George's Medical University, Lucknow, (UP) (2010)
M.Sc. (Biochemistry)	A.P.S. University, Rewa (M.P.) (2001)

Research Interests:

My research program is encompassing two distinct areas: 1. Understanding the role of epigenetic and gene regulations in embryonic development and cancers, further developing epigenetic biomarkers and new modalities for its treatment. 2. Assessment of endocrine disruptive chemicals and their impacts on the epigenome.

Focus Areas:

Genotoxicity, cell signaling pathway, epigenetics and non-coding RNA in reproductive and cancer biology.

Awards and Achievements:

- Elected as the Member of the National Academy of Medical Sciences (India) in 2022
- Received Shri Om Prakash Sharma young scientist Award in 2021 from the Indian Academy of Biomedical Sciences.
- Elected as the Member of the American Association for Clinical Chemistry, USA in 2022.
- Elected as the Associate Member of the Royal Society of Biology, United Kingdom in 2020
- Travel award, 8th Seoul International Congress of Endocrinology and Metabolism (SICEM 2020), Seoul, South Korea.

- Travel award, 7th Seoul International Congress of Endocrinology and Metabolism (SICEM 2019), Seoul, South Korea.
- Travel award, 6th Seoul International Congress of Endocrinology and Metabolism (SICEM 2018), Seoul, South Korea.
- Guest speaker, Department of Science & Technology, Chung ang University, South Korea, 2018.
- Travel awards, DBT-India, for International conference AACB-Sydney, Australia-2015
- Travel awards, National conference by ACBICON-2015 at Chandigarh, India.
- Awarded International Fellowship by Takeda Foundation Japan-2013.
- SRF and JRF of Indian Council of Medical Research, New Delhi.
- Associate Editor of Frontier of Genetics
- Associate Editor of Frontier of Endocrinology
- Certified NABL Auditor
- Member of the American Association for Clinical Chemistry
- Life member of the Association of Clinical Biochemists of India
- Life member of the Association of Reproductive Health Professionals, USA
- Life member of Society for Free Radical Research-India.
- Life member of the Indian Academy of Biomedical Sciences-India.

Examinership:

- Recognized examiner for M.B.B.S., BSc-MLT, M.D. at Rajasthan Health University, Rajasthan.
- Recognized undergraduate examiner for M.B.B.S. at GSVM Medical College, Kanpur,
- Recognized examiner for Ph.D. at King George's Medical University, Lucknow, Uttar Pradesh.
- Recognized examiner for Ph.D. at Pt. Ravishankar Shukla University, Chhattisgarh.
- Recognized examiner for Ph.D. at Indian Institute of Toxicology Research (IITR), Lucknow.
- Recognized examiner for Ph.D. at NIIMS University, Rajasthan
- Recognized examiner for Ph.D. at Amity University Jaipur.

Publications:

1. Tiwari A, Kumari B, Nandagopal S, Mishra A, **Shukla KK**, Kumar A, Dutt N, Ahirwar DK. Promises of Protein Kinase Inhibitors in Recalcitrant Small-Cell Lung Cancer: Recent Scenario and Future Possibilities. *Cancers (Basel)*. 2024;16(5):963. PMID: 38473324 (**IF- 5.2**).
2. Nandagopal S, Choudhary G, Sankanagoudar S, Banerjee M, Elhence P, Jena R, Selvi MK, **Shukla KK**. Expression of stem cell markers as predictors of therapeutic response in metastatic prostate cancer patients. *Urol Oncol*. 2024: S1078-1439(23)00509-4. PMID: 38278632 (**IF-3.49**).
3. Shikha D, Ojha P, **Shukla KK**, Bhagat OL, Dixit A. Autonomic Correlates of Letter Cancellation Task: What the Attention Load May Evoke? *J Atten Disord*. 2023 Jul;27(9):1027-1034. PMID: 37057312 (**IF- 3.68**).
4. Ghuman NK, **Shukla KK**, Nandagopal S, Raikar S, Kumar S, Kathuria P, Choudhary D, Elhence P, Singh P. Explaining the Unexplained: Examining the Predictive Value of Semen Parameters, Sperm DNA Fragmentation and Metal Levels in Unexplained Infertility. *J Hum Reprod Sci*. 2023;16(4):317-323. PMID: 38322633(**IF- 1.98**).

5. **Shukla KK**, Sankanagoudar S, Sharma H, Choudhary GR, Sankanagoudar S, Vishnoi JR Pareek P, Misra S, Pilla KK, Sharma P. Deregulation of miR-10b and miR-21 correlate with cancer stem cells expansion through the apoptotic pathway in prostate cancer. **Asian Pac J Cancer Prev.**2023; 24(6):2105-2119. PMID: 37378942 (**IF- 2.3**).
6. Panwar R, Shekhawat RS, Shukla KK, Rao M, Rathore M, Kanchan T. Quantitative estimation of TNF- α and IL-3 by using ELISA from human lung tissue in fatal asphyxial deaths. *J Forensic Leg Med.* 2023;98:102559. PMID: 37453342 (**IF- 1.7**).
7. Ragavi R, Muthukumaran P, Nandagopal S, Ahirwar DK, Tomo S, Misra S, Guerriero G, **Shukla KK**. Epigenetics regulation of prostate cancer: Biomarker and therapeutic potential. *Urol Oncol.* 2023: S1078-1439(23)00090-X. PMID: 37032230 (**IF-3.49**).
8. Sankanagoudar S, Shukla R, **Shukla K.K**, Sharma P. Positive association of branched-chain amino acids with triglyceride and glycated hemoglobin in Indian patients with type 2 diabetes mellitus. **Diabetes Metab Syndr.** 2022; 16(4):102481. PMID: 35427914 (**IF- 2.3**).
9. Shikha D, Ojha P, **Shukla KK**, Bhagat OL, Dixit A. Autonomic Correlates of Letter Cancellation Task: What the Attention Load May Evoke? **J Atten Disord.** 2023; 27(9):1027-1034. PMID: 37057312 (**IF-3.19**)
10. Abhilasha A, Mitra P, Suri S, Saxena I, Shukla R, **Shukla KK**, Sharma P. Increased expression of serum IL-18 and IL-18R in newly diagnosed type 2 diabetes mellitus. **Minerva Endocrinol (Torino).** 2023; 48(1):35-4. PMID: 33103874 (**IF-3.75**).
11. Abhilasha, Mitra P, Suria S, Saxena I, Shukla R.K.G. **Shukla KK**, Sharma P. Downregulation of interleukin-10 receptor (IL-10R) along with low serum IL-10 levels in newly diagnosed type 2 diabetes mellitus patients. **Gene Reports.** 2021; 24: 101251. (**IF1.5**).
12. Nandagopal S, Misra S, Sankanagoudar S, Banerjee M, Sharma P, Pane SE, Guerriero G, **Shukla KK**. Long Non-Coding RNA in Triple Negative Breast Cancer: A Promising Biomarker in Tumorigenesis. *Asian Pac J Cancer Prev.*2023; 24(1):49-59. PMID: 36708551. (**IF 2.5**).
13. **Shukla KK**, Sankanagoudar S, Sharma H, Choudhary GR, Sankanagoudar S, Vishnoi JR Pareek P, Misra S, Pilla KK, Sharma P. Recent scenario of long non-coding RNAs as a diagnostic and prognostic biomarker of prostate cancer. **Urol Oncol.** 2020; S1078-1439(20)30265-9. PMID: 32622720 (**IF 3.49**).
14. Ali Beg MM, Fahdil SR, Yadav P, **Shukla KK**, Mohan A, Saxena A. Association of EGFR 1 Gene Alteration and their Association with Lung Adenocarcinoma Patients. **Asian Pac J Cancer Prev.** 2019; 20(3):825-830. PMID: 30912007. (**IF2.52**)
15. Kumar A, Sharma P, **Shukla KK**, Misra S, Nyati KK. Japanese encephalitis virus: Associated immune response and recent progress in vaccine development. **Microb Pathog.** 2019; 136:103678. PMID: 31437579. (**IF 3.8**).

16. Gupta G, Dwivedi S, **Shukla KK**, Sharma P. Tissue-Resident Memory Cells: New Marked Shield to Fight Cancers. *Indian J Clin Biochem*. 2018; 33(2):119-120. PMID: 29651201. (IF 2.95).
17. **Shukla KK**, Misra S, Parik P, Mishra V, Singhal B, Sharma P. Recent Scenario of Micro RNA as Diagnostic and Prognostic Biomarkers of Prostate Cancer. *Urol Oncol*. 2017;35(3):92-101, PMID: 27890424. (IF 3.49).
18. **Shukla KK**, Chambial S, Dwivedi S, Misra S, Sharma P. Recent scenario of obesity and male fertility. *Journal of Andrology* 2014; 2(6):809-18. PMID: 25269421. (Impact factor 4.5).
19. **Shukla KK**, Kwon W-S, Rahman MS, Park Y-J, You Y-A, Young AY, Pang MG. Nutlin-3a Decreases Male Fertility via UQCRC2. *PLoS ONE* 2013; 8(10):e76959. PMID: 24130818. (IF 3.7).
20. **Shukla KK**, Agnihotri S, Gupta A, Mahdi AA, Mohamed El-A, Sankhwar SN, Sharma P. Significant Association of TNF α and IL-6 Gene with Male Infertility –an Explorative Study in Indian Populations of Uttar Pradesh. *Immunology Letters* 2013; 156 (1-2):30-7. PMID: 24029665. (Impact factor 4.5).
21. Gupta A, Mahdi AA, **Shukla KK**, Ahmad MK, Bansal N, Sankhwar P, Sankhwar SN. Efficacy of Withania somnifera on seminal plasma metabolites of infertile males: A proton NMR study at 800MHz. *J Ethnopharmacol*. 2013; 149:208-14. PMID: 23796876. (IF 4.36).
22. **Shukla KK**, Mahdi AA, Singh R. Ion Channels in Sperm Physiology, Male Fertility and Infertility. *Journal of Andrology* 2012, DOI:10.2164/jandrol.111.015552. PMID: 22441763. (IF 4.5).
23. **Shukla KK**, Mahdi AA, Singh R. Apoptosis, spermatogenesis and male infertility. *Front Biosci (Elite Ed)*. 2012; 4:746-54. PMID: 22201910. (IF -2.73).
24. **Shukla KK**, Mishra V, Mahdi AA, Shankhwar SN, Singh R, Patel D, Das M. *Withania somnifera* improves semen quality combating oxidative stress, cell death and improving essential metal levels. *Reprod Bio Med Online*. 2011; 22:421-427. PMID: 21388887. (IF 4.6).
25. Gupta A, Mahdi AA, Ahmad MK, **Shukla KK**, Jaiswer SP, Shankhwar SN. A proton NMR study of the effect of Mucuna pruriens on seminal plasma metabolites of infertile males. *J Pharm Biomed Anal*. 2011; 55:1060-66. PMID: 21459537. (IF 3.93).
26. Gupta A, Mahdi AA, Ahmad MK, **Shukla KK**, Jaiswer SP, Shankhwar SN. ¹H NMR spectroscopic studies on human seminal plasma: a probative discriminant function analysis classification model. *J Pharm Biomed Anal*. 2011; 54:106-13. PMID: 20719458. (IF 3.93).
27. **Shukla KK**, Mahdi AA, Ahmad MK, Shankwar SN, Jaiswar SP, Tiwari SC. *Mucuna pruriens* reduces stress and improves the quality of semen in infertile males. *Evi Based Complementary Alternate Med* 2010; 7:137-144. PMID: 18955292. (IF 2.06).

28. **Shukla KK**, Mahdi AA, Ahmad MK, Shankhwar SN, Singh R, Jaiswar SP. *Mucuna pruriens* improves male factor fertility by its action on hypothalamus-pituitary-gonadal axis. ***Fertility and Sterility*** 2009; 6:1934-40. PMID: 18973898. (IF 8.1).
29. Ahmad MK, Mahdi AA, **Shukla KK**, Islam N, Jaiswar SP, Ahmad S. Effect of *Mucuna pruriens* on semen profile and biochemical parameters in seminal plasma of infertile males. ***Fertility and Sterility***. 2008; 90:627-35. PMID: 18001713. (IF 8.1).
30. Mahdi AA, **KK Shukla**, MK Ahmad, SN Shankhwar, SP Jaiswar, R. Chander. *Wethania somnifera* reduces stress and improves the quality of semen in infertile men ***Evidence Based Complementary and Alternative Medicine***, 2011; 2011: 576962. DOI: 10.1093/ecam/nep138 PMID: 19789214. (IF 2.06).
31. Ahmad MK , Mahdi AA, **Shukla KK**, Islam N, Singh R, Madhukar D, Shankwar SN, Ahmad S. Withania somnifera improves semen quality by regulating reproductive hormone levels and oxidative stress in seminal plasma of infertile males. ***Fertility and Sterility***. 2010; 94:989-96. PMID: 19501822. (IF 8.1).
32. Chambial S, **Shukla KK**, Dwivedi S, Bhardwaj P, Sharma P. Blood Lead Level (BLL) in the Adult Population of Jodhpur: A Pilot Study. ***Indian J Clin Biochem***. 2015; 30(3):357-9. PMID: 26089625 (IF-2.95).
33. Singh AK, Tiwari S, Gupta A, **Shukla KK**, Chhabra KG, Pandey A, Pant AB. Association of Resistin with Insulin Resistance and Factors of Metabolic Syndrome in North Indians. ***Indian J Clin Biochem***. 2015; 30(3):255-62. PMID: 26089609 (IF-2.95).
34. Dwivedi S, **Shukla KK**, Gupta G, Sharma P. Non-Invasive Biomarker in Prostate Carcinoma: A Novel Approach. ***Indian J Clin Biochem***. 2013; 28(2):107–109. PMID: 24426194 (IF-2.95).
35. Chambial S, Dwivedi S, **Shukla KK**, John PJ, Sharma P. Vitamin C in Disease Prevention and Cure: An Overview. ***Indian J Clin Biochem*** 2013; 28(4):314-28, PMID: 24426232 (IF-2.95).
36. Sharma P, Chambial S, **Shukla KK**. Lead and neurotoxicity. *Indian J Clin Biochem*. 2015; 30(1):1-2. PMID: 25646035 (IF-2.95).

Published in Journal Proceedings

1. K.K. Shukla, G.R. Choudhary. MicroRNAs expressions promote to the expansion of cancer stem cell generation in prostate cancer. *Clin Chem Lab Med* 2023; 61, Special Suppl, pp S87-S2222.
2. **Shukla K.K.**, Kwon W., Sharma P., Pang M. Effect of nutlin 3a in mice sperm via apoptotic pathway. *Clin Chem Lab Med* 2015; 53, Special Suppl, pp S1-S1450, June 2015.

3. **Shukla KK**, Agnihotri S, Das M, Mahdi AA, Mishra V, Sankhwar SN. Association of TNF α polymorphisms with altered sperm concentration and motility in infertile men of an Indian population. *Contraception* 2012; 86:2-184.
4. **KK Shukla**, A Gupta, EA Mohamed, SN Sankhwar, P Sharma. Significant Association of TNF- α and IL-6 Gene with Male Infertility: An Explorative Study in Indian Populations of Uttar Pradesh. *Cell j (Yakhteh)* 2016; 9 (2.5).
5. **Shukla KK**, Mishra V, Mahdi AA, Ahmed MK, Singh R, Sankhwar SN. *Mucuna Puriens* Reduces DNA Damage and Improve Male Fertility. ***Biol Reproduction*** 2009; 81; 470.
6. **Shukla KK**, Mahdi AA, Sankhwar SN, Ahmad MK. Effect of *Mucuna pruriens* on hormonal status and semen in infertile males. *International Journal of Contraception*.2008; 78:194.
7. **Shukla KK**, Dwivedi S, Gupta G, Sharma P. Aneuploidy and its consequences in male infertility. *APFCB News* 2012 04/2013.

Edited Books:

1. **K.K Shukla**, P Sharma and S Misra. *Molecular Diagnostics in Cancer Patients*. Springer Nature 2019, (ISBN 978-981-13-5876-0). DOI: 10.1007/978-981-13-5877-7.
2. **K.K Shukla**, A.A Mahdi and S.N. Sankhwar. *Treatment of Male Infertility By Herbal Remedies*. LAP Lambert Academic Publishing, Germany. 2011. ISBN 978-3-8454-0265-9, Paperback, 160 Seiten.

Book Chapters:

1. Verma SS, Rai V, **Shukla KK**, Gupta SC. Regulation of non-coding RNAs by phytochemicals for cancer therapy. *Nutritional Epigenomics*. Bradley S. Ferguson et al (Editor), 1st edition, Elsevier. 2019; 14: 371-380.
2. **Shukla KK**, Sankanagoudar S, Singhal SB, Pareek P, Ram J, Misra S, Sharma S. Recent advances in molecular diagnostic approaches for cancer. Springer; 1st ed. 2019 edition ISBN-978-981-13-5876-0. DOI-10.1007/978-981-13-5877-7.
3. **Shukla KK**, Sankhwar SN. *Mucuna Pruriens* and *Withania somnifera* Improve Fertility in Male's via- Long-Term. *Biomedical Sciences and Herbal Medicines*. Abbas Ali Mahdi, Discovery Publishing House Pvt. Ltd., New Delhi (India) 2018;190-207.
4. **Singhal SB**, Misra R, Shukla KK. *Molecular Diagnostics in Renal Cancer*. Springer; 1st ed. 2019 edition, ISBN-10: 9811358761.

Symposia Speaker:

1. Indian Academy of Biomedical Sciences' 10th Annual International Conference titled "MicroRNA expression promotes prostate cancer stem expansion," scheduled for 7th-8th 2022 at Era University in Lucknow.
2. National Academy of Medical Sciences 62nd Annual Conference titled "Dysregulation of miR-141 and miR-145 contributes to the expansion of prostate

cancer stem cell generation” scheduled for 11th–13th November 2022, at SMS Medical College in Jaipur.

3. Association of Clinical Biochemists of India 48th Annual Conference titled “Dysregulation of microRNA expression promotes prostate cancer stem cells expansion by targeting genes of the apoptotic pathway”, scheduled to be held from 23rd to 26th November 2022 at ICAR Convention Centre, New Delhi.
4. Indian Academy of Biomedical Sciences' 101h Annual International Conference titled “MicroRNA 10b and miR-21 enhance prostate cancer stem cell expansion through the apoptotic pathway” scheduled to be held from 3rd to 5th March 2023 at NIMHANS Convention Centre, Bengaluru, India.
5. Impact of microRNA expression and characterization of cancer stem cell in prostate cancer at Indian Academy of Biomedical Sciences (IABSCON 2020) from 27th to 29th Feb 2020, D.Y.Patil Medical College, Kolhapur, Maharashtra.
6. Effect of nutlin3 a in mice sperm via mitochondrial pathway at Central Zone Conference of Association of Clinical Biochemists of India 21st - 22nd July 2018, KGMU, Lucknow.
7. Recent Trends in Biomedical Research: Advances and Challenges” under the aegis of Indian Academy of Biomedical Sciences (IABS). 2nd to 3rd February 2019, KGMU, Lucknow.

Presented in Conferences:

1. **Shukla KK**, Misra S, Sharma P. MicroRNAs stimulate prostate cancer stem cell expansion by targeting genes of the apoptotic pathway, IFCC WorldLab Seoul Congress, June 26-30, 2022.
2. **Shukla KK**, Sharma P. Apoptotic gene expression of infertile males via male hormone pathway on 6th Seoul International Congress of Endocrinology and Metabolism (SICEM 2018) from 19th -22th April 2018. Seoul, South Korea.
3. **Shukla KK**, Sharma P. Impact of mitochondrial gene expression through hypothalamus-pituitary-gonadal axis in infertile males on 7th Seoul International Congress of Endocrinology and Metabolism (SICEM 2019) from 18th -21th April 2019. Seoul, South Korea.
4. **Shukla KK**, Mahdi AA, Sharma P, Sankhwar SN. Gene expression of mitochondrial pathway in male fertility. "42nd Annual Conference of Association of Clinical Biochemists of India (ACBICON 2015) 25th - 28th November 2015 at PGIMER, Chandigarh, India
5. **Shukla KK**, Sharma P, Shankhwar SN and Mahdi AA. Impact of IL-6 Gene on Male Infertility -Study on an Indian Population. AACB 53rd Annual Scientific Conference. 15-17 September 2015, ANZ Stadium, Sydney NSW.
6. **Shukla KK**, Kwon W, Sharma P, Pang M. Effect of nutlin 3a in mice sperm via apoptotic pathway, EuroMedLab Paris 2015-Paris, 21-25 June 2015.
7. YJ Park, WS Kwon, SJ Yoon, KH Jeong, **KK Shukla**, AM El-sayed. Prediction of Bull Fertility by Capacitation Status. The 11th International Symposium on Developmental Biotechnology, 2011; 101-101.

8. WS Kwon, YJ Park, SJ Yoon, **KK Shukla**, ESA Mohamed, MG Pang. Impact of Voltage-Dependent Anion Channel on Sperm Function. The 11th International Symposium on Developmental Biotechnology, 2011; 99-99.
9. **KK Shukla**, AA Mahdi, MK Ahmad, Mishra V, Singh R and SN Sankhwar. Withania somnifera reduces DNA damage and improve male fertility, *Asparagus adscendens reduces apoptosis and DNA damage in sperm cells of infertile men*, UNICON 2011, 21-23 January, Calcutta, India.
10. **KK Shukla**, AA Mahdi, MK Ahmad, Mishra V, Singh R and SN Sankhwar Withania somnifera reduces DNA damage and improve male fertility. Natural Products, Antioxidant and Radioprotectors; International conference on advances in Free Radicals Research: March 2009; 19th -21th, P-181, Lucknow, India.
11. **KK Shukla**, MK Ahmad, S Ahmad, SP Jaiswar, SN Shankhwar and AA Mahdi. Effect of Mucuna pruriens on seminal plasma antioxidant property of infertile males. International Conference on “Emerging Trends in Free Radical and Antioxidant Research and VIth Annual Conference of the Society for Free Radical Research in India (SFRR), Lonavala, Bombay 8th-11th January 2007, P- 90, 186.
12. Mahdi, K.K. Shukla, M.K. Ahmad, S.N. Sankhwar, S.P. Jaiswar, S. C. Tewari and S. Ahmad “M.L. Role of Mucuna pruriens in reducing stress and improving the quality of Semen in infertile men” Annual Conference of the Society of Andrology India. 15th to 16th December, 2007, P-3-4.
13. **Shukla KK**, Ahmad MK, Chander R, Jaiswar SP, Banerjee S, Ahmad S and Mahdi AA, Stress associated biochemical changes in seminal plasma of infertile males. V Annual Conference of the Society for free radical Research in India (SFRR), 16th -18th Jan-2006.
14. **Shukla KK**, Mahdi AA, Joseph R. Serum globulin in geriatric patients, with CRF and ESRD Journal of Immunology and Immunopathology, the annual conference of the Society for Immunology and Immunopathology, 14th -15th Dec-2001.

Research Grants:

As PI:

1. To assess the impact of endocrine disrupting chemical (EDC) exposure on DNA methylation in infertile males: A multicentric study in India (54.5 lac, DHR-2023-2026). (**Extramural**).
1. To investigate the efficacy of anticancer drugs with herbal combination in a rat model of prostate cancer. (5 lac, 2022 **Intramural**).

As Co-Investigator

1. Clinical effectiveness and patient-related outcomes of “Treat to target” strategy in patients of Rheumatoid arthritis patients at AIIMS Jodhpur: A prospective interventional study. (2020-21) Funded by AIIMS, Jodhpur (**Intramural**).

2. Study of LDL receptor expression in Aluminum-exposed adult rats, (2022) Funded by AIIMS, Jodhpur (**Intramural**).
3. Assessment of urinary carcinogens level and urine cytology among industry and non-industry workers in Jodhpur. Funded by All India Institute of medical sciences, Jodhpur. Funded by Indian Council of Medical Research, New Delhi (ICMR- 2020-5410). (**Extramural**).



(Dr Kamla Kant Shukla)