

CSIR-CIMAP Employee Details for Website

Kindly fill in required details for employee profile on website.

1. **Name:** SUAIB LUQMAN
2. **Employee ID:** 548
3. **Designation:** Senior Principal Scientist
4. **Latest Photograph (for display)**



5. **Official Address:** CSIR-Central Institute of Medicinal and Aromatic Plants, Lucknow-226015, Uttar Pradesh, India
6. **Email Id (official & personal):** s.lugman@cimap.res.in
suaibluqman@yahoo.com
7. **Institute Contact Number (Epabx No.) & Mobile Number** 0522-2718635
8. **Divisional Unit Name:** Bioprospection & Product Development Division
9. **Area of Specialization (maximum 500 words)**

The laboratory has been working in the area of biology-driven natural product drug discovery and characterization, with core prominence in the field of cancer chemoprevention and therapy. Our group has carried out experimental and computational approaches to investigate the effect of phytochemicals on the microenvironment of cancer cells and infectious agents.

10. Qualifications (Please provide Degree, University, Stream and Year)

Degree	University	Year	Subjects	Awards / Fellowship
B.Sc.	University of Allahabad	1995	Botany, Chemistry, Zoology	Dudgeon Memorial Medal
M.Sc.	University of Allahabad	1997	Biochemistry	Chancellor's Medal and Pratibha Samman Award
Ph. D.	University of Allahabad	2003	Science (Biochemistry)	Young Researcher and Young Investigator Award
IUSSTF Research Fellow	University of Hawaii, Hilo, USA	2008-2009	Cancer Chemoprevention	Indo-US Science & Technology Forum Fellowship
DHR Research Fellow	King's College London, UK	2016-2017	TRPM Channels	Department of Health Research-Long Term Fellowship

11. Academic/Research Experience(provide bullet wise details)

- Unveiling the role of phytochemicals in retarding the growth of cancer cells using *in vitro* cell and molecular targets-based assay as well as *in vivo* model.
- How do phytochemicals modulate the cellular and molecular events within cancer cells and the pathways that drive them?
- Understanding the effect of phytochemicals on initiation, promotion and progression stages of carcinogenesis by targeting biomarkers / enzymes.
- Underpinning the role of phytochemicals in mitigating the oxidative stress and protects the cells from secondary complications.
- Deducing the potential of essential oils and phytochemicals as anti-infectives.

12. Honours & Awards(provide bullet wise details)

- 2023 Featured in the List of Top 2% Most Influential Scientists in Stanford University List: Analysis of Indian Researchers.
- 2022 CSIR-CIMAP Annual Day Award for Outstanding Research Publication from the Institute in the Year 2021 for our research paper entitled 'Neomenthol prevents the proliferation of skin cancer cells by restraining tubulin polymerization and hyaluronidase activity' published in Journal of Advanced Research 34: 93-107. Team Members were Fatima K, Masood N, Wani ZA, Meena A, **Luqman S***.
- CSIR-CIMAP Annual Day Award for Outstanding Research Publication from the Institute in the Year 2020 for our research paper entitled 'Cirsilineol inhibits proliferation of lung squamous cell carcinoma by inducing ROS-mediated apoptosis' published in Food and Chemical Toxicology 143: 111550. Team Members were Pathak G, Singh S, Kumari P, Hussain Y, Raza W, **Luqman S**, Meena A.

CSIR-CIMAP Annual Day Award for Outstanding Research Publication from the Institute in the Year 2020 for our research paper entitled 'Antiproliferative activity of diarylnaphthyl pyrrolidine derivative via dual target inhibition' published in European Journal of Medicinal Chemistry 188: 111986. Team Members were Verma AK, Fatima K, Dudi, RK, Tabssum M, Iqbal H, Kumar Y, **Luqman S**, Mondhe DM, Chanda D, Khan F, Shanker K, Negi AS.

- 2021 Featured in the List of World's Top 2% Scientists database 2021 released by Elsevier BV based on a study conducted by Stanford University, USA.
- 2020 Highly Cited Researcher in updated science-wide author databases of standardized citation indicators published on October 16, 2020 (PLOS Biology).
- 2019 CSIR-CIMAP Annual Day Award for Outstanding Research Publication from the Institute in the Year 2018 for our research paper entitled 'Rutin protects t-butyl hydroperoxide-induced oxidative impairment via modulating the Nrf2 and iNOS activity' published in Phytomedicine 55: 92-104. Team Members were Singh S, Singh DK, Meena A, Dubey V, Masood N, **Luqman S***.
- 2019 CSIR-CIMAP Annual Day Award for Outstanding Research Publication from the Institute in the Year 2018 for our research paper entitled 'Antiproliferative efficacy of curcumin mimics through microtubule destabilization' published in European Journal of Medicinal Chemistry 151: 51-61. Team Members were Khwaja S, Fatima K, Hassanain, Behera C, Kour A, Singh A, **Luqman S**, Sarkar J, Chanda D, Shanker K, Gupta AK, Mondhe DM, Negi AS.
- 2017 12th Dr. P D Sethi Annual Awards for Best Paper in Pharma Analysis-2016 to our work on validated method for quality assessment of henna (*Lawsonia inermis* L.) leaves after postharvest blanching and its cosmetic application published in Industrial Crops and Products 2017; 95: 33-42 by Jyotshna, Gaur P, Singh DK, **Luqman S**, Shanker K.
- 2016 ICMR Prize for Biomedical Research for commendable contribution on Plant based natural products as anticancer agents.
- 2016 Mrs. Farha Deeba Haq Award for a Young Scientist for outstanding contributions in the field of Cancer Research from Indian Academy of Biomedical Research.
- 2015 Best Oral Presentation Award for our research paper 'S-(-)-Limonene derange the microtubule dynamics by augmenting the superoxide dismutase activity and impeding the polyamine biosynthesis in mad2 delete cells of *Schizosaccharomyces pombe*' presented at Global Cancer Summit, JN Tata Auditorium, Indian Institute of Sciences (IISc), Bangalore. Authors include **Luqman S***, Masood N, Khan S, Ahmed S.
- 2015 CSIR-CIMAP Annual Day Award for Outstanding Research Publication from the Institute in the Year 2014 for our research paper entitled 'Development of Cellulosic Polymer Based Gel of Novel Ternary Mixture of Miconazole Nitrate for Buccal Delivery' published in Carbohydrate Polymers 103: 126-133. Team Members were Rai VK, Yadav NP, Sinha P, Misra N, **Luqman S**, Dwivedi HN, Kyomonil KM, Saraf S.

- 2014 Best Presentation Award Certificate for our research paper entitled 'Structural specificity of genin flavonoids suppresses the commotion of aromatase and cathepsin D, pivotal targets for breast cancer' presented in Session No. 69 on "Natural Products in Cancer Drug Development" at the 9th International Conference of Anticancer Research on Thursday October 09, 2014, Sithonia, Greece.
- 2014 CSIR-CIMAP Annual Day Award for Outstanding Publication from the Institute in the Year 2013 for our research paper entitled 'Synthesis of combretastatin A4 analogues on steroidal framework and their anti-breast cancer activity' published in The Journal of Steroid Biochemistry and Molecular Biology 137: 332-344. Team Members were Parihar S, Kumar A, Chaturvedi AK, Sachan NK, **Luqman S**, Changkija B, Manohar M, Prakash O, Chanda D, Khan F, Chanotiya CS, Shanker K, Dwivedi A, Konwar R, Negi AS.
- 2013 Felicitated by IUSSTF & SERB-DST, Government of India for successfully completing research work under the Indo-US Research Fellowship Program 2008 at First Indo-US Research Fellows Conclave.
- 2012 Dr. P D Sethi Annual Awards-2012 Best Research Paper: Certificate of Merit Awarded to The Research Paper 'Validated high performance thin layer chromatographic method for simultaneous quantification of major iridoids in *Vitex trifolia* and their antioxidant studies published in Journal of Pharmaceutical and Biomedical Analysis 61 (2012): 207-214 by Neerja Tiwari, Suaib Luqman, Nusrat Masood, Madan M. Gupta.
- 2012 SERB-DST Fast Track Young Scientist Award to carry out research work on 'Target based evaluation of natural products from medicinal and aromatic plants and their related analogues as anticancer agent' Project sanctioned for three years.
- 2011 Award of New Frontiers in Vetiver conferred by The Board of The Vetiver Network International (TVNI) in recognition of pioneering work on potentially new area of use for vetiver that shows promise for breaking new grounds.
- 2010 Scientia Pharmaceutica Citation Award for the most cited paper of the year 2009 by The Austrian Pharmaceutical Society (Österreichische Pharmazeutische Gesellschaft, ÖPhG) and the Austrian Chamber of Pharmacists (Österreichische Apothekerkammer, ÖAK).
- 2009 Young Scientist Award from Association of Microbiologists of India (AMI).
- 2009 Award from Innocentive Inc. USA for solving theoretical challenge on cooling compounds, efficient chromosome doubling: plant cell division, plant mitotic arrest agents and protocol.
- 2008 Young Scientist Award from Council of Science and Technology, Government of Uttar Pradesh for the Year 2005-2006.
- 2003 Young Investigator Award from World Association of Societies of Pathology and Laboratory Medicine (WASPaLM), South Korea.

- 2002 Department of Science and Technology, Government of India Young Researcher Award for participation in 52nd Nobel Laureate Meeting at Lindau (Germany) awarded by DST, Government of India.
- 2000 Awarded Chancellor's Silver Medal for being the:
Best and Outstanding student of the University in the year 1997.
Best and Outstanding student of the Faculty of Science in 05 years (1994-1998).
- 1999 Awarded Pratibha Samman from Akhil Bhartiya Vidhyarthi Parishad for securing 65.2% in M.Sc (Biochemistry).
- 1995 Awarded Dudgeon Memorial Medal for securing highest marks in Botany (B.Sc.).

13. Research Publications (provide bullet wise details)

- Hussain Y, Singh J, Meena A, Sinha RA, **Luqman S**. 2023. Escin enhanced the efficacy of sorafenib by autophagy-mediated apoptosis in lung cancer cells. *Phytotherapy Research* (Online Published).
- Singh S, Maurya AK, Meena A, Mishra N, **Luqman S***. 2023. Myricitrin from bayberry as a potential inhibitor of cathepsin-D: Prospects for squamous lung carcinoma prevention. *Food and Chemical Toxicology* 179: 113988.
- Singh S, Maurya AK, Meena A, Mishra N, Luqman S*. 2023. Narirutin downregulates lipoxygenase-5 expression and induces G0/G1 arrest in triple-negative breast carcinoma cells. *Biochimica et Biophysica Acta* 1867 (6): 130340.
- Singh J, Hussain Y, Meena A, **Luqman S**, Sinha RA. 2023. Molecular regulation of autophagy and suppression of protein kinases by aescin, a triterpenoid saponin impedes lung cancer cell proliferation and mobility. *International Journal of Biological Macromolecules* 252: 126328.
- Singh J, **Luqman S**, Meena A. 2023. New frontiers in the design and discovery of therapeutics that target calcium ion signalling: a novel approach in the fight against cancer. *Expert Opinion on Drug Discovery* 1-14 (Online Published).
- Singh S, Maurya AK, Meena A, Mishra N, **Luqman S***. 2023. Narirutin, a flavonoid found in citrus fruits modulates cell cycle phases and inhibits the proliferation of hormone-refractory prostate cancer cells by targeting hyaluronidase. *Food and Chemical Toxicology* 174: 113638.
- Alam S, Verma S, Fatima K, **Luqman S**, Srivastava SK, Khan F. 2023. Pharmacophore & QSAR guided design, synthesis, pharmacokinetics, and *in vitro* evaluation of curcumin analogs for anticancer activity. *Current Medicinal Chemistry* 30 (Online Published).
- Singh J, **Luqman S**, Meena A. 2023. Carvacrol as a prospective regulator of cancer targets / signalling pathways. *Current Molecular Pharmacology* 16 (5): 542-558.
- Sahoo D, Singh VK, Agrahari K, Kumari KMU, **Luqman S**, Savita A, Gupta H, Rout PK, Yadav NP. 2023. Development of QbD-based mupirocin- β -cyclodextrin complex loaded thermosensitive *in situ* gel for wound healing in mice. *Journal of Drug Delivery Science and Technology* 86: 104585.
- Raza W, Meena A, **Luqman S**. 2023. 3,5,7-trihydroxyflavone restricts the proliferation of androgen-independent human prostate adenocarcinoma cells by inducing ROS-mediated apoptosis and reduces tumour formation in mice. *Journal of Biochemical and Molecular Toxicology* e23474 (Online Published).

- Singh A, Mishra N, Meena A, Luqman S. 2023. Exploration of selected monoterpenes as potential TRPC channel family modulator in lung cancer, an *in silico* upshot. *Journal of Biomolecular Structure and Dynamics* 1-17 (Online Published).
- Kumari KMU, Chanotiya CS, Yadav NP, Tandon S, **Luqman S***. 2023. Essential oil of *Lippia alba* impedes the growth of *Propionibacterium acnes* by modulating membrane potential and ROS level. *Journal of Herbal Medicine* 41: 100733.
- Fatima K, **Luqman S***, Meena A. 2022. Carvacrol arrests the proliferation of hypopharyngeal carcinoma cells by suppressing ornithine decarboxylase and hyaluronidase activities. *Frontiers in Nutrition* 9: 857256.
- Singh S, Srivastava PN, Meena A, **Luqman S***. 2022. Dietary flavonoid narirutin as a prospective antagonist of oncogenic pri/pre-microRNAs. *Phytotherapy Research* 36 (2): 963-983.
- Mahendran G, Verma N, Singh S, Parveen S, Singh M, **Luqman S**, Shanker K, Rahman L. 2022. Isolation and characterization of a novel xanthone from the hairy root cultures of *Swertia chirayita* (Roxb.) H. Karst. and its biological activity. *Industrial Crops and Products* 176: 114369.
- Morad H, **Luqman S**, Pinto L, Cunningham KP, Vilar B, Clayton G, Shankar-Hari M, McNaughton PA. 2022. Artemisinin inhibits innate immune cell chemotaxis, cytokine production and NET release. *Scientific Reports* 12 (1): 11078.
- Singh J, **Luqman S**, Meena A. 2022. Carvacrol as a prospective regulator of cancer targets / signalling pathways. *Current Molecular Pharmacology* (Online Published).
- Iqbal H, Yadav P, Verma AK, Mishra D, Vamadevan B, Singh D, **Luqman S**, Negi AS, Chanda D. 2022. Anti-inflammatory, anti-oxidant and cardio-protective properties of novel fluorophenyl benzimidazole in L-NAME-induced hypertensive rats. *European Journal of Pharmacology* 929: 175132.
- Kumari KMU, Yadav NP, **Luqman S***. 2022. Promising essential oils/plant extracts in the prevention and treatment of dandruff pathogenesis. *Current Topics in Medicinal Chemistry* (Online Published).
- Kaushal T, Khan S, Fatima K, **Luqman S**, Khan F, Negi AS. 2022. Synthesis, molecular docking, and 2D-QSAR modeling of quinoxaline derivatives as potent anticancer agents against triple-negative breast cancer. *Current Topics in Medicinal Chemistry* (Online Published).
- Gupta M, Verma SK, Singh S, Trivedi L, Rout PK, Vasudev PG, **Luqman S**, Darokar MP, Bhakuni RS, Misra LN. 2022. Antiproliferative and antibacterial activity of oleo-gum-resin of *Boswellia serrata* extract and its isolated 3-hydroxy-11-keto- β -boswellic acid. *Journal of Herbal Medicine* 32: 100546.
- Roy S, Khan S, Jairajpuri DS, Hussain A, AlAjmi MF, Mustafa GH, **Luqman S**, Parvez S, Hassan MI. 2022. Investigation of sphingosine kinase 1 inhibitory potential of cinchonine and colcemid targeting anticancer therapy. *Journal of Biomolecular Structure and Dynamics* 40 (14): 6350-6362.
- Fatima K, Masood N, Wani ZA, Meena A, **Luqman S***. 2021. Neomenthol prevents the proliferation of skin cancer cells by restraining tubulin polymerization and hyaluronidase activity. *Journal of Advanced Research* 34: 93-107.
- Singh S, Meena A, **Luqman S***. 2021. Baicalin mediated regulation of key signaling pathways in cancer. *Pharmacological Research* 164: 105387.
- Singh S, Raza W, Parveen S, Meena A, **Luqman S***. 2021. Flavonoid display ability to target microRNAs in cancer pathogenesis. *Biochemical Pharmacology* 8: 114409.
- Morad H, **Luqman S**, Tan CH, Swann V, McNaughton P. 2021. TRPM2 ion channels steer neutrophils towards a source of hydrogen peroxide. *Scientific Reports* 11: 9339.

- Fatima K, Wani ZA, Meena A, **Luqman S***. 2021. Geraniol exerts its antiproliferative action by modulating molecular targets in lung and skin carcinoma cells. *Phytotherapy Research* 35 (7): 3861-3874.
- Singh J, Hussain Y, **Luqman S***, Meena A. 2021. Purpurin: A natural anthraquinone with multifaceted pharmacological activities. *Phytotherapy Research* 35 (5): 2418-2428.
- Siddiqui S, Zia Q, Abbas M, Verma S, Jafri A, Misra D, **Luqman S**, Ahamed M, Ahmad MS, Arshad M. 2021. Antiproliferative activity of *Cissus quadrangularis* L. extract against human cervical cancer cells: *in vitro* and *in silico* analysis. *Anti-Cancer Agents in Medicinal Chemistry* 21 (18): 2536-2545.
- Singh S, **Luqman S***, Meena A. 2021. Acacetin and pinostrobin as a promising inhibitor of cancer-associated protein kinases. *Food and Chemical Toxicology* 151: 112091.
- Fatima K, **Luqman S***. 2021. Suppression of molecular targets and antiproliferative effect of citronellal on triple-negative breast cancer cells. *Current Molecular Pharmacology* 14 (6): 1156-1166.
- Seth R, Kushwaha S, **Luqman S**, Meena A. 2021. Flavonoids as prospective aromatase inhibitors in breast cancer prevention/therapy. *Current Molecular Pharmacology* 14 (6): 1112-1124.
- Fatima K, **Luqman S***. 2021. Citronellal, an acyclic monoterpene suppresses the activity of ornithine decarboxylase in hypopharyngeal carcinoma cells. *South African Journal of Botany* 143: 443-448.
- Agarwal K, Gupta K, Sharma K, Khanka S, Singh S, Singh J, Trivedi L, Vasdev PG, **Luqman S**, Khan F, Singh D, Gupta A. 2021. Synthesis and biological evaluation of substituted amide derivatives of C4-ageratochromene dimer analog. *Bioorganic & Medicinal Chemistry Letters* 50: 128340.
- Khwaja S, Fatima K, Mishra D, Babu V, Kumar Y, Malik SB, Tabassum M, **Luqman S**, Bawankule DU, Chanda D, Khan F, Mondhe D, Negi AS. 2021. An improved synthesis of indanocine and antiproliferative activity of 2-benzyl-indanocine *via* microtubule destabilization. *Chemical Biology and Drug Design* 98 (1): 127-143.
- Ghosh D, Chaudhary N, Kumari UKM, Singh J, Tripathi P, Meena A, **Luqman S**, Yadav A, Chanotiya CS, Pandey G, Kumar N. 2021. Diversity of essential oil-secretory cells and oil composition in flowers and buds of *Magnolia sirindhorniae* and its biological activities. *Chemistry & Biodiversity* 18: e2000750.
- Devender P, Kumar AN, Satyasrinivas KVN, Kumar JK, Singh S, Meena A, Misra P, **Luqman S**. 2021. Synthesis of non-toxic anticancer active forskolin-indole-triazole conjugates along with their *in-silico* succinate dehydrogenase inhibition studies. *Journal of Heterocyclic Chemistry* 58 (11): 2990-2101.
- Gupta A, Singh V, Prasad P, Kumar M, Srivastava A, Singh V, **Luqman S**, Kumar B. 2021. Influence of potassium and sodium chloride on germination behavior, biochemical changes and enzyme activity in two varieties of *Ocimum tenuiflorum* L. *Journal of Essential Oil Bearing Plants* 24 (1): 110-119.
- Bhukya B, Kaushal T, Kumar D, Singh D, Parveen S, Khan S, **Luqman S**, Konwar R, Chanda D, Khan F, Kumar S, Meena A, Negi AS. 2021. Antiproliferative activity of diarylnaphthofurans through microtubule destabilization. *Indian Journal of Heterocyclic Chemistry* 31 (03): 443-455.
- Raza W, **Luqman S***, Meena A. 2020. Prospects of tangeretin as a modulator of cancer targets/pathways. *Pharmacological Research* 14: 105202.

- Singh S, Gupta P, Meena A, **Luqman S***. 2020. Acacetin, a flavone with diverse therapeutic potential in cancer, inflammation, infections and other metabolic disorders. *Food and Chemical Toxicology* 145: 111708.
- Roy S, Mohammad T, Gupta P, Dahiya R, Parveen S, **Luqman S**, Hasan GM, Hassan MI. 2020. Discovery of Harmaline as a Potent Inhibitor of Sphingosine Kinase-1: A Chemopreventive Role in Lung Cancer. *ACS Omega* 5 (34): 21550-21560.
- Singh J, **Luqman S**, Meena A. 2020. Emerging role of phytochemicals in targeting predictive, prognostic, and diagnostic biomarkers of lung cancer. *Food and Chemical Toxicology* 144: 111592.
- Verma AK, Fatima K, Dudi, RK, Tabssum M, Iqbal H, Kumar Y, **Luqman S**, Mondhe DM, Chanda D, Khan F, Shanker K, Negi AS. 2020. Antiproliferative activity of diarylnaphthylpyrrolidine derivative via dual target inhibition. *European Journal of Medicinal Chemistry* 188: 111986.
- Masood N, Dubey V, **Luqman S***. 2020. Activation of caspase-3 by terpenoids and flavonoids in different types of cancer cells. *Current Topics in Medicinal Chemistry* 20: 1876-1887.
- Srivastava A, Fatima K, Fatima E, Singh A, Singh A, Shukla A, **Luqman S**, Shanker K, Chanda D, Khan F, Negi AS. 2020. Fluorinated benzylidene indanone exhibits antiproliferative activity through modulation of microtubule dynamics and antiangiogenic activity. *European Journal of Pharmaceutical Sciences* 154: 105513.
- Pathak G, Singh S, Kumari P, Hussain Y, Raza W, **Luqman S**, Meena A. 2020. Cirsilineol inhibits proliferation of lung squamous cell carcinoma by inducing ROS-mediated apoptosis. *Food and Chemical Toxicology* 143: 111550.
- Biswas T, Mathur A, Gupta V, **Luqman S**, Mathur AK. 2020. Elicitation and phenylalanine precursor feeding based modulation of *in vitro* anthocyanin production, enzyme activity and gene expression in an Indian ginseng congener- *Panax sikkimensis* Ban. *Industrial Crops and Products* 145: 111986.
- Anwar S, Mohammad T, Shamsi A, Queen A, Parveen S, **Luqman S**, Hasan GM, Alamry KA, Azum N, Asiri AM, Hassan MI. 2020. Discovery of Hordenine as a Potential Inhibitor of Pyruvate Dehydrogenase Kinase 3: Implication in Lung Cancer Therapy. *Biomedicines* 8 (5):119.
- Hussain Y, **Luqman S**, Meena A. 2020. Research Progress in Flavonoids as Potential Anticancer Drug Including Synergy with Other Approaches. *Current Topics in Medicinal Chemistry* 20: 1791-1809.
- Ahamad MI, Prakash R, John AA, Wani ZA, Yadav D, Bawankule DU, **Luqman S**, Khan F, Singh D, Gupta A. 2020. Induced osteoblast differentiation by amide derivatives of stilbene: the possible osteogenic agents, *Bioorganic & Medicinal Chemistry Letters* 30 (11): 127138.
- Bhukya B, Fatima K, Nagar A, Lakshmi V, Dubey P, Kumar S, Kumar Y, **Luqman S**, Chanda D, Tandon S, Shanker K, Khan F, Negi AS. 2020. Brevifoliol ester induces apoptosis in prostate cancer cells by activation of caspase pathway. *Chemical Biology & Drug Design* 95 (1): 150-161.
- Mishra S, Singh S, Ali A, Gupta AC, Shanker K, Bawankule DU, **Luqman S**. 2020. Microwave-assisted single step cinnamic acid derivatization to mimic vanillin isomer and their cytotoxic potential. *Current Pharmaceutical Biotechnology* 21 (3): 236-243.
- Kapkoti DS, Singh S, Alam S, Khan F, **Luqman S**, Bhakuni RS. 2020. *In vitro* anticancer activity of glabridin derivatives and their *in silico* target identification. *Natural Product Research* 34 (12): 1735-1742.

- Singh S, Kumari P, Hussain Y, **Luqman S**, Meena A, Kanaojia D. 2020. Isothymusin, a potential inhibitor of cancer cell proliferation: An *in silico* and *in vitro* investigation. *Current Topics in Medicinal Chemistry* 20 (21): 1898-1909.
- Shrivash MK, Singh S, Shukla AK, **Luqman S**, Pandey J, Misra K. 2020. Water-mediated procedure for preparation of stereoselective oximes as inhibitors of MRCK kinase, *Journal of Molecular Structure* 1220: 128699.
- Pathak N, Fatima K, Singh S, Mishra D, Gupta AC, Kumar Y, Chanda D, Bawankule DU, Shanker K, Khan F, Gupta A, **Luqman S***, Negi AS. 2019. Bivalent furostene carbamates as antiproliferative and antiinflammatory agents. *The Journal of Steroid Biochemistry and Molecular Biology* 194: 105457.
- Singh S, Singh DK, Meena A, Dubey V, Masood N, **Luqman S***. 2019. Rutin protects t-butyl hydroperoxide-induced oxidative impairment via modulating the Nrf2 and iNOS activity. *Phytomedicine* 55: 92-104.
- Singh J, Hussain Y, **Luqman S**, Meena A. 2019. Targeting Ca²⁺ signalling through phytomolecules to combat cancer. *Pharmacological Research* 146: 104282.
- Naz H, Tarique M, Ahamad S, Alajmi MF, Hussain A, Rahman MT, **Luqman S**, Hassan MI. 2019. Hesperidin-CAMK IV interaction and its impact on cell proliferation and apoptosis in the human hepatic carcinoma and neuroblastomacells. *Journal of Cellular Biochemistry* 120: 15119-15130.
- Kumari P, **Luqman S**, Meena A. 2019. Application of the combinatorial approaches of medicinal and aromatic plants with nanotechnology and its impacts on healthcare. *DARU Journal of Pharmaceutical Sciences* 27 (1): 475-489.
- Srivastava A, Ravi K, Fatima K, Maheshwari M, Ashraf R, Hasanain M, Yadav P, Iqbal H, Kumar Y, **Luqman S**, Chanda D, Khan F, Shanker K, Sarkar J, Negi AS. 2019. 3-Arylindanones and related compounds as antiproliferative agents against colorectal cancer. *Chemical Biology & Drug Design* 94 (3): 1694-1705.
- Srivastava N, Dhiman R, Gupta AC, Singh S, Shanker K, Bawankule DU, **Luqman S**. 2019. Aromatic ginger (*Kaempferia galanga* L) extracts with ameliorative and protective potential as functional food, beyond its flavor and nutritional benefits. *Toxicology Reports* 6: 521-528.
- Shakya VK, **Luqman S**, Tikku AP, Chandra A, Singh DK. 2019. A relative assessment of essential oil of *Chrysopogon zizanioides* and *Matricaria chamomilla* along with calcium hydroxide and chlorhexidine gel against *Enterococcus faecalis* in *ex vivo* root canal models. *Journal of Conservative Dentistry* 22: 34-39.
- Sinha S, Kumar B, **Luqman S**, Singh DK. 2019. Neuroprotective potential of *Cucurbita maxima* Duchesne ex Poir, *Caesalpinia bunduc* (L.) Roxb and *Bombax ceiba* Linn. Extracts. *South African Journal of Botany* 120: 319-325.
- Hamid AA, Aiyelaagbe OO, Negi AS, Kaneez F, **Luqman S**, Oguntoye SO, Kumar SB, Zubair M. 2019. Isolation and antiproliferative activity of triterpenoids and fatty acids from the leaves and stem of *Turraea vogelii* Hook. f. *ex benth*. *Natural Product Research* 33 (2): 296-301.
- Siddique AA, Gupta P, Singh S, Gupta M, Misra LN, Darokar MP, **Luqman S**, Yadav A, Bhakuni RS. 2019. Antioxidant, antimicrobial activities and comparative analysis of the composition of essential oils of leaf, stem, flower and aerial part of *Nepeta hindostana*. *Plant Biosystems - An International Journal Dealing with all Aspects of Plant Biology* 153 (2): 242-249.
- Masood N, Yadav AK, Kumar N, Gupta MM, **Luqman S***. 2018. DFT based quantum rationalization of flavones from *Oroxylum indicum*, their correlation with redox effect, molecular interaction studies, and osmotic hemolysis. *Current Science* 115 (11): 2085-2094.

- Verma N, Singh S, **Luqman S**, Gupta A, Bawankule DU, Tandon S, Nagar A, Kumar Y, Khan F, Raghuvanshi DS. 2018. Design and synthesis of novel oleanolic acid based chromenes as anti-proliferative and anti-inflammatory agents. *New Journal of Chemistry* 42 (20): 16782-16794.
- Singh S, Dubey V, Meena A, Siddiqui L, Maurya AK, **Luqman S***. 2018. Rutin restricts hydrogen peroxide-induced alterations by up-regulating the redox-system: An *in vitro*, *in vivo* and *in silico* study. *European Journal of Pharmacology* 835: 115-125.
- Prasad P, Mehdi J, Mohan R, Goyal N, **Luqman S**, Khare P, Kumar B. 2018. Effect of potassium chloride-induced stress on germination potential of *Artemisia annua* L. varieties. *Journal of Applied Research on Medicinal and Aromatic Plants* 9: 110-116.
- Hamid AA, Aiyelaagbe OO, Negi AS, **Luqman S**, Kaneez F. 2018. Isolation and antiproliferative activity of chemical constituents from *Asystasia buettneri* Lindau. *Natural Product Research* 32 (17): 2076-2080.
- Khwaja S, Fatima K, Hassanain, Behera C, Kour A, Singh A, **Luqman S**, Sarkar J, Chanda D, Shanker K, Gupta AK, Mondhe DM, Negi AS. 2018. Antiproliferative efficacy of curcumin mimics through microtubule destabilization. *European Journal of Medicinal Chemistry* 151: 51-61.
- Kapkoti DS, Singh S, **Luqman S***, Bhakuni RS. 2018. Synthesis of novel 1,2,3-triazole based artemisinin derivatives and their antiproliferative activity. *New Journal of Chemistry* 42 (8): 5978-5995.
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- Negi AS, Prakasham AP, Saxena AK, **Luqman S**, Chanda D, Kaur T, Gupta A. Anticancer and tubulin inhibition activity of benzylidene indanones and process of preparing the same. Indian Patent No. 291668 dated 12.01.2018.
- Negi AS, Prakasham AP, Saxena AK, **Luqman S**, Chanda D, Kaur T, Gupta A. Benzylidene indanones and processes for preparation and use thereof. US 8633242 B2. Application number US 13/623161; Patent date Jan 21, 2014; Filing date Sep 20, 2012; Document Identifier US20130079396A1, 28 March 2013 (Foreign Application Priority Data 2769 DEL 2011, Priority date Sep 22, 2011).

16. Varieties (provide bullet wise details)

17. Technologies/Product developed (provide bullet wise details)

- ARO-Clean, a vapourizer formulation (2021-2022)
- CIMAP RespCool (2020-2021)
- Hand Sanitizer Gel / Liquid (2019-2020)
- MenthoFresh: Herbal Oral Cleanser (2018-2019)
- Tea tree oil based nanogel formulation (2015-2016)
- Anti-acne Cream Formulation (2014-2015)
- Cellulosic polymer based gel (2013-2014)
- Basil oil based antiseptic cream formulation utilizing HLB approach (2012-2013)
- After Shave Gel (2011-2012)
- Improved process technology for *Aloe vera* sap, gel and powder (2007-2008)

18. Technologies transferred (provide bullet wise details)

- Hand Sanitizer Hankool Plus to M/S Prahava India Pvt Ltd, Ghaziabad-201012 on 03.06.2021
- Hand Sanitizer Gel / Liquid to M/s. Vyom India Organics Private Limited, B- 346 Rajendra Nagar, Bareilly-243122 on 26.09.2020
- Hand Sanitizer Gel / Liquid to M/s. Asear Medicare, 68/2B, Wazir Hasan Road, Lucknow-226001 on 15.06.2020
- Hand Sanitizer Gel / Liquid to Sai International Shop No. 11, Shanti Complex, Faizabd Road, Indira Nagar, Lucknow on 26.05.2020
- Hand Sanitizer Gel / Liquid to M/s. Hapi Key 44/1/6, Phase-1, I.D.A., Jeedimetla, Hyderabad-500055 on 19.05.2020
- Hand Sanitizer Gel to M/s. Innovative Concepts Ground floor, C-1215, Rajajipuram, P.O. Rajajipuram, Tah. Lucknow-226017 on 27.04.2020
- Hand Sanitizer Gel to Rako Agrochem Pvt. Ltd. Khasra No. 1261, Goyla Industrial Area, Chihat Deva Raod Lucknow-226019 on 21.04.2020
- Acne Preventive Face Wash to M/s. Nandan Impex Pvt. Limited, B-601, Lotus Corporate Park, Ram Mandir Lane, Jay Coach Junction, Western Express Highway, Goregaon (East), Mumbai-400063 on 13.12.2019
- Acne Face Wash to M/s. Naturoveda Organics Pvt. Ltd. 26, Ram Kamal Sen Lane, Kolkata-700073 on 22.06.2017

19. Research Scholars (provide details)

Present Research Fellows



SHAHNAZ PARVEEN

AcSIR Ph D Scholar, UGC-SRF

M.Sc. Biotechnology, Magadh University, Bodh Gaya, Bihar

The research work elucidates the anticancer mechanism of selected alkaloids on biochemical pathways and expression of genes involved in cell proliferation, metastasis, apoptosis and angiogenesis in cancer cells



NIDHI MAURYA

CSIR-JRF GATE Fellow

M. Pharm (Pharmacology), Dr. Babasaheb Bhimrao Ambedkar University, Lucknow, Uttar Pradesh

Preclinical, *in vitro*, and *in silico* anticancer efficacy of selected phytochemicals



MD. WAQUAR IMAM

AcSIR Ph D Scholar, UGC-JRF

M.Sc. Microbiology from Integral University, Lucknow, Uttar Pradesh

The research work focussed on anti-infective activity of plant-based natural products, its mechanism of action and efficacy against human pathogenic microbes

Past Research Fellows

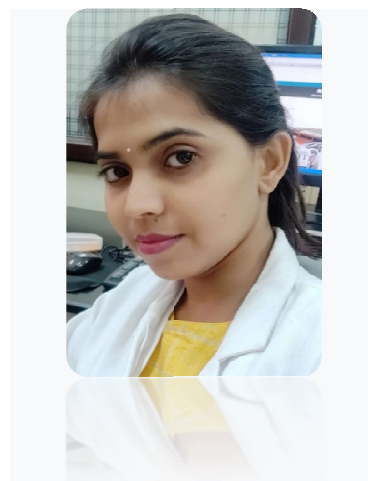


KM UMA KUMARI

JNU Ph D, UGC-SRF

M.Sc. Microbiology, Chhatrapati Sahu Ji Maharaj University, Kanpur, Uttar Pradesh

The research work is focussed on understanding the antimicrobial susceptibility of essential oils against human pathogenic microbes and the mechanism through which the essential oils causes vulnerability.

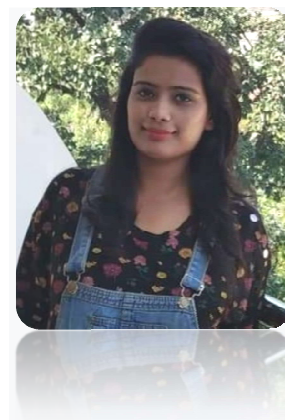


JYOTI SINGH

JNU-Ph D, CSIR-SRF

M.Sc. Biotechnology, Chaudhary Charan Singh University, Meerut, Uttar Pradesh

The goal of the research is to examine the potential of the selected terpenoids against lung cancer through molecular and cell target-based investigations using *in vitro*, *in vivo*, and *in silico* methods. The investigation is focused on the biological mechanisms and molecular pathways that are essential for the growth, metastasis, angiogenesis, and apoptosis of cancer cells.

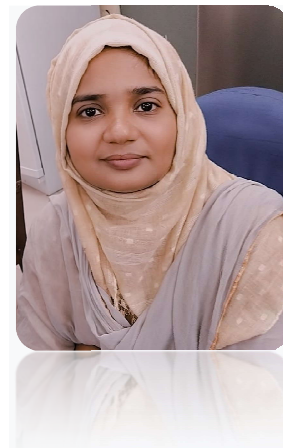


Dr. SHILPI SINGH

AcSIR Ph D, CSIR-SRF

The thesis work explores molecular mechanism of flavonoids for chemoprevention through targeting enzymes and signaling pathways involved in initiation, promotion and progression of cancer cells.

Post Doctoral Fellow at College of Pharmacy, University of Minnesota, Minneapolis, USA.

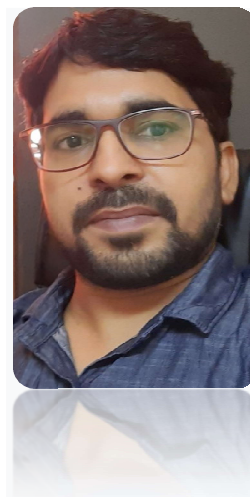


Dr. KANEEZ FATIMA

AcSIR Ph D, CSIR-SRF

The thesis work explores molecular mechanism of terpenoids for cancer chemoprevention utilizing cell free and cell-based test systems.

Post Doctoral Fellow at College of Pharmacy, University of Minnesota, Minneapolis, USA.



Dr. DHANANJAY KUMAR SINGH

JNU-Ph D, CSIR-JRF GATE Fellow

The thesis work involves development of chemical profiling and exploration of pharmacological activity in Henna (*Lawsonia inermis* L.)

Post-Doctoral Associate at University of Minnesota, Minneapolis, USA.

Postdoctoral training at the Department of Medical and Health Sciences, Linköping University, Sweden

Postdoctoral training at Sackler School of Medicine, Tel Aviv University, Israel.

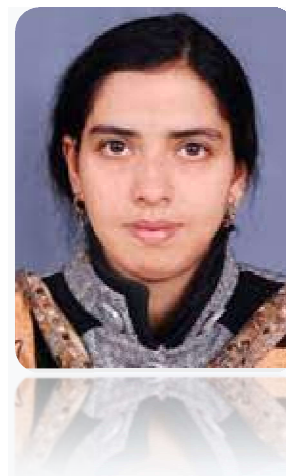
Assistant Professor at Pharmacy Department of Central University of South Bihar, Gaya, India.



Dr. VIJAYA DUBEY

AcSIR Ph D, CSIR-SRF

The thesis work emphasised on determining the cancer chemopreventive properties of natural products, especially flavonoids employing molecular and cell target based assays. The research work generates huge introspection of dietary flavonoids modulating the very fundamental processes of 'life' trying to restructure the homeostasis of the cancer afflicted cellular environment dominating at the developing and advancement of the disease.



Dr. NUSRAT MASOOD

JNU Ph D, CSIR-SRF

The thesis work unveiled the cancer chemopreventive effect of selected terpenoids present in *Nigella sativa*. The research efforts established the semi/high throughput assays specifically for the analysis of natural products (terpenes) on surrogate biomarkers of cancer which have prognostic relevance.

Post-Doctoral (N-PDF) training at CSIR-Central Drug Research Institute, Lucknow.



Dr. SUCHITA SRIVASTAVA

Ph D, CSIR-SRF

The thesis work particularly focused on the evaluation of the bioactivity of plant based molecules and metabolic engineering of yeast for production of natural products to be used as a therapeutic agent (s).

Deputy Assistant Director at Central Research Institute (CRI), Kasauli, Himanchal Pradesh



JOYAL XAVIER

CSIR-JRF GATE Fellow

MS Pharm Pharmacology & Toxicology, NIPER, Hajipur, Bihar

Mechanistic insight of the anti-cancer effects of selected phytochemicals

Ph D Student, Department of Drug Discovery and Development, Harrison College of Pharmacy, Auburn University, USA

20. Any other information you may want to show

Protocol Published (02)

Luqman S*, Fatima K, Masood N. 2016. A High Throughput Spectrophotometric Method for Singlet Oxygen Quenching. *Nature Protocol Exchange* DOI: 10.1038/protex.2016.054 Published Online 26 July 2016.

Luqman S*, Masood N, Srivastava S, Dubey V. 2013. A Modified Spectrophotometric and Methodical Approach to Find Novel Inhibitors of Ornithine Decarboxylase Enzyme: A Path through the Maze. *Nature Protocol Exchange* DOI:10.1038/protex.2013.045 Published Online 22 April 2013.