


<b>Name: Dr. Bhupender Kumar</b>		
<b>Designation: Assistant Professor (Microbiology)</b>		
<b>Email</b>	<a href="mailto:bhupender@ss.du.ac.in">bhupender@ss.du.ac.in</a> , <a href="mailto:bhupender19@gmail.com">bhupender19@gmail.com</a>	
<b>Web-Page / Bio-data</b>	<b>ORCiD ID</b> <a href="https://orcid.org/0000-0003-3887-5040">https://orcid.org/0000-0003-3887-5040</a> <b>Scopus ID</b> <a href="https://www.scopus.com/authid/detail.uri?authorId=57217717656">https://www.scopus.com/authid/detail.uri?authorId=57217717656</a> <b>Google Scholar ID</b> <a href="https://scholar.google.co.in/citations?user=UqyH_KkAAAAJ&amp;hl=en">https://scholar.google.co.in/citations?user=UqyH_KkAAAAJ&amp;hl=en</a> <b>LinkedIn ID</b> <a href="https://www.linkedin.com/in/dr-bhupender-kumar-a608416a/">https://www.linkedin.com/in/dr-bhupender-kumar-a608416a/</a>	<b>Mobile: 9910868127</b>
<b>Academic Qualifications: M.Sc., Ph.D</b>		
<b>Teaching Experience (Year)</b>	10	<b>Research Experience (Year)</b> 15
<b>Area of Research</b>	Biochemistry, Microbiology, Cancer and human genetics with experience in clinical samples handling. Proficient in using molecular biology techniques and genetic data analysis.	
<b>Publications</b>	<div>1. Mohammad Askandar Iqbal, Shumaila Siddiqui, Kirk Smith, Prithvi Singh, <b>Bhupender Kumar</b>, Salem Chouaib and Sriram Chandrasekaran. Pathway-based analysis of breast tumors reveal metabolic subtypes of clinical relevance. 2023 Under revision in <b>iScience (Cell Press)</b>. ISSN <b>2589-0042 Online IF- 5.8</b></div> <div>2. Savita Bansal, Meenakshi Vachher, <b>Bhupender Kumar</b>, and Archana Burman. Visceral fat: A key mediator of NAFLD development and progression. July 2023 <b>Human Nutrition &amp; Metabolism</b>. ISSN <b>2666-1497</b></div> <div>3. Investigating the link between miR-34a-5p and TLR6 signalling in sepsis-induced ARDS. Mohd Junaid Khan, Prithvi Singh, Prakash Jha, Arnab Nayek, Md. Zubair Malik, Ganesh Bagler, <b>Bhupender Kumar</b>, Kalaiarasan Ponnusamy, Shakir Ali, Ravins Dohare, Indrakant Kumar Singh and Mansoor Ali Syed. July 2023, <b>3 Biotech</b>. eISSN <b>2190-5738 Online IF- 2.8</b></div> <div>4. Poulami Tapadar, Ambika Pal, Nirajan Ghosal, Bhupender Kumar, Tamalika Paul, Nabendu Biswas and Ranjana Pal. CDH1 overexpression sensitizes TRAIL resistant breast cancer cells towards rhTRIAL induced apoptosis. July 2023 <b>Molecular Biology Reports</b> ISSN <b>1573-4978 IF-2.8</b></div> <div>5. <b>Bhupender Kumar</b>, Savita Bansal, Disha Kapila, Rishu Thakur, Surbhi Bhati, Nikita Grover, Geeta Trilok-Kumar, and Archana Burman. Assessment of Type 2 Diabetes Risk in General Population using Bitter</div>	

	<p>Taste Sensitivity Status to Phenylthiocarbamide - A Pilot Study. (Volume. 60 (2), April – June, 2023, <b>The Indian Journal of Nutrition and Dietetics</b>). ISSN 0022-3174 (UGC-CARE)</p> <p>6. Meenakshi Vachher*, Sandeep Yadav*, Aayushi Rastogi*, Shivani Tihara, Bhupender Kumar, Taruna Arora and Archana Burman. Consumption of natural products and Ayurvedic decoctions “kadha” as immunity-boosting measures during the spread of COVID-19 in Delhi. (Volume 7, Issue 3, pages, July – September 2022, <b>Journal of Drug Research in Ayurvedic Science</b>). ISSN 2581-8295 (UGC-CARE)</p> <p>7. Meenakshi Vachher, Savita Bansal, <b>Bhupender Kumar</b>, Sandeep Yadav and Archana Burman. Deciphering the role of aberrant DNA methylation in NAFLD and NASH. (Volume 8, Issue 10, pages, October 2022, <b>Heliyon Cell Press</b>) ISSN 2405-8440 Online IF- 4</p> <p>8. Meenakshi Vachher, Savita Bansal, <b>Bhupender Kumar</b>, Sandeep Yadav, Taruna Arora, Nalini Moza Wali and Archana Burman. Contribution of organokines in the development of NAFLD/NASH associated hepatocellular carcinoma. (Volume 123, Issue 10, pages 1553-1584, <b>July 2022, Journal of Cellular Biochemistry</b>) ISSN 1097-4644 Online IF- 4</p> <p>9. Zafar Iqbal Bhat, Afreen Naseem, <b>Bhupender Kumar</b>, Ponnusamy Kalaiarasan, R. Tiwari, GD Sharma and M. Moshahid Alam Rizvi. Association of PARK-2 non-synonyms polymorphisms and their in-silico validation among North Indian colorectal patients. (Volume 53, Issue 3, pages674–682, 2022, <b>Journal of Gastrointestinal cancer</b>) ISSN 1941-6628</p> <p>10. Mohammad Askandar Iqbal, Shumaila Siddiqui, Asad Ur Rehman, Farid Ahmad Siddiqui, Prithvi Singh, <b>Bhupender Kumar</b> and Daman Saluja. Multiomics integrative analysis reveals antagonistic roles of CBX2 and CBX7 in metabolic reprogramming of breast cancer. (Volume 15, Issue 5, May 2021, Pages 1450-1465. <b>Molecular Oncology (FEBS PRESS)</b> ISSN 1878-0261 IF- 6.5</p> <p>11. Meenakshi Vachher, Kriti Arora, Archana Burman and <b>Bhupender Kumar</b>. NAMPT, GRN and SERPINE1 signature as predictor of disease progression and survival in gliomas. (Volume 121, Issue 4, April 2020, Pages 3010-3023, <b>Journal of Cellular Biochemistry</b>) ISSN 1097-4644 Online IF-4.4</p> <p>12. Afreen Naseem, Zafar Iqbal Bhat, Ponnusamy Kalaiarasan, <b>Bhupender Kumar</b>, Zubair Hafez, Khushnuma wahabi, Raj Tiwari, Gauri Gandhi and M. Moshahid Alam Rizvi. Assessment of Epigenetic alterations and in-silico analysis of Mutation affecting PTEN expression among Indian cervical cancer patients (Volume 120, Issue 9, Pages 15851-15866, <b>September 2019, Journal of Cellular Biochemistry</b>) ISSN 1097-4644 Online IF-3.44</p> <p>13. Zafar Iqbal Bhat*, <b>Bhupender Kumar*</b>, Savita Bansal, Afreen Naseem, Raj Ranjan Tiwari, G.D Sharma and M. Moshahid Alam Rizvi. Association of PARK2 promoter polymorphisms and methylation with colorectal cancer in North Indian population.(Volume 682, Pages 25–32,<b>January 2019,GENE</b>) ISSN 0378-1119 IF 2.6</p>
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14. Taruna Kumari and **Bhupender Kumar**. High-mobility group box 1 protein (HMGB1) gene polymorphisms and Cancer susceptibility: A comprehensive meta-analysis (Volume 483, Pages 170–182,**August 2018,Clinica Chimica Acta**) ISSN 0009-8981 Print IF-2.9
15. TarunaKumari, Meenakshi Vachher, Savita Bansal, Rameshwar NK Bamezai and **Bhupender Kumar**. Meta-analysis of mitochondrial T16189C polymorphism for cancer and Type 2 diabetes risk. (Volume 482, Pages 136-143, **July 2018,Clinica Chimica Acta**) ISSN 0009-8981 Print IF-2.9
16. **Bhupender Kumar**. Resveratrol inhibits expression of cancer specific PPP enzyme TKTL1. (Vol. 11, issue 6, 1-4,**June 2018, AJPCR**) ISSN 0974-2441 Print.
17. **Bhupender Kumar**. Fisetin synergizes with gemcitabine and inhibits viability of MIA PaCa-2 pancreatic cancer cells. (1 (1), **March 2018,Research Reports**)ISSN 2471-5689 (online)
18. **Bhupender Kumar\***, Zafar Iqbal Bhat\*, Savita Bansal, Sunil Saini, Afreen Naseem, Khushnuma wahabi, Archana Burman, Geeta Trilok-Kumar, Sundeep Singh Saluja and M. Moshahid Alam Rizvi. Association of mitochondrial copy number variation and T16189C polymorphism with colorectal cancer in North Indian population. (Volume: 39 issue: 11, **November 2017, Tumor Biology**) ISSN: 1010-4283 (Print) IF-3.65
19. Afreen Naseem, Zafar Iqbal Bhat, Ponnusamy Kalaiarasan, **Bhupender Kumar**, Gauri Gandhi and M. Moshahid Alam Rizvi. Genetic and epigenetic alterations affecting PARK-2 expression in cervical neoplasm among North Indian patients. (Volume: 39 issue: 6,**June 2017, Tumor Biology**) ISSN: 1010-4283 (Print) IF-3.65
20. **Bhupender Kumar**, Mohd Askandar Iqbal, Rajnish Kumar Singh and Rameshwar NK Bamezai. Resveratrol inhibits TIGAR to promote ROS induced apoptosis and autophagy. (Volume 118, Pages 26-35,**November 2015, Biochimie**) ISSN 0300-9084 IF-2.96
21. **Bhupender Kumar** and Rameshwar NK Bamezai. Moderate DNA damage promotes metabolic flux into PPP via PKM2 Y-105 phosphorylation: a feature that favours cancer cells. (Volume 42, Issue 8, pages 1317–1321, **August 2015, Molecular Biology Reports**) ISSN 1573-4978 IF-2.024
22. Ponnusamy Kalaiarasan, **Bhupender Kumar**, Vibhor Gupta, Naidu Subarao and Rameshwar Bamezai (July 2014) In Silico Screening, Genotyping, Molecular Dynamics Simulation and Activity Studies of SNPs in Pyruvate Kinase M2. (Volume10, Issue 3, **March 2015, PLOS ONE**) ISSN · 1932-6203 IF-3.23
23. Siddharth Manvati, Kailash Mangalhara, Ponnusamy Kalaiarasan, Shilpi Chattopadhyay, **Bhupender Kumar**, Gaurav Agarwal, Nillu Srivastava, Rameshwar NK Bamezai. MiR-101 Induces Senescence and Prevents Apoptosis in the Background of DNA Damage in MCF7 Cells (Volume

9 | Issue 10 | e111177, **October 2014, PLOS ONE**) *ISSN* • **1932-6203 IF-3.534**

24. Archana Pandita, **Bhupender Kumar**, Siddharth Manvati, Samantha Vaishnavi, Shashank K Singh and Rameshwar NK Bamezai. Synergistic combination of gemcitabine and dietary molecule(s) induces apoptosis in pancreatic cancer cells and down regulates PKM2 expression (Volume 9 | Issue 9 | e107154, **September 2014, PLOS ONE**) *ISSN* • **1932-6203 IF-3.534**
25. Mohd Askandar Iqbal, Farid Ahmad Siddiqui, Noor Chaman, Vibhor Gupta, **Bhupender Kumar**, Prakasam Gopinath and Rameshwar N.K. Bamezai. Missense mutations in pyruvate kinase M2 promote cancer metabolism, oxidative endurance, anchorage independence and tumor growth in a dominant negative manner (volume 289, Issue 12, pages 8098-8105, **2014, Journal of Biological Chemistry**). *Online ISSN 1083-351X IF-4.6*
26. Rupali Chopra, Shafat Ali, Amit Srivastava, Shweta Aggarwal, **Bhupender Kumar**, Siddharth Manvati, Ponnusamy Kalaiarasan, Mamta Jena, and Rameshwar Bamezai. (2013) 'Mapping of PARK2 and PACRG Overlapping Regulatory Region Reveals LD Structure and Functional Variants in Association with Leprosy in Unrelated Indian Population Groups'. (10.1371/journal.pgen.1003578, **Jul 2013 | PLOS Genetics**) *ISSN 1553-7390 IF- 8.167*
27. Mohd Askandar Iqbal, Farid Ahmad Siddiqui, Vibhor Gupta, P Gopinath, Shilpi Chattopadhyay, **Bhupender Kumar**, Siddharth Manvati, Noor Chaman, and Rameshwar NK Bamezai. (2013) Insulin enhances metabolic capacities of cancer cells by dual regulation of glycolytic enzyme pyruvate kinase M2. (Volume 12, Issue 72, **July 2013, Molecular Cancer**) *ISSN: 1476-4598 IF-5.39*

#### **Book Chapters**

1. **Tumor cell metabolism - Pathways, Regulation and Biology (2015). Chapter 6** Pyruvate Kinase M2: A Metabolic Tuner. Vibhor Gupta, Mohd Askandar Iqbal, **Bhupender Kumar**, and Rameshwar N.K. Bamezai. <http://www.springer.com/biomed/cancer/book/978-3-7091-1823-8> **ISBN 978-3-7091-1823-8**
2. **Encyclopedia of Signaling Molecules, 2<sup>nd</sup> Edition (2017) – Chapter PKM2.** Gopinath Prakasam, Mohammad Askandar Iqbal, Vibhor Gupta, **Bhupender Kumar**, Rameshwar N. K. Bamezai. [https://link.springer.com/referenceworkentry/10.1007%2F978-3-319-67199-4\\_101893](https://link.springer.com/referenceworkentry/10.1007%2F978-3-319-67199-4_101893) **ISBN 978-1-4939-6799-5 (Print)**

### Professional memberships

- Indian Society of Human Genetics (ISHG), (Life Member- ID - L/1985/2019)
- Indian Association of Cancer Research (Life Member- ID - LM-1097)

### Short course/FDP/Workshop

- Completed One-Week Online National Faculty Development Program **“Basic IT tools, Advanced Spreadsheet Tools and Statistical Software Package with SPSS”** with “A+” grade jointly organized by University of Delhi and Guru Angad Dev Teaching Learning Centre (TLC), SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMNTT) of Ministry of Education, held during 27th October – 3rd November 2022
- Completed two weeks workshop with grade A on **“Tools and Techniques in Statistical Analysis”** from Acharya Narayan Dev College, University of Delhi, held during 6-19<sup>th</sup> April. 2021
- Completed two weeks FDP on **“Quantitative methods for data analysis”** from Ramanujan college TLC of MHRD under PMMMNMNTT, University of Delhi, held during 12-25<sup>th</sup> August, 2020.
- Completed two weeks FDP on **“Advanced Concepts on Developing MOOCs”** from Ramanujan college TLC of MHRD under PMMMNMNTT, University of Delhi, held during 2-17<sup>th</sup> July, 2020.
- Completed a short workshop and course (**Genome Biology-2020**) at IISER TVM where instructors from EMBL taught on **NGS sequencing** (Oxford NANOPORE MinIon and Illumina). In this course I learnt how to generation of nanopore sequencing data, full genome assembly, analysis of SNPs, structural variants and other alterations, held during 10-17<sup>th</sup> January, 2020)
- Completed one day Faculty Empowerment Workshop entitled **“National Workshop on Computational Chemistry and Molecular Modelling”** organized by Guru Angad Dev TLC of MHRD under PMMMNMNTT at SGTB Khalsa college, University of Delhi, on 23<sup>rd</sup> March, 2018.