

Resume

Dr. Shivendra K Chaurasiya

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PERSONAL INFORMATION:

Date of Birth: 15/07/1981
Gender: Male

Webpage: <http://www.manit.ac.in/content/dr-shivendra-k-chaurasiya>
Google Scholar link:
<https://scholar.google.co.in/citations?user=2SPkvBUAAAAJ&hl=hi>

Professional Experience:

S. no.	Institution Place	Position	From (Date)	To (date)
1.	Maulana Azad National Institute of Technology, Bhopal, MP, India	Associate Professor	21-12-2023	Till date
2.	Maulana Azad National Institute of Technology, Bhopal, MP, India	Assistant Professor	17/01/2019	20-12-2023
3.	Dr HS Gour University, Sagar	Assistant Professor	27/05/2013	16/01/2019
4.	IGNT University, Amarkantak	Assistant Professor	01/11/2011	26/05/2013
5.	Lund University, Sweden	Postdoctoral Fellow	01/11/2009	31/10/2011
6.	CSIR-CDRI, Lucknow	CSIR-UGC SRF	27-07-2007	15-10-2009
7.	CSIR-CDRI, Lucknow	CSIR-UGC JRF	27-07-2005	26-07-2007

ABOUT POSTDOCTORAL RESEARCH WORK:

Place of work: Cell and experimental pathology, Clinical Research Center, Department of laboratory Medicine, **Lund University, Sweden.**

Area of research: Post-doctoral work focused on role of Wnt signaling in regulating EMT, metabolism, migration and invasion of breast cancer cells.

ABOUT PhD RESEARCH:

Place of work: CSIR-CDRI, Lucknow, India.

Academic affiliation: Jawaharlal Nehru University, New Delhi, India.

Thesis Title: Studies on the Inter-relationship between Protein Kinases of Macrophage and Mycobacteria for their roles as determinant of Pathogenicity.

Area of research:

During PhD, we have explored the role of Protein Kinase C (PKC) during infection of mycobacteria in macrophages and have shown the association of PKC- α with mycobacterial protein kinase G (PknG).

ACADEMIC QUALIFICATIONS:

Degree	University/Board	Year	Division	Subjects
PhD	Jawaharlal Nehru University, New Delhi, India	2010	--	Life Science
M.Sc.	A.P.S. University, Rewa, (M.P.), India	2004	1 st (University Topper)	Biochemistry
B.Sc.	A.P.S. University, Rewa, (M.P.), India	2001	1 st	Chemistry, Botany and Zoology
JRF-NET	CSIR-UGC, India	June & December, 2004	--	Life Science

DETAILS OF RESEARCH PROJECTS undertaken as independent Principle Investigator):

S. no.	Title of Project	Funding Agency	From Date	To Date	Approved Cost//Status
1.	Determining The Role Of Glutamate Decarboxylase In Mycobacterial Drug Tolerance And Adaptation-Survival Within Host Cells	SERB, India	08/31/2021	08/30/2024	4365990.00 (Ongoing)
2.	Cloning of Glutamate Decarboxylase from Mycobacterium tuberculosis	MANIT, Bhopal	08/14/2019	08/13/2021	500000.00 (Successfully Completed)
3.	Role of Macrophage Phospholipase C in control of Mycobacterial infection	DBT, India	03/30/2015	09/29/2018	6977800.00 (Successfully Completed)
4.	Molecular studies of Protein Kinase G induced changes in the host cell (macrophages) during mycobacterial infection	SERB, India	12/20/2013	03/19/2017	1885000.00 (Successfully Completed)

5.	Regulation of Beta- catenin dependent signalling by Beta-catenin independent signalling in breast cancer cells	UGC, India	07/22/2014	07/21/2016	600000.00 (Successfully Completed)
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RESEARCH PUBLICATIONS:

	Details of publications	Author status
1.	Shivendra K Chaurasiya and Kishore K Srivastava (2009). <i>Downregulation of protein kinase C-alpha enhances intracellular survival of Mycobacteria: role of PknG</i> . BMC Microbiology , 24 : 9; 271. (Impact factor 2.58)	First Author
2.	Shivendra K Chaurasiya and Kishore K Srivastava (2008). <i>Differential regulation of macrophages PKC isoforms by pathogenic and non-pathogenic mycobacteria</i> . Molecular and Cellular Biochemistry , 318 : 167. (Impact factor 2.66)	First Author
3.	Ruma Kumari, Susmita K Singh, Diwakar K Singh, Pramod K Singh, Shivendra K Chaurasiya and Kishore K Srivastava (2012). <i>Functional characterization delineates that a Mycobacterium tuberculosis specific protein kinase (Rv3080c) is responsible for the growth, phagocytosis and intracellular survival of avirulent Mycobacteria</i> . Molecular and Cellular Biochemistry , 369 : 67. (Impact factor 2.66)	Co-Author
4.	Ruchi Paroha, Rashmi Chourasia, Rajesh Mondal, Shivendra K Chaurasiya (2017). <i>PknG supports mycobacterial adaptation in acidic environment</i> . Molecular and Cellular Biochemistry . DOI 10.1007/s11010-017-3211-x. (Impact factor 2.66)	Corresponding Author/Supervisor
5.	Shivendra K Chaurasiya (2018). <i>Tuberculosis: Smart manipulation of a lethal host</i> . Microbiology and Immunology . 2018; 62: 361–379. (IF-1.7)	Sole Author
6.	Ruchi Paroha, Shivendra K Chaurasiya, Rashmi Chourasia . <i>Phospholipase C-γ2 promotes intracellular survival of mycobacteria</i> . Journal of cellular Biochemistry . Accepted. (Impact factor 2.959)	Corresponding Author/Supervisor
7.	Namdev P, Lyngdoh DL, Dar HY, Chaurasiya SK, Srivastava R, Tripathi T, Anupam R (2019). <i>Intrinsically Disordered Human T Lymphotropic Virus Type 1 p30 Protein: Experimental and Computational Evidence</i> . AIDS Res Hum Retroviruses . doi: 10.1089/AID.2018.0196. (Impact Factor 1.93)	Co-Author
8.	Jain N, Paroha R, Singh RK, Mishra SK, Chaurasiya SK, Singh RA, Singh	Co-

	J. (2019) <i>Synthesis and Rational design of Europium and Lithium Doped Sodium Zinc Molybdate with Red Emission for Optical Imaging</i> . Sci Rep. 21;9(1):2472. doi: 10.1038/s41598-019-38787-1.(Impact Factor 4.1)	Author
9.	Victoria Sherwood, Shivendra Kumar Chaurasiya , ElinEkström, William Guilmain, Qing Lui, Tomas Köck, Kate Brown, Karin Hansson, MargrétAgnarsdóttir, Michael Bergqvist, Karin Jirström, Fredrik Ponten, Peter James, Tommy Andersson. (2014) <i>WNT5A-Mediated CTNNB1-Independent Signalling is a Novel Regulator ofCancer Cell Metabolism</i> . Carcinogenesis 35 (4), 784-794 . doi:10.1093/carcin/bgt390. (Impact Factor 5.368)	Co-Author
10.	Chandra Prakash Prasad, Shivendra K Chaurasiya , Lena Axelsson, Tommy Andersson (2013). <i>WNT-5A triggers Cdc42 activation leading to an ERK1/2 dependent decrease in MMP9 activity and invasive migration of breast cancer cells</i> . Molecular Oncology , 7, 870-883 DOI10.1016/j.molonc.2013.04.005 (Impact factor 6.08)	Co-Author
11.	CP Prasad, SK Chaurasiya , W Guilmain, T Andersson (2016). <i>WNT5A signaling impairs breast cancer cell migration and invasion viamechanisms independent of the epithelial-mesenchymal transition</i> . Journal of Experimental & Clinical Cancer Research , 35 (1) , 144. doi:10.1186/s13046-016-0421-0. Published online September 13, 2016.(ImpactFactor 5.1)	Co-Author
12.	Sunil K Mishra, ShashiTiwari, AtulShrivastava, ShishirSrivastava, Goutam K Boudh, Shivendra K Chourasia , UpmaChaturvedi, Snober S Mir, Anil K Saxena, Gitika Bhatia, Vijai Lakshmi (2014). <i>Antidyslipidemic effect and antioxidant activity of anthraquinone derivatives from Rheum emodi rhizomes indyslipidemic rats</i> . Journal of Natural Medicines , 68 , 363-371. doi:10.1007/s11418-013-0810-z. Published online December 17, 2013. (Impact Factor 1.67)	Co-Author
13.	Rashmi Chourasia, Vijay Varma, Shivendra Chaurasiya , O.P. Shrivastava (2017). <i>Crystallographic modeling and impedance studies of gadolinium modified La1xGdxMnO3 (x = 0.1–0.3) ceramics</i> . Polyhedron , 121 , 269-277. doi: http://dx.doi.org/10.1016/j.poly.2016.10.002 (ImpactFactor 2.1)	Co-Author
14.	Shivendra K Chaurasiya (2017). <i>Involvement Of Protein Kinase C-α In Regulating Mitogen Activated Protein Kinase Pathway In Macrophages Infected With Mycobacteria</i> . Madhya Bharti Journal of Science (ISSN-0972-7434),60 (2), 1-5.	Sole Author
15.	Ruchi Paroha and Shivendra K Chaurasiya (2018). <i>Analysis of mycobacterial Protein kinase G expression during oxidative and antibiotic</i>	Corresponding Author/S

	<i>stress</i> . Madhya Bharti Journal of Science (ISSN-0972-7434). Accepted manuscript .	upervisor
16.	Paroha, Ruchi, Rashmi Chourasia, Rupal Rai, Awanish Kumar, Ashish K. Vyas, Shivendra K. Chaurasiya , and Anirudh K. Singh (2020). Host Phospholipase C- γ 1 Impairs Phagocytosis and Killing of Mycobacteria by J774A.1 Murine Macrophages. Microbiology and Immunology.DOI: 10.1111/1348-0421.12839	Corresponding Author/Supervisor
17.	Bijina J Mathew, Ashish Kumar Vyas, Prashant Khare, Sudheer Gupta, Ram Kumar Nema, Shashwati Nema, Sudipti Gupta, Shivendra K Chaurasiya , Debasis Biswas, Anirudh K Singh. Laboratory diagnosis of COVID-19: current status and challenges. Iran J Microbiol. 2021 Feb;13(1):1–7.	Co-Author
18.	Rai R, Singh V, Mathew BJ, Singh AK, Chaurasiya SK . Mycobacterial response to an acidic environment: protective mechanisms. Pathog Dis. 2022 Jan 1;80(1):ftac032.	Corresponding Author/Supervisor
19.	Anand R, Chaurasiya SK , Kushwaha AK, Nyati KK, Kumar A. Involvement of Cathepsins Protein in Mycobacterial Infection and Its Future Prospect as a Therapeutic Target. Int J Pept Res Ther. 2022 Mar 15;28(2):76.	Co-Author
20.	BJ Mathew, P Gupta, T Naaz, R Rai, S Gupta, S Gupta, SK Chaurasiya , Shashank Purwar, Debasis Biswas, Ashish Kumar Vyas, Anirudh K Singh. Role of Streptococcus pneumoniae extracellular glycosidases in immune evasion. Frontiers in Cellular and Infection Microbiology 13, 63 (2022).	Co-Author
21.	Vinayak Singh, Rupal Rai, Bijina J Mathew, Rashmi Chourasia, Anirudh K Singh, Awanish Kumar and Shivendra Kumar Chaurasiya . Phospholipase C: Underrated Players In Microbial Infections. Frontiers in Cellular and Infection Microbiology.	Corresponding Author/Supervisor

PAPERS PRESENTED IN NATIONAL/INTERNATIONAL CONFERENCES/SYMPOSIA:

	Conferences/Seminars	Title of Abstract/paper	Status	Year
I.	WNT 2011 University of California , Los Angeles, USA	Wnt-5a inhibits migration of breast cancer cells independently of EMT	International	2011

II.	New Frontiers in Tuberculosis Research International Centre for Genetic Engineering and Biotechnology, Delhi, India	Activation and Phosphorylation of Macrophage Specific Protein Kinases C by Pathogenic and Non-pathogenic Mycobacteria	International	2006
III.	International Conference on The Interface of Chemistry-biology in Biomedical Research BITS, Pilani, India	Distribution of Serine/Threonine Protein Kinase Genes in Pathogenic and Non-pathogenic Mycobacteria	International	2008
IV.	Emerging Trends in Tuberculosis Research: Biomarkers, Drugs and Vaccines International Centre for Genetic Engineering and Biotechnology, Delhi, India	Inhibition of Protein Kinase C- α Increases the Survival of Mycobacteria within Macrophages	International	2008
V.	Interface of Physical, Chemical and Biological Sciences Dr. H.S. Gour University, Sagar, MP	PknG promotes growth of <i>mycobacterium smegmatis</i> in acidic environment	International	2017
VI.	National Conference on Evolving Trends in Biotechnology (NCETB-2015) Indian Science Congress Association - Sagar Chapter and Department of Biotechnology, Dr. H.S. Gour Central University, Sagar	Regulation Of Canonical Wnt-Signaling By Non-Canonical Wnt-Signaling In Breast Cancer	National	2015
VII.	DNA Barcoding- Molecular Biology and Phylogenetic Taxonomy' (Hands on training on Molecular	Protein kinase G increases the acid tolerance in Mycobacteria (Invited	National	2016

	Techniques and Bioinformatics) Dept. of Biotechnology, SIT Group of Institutions, Sidhi, MP	lecture)		
VIII.	National Workshop on “Recent Advances in Genomics and Bioinformatics for Genome Analysis Department of Biotechnology, Faculty of Life Sciences, AKS University, Satna (M.P.)	Studies on the Inter-relationship between Protein Kinases of Macrophage and Mycobacteria for their roles as determinant of Pathogenicity (Invited lecture)	National	2017
IX.	Hands On Training Programme On Microbial Technology Dept. of Applied Microbiology Dr. H.S. Gour University, Sagar, MP	Electrophoresis (Invited Lecture)	Regional	2014
X.	National Symposium on Recent Trends in Microbial Biodiversity Research and 7 Days National Hands-on Workshop on Genomics and Bioinformatics Department of Biotechnology, Faculty of Life Sciences, AKS University, Satna (M.P.)	Diagnosis of Mycobacterium Tuberculosis (Invited Lecture)	National	2013
XI.	International Symposium on Cancer Prevention and Treatment, School of Life Sciences, JNU, Delhi	Wnt signalling affects proliferation in breast cancer cells in cell type dependent manner	International	2018

XII.	58 th Annual conference of association of Microbiologists of India & International symposium on “Microbes for Sustainable development: Scope & Applications”, BBRAU, Lucknow	Macrophage Phospholipase C Signalling in host pathogen interaction (Oral Presentation)	International	2017
XIII.	“Advances and Innovations in Biotechnology for Sustainable development (AIBioSD-2019)” Department of Biotechnology, Faculty of Life Sciences, AKS University, Satna (M.P.)	Understanding intracellular survival of Pathogenic mycobacteria(Invited Speaker)	International	2019

AWARDS AND TRAININGS:

1. Post Doctoral Fellowship by **Lund University, Sweden**.
2. **Travel grant** to visit **University of California, Los Angeles, USA** by John och Augusta Perssonsstiftelse, Sweden.
3. **CSIR-UGC JRF-NET** (June & December, 2004)
4. **CSIR-UGC JRF**
5. **CSIR-UGC SRF**
6. Training in “**Technology Led Entrepreneurship Programme**”, sponsored by HRDG, CSIR, Govt. of India, conducted by faculty of IIM Bangalore at Indian Institute of Chemical Technology, Hyderabad.

SCIENTIFIC SKILLS:

1. **Independent Research:** Established independent research lab and obtained extramural funding.
2. **Molecular Biology:** PCR and Real Time PCR, SDS-PAGE and Native PAGE, 2D-Gel Electrophoresis, Blotting Techniques (Southern, Northern and Western)
Isolation of plasmid and genomic DNA, RNA Isolation, cDNA preparation, Cloning, expression and purification of proteins, Introduction of cloned genes into prokaryotic and mammalian cells, generation of stably over-expressing cell lines, SiRNA and shRNA mediated knockdown of cellular proteins, Radioactive Kinase Assay.
3. **In vitro cell culture:** Efficient in cell culture techniques, infection of different mammalian cell lines with bacteria and study for their intracellular survival. Chemical inhibition of cellular functions.
4. **Microbiology:** Propagation and maintenance of bacterial cultures and genetic manipulations.

5. **Immunological:** ELISA, Immunoprecipitation, Pull down assay, Immunofluorescent microscopy.
6. ***In vivo* techniques:** Animal handling (mice and rats), Immunization of mice and infection with mycobacteria, raising anti-sera, isolation of blood cells, spleen cells.
7. **Biochemical:** Study of oxygen consumption and extracellular acidification rates (Using Extracellular Flux Assay, Sea Horse Biosciences), Lactate and Citrate Synthase assays.

Knowledge of Computer:

Familiar with electronic lab book (**iLabber**).

Familiar with **Volocity** software used for live imaging and track migration of cells.

Efficient in bioinformatics tools and software of scientific applications.

OTHER INFORMATION:

1. **Successfully supervised 02 PhD thesis, 05 ongoing**
2. **Successfully supervised 24 PG thesis, 03 ongoing**
3. **Established independent labs with extramural funding.**

KEY AREAS OF INTEREST:

- Signal Transduction
- Cellular Interactions
- Cancer Biology
- Infectious diseases
- Host-pathogen Interaction

Shivendra K Chaurasiya, PhD