

## Curriculum Vitae

### Harish Chander, Ph.D.

Scientist Grade-I & Deputy Director (QC) I/c  
Bio-Therapeutics & Vaccine and Antisera Laboratories,  
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#### **Education:**

Ph.D Microbiology Panjab University & PGIMER, Chandigarh in 2004

M.Sc. Microbiology Guru Nanak Dev University, Amritsar in 1997

**Professional Experience:** 18 Years

#### **Awards:**

1. Ph.D. fellowship by UGC, New Delhi
2. Distinguished Scientist by American Society of Clinical Oncology

#### **Profile at NIB:**

1. As a senior most scientist and DD(QC) I/c oversee and manages the work on the quality control testing of biologicals (therapeutics, vaccines and diagnostics) and & their regulatory aspects to establish their safety, identity and potency where ever mandatory for batch release as per Indian or other pharmacopoeias.
2. Research work on biologicals (Monoclonal Antibodies, Covid-19 vaccines, Insulin Analogs)
3. Training to blood bank officials under NHM program and M.Sc. Students
4. Coordinator for Covid-19 patient sample testing laboratory
5. Chairperson on various committees such Animal Ethics, IBSC, Technical specifications, Standing Purchase, Research and Development, Advisor on BSL-3 advisory,
6. Trained in ISO17025:2017 and Authorized Signatory

#### **As a Subject Expert:**

1. Medical Equipment and Hospital Planning Department committee of BIS
2. Working Group for Therapeutic Monoclonal Antibodies
3. Joint Working Group for Biologicals

#### **Faculty Development Courses:**

1. Science Academies Refresher Course on Environmental Biology
2. UGC Sponsored Orientation Programme for Assistant Professors.

#### **Major Invited Talks:**

1. In Vitro Diagnostic Medical Devices: Standardization and Regulation. Beaurau of Indian Standards (BIS), 9<sup>th</sup> Feb, 2022.

2. Monoclonal Antibodies and Vaccination to curb Covid-19 Pandemic. Amity University, Madhya Pradesh. August, 2021
3. Speaker in Technical Session on WHO-EQAAS Workshop at NIB. December, 2019
4. DBT-Sponsored Training Course In Medical Genetics and Bioinformatics. 9<sup>th</sup> March-23<sup>rd</sup> March, 2016
5. ICMR Sponsored National Seminar on “Progression of Bioethics in Medical and Biological Research”. February 24<sup>th</sup>, 2016. Dev Samaj College for Women, Ferozepur City.
6. International Conference on Cancer Research: New Horizons. 19-21<sup>st</sup> November, 2015, NCCS, Pune
7. 20<sup>th</sup> World Congress on Advances in Oncology and 18<sup>th</sup> International Symposium on Molecular Medicine. October 8-10, 2015, Athens, Greece
8. New Avenues in Breast Cancer Research. Invited Talk, National Conference of APTI, Institute of Pharmaceutical Sciences, Kurukshetra University. August 23<sup>rd</sup>-24<sup>th</sup>, 2014

### Research Funding:

S. No	Title of Project	Funding Agency	As PI or Co PI
1	Proteasomal mediated regulation of pro-metastasis protein Toca-1	Central University of Punjab, Bathinda	PI
2	Transcriptional Regulation of Formin Binding Protein 17 (FBP17) in Breast Cancer	DST-SERB, Government of India	PI
3	Quercetin Induced Reactivation of Mutant p53	DST-SERB, Government of India	PI
4.	Development of in-vitro bioassay for biological activity of anti-HER2 therapeutic monoclonal antibodies based on variability in the expression of HER2 in breast cancer cell lines.	ICMR, Government of India	PI

### Work Experience:

S.No.	Position Held	Institute	Nature of Work
1.	Scientist Grade-I & DD(QC) I/c	NIB, NOIDA	Quality Control testing of Biologicals
2.	Assistant Professor	Central University of Punjab, Bathinda	Research in Molecular Medicine
3.	Postdoctoral Fellowship	Cancer Institute, Queen’s University	Research in Molecular Cancer
4.	Postdoctoral Fellowship	Hematology and Oncology, Mount Sinai School of Medicine, New York	Research in Molecular Cancer
5.	Postdoctoral Fellowship	Institute for Basic Research, Staten Island, New York	Neurochemistry of Alzheimer’s disease & Autism

### Major Publications:

1. Suman P, Mehta V, Craig A, Chander, H. Wild type p53 suppresses FBP17 to reduce invasion. *Carcinogenesis*. 2022. Feb:02.
2. Suman P, Mishra S, Chander H. High formin binding protein 17 (FBP17) expression indicates poor differentiation and invasiveness of ductal carcinomas. *Scientific Reports*. 2020 Jul;10(1):11543.

3. Mehta V, Chander H, Munshi A. complex roles of discoidin domain receptor tyrosine kinases in cancer. 2021. *Clinical and Translational Oncology*. 2021. (23).
4. Mehta V, Chander H, Munshi A. Mechanisms of Anti-Tumor Activity of *Withania somnifera* (Ashwagandha). *Nutrition and Cancer*. 2020 Jun 13:1-3.
5. Singh G, Mishra S, Chander H. KIBRA Team Up with Partners to Promote Breast Cancer Metastasis. *Pathology & Oncology Research*. 2020 Apr;26(2):627-34.
6. Chawda N, Mishra S, Basu M, Chander H, Podder R, Mahapatra SK, Banerjee I. Synthesis of gadolinium oxide nanocuboids for in vitro bioimaging applications. *Materials Research Express*. 2019 Sep 13;6(10):1050c3.
7. Barkhade T, Mishra S, Chander H, Mahapatra SK, Banerjee I. Effect of TiO<sub>2</sub> and Fe doped TiO<sub>2</sub> nanoparticles on mitochondrial membrane potential in HBL-100 cells. *Biointerphases*. 2019 Jul 7;14(4):041003.
8. Binayke A, Mishra S, Suman P, Das S, Chander H. Awakening the “guardian of genome”: reactivation of mutant p53. *Cancer Chemotherapy and Pharmacology*. 2019 Jan 31;83(1):1-5.
9. Suman P, Mishra S, Chander H. High expression of FBP17 in invasive breast cancer cells promotes invadopodia formation. *Medical Oncology*. 2018 May 1;35(5):71.
10. Singla H, Ludhiadch A, Kaur RP, Chander H, Kumar V, Munshi A. Recent advances in HER2 positive breast cancer epigenetics: Susceptibility and therapeutic strategies. *European Journal of Medicinal Chemistry*. 2017 Dec 15;142:316-27.
11. Cerqueira OL, Truesdell P, Baldassarre T, Vilella-Arias SA, Watt K, Meens J, Chander H, Osório CA, Soares FA, Reis EM, Craig AW. CIP4 promotes metastasis in triple-negative breast cancer and is associated with poor patient prognosis. *Oncotarget*. 2015 Apr 20;6(11):9397.
12. Chander H, Brien CD, Truesdell P, Watt K, Meens J, Schick C, Germain D, Craig AW. Toca-1 is suppressed by p53 to limit breast cancer cell invasion and tumor metastasis. *Breast Cancer Research*. 2014 Dec 1;16(6):3413.
13. Peter Truesdell, Joseph Ahn, Harish Chander, Jalna Meens, Kathleen Watt, Xialong Yang, Andrew W B Craig. (2014). CIP4 promotes lung adenocarcinoma metastasis and is associated with poor prognosis. *Oncogene*. (1 September 2014) | doi:10.1038/onc.2014.280).
14. Harish Chander, Jalna Meens, Peter Truesdell and Andrew W B Craig (2012). Transducer of Cdc42 actin assembly promotes breast cancer invasion and metastasis. *Oncogene*. 32:3080-3090.
15. **Harish Chander**, Lois Resnick-Silverman, James J. Manfredi, Doris Germain. (2011). Skp2B overexpression alters a prohibitin-p53 axis and the transcription of PAPP-A, the protease of insulin-like growth factor binding protein 4. *PLoS One*. 6: 22456-22466
16. Jinghui Hu, Alka Mukhopadhyay, Peter Truesdell, Harish Chander Utpal Mukhopadhyay, Alan Mak and Andrew W BCraig (2011). Cdc42-interacting protein 4 is a Src substrate that regulates invadopodia and invasiveness of breast tumors by promoting MT1-MMP endocytosis. *Journal of Cell Science*. 124: 1739-1751
17. **Harish Chander**, Max Halpern, Lois Resnick-Silverman, James J. Manfredi, Doris Germain. (2010). Skp2B attenuates p53 function by inhibiting prohibitin. *EMBO Reports*. 11: 220-225
18. Susanne Radke, **Harish Chander**, Patrick Schäfer, Gregor Meiss, Rejko Krüger, Jörg B. Schulz, and Doris Germain (2008). Mitochondrial protein quality control by the proteasome involves ubiquitination and the protease Omi. *Journal of Biological Chemistry*. 283: 12681 - 12685
19. Karina Umanskaya, Susanne Radke, **Harish Chander**, Rosie Monardo, Xinsong Xu, Zhen-Qiang Pan, Matthew J. O’Connell, and Doris Germain. (2007). Skp2B stimulates mammary gland development by inhibiting REA, the repressor of the estrogen receptor. *Molecular and Cellular Biology*. 27: 7615-7622
20. **Harish Chander**, Abha Chauhan, and Ved Chauhan. (2007). Binding of proteases to fibrillar amyloid-beta protein and its inhibition by congo red. *Journal of Alzheimer’s Disease*. 12: 261- 269
21. **Harish Chander**, Abha Chauhan, Jerzy Weigel, Mazhar Malik, Ashfaq Sheikh, Ved Chauhan.(2006) Binding of trypsin to fibrillar amyloid-beta protein. *Brain Research*. 1082: 173-181
22. **Harish Chander**, Siddarth Majumdar, Sunita Sapru and Praveen Rishi. (2006). 55 kDa outer-membrane protein from short-chain fatty acids exposed *Salmonella enterica* serovar Typhi induces apoptosis in macrophages. *Antonie Van Leeuwenhoek*. 89: 317-323

23. **Harish Chander**, Siddarth Majumdar, Sunita Sapru and Praveen Rishi. (2005). Macrophage cell death due to *Salmonella enterica* serovar Typhi and its acid stress protein has features of apoptosis. *Microbiology and Immunology*. 49: 323-330
24. **Harish Chander**, Siddarth Majumdar, Sunita Sapru and Praveen Rishi. (2004). Reactivity of typhoid patient's sera with stress induced 55kDa phenotype of *Salmonella enterica* serovar Typhi. *Molecular and Cellular Biochemistry*. 267: 75-82
25. Vishal Channana, Sushila Negi, **Harish Chander**, Ramprakash Tiwari and Praveen Rishi. (2004). Apoptotic cell death of macrophages by iron stressed *Salmonella enterica* serovar Typhimurium. *World Journal of Microbiology and Biotechnology*. 20: 887-893
26. Vikas Chander, Naveen Tirkey, Davinder Singh, **Harish Chander** and Kanwaljit Chopra. (2004). Amelioration of cyclosporine nephrotoxicity by irbesartan, a selective 81, receptor antagonist. *Renal Failure*. 26: 467-477
27. Colin Brien and Harish Chander (2012). Targets of mutant p53 in IGF signaling. *Queen's Health Science Journal, Queen's University, Canada*. 11: 28-30
28. **Harish Chander**, Siddarth Majumdar and Praveen Rishi. (2003). Acid stress responses of microbial pathogens: A Review. *Panjab University Research Journal (Science)*. India, 53: 21-33.