CURRICULUM VITAE

Name **Promod Mehta**Date of Birth Sept 4, 1959

Present Address Centre for Biotechnology

M.D. University, Rohtak-124001 (Haryana)

E mail Address <u>pkmehta3@hotmail.com</u>

Cell # 91-9896504193

Educational Qualifications



Degree	Institution	Year
Ph.D.	Panjab University/	1988
(Microbiology)	Postgraduate Institute of Medical	
	Education and Research (PGIMER)	
	Chandigarh, India	
MSc (Hons.)	Panjab University	1983
Microbiology	Chandigarh, India	
BSc (Hons.)	Panjab University	1981
Microbiology	Chandigarh, India	

Oct, 2019-Present	Emeritus Scientist (CSIR) at Centre for Biotechnology (CBT), Maharshi	
	Dayanand University (MDU), Rohtak, Haryana.	
2015-2018	Director, CBT, MDU, Rohtak.	
2009-2019	Professor, CBT, MDU, Rohtak.	
2006-2009	Associate Professor (Microbiology) at Swami Shradhanand (SSN) College,	
	University of Delhi.	
1998- 2006	Reader (Microbiology) at Swami Shradhanand (SSN) College, University	
	of Delhi.	
May-Nov 2006	Visiting Assistant Professor at Dept. of Veterinary and Biomedical Sciences	
-	(VBS), University of Nebraska-Lincoln, (UNL) Lincoln, NE, USA	
July -Dec 2005	Visiting Assistant Professor at VBS, UNL, Lincoln, NE, USA	
May -Nov 2003	Visiting Assistant Professor at VBS, UNL, Lincoln, NE, USA	
1999-01	Postdoctoral Research Associate at VBS, UNL, Lincoln, NE, USA	
1996-98	Senior Lecturer (Microbiology) at SSN College, University of Delhi.	
	Postdoctoral Fellow at Dept. of Internal Medicine, University of South	
	Alabama, Mobile, AL, USA from May - July, 1997.	
1994-96	Postdoctoral Fellow at Centers for Disease Control and Prevention (CDC),	
	Atlanta, GA, USA from March 1994- March 1996.	
1989-94	Lecturer (Microbiology) at SSN College, University of Delhi, India and	
	Postdoctoral Fellow Dept. of Medicine UCSD Medical Center, San Diego,	
	CA, USA from April - Oct, 1993.	

Honors / Awards

Received B.Sc./M.Sc degree in Microbiology with Honors from Panjab University, Chandigarh, India.

Received Junior/Senior Research Fellowship from Indian Council of Medical Research (ICMR), New Delhi, India to do Ph.D. at PGIMER, Chandigarh.

Received NIH funded postdoctoral Fellowhips/Visting Assistant Professorship for more than six years in USA.

2nd Best Poster award in National Conference on Biotechnological Perspectives in Healthcare at IMS Engg College, Ghaziabad on 16th July, 2016.

Guest of Honor in National Symposium on Translational Immunology on May 4, 2017 at PGIMS, Rohtak.

Best Poster award in 60th Annual Conference of AMI-2019 on 15th-18th Nov, 2019 at CUH, Mahendergarh.

Outstanding Reviewer award in 2018 from the Journal of Microbiological Methods (Elsevier).

Expert in Panel Discussion 'ASCO Lecture Series: Education in the Post Pandemic Era' organized by Amity University, Noida on 16th Nov, 2021.

Membership of Academic Societies:

- 1. Permanent member of Association of Microbiologists of India (AMI).
- 2. Permanent life-member of Indian Immunology Society (IIS)

Refresher/Advanced Courses studied:

- 1. Biotechnology Refresher Course attended at JNU, New Delhi from April-May, 1999.
- 2. Life Sciences Refresher Course attended at JNU, New Delhi from Dec. 2003-Jan, 2004.
- 3. Bioinformatics Course trained by Mascon Global Co, New Delhi in Dec, 2004.

Extramural funding:

Numbers of research projects being handled at present:

- i) UGC sponsored Project (PI) 'Detection of immunodominant antigens and antibodies in biological samples of pulmonary and extra pulmonary tuberculosis patients by PCR amplified immunoassay' (2011-14) (PI) (9.52 lakhs) (completed).
- ii) **DBT** Project (**PI**) 'Targeting *Mycobacterium marinum* mel2 locus with drug like compounds: its implications for *in vitro* host cell interaction' (2012-16) (PI) (42.15 lakhs) (completed).
- iii) **DST** Project (**PI**) "**Detection of potential** *Mycobacterium tuberculosis* **antigens in extrapulmonary tuberculosis patients by immuno-PCR**" (2013-16) (24.5 lakhs) (completed)
- iv) **DBT** project (**PI**) "**Detection of mycobacterial RD antigens by nanoparticle based Immuno-PCR for an early detection of pulmonary and extrapulmonary tuberculosis**" (39.8 lakhs) (2015-19) (completed).
- v) **DBT-Interdisciplinary Life Sciences Programme (IPLS)** for Advanced Research and Education Project (**Programme-Coordinator**, 2.82 crores) (2014-17) (completed).
- vi) **DST-FIST Programme** (**PI**, 2017-18) (74 lakhs).
- vii) ICMR project (PI) "Detection of protein antigens by immuno-PCR for an early diagnosis of pulmonary and extrapulmonary tuberculosis" (32.2 lakhs) (2017-2021).
 - a) Already **project recommended for funding** on TB diagnostics (2022) in collaboration with University of Delhi for financial support **by ICMR** (35.5 lakhs for one year, extendable to one more year) (as a Co-PI)
 - **b) ICMR project** (2022) entitled "Dual/Triple Drug conjugated Nucleic acid dots as nano-drug delivery theranostic model for antifungal combination therapy" (22.1 lakhs) (as a Co-PI

Research Publications:

- 1. D.V Vadehra, R. Hashia, **P.K Mehta,** NK Chandan, and JK Gupta. 1984. An inhibitory substance in beet juice fermentation. International Sugar Journal 86:2003-2006 (IF=0.16).
- 2. **P.K.Mehta** and G.K.Khuller. 1987. Immune responses to sulpholipids of *Mycobacterium tuberculosis*. Indian Journal of Medical Research 86:558-563 (IF=1.503).
- 3. **P.K.Mehta** and G.K.Khuller. 1988. Protective immunity to experimental tuberculosis by mannophosphoinositides of mycobacteria. Medical Microbiology and Immunology 177: 265-285 (IF=3.402).
- 4. **P.K.Mehta** and G.K.Khuller, 1988. Serodiagnostic potentialities of ELISA using mannophosphoinositides of *M. tuberculosis*. Medical Microbiology and Immunology 177: 285-292 (IF=3.402).
- 5. **P.K.Mehta** and G.K.Khuller, 1988. Suppression of macromolecular biosynthesis in *M. tuberculosis* by antimannophosphoinositides. FEMS Microbiology Letters 51:61-66 (IF=2.742).
- 6. **P.K.Mehta** and G.K.Khuller, 1989. Activation of mouse peritoneal macrophages by mannophospoinositides of mycobacteria. Medical Microbiology and Immunology 178:21-28 (IF 3.402).
- 7. **P.K. Mehta** and G.K.Khuller. 1989. Comparative evaluation of diagnostic significance of circulating immune complexes and circulating antibodies to mannophosphoinositides in pulmonary tuberculosis by ELISA. Medical Microbiology and Immunology 178:229-233 (IF=3.402).
- 8. **P.K.Mehta** and G.K.Khuller, 1990. Immunogenicity of mannophosphoinositides of mycobacteria: Effect of cord factor (trehalose-6, 6' dimycolate). Folia Microbiologica 35:570-577 (IF= 2.099).
- 9. **P.K.Mehta,** GH King, E.White, JJ Murtagh, Jr and FD Quinn. 1996. Comparison of in vitro models for the study of *M. tuberculosis* invasion and intracellular replication. Infection and Immunity 64:2673-2679 (IF=3.441).
- 10. E. Miltner, K. Darooghesh, **P.K. Mehta**, S.L. Cirillo, J.D. Cirillo., and L.E. Bermudez. 2005. Identification of *M. avium* genes that affect invasion of the intestinal epithelium. Infection and Immunity 73: 4214-4221 (IF=3.441).
- 11. **P.K. Mehta,** A. Pandey, S. Subbian, S.H. El-Etr, S.L. Cirillo, M. Samrakandi and J.D. Cirillo. 2006. Identification of *M. marinum* macrophage infection mutants. Microbial Pathogenesis 40: 139-151 (IF=3.738).
- 12. **P.K. Mehta,** R Karls, E.White, E Ades and FD Quinn. 2006. Entry and intracellular replication of *M. tuberculosis* in cultured human microvascular endothelial cells. Microbial Pathogenesis 41: 119-124 (IF=3.738).
- 13. S. Subbian, **P.K. Mehta**, S.L. Cirillo, and J.D. Cirillo. 2007. *Mycobacterium marinum mel2* locus displays similarity to bacterial bioluminescence systems and plays a role in defense against reactive oxygen and nitrogen species. BMC Microbiology 2007 Jan 19; 7:4 (IF=3.605).
- 14. S.Subbian, **P.K. Mehta,** S.L. Cirillo, and J.D. Cirillo. 2007. A *Mycobacterium marinum mel2* mutant is defective for growth in macrophages producing reactive oxygen and nitrogen species. Infection and Immunity 75: 127-134 (IF=3.441).
- 15. **P.K. Mehta**, M. Kalra, G.K. Khuller, D. Behera and Indu Verma 2012. Development of ultrasensitive polymerase chain reaction-amplified Immunoassay based on mycobacterial RD antigens, its implications in the serodiagnosis of tuberculosis. Diagnostic Microbiology and Infectious Disease 72: 166-174 (IF=2.803).
- 16. A. Raj, N. Singh and **P.K. Mehta.** 2012. **Gene Xpert** MTB/RIF Assay: A new hope for extrapulmonary tuberculosis', IOSR Journal of Pharmacy 2:83-86.

- 17 **P.K. Mehta,** A. Raj, N. Singh and G.K. Khuller. 2012. Diagnosis of extrapulmonary tuberculosis by PCR. 2012. FEMS Immunology and Medical Microbiology (Now known as 'Pathogens and Disease') 66:20-36 (IF=3.166).
- 18. **P.K. Mehta,** A. Raj, N. Singh and G.K. Khuller. 2014. Detection of microbial antigens by immuno-PCR (PCR amplified immunoassay). Journal of Medical Microbiology 63:627-641 (IF=2.35).
- 19. Pradeep Kumar, **P. K. Mehta**, Nidhi and Vineeta Shukla. 2015. Histological changes in rat testis after exposure to mobile phone radiations. International Journal of Life Sciences Research 3: 73-79.
- 20. Singh N, Sreenivas V, Gupta KB, Chaudhary A, Mittal A, Varma-Basil M, Prasad R, Gakhar SK, Khuller GK, **Mehta P. K.** 2015. Diagnosis of pulmonary and extrapulmonary tuberculosis based on detection of mycobacterial antigen 85B by immuno-PCR. Diagnostic Microbiology and Infectious Disease 83:359-64 (IF=2.803).
- 21. Sanjeev Parshad, Sourabh Nandi, Nisha Marwah, **Promod Mehta**, Mayank Tripathi, Netrapal, Shekhar Gogna and R. K. Karwasra. 2015. Human papillomavirus 16 and 18 in squamous cell carcinoma of oral cavity and sexual practices: A pilot study at a tertiary care hospital of north India National Journal of Maxillofacial Surgery 6: 185-189.
- 22. Singh N, Sreenivas V, Sheoran A, Sharma S, Gupta KB, Khuller GK, **Mehta PK** 2016. Serodiagnostic potential of immuno-PCR using a cocktail of mycobacterial antigen 85B, ESAT-6 and cord factor in tuberculosis patients. Journal of Microbiological Methods 120: 56-64 (IF=2.363).
- 23. Raj A, Singh N, Gupta KB, Chaudhary D, Yadav A, Chaudhary A, Agarwal K, Varma-Basil M, Prasad R, Khuller GK, **Mehta PK.** 2016. Comparative evaluation of several gene targets for designing a Multiplex-PCR for an early diagnosis of extrapulmonary tuberculosis. Yonsei Medical Journal 57:88-96 (IF=2.757).
- 24 **P.K. Mehta**, Singh N, Dharra R, Dahiya B, Sharma S, Sheoran A, Gupta KB, Chaudhary D, Mehta N, Varma-Basil M. 2016. Diagnosis of tuberculosis based on the detection of a cocktail of mycobacterial antigen 85B, ESAT-6 and cord factor by immuno-PCR. Journal of Microbiological Methods 127:24-27 (IF=2.363).
- 25 **P.K. Mehta.** 2016. Immuno-PCR: its role in serodiagnosis of tuberculosis. Mycobacterial Diseases 6: 219 (IF=0.972).
- 26. Suman Sharma, Ankush Raj, Netrapal Singh, Bhawna Dahiya, Abhishek Sheoran, Krishna B. Gupta, **P. K. Mehta.** 2017. Development of real-time immuno-PCR for the quantitative detection of mycobacterial PstS1 in tuberculosis patients. Journal of Microbiological Methods 132:134-138 (IF=2.363).
- 27 **Promod K. Mehta**, Bhawna Dahiya, Suman Sharma, Netrapal Singh, Renu Dharra, Zoozeal Thakur, Neeru Mehta, Krishna B.Gupta, Mahesh C.Gupta, Dhruva Chaudhary. 2017. Immuno-PCR, a new technique for the serodiagnosis of tuberculosis. Journal of Microbiological Methods 139: 218-229 (2.363).
- 28. Renu Dharra, Sakshi Talwar, Yogesh Singh, Rani Gupta, Jeffrey D. Cirillo, Amit K Pandey, M. Kulharia and **Promod K Mehta**. 2017. Rational design of drug-like compounds targeting *Mycobacterium marinum* mel2 locus. PloS One 12(9): e0183060 (IF=3.24).
- 29. **Promod K Mehta**, Renu Dharra and Zoozeal Thakur. 2017. Cattle as experimental model to study immunopathogenesis of tuberculosis. Mycobacterial Diseases 7-3 (IF= 0.972).
- 30. Thakur Z, Dharra R, Saini V, Kumar A, **Mehta PK**. 2017. Insights from the protein-protein interaction network analysis of *Mycobacterium tuberculosis* toxin-antitoxin systems. Bioinformation13:380-387 (IF=0.8).

- 31. Ahlawat S, Dabla S, Kumar V, Singh M, Bala K, **Mehta PK**. 2018. Role of immunopolymerase chain reaction (I-PCR) in resolving diagnostic dilemma between tuberculoma and neurocysticercosis: a case report. American Journal of Case Report 19: 599-603 (IF=0.74).
- 32. Sharma S, Dahiya B, Sreenivas V, Singh N, Raj A, Sheoran A, Yadav A, Gupta KB, **Mehta PK**. 2018. Comparative evaluation of GeneXpert MTB/RIF and multiplex PCR targeting *mpb64* and *IS6110* for the diagnosis of pleural TB. Future Microbiology 13:407-413 (IF=3.165).
- 33. Thakur Z, Saini V, Arya P, Kumar A, **Mehta PK**. 2018. Computational insights into promoter architecture of toxin-antitoxin systems of *Mycobacterium tuberculosis*. Gene 641:161-171 (IF=3.47).
- 34. **Mehta PK,** Dharra R, Kulharia M² 2018. Could mycobacterial MelF protein (Rv1936) be used as a potential drug target? Future Microbiology.13:1211-1214 (IF=3.165).
- 35. Dharra R and **Mehta PK**. 2018. Strategies for designing novel anti-tubercular drugs with special reference to mycobacterial MelF (Rv1936) as a target. Mycobacterial Diseases, 8:2 (IF=0.972)
- 36. Netrapal Singh, Bhawna Dahiya, Venkatraman Srinivasan Radhakrishnan, Tulika Prasad, and **Promod K. Mehta**. 2018. Detection of *Mycobacterium tuberculosis* purified ESAT-6 (Rv3875) by magnetic bead-coupled gold nanoparticle-based immuno-PCR assay. International Journal of Nanomedicine 13: 8523–8535 (IF=6.4).
- 37. Suman Sharma, Abhishek Sheoran, Krishna B. Gupta, Aparna Yadav, Mandira Varma-Basil, Vishnubhatla Sreenivas, Dhruva Chaudhary, **Promod K. Mehta** 2019. Quantitative detection of a cocktail of mycobacterial MPT64 (Rv1980c) and PstS1 (Rv0934) in tuberculosis patients by real-time immuno-PCR. Future Microbiology 14:223-233 (IF=3.165).
- 38. Dharra R, Radhakrishnan VS, Prasad T, Thakur Z, Cirillo JD, Sheoran A, Pandey AK, Kulharia M, **Mehta PK**.2019. Evaluation of *in silico* designed inhibitors targeting MelF (Rv1936) against *Mycobacterium marinum* within macrophages. Scientific Reports 12;9 (1):10084 (IF=4.379).
- 39. Dahiya B, Khan A, Mor P, Kamra E, Singh N, Gupta KB, Sheoran A, Sreenivas V, **Mehta PK**. 2019. Detection of *Mycobacterium tuberculosis* lipoarabinomannan and CFP-10 (Rv3874) from urinary extracellular vesicles of tuberculosis patients by immuno-PCR. Pathogens and Disease 1;77: ftz049 (IF = 3.166).
- 40. Dahiya B, **Mehta PK.** 2019. Detection of potential biomarkers associated with outrageous diseases and environmental pollutants by nanoparticle-based immuno-PCR assays. Analytical Biochemistry 587:113444 (IF =2.877).
- 41. **Mehta PK,** Kamra E. 2020. Recent trends in diagnosis of urogenital tuberculosis. Future Microbiology 15: 159-162 (IF=3.165).
- 42. Bhawna Dahiya, Suman Sharma, Anish Khan, Ekta Kamra, Preeti Mor, Abhishek Sheoran, Vishnubhatla Sreenivas, Mandira Varma-Basil, Krishna B Gupta, Mahesh C Gupta, Dhruva Chaudhary & **Promod K. Mehta.** 2020. Detection of mycobacterial CFP-10 (Rv3874) protein in tuberculosis patients by gold nanoparticle-based real-time immuno-PCR. Future Microbiology 15: 601-612 (IF = 3.165).
- 43. Bhawna Dahiya, Tulika Prasad, Vishwajeet Singh, Anish Khan, Aparna Yadav, Krishna B. Gupta and **Promod K. Mehta**. 2020. Diagnosis of tuberculosis by nanoparticle-based immuno-PCR assay based on mycobacterial MPT64 and CFP-10 detection. Nanomedicine (Lond.) 15: 2609-2624 (IF = 5.307).
- 44. Ekta Kamra and **Promod K. Mehta**. 2021. Current updates in diagnosis of male urogenital tuberculosis. Expert Review of Ant-Infective Therapy 19:1175-1190. (IF=5.091).
- 45. Bhawna Dahiya and **Promod K. Mehta.** 2021. Utility of nanoparticle-based assays in diagnosis of tuberculosis. Nanomedicine (Lond.) 16: 1263-1268 (IF=5.307).

- 46. Anish Khan, Ekta Kamra, Raj Singh, Vikrant Sharma, Vishwajeet Singh, Preeti Mor, Samander Kaushik, Aparna Yadav and **Promod K. Mehta**. 2021. Diagnosis of osteoarticular TB: multi-targeted loop-mediated isothermal amplification assay versus multiplex-PCR. Future Microbiology 16: 935-948 (IF=3.165).
- 47. Bhawna Dahya, Ekta Kamra, Danish Alam, Meenakshi Chauhan and **Promod K. Mehta.** 2022. Insight into diagnosis of female genital tuberculosis. Expert Review of Molecular Diagnostics. Jan 10:1-18. doi: 10.1080/14737159.2022.2016395. Online ahead of print (IF=5.22) 48.Preeti Mor, Bhawna Dahiya, Sanjeev Parshad, Pooja Gulati and **Promod K. Mehta.** 2022. Recent updates in diagnosis of abdominal tuberculosis with emphasis on nucleic acid amplification tests. Expert Review of Gastroenterology & Hepatology. Jan;16(1):33-49. doi: 10.1080/17474124.2022.2021068. Online ahead of print (IF=3.869).
- 49. A. Khan, R. Singh, S. Sharma, V. Singh, A. Sheoran, A. Soni, V. Dhull, P.S. Gill, A. Yadav, D. Chaudhary, M.C. Gupta and **P. K. Mehta.** 2022. Diagnosis of osteoarticular tuberculosis by immuno-PCR assay based on mycobacterial antigen 85 complex detection. Letters in Applied Microbiology 74:17-26 (IF=2.858).
- 50. E. Kamra, S. Sharma, A. Sheoran, V. Singh, M. Chauhan, D. Parmar, A. Yadav and **P. K. Mehta**. 2022. Identification of mycobacterial MPT-64 and ESAT-6 proteins in urogenital tuberculosis patients by real-time immuno-PCR. Future Microbiology (accepted, in press). doi: 10.2217/fmb-2022-0037. (IF=3.165).

Chapter in a book

A. Archana and Promod Mehta. Block-2 Immunology-II, Immune Disorders. 2013. Course IV-Immunology & Applied Biochemistry, IGNOU, New Delhi.

Ph.D. students trained

Six students are trained for their Ph.D. degree and **one** student has recently submitted his Ph.D. thesis under my mentor ship, his viva-voce will be conducted soon. **Three** students are registered with me, among them, two will submit Ph.D. thesis soon within six months.

Active reviewer of following Journals:

Journal of Microbiological Methods, Microbial Pathogenesis, Tuberculosis, BMC Infectious Diseases, BMC Microbiology, Yonsei Medical Journal, Future Microbiology, Journal of Medical Microbiology, Molecular Diagnosis & Therapy, Pathogens & Disease, American Journal of Case Reports, Meta Gene, Expert Review of Anti-infective Therapy, Archives of Medical Research, Infectious Diseases and Therapy, Internationals Journal of Nanomedicine, PloS One, Analytica Chimica Acta, Current Medical Research & Opinion, The American journal of the Medical Sciences.

Active member of Professional committee(s):

Member, Institutional Human Ethics Committee, MDU, Rohtak MDU, Rohtak.

Member, Institutional Biosafety Committee, MDU, Rohtak.

Chairman, PGBOS, Centre for Biotechnology (CBT), MD University, Rohtak (2015-18)

Chairman, UGBOS, CBT, MD University, Rohtak (2015-18)

Outside expert, Selection Committee for Assistant Professor (Biotechnology) recruitment at CUH, Mahendergarh/for Professor (Molecular Biology) at Central University of Jammu.

Member, PGBOS & UGBOS, CBT, MDU Rohtak

Outside expert, PGBOS, Biotechnology Dept, KU, Kurukshetra.

Member of Course Curriculum Revision of Postgraduate Programs in Biotechnology and Human Genetics & Molecular Biology for the DBT, Government of India.

Lectures delivered at National/International meetings:

1. Oral presentation 'Comparing in vitro models to study invasion and intracellular replication of *M. tuberculosis*'. 18th IUTALD-ER (International Union against tuberculosis and lung diseases-Eastern Region) Conference, Dhaka, Bangladesh in Oct, 1995.

- 2. Delivered a talk 'Association of mycobacterial *mel2* locus with enhanced TNF-alpha production and increased intracellular survival in murine macrophages'. International Symposium on Frontiers in Tuberculosis Research at International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi, India on Dec 2, 2006
- 3. Delivered a lecture 'Role of mel2 locus on mycobacterial pathogenesis' at 3rd Winter Symposium-Molecular Medicine at Translational Crossroads, PGIMS, University of Health Science, Rohtak. On Dec 15, 2009.
- 4. Delivered a lecture 'ELISA and Immuno-PCR assay for the diagnosis of pulmonary tuberculosis patients' National seminar on Biotechnology and Health: prospects and perspectives in 21st Century (sponsored by ICMR) organized by Dept of life Sciences, Institute of Allied Sciences and Computer applications, ITM Universe, Gwalior on 19th-20th March, 2010.
- 5.Organizing Secretary, National Conference on Medical Biotechnology-Vision 2020 held at CBT, MDU, Rohtak on 16-18thApril, 2010. Spoke introductory speech as well as delivered deliberations and actively participated in several activities.
- 6. Delivered a lecture 'Diagnosis of tuberculosis by molecular methods' Colloquium on Microbial Technology organized by CBT, MDU and Microbiology Dept, MDU, Rohtak on 7th Aug 2010.
- 7. Delivered a lecture 'Detection of Mycobacterium tuberculosis protein antigens by immuno-PCR (PCR amplified immunoassay) for an early diagnosis of tuberculosis' Target Meeting's 2nd World Clinical Diagnostics Online conference Dec 10-11, 2013, St Bellaire,TX, USA.
- 8. Delivered a Lecture 'Diagnosis of tuberculosis by multiplex PCR and Immuno-PCR (PCR amplified immunoassay) at an International conference 'Genomics and Proteomics Research' at Radisson Blue, New Delhi organized by Select Biotech on 12-13th June, 2014.
- 9. Delivered a Lecture 'PCR as a diagnostic tool' at CBT, MDU, Rohtak on 14th Oct, 2014 organized by DBT-sponsored short term training course on 'Plant transgenic technologies' (Oct 1 to Oct 16, 2014).
- 10. Delivered a lecture 'Comparing several gene targets of *Mycobacterium tuberculosis* for designing multiplex-PCR: It's implications for diagnosis of extra pulmonary tuberculosis' in 3rd International Congress on Bacteriology and infectious Diseases held at Valencia, Spain on Aug 4-6th, 2015 (Video presentation) organized by Omics International.
- 11. Invited talk "Multiplex-PCR and Immuno-PCR for the diagnosis of TB" on 7th Oct, 2016 at Govt. College of Girls, Gurgaon, India.
- 12. Invited talk "Molecular tools for the diagnosis of TB" on 14th Oct, 2016 at Dept of Biotechnology, Kurukshetra University, India.
- 13. Invited talk "Tuberculosis Research" on 25th Oct, 2016 at CBL University, Bhiwani, India sponsored by DST-Inspire Programme.
- 14. Invited Talk "Nanoparticle based immune-PCR for detection of mycobacterial antigens in tuberculosis patients" in National conference on trends in Nanobiotechnology (NCTN-2016) held from Nov 29-30, 2016 at CCS Haryana Agriculture University, Hisar and also co-chaired a session.
- 15. Invited Talk "Nanoparticle based immuno-PCR assay for detection of mycobacterial antigen 85B and ESAT-6 in tuberculosis patients in the International Conference on Nanomaterials & Nanotechnology from March 1-3rd, 2017 at the Vinobha Bhave Research Institute, Saidabad, Allahabad.
- 16. Invited Talk "Strategies to design immuno-PCR for early diagnosis of TB" in one day National symposium on "Multidrug Resistance Tuberculosis: Challenges and Strategies" held at Amity University, Manesar, Gurgaon on 20th April, 2017.
- 16. Oral presentation entitled "Nanoparticles based immuno-PCR for the rapid diagnosis of tuberculosis patients" in the 6th World Congress on Nanomedical Sciences ISNSCON from Jan 7th-9th, 2019 at Vigyan Bhawan, New Delhi.

- 17. Oral presentation (online) entitled "Serodiagnostic potential of immuno-polymerase chain reaction (I-PCR) using a cocktail of mycobacterial Ag85B, ESAT-6 and cord factor in tuberculosis patients" at the 'International Conference on Infectious Diseases' (Herald meeting) on August 27-28, 2020.
- 18. Attended one day e-Colloquium 'Emerging Trends in Health and Disease Research- ETHDR-2020' held by Amity University, Manesar, Gurgaon on 20th Oct, 2020 and participated in discussion.
- 19. Oral presentation (online) entitled "Nanoparticle-based immuno-PCR assay for rapid diagnosis of tuberculosis" at the '2nd International Conference on Infectious Diseases' (Herald meeting) on March 5th-6th, 2021 (online).
- 20. Oral presentation (online) entitled "Rapid diagnosis of pulmonary and extrapulmonary tuberculosis by real-time immuno-PCR assay based on detection of a cocktail of MPT-64 (Rv1980c) and PstS1 (Rv0934)" at the '3rd International Conference on Infectious Diseases' (Herald meeting) held on August 6th-7th, 2021.
- 21. Oral presentation (online) entitled "Diagnosis of osteoarticular tuberculosis by immuno-PCR based on mycobacterial antigen 85 complex detection: Its comparison with real-time immuno-PCR and GeneXpert assay" at the '23rd Global Biotechnology Congress' held during November 26, 2021.
- 22. Oral presentation (online) entitled "Diagnosis of genitourinary tuberculosis by loop-mediated isothermal amplification assay" at the 5th International Conference on Infectious Diseases (Herald meeting) held on 29-30th April, 2022.

National/International Conferences/Symposia attended and Abstracts published:

- 1. **Mehta P.K.,** and Khuller, G.K. (1992) Induction of resistance to tuberculosis in mice with mannophosphoinositides of mycobacteria. 'World Congress on tuberculosis'. Bethesda, Maryland, USA.
- 2. **Mehta, P.K.,** King C.H., Birkness, K.Murtagh, J.J. Jr., and Quinn, F.D. (1995). Comparing in vitro models to study *M. tuberculosis* virulence. J.Cell. Biochem. supplement 19B 24th Annual Keystone symposia held at Tammeron, Colorado, USA.
- 3. **Mehta, P.K.,** King, G.H., Birkness, K, Murtagh, J.J.Jr., and Quinn, F.D (1995) In vitro models to study virulence of *M. tuberculosis* 95th American Society for Microbiology (ASM) General meeting, Washington, D.C., USA.
- 4. **Mehta, P.K.,** King, C.H, Birkness, K., Murtagh, J.J. Jr and Quinn, F.D (1995). Comparing in vitro models to study invasion and intracellular replication of *M. tuberculosis*. 18th IUTALD-ER (International Union against tuberculosis and lung diseases-Eastern Region) Conference, Dhaka, Bangladesh (oral presentation).
- 5 **Mehta, P.K.,** King, C.H, Adesh, E, Murtagh, J.J. and Quinn F.D. (1998). Invasion and intracellular replication of *M. tuberculosis* in a human lung microvascular endothelial cell line. 10th International Congress on Immunology, New Delhi (India)
- 6. **Mehta, P.K.,** Cirillo, S.L., Samrakandi, M, El Etr, S, and Cirllo, J.D. (2002). Use of transposon mutagenesis to identify novel *M. marinum* entry loci. "International Symposium on Current Developments in Drug Discovery for Tuberculosis". Astra Zeneca Research Foundation, India.
- 7. **Mehta, P.K.,** Sahar El Etr, Samrakandi, M, and Cirillo, J.D. (2002). Efficient mutagenesis of *M. marinum* and its use to identify putative virulent loci. 4th World Congress on TB, Washington, D.C., USA.
- 8. Attended and participated in "International Symposium on Recent Trends in Tuberculosis Research" (2004) at ICGEB, New Delhi.
- 9. S.L. Cirillo, **P.K. Mehta**, A. Pandey, S. Subbian, B. Park, S.H. El-Etr, M. Samrakandi and J.D. Cirillo (2005). Identification of mycobacterial genes .that affects interactions with macrophages.

- US-Japan Cooperative Medical science program. 40th Tuberculosis and Leprosy and Research Conference. pp77-81., held in Japan.
- 10. S. Subbian, **P.K. Mehta,** S.L. Cirillo, and J.D. Cirillo.(2006). The mycobacterial *mel2* locus displays similarity to bioluminescence system s and affects survival in macrophages. American Society for Microbiology (ASM) 106th General meeting held at Orlando, FL, USA.
- 11. **P.K. Mehta,** S. Subbian, S.L. Cirillo and J.D. Cirillo (2006) Association of mycobacterial *mel2* locus with enhanced TNF-alpha production and increased intracellular survival in murine macrophages. International Symposium on Frontiers in Tuberculosis Research held at International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi, India (oral presentation) Dec 2006.
- 12. **P. Mehta,** S.Pacheco, M. Konkel and G.E. Duhamel (2008). The cytolethal distending toxin of macaque *Campylobacter jejuni* is required for proinflammatory CXCL8 chemokine response of human intestinal epithelial cells in vitro. Keystone Symposia on 'Pathogenesis and Control of Infectious Diseases and Drug Resistant Organisms' at Bangkok, Thailand.
- 13. **P. Mehta**, M. Kalra, D.,Behra, G.K. Khuller and I. Verma (2009) Ultra sensitive development of Immuno-PCR for the detection of RD antigens and antibodies to these antigens in biological samples of TB patients. Keystone Symposia Overcoming the crisis of TB and AIDS, Arusha, Tanzania, Africa
- 14. **P** Mehta and GE Duhamel. Attachment of pathogenic *Brachyspira pilosicoli* intestinal spirochete but not *Brachyspira aalborgi* correlates with human intestinal epithelial INT 407 cells CXCL8 chemokine response in vitro at American Society for Microbiology (ASM) 110 General Body meeting at San Diego, CA, USA in May, 2010.
- 15. **P. Mehta**, M. Kalra, D.,Behra, G.K. Khuller and I. Verma (2010) Detection of RD antigens and antibodies in active pulmonary and extra pulmonary TB by Immuno-PCR. "International Symposium on TB diagnostics: innovative to make an impact", held at ICGEB, New Delhi in Dec, 2010.
- 16. **P Mehta** (2011) Attended and participated TB Research meeting at St. John's Research Institute, Bangalore from August 24-26th 2011.
- 17. **P Mehta** (2011). Attended and participated International Conference on Microbial Biotechnology for sustainable development. 52^{nd} Annual conference of Association of Microbiologists of India (AMI) held at Panjab University Chandigarh on 3^{rd} - 6^{th} Nov, 2011.
- 18. NP Singh, A Raj and **PK Mehta** (2013). Detection of *Mycobacterium tuberculosis* protein and glycolipid antigens by Immuno-PCR (PCR amplified immunoassay) for an early diagnosis of tuberculosis. National Symposium on Biotechnology: Present Status and Future Prospectus, 15th-16th March 2013, held at Department of Biotechnology, DCRUST, Murthal (Haryana)
- 19. Renu Dharra, Mahesh Kulharia, Sakshi Talwar, Amit Kumar Pandey and **Promod Mehta** (2013). Virtual screening as a tool to identify antagonists for *Mycobacterium marinum* MelF protein. 54th Annual Conference of Association of Microbiologists of India (AMI-2013) and International Symposium on 'Frontier Discoveries and innovations in Microbiology and its Interdisciplinary relevance' (FDMIR-2013) held at MDU, Rohtak on 17th-20th November, 2013
- 20. NetraPal Singh, Ankush Raj and **Promod Mehta** (2013). Detection of *Mycobacterium tuberculosis* 30KDa and ESAT-6 protein antigens by Immuno-PCR (PCR amplified immunoassay) for an early diagnosis of tuberculosis. 54th Annual Conference of AMI-2013 and International Symposium on 'Frontier Discoveries and innovations in Microbiology and its Interdisciplinary relevance' (FDMIR-2013) held at MDU, Rohtak on 17th-20th November, 2013.
- 21. Suman Sharma, Ankush Raj, Bhawna Dahiya, Krishna B Gupta and **Promod Mehta**. (2016). Development of real-time immuno-PCR based on PstS1 detection for the diagnosis of tuberculosis. IMS Engineering College, Ghaziabad on 16th July 2016.

- 22. Renu Dharra, Mahesh Kulharia and **Promod K Mehta**. (2016). Designing of drug-like compounds targeting *Mycobacterium marinum* MelF protein. National Conference on Biotechnological perspectives in Healthcare' at IMS Engineering College, Ghaziabad on 16th July 2016 (2nd best poster award).
- 23. **Promod K Mehta,** Netrapal Singh, Bhawna Dahiya, VS Radhakrishnan and Tulika Prasad (2019). Nanoparticles based immuno-PCR for the rapid diagnosis of tuberculosis. ISNSCON 2018. 6th World Congress on Nanomedical Sciences. 7th-9th Jan 2019 Vigyan Bhawan, New Delhi. 24. Anish Khan, Ekta Kamra, Raj Singh and Promod Mehta (2019). Comparative evaluation of multi-targeted LAMP and multiplex PCR for rapid diagnosis of osteoarticular tuberculosis. Best Poster award in 60th Annual Conference of AMI-2019 at CUH, Mahendergarh (Best Poster Award) on 15th-18th Nov, 2019.
- 25. **Promod Mehta,** B. Dahiya, S. Sharma, A. Khan, NP Singh and K. B. Gupta (2020). Rapid diagnosis of extrapulmonary tuberculosis by immuno-polymerase chain reaction (I-PCR) assay. India/EMBO symposium: 'Mycobacterial heterogeneity and host tissue tropism' at NII and ICGEB, New Delhi from 11th-15th Feb, 2020.
- 26. **Promod Mehta**, Netrapal Singh, Bhawna Dahiya, Anish Khan and Krishna B. Gupta. Serodiagnostic potential of immuno-polymerase chain reaction (I-PCR) using a cocktail of mycobacterial Ag85B, ESAT-6 and cord factor in tuberculosis patients. International Conference on Infectious Disease (Herald meeting) on 27th-28th August, 2020 (online).
- 27. Suman, Sharma, Bhawna Dahiya, Netrapal Singh, Krishna B. Gupta and **Promod K. Mehta.** 2020. Diagnosis of extrapulmonary tuberculosis is a daunting challenge: could nanoparticle-based immuno-PCR assay resolve this problem? Emerging Trends in Health and Disease Research- ETHDR-2020' colloquium held by Amity University, Manesar, Gurgaon on 20th Oct, 2020.
- 28. **Promod K Mehta,** Bhawna Dahiya, Ekta Kamra, Krishna B Gupta. Nanoparticle-based immuno-PCR assay for rapid diagnosis of tuberculosis. 2nd International Conference on Infectious Disease (Herald meeting) on 5th-6th March, 2021 (online).
- 29. **Promod K. Mehta**, Suman Sharma, Bhawna Dahiya, Aparna Yadav and Krishna B. Gupta (2021). Rapid diagnosis of pulmonary and extrapulmonary tuberculosis by real-time immuno-PCR assay based on detection of a cocktail of MPT-64 (Rv1980c) and PstS1 (Rv0934). 3rd International Conference on Infectious Disease (Herald meeting) held on 6th-7th August, 2021 (online).

References:

i) Prof. Jeffrey D. Cirillo

Dept. of Microbial Pathogenesis & Immunology Texas A&M College of Medicine 8447 Riverside Parkway, MS1359 Medical Research & Education Building, Bryan, TX 77807-3260 (USA) Ph # 979-436-0366/0364 E mail: jdcirillo9@gmail.com

ii) Prof. Frederick D. Quinn

Dept of Infectious Diseases College of Veterinary Medicine, University of Georgia, Athens, GA 30602 (USA). Ph # 706-542-5790 E mail: fquinn@uga.edu

iii) Emeritus Prof. G. K. Khuller

Dept of Biochemistry, Postgraduate Institute of Medical Education & Research, Chandigrah-160012 (India). Ph # 91-9814204024 E mail: gkkhuller@yahoo.co.in

iv) Prof. Sanjay Chhibber, Emeritus Medical Scientist (ICMR)

Dept. of Microbiology, Panjab University,

Chandigarh-160012 (India).

Ph # 91-9779817768 E mail: sanjaychhibber8@gmail.com

(Signature of the Candidate)

fromod Mell