

>20 years of experience in research inpublic health

- Microbiologist with specialization in public health
- Strategic planning, design and effective implementation of programs to advance medical research of public health importance
- Scientific and administrative management of national and international programs
- Building and managing strategic alliances/partnerships with national and international government, non-government stakeholders and industry
- Design and implementation of enabling policies to develop effective health and medical research ecosystem inIndia
- Oversight and management of ICMR institutes and task force programs

Summary of ProfessionalExperience

Government of India

- Indian Council of Medical Research
 - Scientist G
 - Scientist F
 - ScientistE2012–2017
 - ScientistD2007–2010
 - Scientist C2002-2007
 - Research Officer1999-2002

Development Sector

- Program for Appropriate Technology in Health(PATH)
 - Director, Research & Development 2010-2012

MembershipsofAdvisoryCommittees

- Member Scientific Advisory Group, AMR Action fund since 2023
- Expert WHO AMR diagnostics Initiative, 2023
- Expert reviewer, ECCMID 2023,
- Member SEDRIC project review board, Wellcome Trust, UK, 2021-2023
- Commissioner on Lancet Commission on Diagnostic 2019
- Expert Reviewer: EDCTP 2019 Research and Innovation Call for proposals on New drugs and vaccines for priority pathogens in antimicrobial resistance
- Member, WHO Scientific Advisory Group of Experts on Essential Diagnostics, 2018-2020
- Member, WHO Scientific Advisory Group of Experts on AMR diagnostic, 20 18
- Member, Scientific Advisory Committee of Global Antibiotic Research and Development partnership(GARDP), 2016 till date
- Expert Reviewer: EDCTP 2018 Call for proposals on Diagnostic tools for poverty-related diseases
- Member Advisory Board, Grand Challenges meeting held in New Delhi, India November 2011

2022–Present 2017-2022

- Masters in Public Health, Johns Hopkins, Baltimore, MD, USA 2005
- PhD (Experimental Medicine), PGIMER, Chandigarh, India, 1999
- M. Sc. (Microbiology Hons), Panjab University, Chandigarh, India, 1993

Key professional accomplishments

Indian Council of Medical Research, Government of India

Key responsibilities includes challenges of public health importance, development and implementation of strategies to build, invest and strengthen research in critical scientific domains and oversee and manage research programs with potentially transformative ideas with high public health impact to address daunting challenges in India and beyond.

- <u>StrategizingandImplementingResearchPrograms of Public Health Importance</u>
 - Established the first ever GOI funded surveillance network for tracking antimicrobial resistance in the country by creating a network of hospitals and medical colleges
 - Spearheading the activities to develop a national guidance on Antimicrobial Stewardship Program(AMSP) for healthcare institutions in India including planning and executing impact evaluations studies.
 - CuratedGuidelines for treatment of carbapenem resistsant gram negative infectuions(2022), Antimicrobial Stewardship guidelines (2018), Hospital infection control guidelines, 2018 Treatment guidelines for use of antimicrobials (2017, 2019)
 - Built consensus and curated National Essential Diagnostics List for India(NEDL), August 2019
 - Initiated ICMR funded Task force on rapid methods for antimicrobial susceptibility testing at point-ofcare
 - Worked with drug regulators and veterinary specialists to ban improper fixed dose combinations and colistin as growth promoter

Research projects

- Principal Investigator: Implementation of AMSP in various tertiary care centres across India,
 Funded by ICMR
- Principal Investigator Understanding availability of Essential Diagnostics in health care systems:
 identifying barriers and facilitators ICMR funded
- Technical coordinator Expanding Infection control and Antimicrobial Stewardship to secondary Care hospitals 2017-till date Funded by Pfizer
- Principal Investigator ICMR funded Task force on rapid methods for antimicrobial susceptibility testing at point-of-care 2019-2022 Funded by ICMR
- Technical coordinator Initiating Antimicrobial Stewardship activities in tertiary care hospitals
 2017-till date Funded by ICMR
- Technical coordinator Surveillance Network of Antimicrobial Resistance Surveillance in bacteria and fungi: 2013- till date Funded by ICMR
- Principal investigator: FAO, UN funded project "To build capacity for integrated surveillance of antimicrobial resistance (AMR) in pathogen / commensals in food producing animals, food of animal origin and their environment and foodborne pathogens in humans", 2017-2019, Funded by FAO

- Principal investigator: Malaria diagnostics acceptability in pregnant women: Funded by Department for International Development, UK
- Principal investigator: HIV-malaria interactions in HIV-infected patients 2010-2013 Funded by ICMR

Program and portfolio management:

- Scientific, administrative and financial aspects of Antimicrobial Resistance Initiative of ICMR
- Technical and financial aspects of ICMR collaborations with FIND and Global Antibiotic Research and Development Partnership(GARDP)
- Coordination and implementation of ICMR-Research Council Norway and ICMR, BMBF, Germany collaborations
- Activities under the Indo-US Joint Statement on prevention of HIV/AIDS and sexually transmitted diseases between ICMR and National Institutes of Health, United States. Funded close to 50 research grants and coordinated several workshops for facilitating scientific interactions which led to meaningful collaborative research.
- Coordination and implementation of activities under India HIV vaccine program at ICMR under the ICMR, National AIDS Control Organization (NACO) and International AIDS Vaccine Initiative (IAVI) tripartite agreement.

BuildingStrategicAlliancesandInternationalSynergies <u>ICMR</u>

- Nodal person for ICMR collaborations on AMR with Research Council Norway, BMBF, NIID Japan, NIH, USA, GARDP, FIND
- Collaboration with Pfizer on expanding the scope of ICMR AMR initiative to secondary level hospitals
- Worked with London School of Hygiene and Tropical Medicine, UK to launch online course on importance of diagnostics in AMR in India

Program for Appropriate technology in Health (PATH)

- Led the diverse diagnostics portfolio at PATH having multiple candidates at different stages of development
- Led the BMGF funded initiative to make Zinc a Schedule K product in Indiawith support of MOHFW, INCLEN, AIIMS, WHO, UNICEF and Indian Drugs Manufacturing Alliance.

Awards

- ICMR Meritorious performance awards, 2023
- Recipient of Indian National Science Academy Young Scientist award for the year 2003.
- Recipient of ICMR Shakuntala Amir Chand Award for the year 1999
- Award for meritorious presentation at Indian Society for Gastroenterology Conference held at Chandigarh, 1996.

Training

- Online Course on Antimicrobial Stewardship by Future Learn and British Society for Antimicrobials, 2017
- WHO workshop on antimicrobial resistance, CMC, Vellore, 2014
- Advanced course on diagnostics, Foundation Merieux, Annecy, France, 2011.

- IVI International Advanced Course on Vaccinology in Asia-Pacific Region, IVI, Seoul, 2010
- Training on extramural grants review and management, National Institutes of Health, USA, 2008.
- Principles of HIV and STD Research, University of Washington, Seattle, 2007.
- Review and evaluation of Indo-US bilateral grants at National Institutes of Health, United States. Participated in the review process at NIH, 2007.
- Training at St George's Hospital, London: To learn the *in vitro* assays done for evaluation of different microbicide products for their cytotoxicity and anti-HIV properties, 2004.
- Course on ethics and equity, Brown University, Providence 2002
- Fellowship at Brown University, Providence: Design and conduct of clinical trials of vaginal microbicides and study the mucosal immune responses of the genital tract in relation to microbicide use. September- October, 2002.